## ROCHESTER INSTITUTE OF TECHNOLOGY
### 1983-1984 INSTITUTE CALENDAR

(Official Institute Calendar as adopted by Policy Council in April, 1980)

<table>
<thead>
<tr>
<th>Fall Quarter</th>
<th>Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 11 - August 12 **</td>
<td>CCE Mail-in Registration for Fall</td>
</tr>
<tr>
<td>August 3 - Sept. 1</td>
<td>CCE Walk-in Registration for Fall</td>
</tr>
<tr>
<td>September 4</td>
<td>Move-in Day for New Resident Students</td>
</tr>
<tr>
<td>September 5, 6</td>
<td>Orientation for New Students</td>
</tr>
<tr>
<td>September 7</td>
<td>First Day of Classes (CCE)</td>
</tr>
<tr>
<td>September 7</td>
<td>Day College Open Registration-New Students</td>
</tr>
<tr>
<td>September 8</td>
<td>Day College Open Registration-Returning Students</td>
</tr>
<tr>
<td>September 9</td>
<td>First Day of Classes (Day College)</td>
</tr>
<tr>
<td>September 14</td>
<td>Non-matriculated Student Day College Registration</td>
</tr>
<tr>
<td>October 28</td>
<td>Physical Education Registration</td>
</tr>
<tr>
<td>November 17</td>
<td>Last Day of Classes (Day College)</td>
</tr>
<tr>
<td>November 18, 19, 21, 22</td>
<td>Exam Week</td>
</tr>
<tr>
<td>November 22</td>
<td>Last Day of Classes (CCE)</td>
</tr>
<tr>
<td>November 23-27</td>
<td>Fall/Winter Break</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Winter Quarter</th>
<th>Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oct. 24 - Nov. 4 **</td>
<td>CCE Mail-in Registration for Winter</td>
</tr>
<tr>
<td>November 21, 22</td>
<td>CCE Open Registration for Winter</td>
</tr>
<tr>
<td>November 28</td>
<td>First Day of Classes (CCE)</td>
</tr>
<tr>
<td>November 30</td>
<td>Day College Open Registration</td>
</tr>
<tr>
<td>December 1</td>
<td>First Day of Classes (Day College)</td>
</tr>
<tr>
<td>December 1</td>
<td>Non-matriculated Student Day College Registration</td>
</tr>
<tr>
<td>December 8</td>
<td>Physical Education Registration</td>
</tr>
<tr>
<td>December 21</td>
<td>Last Day of Classes Before Christmas Break</td>
</tr>
<tr>
<td>January 3</td>
<td>Classes Resume after Christmas Break</td>
</tr>
<tr>
<td>February 3</td>
<td>Last Day to Withdraw with a Grade of &quot;W&quot;</td>
</tr>
<tr>
<td>February 7</td>
<td>Teaching Effectiveness Conference</td>
</tr>
<tr>
<td>February 21</td>
<td>Last Day of Classes (Day College)</td>
</tr>
<tr>
<td>February 22, 23, 24, 25</td>
<td>Exam Week</td>
</tr>
<tr>
<td>February 26</td>
<td>Last Day of Classes (CCE)</td>
</tr>
<tr>
<td>February 26 - March 4</td>
<td>Winter/Spring Break</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring Quarter</th>
<th>Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan. 30 - Feb. 10 **</td>
<td>CCE Mail-in Registration for Spring</td>
</tr>
<tr>
<td>February 28, 29</td>
<td>CCE Open Registration for Spring</td>
</tr>
<tr>
<td>March 5</td>
<td>First Day of Classes (CCE)</td>
</tr>
<tr>
<td>March 5</td>
<td>Day College Open Registration</td>
</tr>
<tr>
<td>March 6</td>
<td>First Day of Classes (Day College)</td>
</tr>
<tr>
<td>March 6</td>
<td>Non-matriculated Student Day College Registration</td>
</tr>
<tr>
<td>March 9</td>
<td>Physical Education Registration</td>
</tr>
<tr>
<td>April 27</td>
<td>Last Day to Withdraw with a Grade of &quot;W&quot;</td>
</tr>
<tr>
<td>May 14</td>
<td>Last Day of Classes (Day College)</td>
</tr>
<tr>
<td>May 15, 16, 17, 18</td>
<td>Exam Week</td>
</tr>
<tr>
<td>May 19</td>
<td>Last Day of Classes (CCE)</td>
</tr>
<tr>
<td>May 19</td>
<td>Commencement</td>
</tr>
<tr>
<td>May 20-28</td>
<td>Spring/Summer Break</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Summer Quarter</th>
<th>Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 23 - May 4 **</td>
<td>CCE Mail-in Registration for Summer</td>
</tr>
<tr>
<td>April 23 - May 18</td>
<td>CCE Walk-in Registration for Summer</td>
</tr>
<tr>
<td>May 22, 23</td>
<td>CCE Open Registration for Summer</td>
</tr>
<tr>
<td>May 29</td>
<td>Day College Open Registration</td>
</tr>
<tr>
<td>May 29</td>
<td>First Day of Classes (CCE)</td>
</tr>
<tr>
<td>May 30</td>
<td>First Day of Classes (Day College)</td>
</tr>
<tr>
<td>May 30</td>
<td>Non-matriculated Student Day College Registration</td>
</tr>
<tr>
<td>June 4</td>
<td>Physical Education Registration</td>
</tr>
<tr>
<td>July 4</td>
<td>Holiday (No Classes)</td>
</tr>
<tr>
<td>July 20</td>
<td>Last Day to Withdraw with a Grade of &quot;W&quot;</td>
</tr>
<tr>
<td>August 7</td>
<td>Last Day of Classes (Day College)</td>
</tr>
<tr>
<td>August 8, 9, 10</td>
<td>Exam Week</td>
</tr>
<tr>
<td>August 13</td>
<td>Last Day of Classes (CCE)</td>
</tr>
</tbody>
</table>

*Dates of Various Summer Sessions to be announced*

*CCE - College of Continuing Education*

## OPEN REGISTRATION SCHEDULE FOR MATRICULATION UNDERGRADUATE
### DAY COLLEGE — 1983-1984

<table>
<thead>
<tr>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>A 8:30am</td>
<td>4:00pm</td>
<td>1:00pm</td>
<td>8:30am</td>
</tr>
<tr>
<td>B 9:00am</td>
<td>3:30pm</td>
<td>11:00am</td>
<td>4:00pm</td>
</tr>
<tr>
<td>C 9:30am</td>
<td>3:00pm</td>
<td>10:30am</td>
<td>3:30pm</td>
</tr>
<tr>
<td>D 10:00am</td>
<td>2:30pm</td>
<td>10:00am</td>
<td>3:00pm</td>
</tr>
<tr>
<td>E 11:00am</td>
<td>2:00pm</td>
<td>9:30am</td>
<td>3:30pm</td>
</tr>
<tr>
<td>F 11:30am</td>
<td>1:30pm</td>
<td>9:00am</td>
<td>3:00pm</td>
</tr>
<tr>
<td>G 12:00pm</td>
<td>2:00pm</td>
<td>9:00am</td>
<td>3:00pm</td>
</tr>
<tr>
<td>H 12:30pm</td>
<td>1:30pm</td>
<td>9:00am</td>
<td>3:00pm</td>
</tr>
<tr>
<td>U 1:00pm</td>
<td>1:30pm</td>
<td>8:30am</td>
<td>1:30pm</td>
</tr>
<tr>
<td>K 1:00pm</td>
<td>1:30pm</td>
<td>8:30am</td>
<td>1:30pm</td>
</tr>
</tbody>
</table>
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 of publication. Course and curriculum changes, modifications of tuition; fees; 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 1983-84

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, N.Y. 14623
(716) 475-6631

Campus Map (inside back cover)

RIT Official Bulletin
Vol. LXXXIII No. 5 August 26, 1983

The RIT Official Bulletin (USPS 715-400) is published six times annually by Rochester Institute of Technology, One Lomb Memorial Drive, P.O. Box 9887, Rochester, N.Y., 14623, monthly in March and May and semi-monthly in July and August. Second-class postage paid at Rochester, N.Y. Postmaster: Send address changes to Rochester Institute of Technology, One Lomb Memorial Drive, P.O. Box 9887, Rochester, N.Y. 14623.
**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.

**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, 1982, was 10,760 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 for Teachers (MST).

**Housing**
Residence halls for over 3,400 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. The Center for Cooperative Education and Career Services acts in four principal areas as a liaison between employers and those students seeking positions. These areas include: part-time jobs, 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 is 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, coeducational, non-sectarian major institute 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-menioned 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 enhances the Institute's "learn by doing" philosophy. During the past academic year, over 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 compose 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.

Many of the Institute’s full-time day students live in Institute-operated residence halls. Four apartment villages with a total of 659 units house upperclass students.

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 four 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.”

<table>
<thead>
<tr>
<th>College of Applied Science and Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audiovisual Communications</td>
</tr>
<tr>
<td>Civil Engineering Technology</td>
</tr>
<tr>
<td>Computer Information Systems</td>
</tr>
<tr>
<td>Computer Science</td>
</tr>
<tr>
<td>Computer Technology</td>
</tr>
<tr>
<td>Energy Technology</td>
</tr>
<tr>
<td>Electrical Engineering Technology</td>
</tr>
<tr>
<td>Food Service Management</td>
</tr>
<tr>
<td>General Dietetics &amp; Nutritional Care</td>
</tr>
<tr>
<td>Hotel/Resort Management</td>
</tr>
<tr>
<td>Manufacturing Engineering Technology</td>
</tr>
<tr>
<td>Mechanical Engineering Technology</td>
</tr>
<tr>
<td>Packaging Science</td>
</tr>
<tr>
<td>Travel Management</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>College of Business</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting</td>
</tr>
<tr>
<td>Business Administration</td>
</tr>
<tr>
<td>Photographic Marketing Management</td>
</tr>
<tr>
<td>Retailing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>College of Engineering</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Engineering</td>
</tr>
<tr>
<td>Electrical Engineering</td>
</tr>
<tr>
<td>Industrial Engineering</td>
</tr>
<tr>
<td>Mechanical Engineering</td>
</tr>
<tr>
<td>Microelectronic Engineering</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>College of Fine and Applied Arts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ceramics and Ceramic Sculpture</td>
</tr>
<tr>
<td>Double Craft Major</td>
</tr>
<tr>
<td>Graphic Design</td>
</tr>
<tr>
<td>Industrial and Interior Design</td>
</tr>
<tr>
<td>Fine Arts—Medical Illustration</td>
</tr>
<tr>
<td>Fine Arts—Painting, Printmaking</td>
</tr>
<tr>
<td>Glass</td>
</tr>
<tr>
<td>Metal Crafts and Jewelry</td>
</tr>
<tr>
<td>Weaving and Textile Design</td>
</tr>
<tr>
<td>Woodworking and Furniture Design</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>College of Graphic Arts and Photography</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biomedical Photographic Communications</td>
</tr>
<tr>
<td>Film and Television</td>
</tr>
<tr>
<td>Imaging and Photographic Sciences</td>
</tr>
<tr>
<td>Newspaper Production Management</td>
</tr>
<tr>
<td>Photographic Processing &amp; Finishing Management</td>
</tr>
<tr>
<td>Printing</td>
</tr>
<tr>
<td>Printing and Applied Computer Science</td>
</tr>
<tr>
<td>Printing Systems Management</td>
</tr>
<tr>
<td>Professional Photographic Illustration</td>
</tr>
<tr>
<td>Technical Photography</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>College of Liberal Arts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criminal Justice</td>
</tr>
<tr>
<td>Social Work</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>College of Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applied Mathematics</td>
</tr>
<tr>
<td>Biology</td>
</tr>
<tr>
<td>Biomedical Computing</td>
</tr>
<tr>
<td>Biotechnology</td>
</tr>
<tr>
<td>Chemical Technology</td>
</tr>
<tr>
<td>Chemistry</td>
</tr>
<tr>
<td>Computational Mathematics</td>
</tr>
<tr>
<td>Diagnostic Medical Sonography (Ultrasound)</td>
</tr>
<tr>
<td>Medical Technology</td>
</tr>
<tr>
<td>Nuclear Medicine Technology</td>
</tr>
<tr>
<td>Physics</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>National Technical Institute for the Deaf</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpreting (for the hearing-impaired)</td>
</tr>
</tbody>
</table>

NOTE: For information on offerings of the College of Continuing Education, or the National Technical Institute for the Deaf, please write to that respective college for its Official Bulletin or catalog.

<table>
<thead>
<tr>
<th>Undergraduate Programs</th>
<th>Degree and HEGIS* Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>College of Applied Science and Technology</td>
<td></td>
</tr>
<tr>
<td>Audiovisual Communications</td>
<td>AS 0605</td>
</tr>
<tr>
<td>Civil Engineering Technology</td>
<td>AAS 0925</td>
</tr>
<tr>
<td>Computer Information Systems</td>
<td>BFA 5101</td>
</tr>
<tr>
<td>Computer Science</td>
<td>BS 0701</td>
</tr>
<tr>
<td>Computer Technology</td>
<td>BTech 5101</td>
</tr>
<tr>
<td>Energy Technology</td>
<td></td>
</tr>
<tr>
<td>Electrical Engineering Technology</td>
<td></td>
</tr>
<tr>
<td>Food Service Management</td>
<td></td>
</tr>
<tr>
<td>General Dietetics &amp; Nutritional Care</td>
<td></td>
</tr>
<tr>
<td>Hotel/Resort Management</td>
<td></td>
</tr>
<tr>
<td>Manufacturing Engineering Technology</td>
<td></td>
</tr>
<tr>
<td>Mechanical Engineering Technology</td>
<td></td>
</tr>
<tr>
<td>Packaging Science</td>
<td>4999</td>
</tr>
<tr>
<td>Travel Management</td>
<td>5404</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>College of Business</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting</td>
</tr>
<tr>
<td>Business Administration</td>
</tr>
<tr>
<td>Photographic Marketing Management</td>
</tr>
<tr>
<td>Retailing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>College of Engineering</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Engineering</td>
</tr>
<tr>
<td>Electrical Engineering</td>
</tr>
<tr>
<td>Industrial Engineering</td>
</tr>
<tr>
<td>Mechanical Engineering</td>
</tr>
<tr>
<td>Microelectronic Engineering</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>College of Fine and Applied Arts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ceramics and Ceramic Sculpture</td>
</tr>
<tr>
<td>Double Craft Major</td>
</tr>
<tr>
<td>Graphic Design</td>
</tr>
<tr>
<td>Industrial and Interior Design</td>
</tr>
<tr>
<td>Fine Arts—Medical Illustration</td>
</tr>
<tr>
<td>Fine Arts—Painting, Printmaking</td>
</tr>
<tr>
<td>Glass</td>
</tr>
<tr>
<td>Metal Crafts and Jewelry</td>
</tr>
<tr>
<td>Weaving and Textile Design</td>
</tr>
<tr>
<td>Woodworking and Furniture Design</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>College of Graphic Arts and Photography</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biomedical Photographic Communications</td>
</tr>
<tr>
<td>Film and Television</td>
</tr>
<tr>
<td>Imaging and Photographic Sciences</td>
</tr>
<tr>
<td>Newspaper Production Management</td>
</tr>
<tr>
<td>Photographic Processing &amp; Finishing Management</td>
</tr>
<tr>
<td>Printing</td>
</tr>
<tr>
<td>Printing and Applied Computer Science</td>
</tr>
<tr>
<td>Printing Systems Management</td>
</tr>
<tr>
<td>Professional Photographic Illustration</td>
</tr>
<tr>
<td>Technical Photography</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>College of Liberal Arts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criminal Justice</td>
</tr>
<tr>
<td>Social Work</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>College of Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applied Mathematics</td>
</tr>
<tr>
<td>Biology</td>
</tr>
<tr>
<td>Biomedical Computing</td>
</tr>
<tr>
<td>Biotechnology</td>
</tr>
<tr>
<td>Chemical Technology</td>
</tr>
<tr>
<td>Chemistry</td>
</tr>
<tr>
<td>Computational Mathematics</td>
</tr>
<tr>
<td>Diagnostic Medical Sonography (Ultrasound)</td>
</tr>
<tr>
<td>Medical Technology</td>
</tr>
<tr>
<td>Nuclear Medicine Technology</td>
</tr>
<tr>
<td>Physics</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>National Technical Institute for the Deaf</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpreting (for the hearing-impaired)</td>
</tr>
</tbody>
</table>

Enrollment in other than registered or otherwise approved programs may jeopardize a student's eligibility for certain student aid awards. AM the above programs are registered according to the indicated HEGIS* code.

*Higher Education General Information Survey
**Students in these programs receive an AS in General Science (HEGIS 4902) upon successful completion of the first two years
**RIT Proud of Link With Rochester Dr. Rose Asserts**

“RIT means access to employment and significant contributions to the community for thousands of young people and adults,” says President M. Richard Rose. “For those of us who work and study here, RIT is a dynamic and progressive university that always has been willing to take those extra steps necessary to maintain relevant educational programs.

“For its alumni, RIT continues to provide opportunities to improve themselves and their families educationally, professionally, financially and socially.

“In many ways, RIT also 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. Our link to business and industry can be seen in our broad array of College of Continuing Education programs, focused on assisting individuals in career advancement.

“This link with greater Rochester’s history and growth also 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 this pride as RIT provides access to the future.”

**The Center Links Students To Career Experiences**

RIT’s particular philosophy is called career education and The Center for Cooperative Education and Career Services supports the Institute’s commitment to preparing students for “the making of a living and the living of a life.” We made a commitment to career education as early as the 1980s. We began the Cooperative Education Program in 1912. Our friends called it a bright new idea; we called it common sense.

Since 1912 RIT has developed one of the country’s largest and strongest co-op programs. Last year alone over 750 employing companies participated in the program, hiring students to gain career experience as a part of their RIT curriculum. Those 750 employers join the Institute and the student in a three-way partnership that leads to career awareness and experience that can’t be matched. Co-op gives the student and the employer an opportunity to look each other over; it gives the student an opportunity to try out personal and professional abilities in a different environment. Many students relocate in order to take advantage of the best co-op opportunities. At RIT the center and the student are committed to the philosophy of career education that makes co-op an experience of a lifetime.

The Center for Cooperative Education and Career Services provides counselors for each student, available to assist from the beginning of the co-op program right through career entry upon graduation. We take pride in being ready to give students an edge over the competition when they graduate. The center assists through individual career counseling and group sessions to develop important job search skills, resource materials for career and job research, job listings from co-op and career employers, reference and credential service, and one of the best on-campus interview programs going. We are serious about our students’ career options. That’s why the staff of the center not only counsels but also spends considerable time developing opportunities with employers nationwide for students in co-op programs and for graduates. We even help our alumni with lifetime services at their request. All of the center’s services are available to students at no fee.

A center for information about the employment of RIT students and about employment for RIT students, the office conducts surveys of alumni, analyzes national employment data, and communicates with business, industry and government to keep an eye on the needs of students and employers. Information is synthesized and made available through many formats to students and their academic advisors as well as Institute planners. The linkages among the students, alumni, and employers enhance RIT’s ability to provide a quality education firmly rooted in the dedication to preparation for career success. The Center for Cooperative Education and Career Services is committed to linking RIT students to career experiences and to career entry upon graduation.

**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 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 may be obtained from the Veterans’ Affairs Office, located in the basement of the College-Alumni Union.

VA Form 21-E-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 disregard their previous experience; RIT thinks it's valuable. In order to continue building on its excellent relationship with two-year colleges, RIT has a Center for Community/Junior College Relations. This is an excellent two-way channel for cooperative action. For information on transferring to RIT, see page 13.

Deaf students
The more than 1,000 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 may 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 119.

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, exploitive 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." 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 to others. 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.
2. 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.
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. 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 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.
4. 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.
5. 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 concern 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. Attempts are made to resolve conflicts between individuals and groups with differing backgrounds and views through discussion and clarification of values and attitudes. However, repeated disregard for the rights and dignity of others will result in disciplinary action in accordance with Institute policies and procedures.

Personal conduct
Through its policies, the Institute requires conduct that contributes positively to the personal welfare of students, enhances the quality of the campus living environment and respects the rights of others. Conduct that infringes upon the rights of others or endangers any individual will not be permitted. The sanctions associated with student misconduct are outlined in Institute policies, and actions are taken in accordance with

5

Rochester Institute of Technology. "1980 Master Plan" (March 1980)

the RIT Judicial Process. The following statements on sexual behavior, alcohol and drug use, appropriate study environments, safety, and student regard for property are a further expansion of the Institute's position on the personal conduct of students.

Sexual behavior and harassment
The Institute acknowledges that an individual student's sexual attitudes and values are a matter of personal choice. However, responsible sexual behaviors, no less than in other areas of human interaction, must take into account the dignity, privacy, and rights of others. Sexual harassment is not tolerated. Moreover, no individual should be subjected to exploitative actions. Unacceptable behaviors and living arrangements are further defined within the "Terms of Occupancy" for the various Institute housing units.

Alcohol and drug abuse
Individual students will be held responsible for their behavior even though their judgement may be impaired because of the use of alcohol or other drugs. Registration procedures for all RIT events set forth the responsibilities and procedures to be followed by the sponsoring group at an activity where alcohol is served. No student should feel pressured to consume alcohol or other drugs.

Institute policies on drug and alcohol use conform to the laws of the State of New York. The Institute is not a haven from the law, and both New York State law and Institute policy will be enforced. Those students who evidence problems with alcohol or drugs will be offered, and, if necessary, required to avail 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.

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, returning students, minorities, commuters, handicapped and international students are people with individual needs that require support from RIT's student services, according to James G. Miller, associate vice president for Institutional Advancement.

"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 Malaysia and India.

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

"A photographer from Mexico 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 and conducts special career days for prospective students.

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 pursue careers in technical fields, and informing them about the many options open to them," Miller 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.

The admissions staff 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. Miller 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 communication and 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. Miller explains that Admissions is more interrelated with other depart-
merits. "We work closely with Financial Aid, the Counseling Center, the Learning Development Center, Career 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 the students as they experience the educational process at RIT."

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 us more effective in helping those who are to follow. Veterans helping veterans is the basis of our services."

The Office of Veterans Affairs...conveniently located on the lower level of the college union and easily accessible for day and evening students...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, 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 Quarterly Pre-Billing
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 officially 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 1983-84 school year are as follows:

- Fall Qtr. August 17, 1983
- Winter Qtr. November 9, 1983
- Spring Qtr. February 13, 1984
- Summer Qtr. May 8, 1984

The student should receive the Quarterly Pre Bill approximately two weeks prior to the quarterly due date. Upon receipt of 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 the properly authorized deferment form. Quarterly pre-bills will be mailed to the student's permanent address.

Deferred payment plan
For those students who are not able to pay the amount due by the designated 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.

Deferred payment plan
For those students who are not able to pay the amount due by the designated 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 $250-300; in the arts and crafts, this may be in the neighborhood of $1,000-$1,500; 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).
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 expense:

- **Tuition**: $5,559
- **Fees**: 120
- **Room**: 1,584
- **Board**: 1,578
- **Books**: 307
- **Personal & Transportation**: 805

Total $9,953

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 follows, follows.

**Refund Policies**

Advance deposits are non-refundable.

The acceptable reasons for 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, 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.

3. If part-time students drop a course during the Official Drop Period (first 10 days of classes during the specific quarter), they may contact the Bursar’s Office for a 100% refund for that course dropped. Courses dropped after the Official Drop Period will not result in any tuition refund.

**For a partial tuition refund**

A student must officially withdraw or take 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 student, approved by the student’s advisor or department representative, the Institute coordinator for academic advising, and the bursar
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 schedule and percentage of tuition reduction:

- **During the first week of classes**: 90% tuition reduction
- **During the second week of classes**: 75% tuition reduction
- **During the third week of classes**: 60% tuition reduction
- **During the fourth week of classes**: 50% tuition reduction
- **Fifth and subsequent weeks**: No tuition reduction

**Note**: Non-attendance does not constitute an official withdrawal. A student is not "officially withdrawn" until he or she receives a 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 the 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.

No refund will be made for classes dropped after the Official Drop Period unless the student is officially withdrawing from the Institute.

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. Unresolved matters 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

**Financial Aid**

There are a variety of scholarships, loans, grants, fellowships, and other aid programs available to help you pay for your 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 freshman, 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

*"A specific rate schedule is available in the Housing Office."
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>Fees</th>
<th>Total Per Year</th>
<th>Quarterly Payments*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1st Qtr.</td>
</tr>
<tr>
<td>College of Applied Science and Technology</td>
<td>Computer Science and Technology</td>
<td>Yes</td>
<td>1 &amp; 2</td>
<td>5064</td>
<td>105</td>
<td>5169</td>
<td>1723</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3, 4, 5</td>
<td>3376</td>
<td>70</td>
<td>3446</td>
<td>1723</td>
</tr>
<tr>
<td></td>
<td>Engineering Technology</td>
<td>Yes</td>
<td>1 &amp; 2</td>
<td>5064</td>
<td>105</td>
<td>5169</td>
<td>1723</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3, 4, 5</td>
<td>3376</td>
<td>70</td>
<td>3446</td>
<td>1723</td>
</tr>
<tr>
<td></td>
<td>Food, Hotel and Tourism</td>
<td>Yes</td>
<td>Each Year</td>
<td>5064</td>
<td>105</td>
<td>5169</td>
<td>1723</td>
</tr>
<tr>
<td>Management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Packaging Science</td>
<td>No</td>
<td>Each Year</td>
<td>5064</td>
<td>105</td>
<td>5169</td>
<td>1723</td>
</tr>
<tr>
<td></td>
<td>Audiovisual Communications</td>
<td>No</td>
<td>1 &amp; 2</td>
<td>(Completion of 2 years at another college)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instructional Technology</td>
<td></td>
<td></td>
<td>3, 4</td>
<td>5064</td>
<td>105</td>
<td>5169</td>
<td>1723</td>
</tr>
<tr>
<td></td>
<td>Business</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business</td>
<td>Bus. Administration Retailing</td>
<td>Yes</td>
<td>1</td>
<td>5064</td>
<td>105</td>
<td>5169</td>
<td>1723</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2*</td>
<td>3376</td>
<td>70</td>
<td>3446</td>
<td>1723</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>5064</td>
<td>105</td>
<td>5169</td>
<td>1723</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4</td>
<td>3376</td>
<td>70</td>
<td>3446</td>
<td>1723</td>
</tr>
<tr>
<td></td>
<td>Photo Marketing</td>
<td>No</td>
<td>Each Year</td>
<td>5064</td>
<td>105</td>
<td>5169</td>
<td>1723</td>
</tr>
<tr>
<td></td>
<td>Engineering</td>
<td>Yes</td>
<td>1 &amp; 2</td>
<td>5064</td>
<td>105</td>
<td>5169</td>
<td>1723</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3, 4, 5</td>
<td>3376</td>
<td>70</td>
<td>3446</td>
<td>1723</td>
</tr>
<tr>
<td></td>
<td>Fine and Applied Arts</td>
<td>No</td>
<td>Each Year</td>
<td>5064</td>
<td>105</td>
<td>5169</td>
<td>1723</td>
</tr>
<tr>
<td></td>
<td>Art and Design School for</td>
<td>No</td>
<td></td>
<td>5064</td>
<td>156</td>
<td>5220</td>
<td>1740</td>
</tr>
<tr>
<td>American Craftsmen</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Graphic Arts and Photography</td>
<td>No</td>
<td>Each Year</td>
<td>5064</td>
<td>156</td>
<td>5220</td>
<td>1740</td>
</tr>
<tr>
<td></td>
<td>Photographic Arts and Sciences</td>
<td>No</td>
<td></td>
<td>5064</td>
<td>156</td>
<td>5220</td>
<td>1740</td>
</tr>
<tr>
<td></td>
<td>Printing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Liberal Arts</td>
<td></td>
<td>Each Year</td>
<td>5064</td>
<td>105</td>
<td>5169</td>
<td>1723</td>
</tr>
<tr>
<td></td>
<td>Criminal Justice Social</td>
<td>Yes</td>
<td></td>
<td>5064</td>
<td>105</td>
<td>5169</td>
<td>1723</td>
</tr>
<tr>
<td>Work</td>
<td>Science</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Biology Mathematics, or</td>
<td>Yes</td>
<td>1 &amp; 2</td>
<td>5064</td>
<td>105</td>
<td>5169</td>
<td>1723</td>
</tr>
<tr>
<td>Physics</td>
<td></td>
<td></td>
<td>3, 4, 5</td>
<td>3376</td>
<td>70</td>
<td>3446</td>
<td>1723</td>
</tr>
<tr>
<td></td>
<td>Chemistry</td>
<td>Yes</td>
<td>1</td>
<td>5064</td>
<td>105</td>
<td>5169</td>
<td>1723</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2-5</td>
<td>3376</td>
<td>70</td>
<td>3446</td>
<td>1723</td>
</tr>
<tr>
<td></td>
<td>Health Related Professions</td>
<td>No</td>
<td>1, 2, 3</td>
<td>5064</td>
<td>105</td>
<td>5169</td>
<td>1723</td>
</tr>
<tr>
<td>involving Clinical Science</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4</td>
<td>(Full-time internship in approved hospital)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Counseling Center</td>
<td>Career Decision</td>
<td>No</td>
<td>Only 1</td>
<td>5064</td>
<td>105</td>
<td>5169</td>
<td>1723</td>
</tr>
</tbody>
</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 program, 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 $143 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 $143 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.
The purpose of this scholarship is to 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 $5,559. The amount of the scholarships 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 are one-year scholarships. Students receiving scholarship aid may apply for renewal of their award each subsequent year. In all cases 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 $5064.

The Financial Aid Form (FAF) of the College Scholarship Service (CSS) is required each year for scholarship consideration. Financial Aid Forms received at CSS on or before March 1 each year receive first priority consideration. Applications received after that date will be considered if funds remain available.

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 include 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-time 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 each year. 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 college's financial aid offices, RIT's Financial Aid Office, or by writing directly to College Scholarship Service, Box 176, Princeton, New Jersey 08540.

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

RIT awards financial assistance primarily on the basis of need. Financial aid 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—campus based aid programs
Campus based aid programs include National Direct Student Loan, Supplemental Education and Opportunity Grant, College Work Study, RIT Grants, and RIT Scholarships.

To be awarded financial aid, an individual must be admitted as a degree candidate. The student must be a matriculated student at the time of enrollment.

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.

Campus based aid programs include National Direct Student Loan, Supplemental Education and Opportunity Grant, College Work Study, RIT Grants, and RIT Scholarships.

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.

Continued receipt of financial assistance is contingent upon continued demonstration of academic progress. A student may become ineligible to receive further assistance for any of the following reasons:

- Failure to demonstrate academic progress according to the standards set by the dean of the student's college.
- Loss of matriculated (degree seeking) status.
- Failure to meet minimum standards of progress established by the New York State Education Department for the awarding of state tuition grants and scholarships. These standards for associate's degree and bachelor's degree programs are listed on the next page.

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.

Students who are not registered for a minimum of 12 credit hours will not receive campus based awards for that quarter.

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 State tuition and the costs at RIT. 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.

Students who are not registered for a minimum of 12 credit hours will not receive campus based awards for that quarter.

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 State tuition and the costs at RIT. 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.
York public and independent colleges so that students are able to make their choice based on program characteristics 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 a Tuition Assistance Program Grant, an individual must be admitted as a full-time matriculated student, meet New York State income 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.

### 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>
<th>5th</th>
<th>6th</th>
<th>7th</th>
<th>8th</th>
<th>9th</th>
<th>10th</th>
<th>11th</th>
<th>12th</th>
<th>13th</th>
<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.*

**Associate 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>
<th>5th</th>
<th>6th</th>
<th>7th</th>
<th>8th</th>
<th>9th</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>
</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>1.60</td>
<td>1.80</td>
</tr>
</tbody>
</table>

### 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 assist in financing their education.
# Undergraduate 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>Regents College Scholarship (New York State)</td>
<td>New York State residents who plan to attend college full-time 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, NY 12255</td>
</tr>
<tr>
<td>Regents Award for Children of Deceased Police Officers or Firefighters</td>
<td>Residents of New York State who are children of certain deceased policemen or firefighters.</td>
<td>$450 per year.</td>
<td>N.Y.S. Higher Education Services Corp., 99 Washington Ave., Albany, NY 12255</td>
</tr>
<tr>
<td>Tuition Assistance Program (New York State)</td>
<td>New York State residents who show ability to pursue full-time programs and meet state income requirements.</td>
<td>$250 to $2,200 per year.</td>
<td>N.Y.S. Higher Education Services Corp., 99 Washington Ave., Albany, NY 12255</td>
</tr>
<tr>
<td>Regents Awards for Children of Deceased and Disabled Veterans (New York State)</td>
<td>New York State residents who are children of certain deceased and disabled veterans, and are enrolled full-time.</td>
<td>$450 per year.</td>
<td>N.Y.S. Higher Education Services Corp., 99 Washington Ave., Albany, NY 12255</td>
</tr>
<tr>
<td>Pell Grant (Formerly Basic Educational Opportunity Grants) (Federal)</td>
<td>Undergraduate students who are pursuing their first bachelor's degree, in financial need, attending post-secondary institutions on at least a half-time basis.</td>
<td>$135 to $1,800 per year.</td>
<td>File Financial Aid Form requesting submission to Pell Grant or file separate Pell Grant application.</td>
</tr>
<tr>
<td>Supplemental Educational Opportunity Grants (Federal)</td>
<td>Students of academic promise who are accepted for college study and are in exceptional financial need, and are pursuing their first bachelor's degree.</td>
<td>$200 to $2,200 per year for full-time students.</td>
<td>Through RIT by use of the Financial Aid Form. File F.A.F. between Jan. 1 and Mar. 1 each year.</td>
</tr>
<tr>
<td>War Orphans Educational Assistance (Federal)</td>
<td>Children of certain deceased or disabled veterans.</td>
<td>Up to $220 per month.</td>
<td>Veterans Administration.</td>
</tr>
<tr>
<td>Social Security Education Assistance</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>ROTC</td>
<td>Students enrolling 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>Veterans Benefits</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>RIT Scholarships and Grants</td>
<td>Eligibility varies.</td>
<td>Amounts vary.</td>
<td>File Financial Aid Form between Jan. 1 and Mar. 1 of each year.</td>
</tr>
<tr>
<td>Higher Education Opportunities Program (HEOP)</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>Other State Grants</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>Guaranteed Student Loan (GSL)</td>
<td>Must be at least a half-time student.</td>
<td>Undergraduates - up to $2,500 per year. $12,500 cumulative maximum.</td>
<td>Local Lenders.</td>
</tr>
<tr>
<td>Auxiliary Loan to Assist Students (ALAS)</td>
<td>Must be at least half-time and qualify as an independent student.</td>
<td>$2,500 per year minus any amount borrowed under Guaranteed Student Loan in the same year.</td>
<td>Local Lenders (It is recommended that the student apply for Guaranteed Student Loan First.)</td>
</tr>
<tr>
<td>Parent Loan for Undergraduate Students (PLUS)</td>
<td>Parent with a dependent who is full-time student.</td>
<td>$3,000 per year for each dependent who is a full-time student.</td>
<td>Local Lenders.</td>
</tr>
<tr>
<td>National Direct Student Loans</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. File between Jan. 1 and Mar. 1 each year.</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>College Work Study Program (Federal)</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. File between Jan. 1 and Mar. 1 each year.</td>
</tr>
<tr>
<td>Other college part-time work</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>

**NOTE:** For first priority consideration, the F.A.F. must be received in Princeton, New Jersey, by March 1 each year. To assure timely receipt, it is recommended that the document be mailed by February 20 each year.
Admission Procedures and Services

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 college, and (5) post high school experience. 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.

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 goals and 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 nonrefundable $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 you've already earned 16 or more college credits, submission of SAT or ACT test scores is optional.
4. 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 or senior standing in most programs if you've earned an associate's degree (AS or 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, fine arts 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.

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, 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 admissions" 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 and first year college 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 the Declaration and Certification of Eligibility, Form I-20. The I-20 should be taken to the nearest American Consul for the purpose of securing a Non-Immigrant “F” Student Visa. Applicants must also show evidence of their ability to pay all their expenses, through their own means, for the entire period of their stay in the United States by submitting the Declaration and Certification of Finances. Usually some time is required to complete this operation.

The Office of International Student Affairs serves as the focal point on campus for all international students regardless of their programs of study. The office provides assistance with student immigration matters, serves as a resource center for campus and community activities, and helps students solve problems encountered while away from home. The office staff also plans a five-day orientation program for new international students each fall quarter and facilitates contact with the Rochester International Friendship Council to provide friendship and hospitality to international students. After acceptance, the international student may wish to correspond with: Mrs. Barbara Letvin Director, International Student Affairs Rochester Institute of Technology One Lomb Memorial Drive Box 9887 Rochester, New York 14623

The RIT International Student Association is committed to providing support and assistance to international students as well as working with the Office of International Student Affairs to develop intercultural programs and activities. International applicants who wish to correspond with a student from their country should write to: President of RIT International Student Association, in care of Barbara Letvin, at the address above.

ESOL Department
The ESOL (English to Speakers of Other Languages) Department in the Learning Development Center provides individual instruction and classes in pronunciation, grammar, writing, conversation and reading as a support service to matriculated international students. For a fee international students can receive assistance in any aspect of the English language. A full-time intensive English language program is also available.

All international students are required, upon their arrival, to take a battery of English tests. The results of these tests are sent to the student's department chairman with recommendations of course load. If students’ scores indicate that they are deficient in English, they will be required to take a minimum of two hours per week of English language instruction per quarter at a cost of $100.

Deaf students
Students with a severe to profound hearing loss may be eligible for admission to RIT with the support of the National Technical Institute for the Deaf (NTID). NTID is described in greater detail on pages 120-123 of this bulletin. Deaf students can request additional information about NTID at RIT by writing to: Associate Director of Admissions (NTID) Rochester Institute of Technology One Lomb Memorial Drive P.O. Box 9887 Rochester, New York 14623

The international community is well represented at RIT, with approximately 70 faculty and nearly 250 students from more than 45 countries.
Registration and Student Records

Office of the Registrar
The Office of the Registrar 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.

Registration
RIT provides three opportunities to register for classes. These are: pre-registration, open registration, and late registration. The earlier the registration in which students participate, the better the opportunity of obtaining their choices. To be officially enrolled in the Institute, students must be academically eligible, scheduled into courses, and must have made the required financial commitment.

Students are expected to complete registration (including the payment of all fees) by the dates prescribed in the Institute Calendar. Students who elect to register after Open Registration will be assessed a $25 late fee. After registration, any student who has added a course, but who has not made his or her financial commitment with the Bursar's Office, will be dropped from all courses during the second week of the quarter.

Non-matriculated registration
Students who are not formally accepted into a program register as non-matriculated students. This registration occurs the day following Open Registration. Students who participate in this registration are not subject to the late registration fee.

Changes of registration
Any change in enrollment must be recorded with the Office of the Registrar. Students may add classes to their academic schedule during the first five days of a quarter, and drop classes during the first two weeks (excluding Saturday, Sunday, and holidays).

Student records
Confidentiality of records. In accordance with the Family Education Rights and Privacy Act of 1974 (commonly known as the Buckley Amendment), RIT students have the right to inspect, review, and challenge the accuracy of official educational records.

RIT policy ensures that only proper use is made of such records. Therefore, with the exception of copies made for internal use (e.g., provided to departments for advising functions), in most cases, no copy of a student's permanent record (transcript) or non-public information from student records will be released to anyone without the student's written consent. If an employer, for example, requests a transcript, he or she will have to obtain a written request from the student. For more detailed information concerning the Act, see the FACTS booklet.

At the time of registration, but not later than 14 days after the beginning of a term, students may request the Office of the Registrar, in writing, not to release directory information pertaining to them. "Directory Information" includes the following: a student's name, mailing address and telephone number, date and place of birth, major field of study, participation records in official Institute activities and sports, weight and height if a member of an athletic team, dates of attendance at RIT, degrees and awards received.

Transcripts. A transcript of a student's official academic records is maintained in the Office of the Registrar. It contains a detailed statement of the scholastic record.
All requests for transcripts must be in written form. Each transcript request should include full name or names used, social security number, and dates of attendance to assure proper identification of the record requested. The charge for each copy of a transcript is $2. Transcripts can usually be obtained by a student within 48 hours after the request is submitted. During exam week and the week following exams, it may take longer to prepare a complete transcript.

No partial transcript will be issued. No transcript will be issued to a student who is indebted to the Institute.

Transcripts issued directly to students are stamped STUDENT COPY.

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.

Change of name or address
It is the obligation of every student to notify the Office of the Registrar of any changes in name or address. Failure to do so can cause serious delay in handling student records.

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, 77.48 percent of first year full-time day students register for their second year; and 80.03 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 Office of Institutional Research.
Academic Standards and Regulations

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. For information on these programs please refer to the individual college's catalog or bulletin.

Graduate degree programs

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

Grading system

Grades representing 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
- X: Credit by Examination
- 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.

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.)

The grade point average is computed by the following formula:

\[ G \text{P} \text{A} = \frac{\text{Total A + Points earned}}{\text{Total quality hours}} \]

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 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 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.

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 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.

**"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.
**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 student's 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 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 and the college granting the degree (inclusive of service courses). If the student has successfully completed 45 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 of 30 of the 45 quarter 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.

6. Physical education requirements as published in this *Official Bulletin*.

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 communications likely to be expected in his or her intended career.

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 department 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 standards will have to take remedial measures recommended by the department.

Students 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 master's degrees are expected to attend commencement ceremonies. Candidates may be excused from such attendance with the explicit approval of their dean.

**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.

---

**Student Affairs Offers Services For Help in and out of Classroom**

What happens in the classroom is a 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 Service, Student Activities, International Student Affairs, College-Alumni Union, Religious Activities and the Chaplaincy, Counseling Center, Minority Affairs, 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 residential 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 multifaceted. 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.

Some specific programs that make up the total Complementary Education concept include the Community Services Program, which provides students with the opportunities to volunteer with non-profit agencies in the Rochester area and which focuses on the importance of civic awareness; the Educational Travel Program, which is unique in its approach to exploring new places behind the scenes and in expanding the campus outside the walls of RIT; the Outdoor Education Program, which is an intriguing way to learn decision-making and group interaction skills using the outdoors as the classroom, and the Student Speakers' Bureau, a new program that recruits, trains, and places student speakers in the community to share their interests and represent RIT. 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 non-funded projects already underway 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.

**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," says Barbara Chambers-Ekpo, the director of RIT's Higher Education Opportunity Program.

"The students in the program not only have financial difficulty, but they also have not excelled in school," she 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 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 maintains an open-door policy.

All students admitted to the program as freshmen 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.

In the nine years of its existence, HEOP has graduated more than 100 students, many of whom have landed excellent jobs. Graduates in technical fields have the highest success rate. 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 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 475-6943 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.

**Counseling Center**

The Counseling Center, located in Grace Watson Hall, offers a variety of services to RIT students. These services include:

- Personal Counseling
- Career Counseling
- Career Decision Program
- Career Resource Center
- SIGI
- Testing
- Research
- Developmental Programs
- Consultation

Counseling Center hours are 8:30-4:30, Monday through Friday. For more information about Counseling Center services, please call 475-2261.

**Personal counseling**

Problems are a part of living. Vet problems often influence how we feel about ourselves and others, impose limitations upon our effectiveness, and interfere with our ability to achieve desired goals. While you are at RIT, you may experience personal
problems such as feeling anxious, depressed, having difficulty with friends, courses or professors, or being concerned about your relationship with your parents. Seeking individual help can be useful in coping with both large and small problems, and may be the first step toward handling them in a positive and effective way. Individual and group counseling is available for students who could benefit from meeting with a counselor to explore, for example, more effective ways of dealing with conflict and stress, managing feelings and emotions, developing satisfying relationships, communicating with others, and coping with a personal crisis. Counselors can be seen initially without an appointment. Just stop by the Counseling Center between 9-12 or 1-4, Monday through Friday. There is no cost and you can be assured of confidentiality.

Individual career counseling
Career counseling is also available at the Counseling Center. Counselors can assist you in making thorough appraisals of your interests, abilities, and personality traits so that you can use this information in developing educational and vocational plans. Tests of aptitude, interest and personality may be used in this assessment process.

Group career exploration
For the student who would like assistance in choosing or reexamining a chosen field of study, the Counseling Center also offers a 3-credit Career Exploration course which provides students with an opportunity to increase their awareness of themselves, career options, and the process of career decision making.

Career Decision Program
The Career Decision Program has been designed to provide RIT students with the opportunity for an in-depth structured career guidance experience as they choose or change a specific program of study. The program provides enrollment to selected students for up to three quarters and includes the following elements:

1. Intensive career/academic advising during a period of exploration and choice;
2. Opportunity to sample preferred coursework across as many as 3 majors before narrowing to a single field of concentration;
3. Continuation of financial aid for students receiving assistance (the program carries the benefits of full matriculation for students carrying a minimum of 12 credit hours);
4. Participation in the 3-credit Career Exploration Course referred to under "Group Career Exploration."

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 and for the coming quarter. Interviews can be arranged by calling RIT Counseling Center, 475-2261.

Career Resource Center
Located in the reception area of the Counseling Center is a Career Resource Center which contains occupational information on a variety of careers, vocational and educational reference books, and college catalogs on microfiche. Students are welcome to browse through these materials during the Counseling Center's regular hours: 8:30 - 4:30, Monday through Friday.

SIGI
SIGI (pronounced SIGGY) stands for System of Interactive Guidance and Information. It is a computer-based guidance system designed to help you make informed and appropriate career decisions. SIGI is often used as part of the career counseling process.

Testing
The Counseling Center administers a number of psychological tests and interest inventories as part of the counseling process for some individuals. In addition, the Counseling Center administers a number of National Tests. Advance credit exams (CLEP) are also given.

Research
The Counseling Center conducts research related to the quality of student life. One major research project is the In-Coming Student Questionnaire which assesses the expectations of in-coming students on such factors as academic goals, study habits, self-esteem, and level of career planning.

Developmental programs
Staff members of the Counseling Center will provide presentations and workshops to interested student groups on a wide range of topics, for example, assertion awareness, values clarification, communication skills, leadership development, and human sexuality. Interested student groups are invited to contact the Counseling Center at 475-2261.

Consultation
Staff members of the Counseling Center will provide consultation services to interested student groups and organizations in a number of areas within the scope and expertise of the Counseling Center staff. Some examples of consultation services requested by student groups are as follows: 1) designing training programs, 2) problem-solving, 3) conflict management, and 4) improving organizational effectiveness.

Office of Special Services
Pursuing a college education is a major challenge. The goal of the Office of Special Services is to provide the necessary academic and personal support that will enable students who qualify to realize fully their potential and to complete successfully their college career.

Special Services provides individual and group tutoring, study skills development and academic advisement. Also offered are individual and group counseling, specialized assistance for disabled students (i.e., readers, coordination or notetakers), advocacy and liaison with other campus and community resources.

Some of the activities featured are: Achievement Awards Program—an annual dinner to give recognition to and award student for academic or social achievement and to honor graduating members of the program. Physical Challenges Days: Abled/Disabled Events—a series of activities and presentations designed to create a better awareness of disabled students at RIT and their needs. Politics and Poverty Seminar - a program sponsored jointly with the Higher Education Opportunity Program gives interested students the opportunity to learn more about our political system and how to take a more active part in it. The seminar culminates in a three day trip to Washington, D.C.

The Office of Special Services is also designed, in part, to provide support services to physically disabled students at RIT. Support services include tutoring and additional academic support, counseling, career development, special programs, advocacy and referral resources in the community. The staff strives to assist students resolve educational and non-educational problems that are related to academic success such as gaining accessibility to elevators and securing specially designed instructional materials or programs. Campus maps, the Disabled Students’ Guide to RIT and information regarding any issue relating to accessibility—physical or academic—will be provided.
Student Health Service

Student Health Service provides primary level medical care on an outpatient basis. The staff includes a full-time physician; part-time physicians; medical nurse practitioners; registered nurses; and an interpreter for the deaf. Some specialties—psychiatry; gynecology, ENT, ophthalmology—are available on campus by appointment. In addition, Student Health Service provides health education programs.

Student Health Service is located on the second floor of the administration building. Students are seen on a walk-in basis during the day (Monday through Friday, 8:30 a.m. to 4:00 p.m.; 8:30 a.m. to 4:30 p.m. for emergencies). Appointments for follow-up treatment are arranged when necessary. A registered nurse is on duty in the Nathaniel Rochester Hall in the evening.

For emergency transportation at times when the health service is not open, the RIT ambulance is available. The unit can be reached through Campus Safety.

Students who need immunizations for passports may be immunized at Student Health Service. First, find out from the Health Department of the place where you obtain your passport exactly against what you will need to be immunized. Take the list to the Student Health Service to obtain prescriptions for the necessary drugs. Once you have the drugs, Student Health Service will administer the shots.

A Student Health fee of $20.00 per quarter is mandatory for all full-time undergraduate students. All other students pay either the quarterly fee or on a fee-for-service basis. Some laboratory work ordered through Student Health Service is not covered by this fee; there is a nominal charge for this service. Prescription medicines are available through Health Service or local pharmacies. The health fee does not include prescription medications.

The Institute requires you to maintain health insurance coverage as long as you are a student at RIT. You may obtain coverage either through RIT or your personal coverage.

If you have any questions about Student Health Service or health insurance, please contact the office, 475-2255.

Health records
Your medical record is confidential, and information will not be released without your written consent. Exceptions to this rule are made only when, reports are required by the public health laws of New York State.

RIT ambulance
The RIT ambulance is a New York State certified volunteer ambulance service that operates in and around the RIT campus. The organization is an auxiliary of the Student Health Service. Its primary territory includes the main campus, Riverknoll, Perkin's Green, Colony Manor, and Racquet Club apartment complexes and the Hilton Inn.

Any student, faculty or staff member of RIT who is at least 18 years of age is eligible to join the ambulance crew. Although most members eventually become certified emergency medical technicians, minimum requirements are a valid certification in CPR, a valid driver's license with a good driving record, and a sincere interest in ambulance work.

Applications may be obtained and submitted through Student Health Service on the second floor of Building 1 (administration building). To obtain more information, leave a message with the Student Health Service at 475-2255.

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 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 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 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 in Institute managed apartments and townhouses. Contracts for single students run September through May. A mixture consisting of each housing group can be found in each apartment complex on campus. All apartments are equipped with refrigerator and stove but are otherwise unfurnished. However, furniture may be leased readily from local rental companies. 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) 475-6920.

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.

New Student Orientation
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.

Concurrent with Student Orientation is a special orientation for parents.

A mandatory $35 program fee is charged to each new full-time day, matriculated student to cover program development costs.

Student Clubs and Organizations

Off Campus Student Association
OCSA is the representative student government for all RIT students who do not reside in the dormitory. The Off Campus Student Council, formed in 1978, is composed of off-campus students from the nine colleges and the four RIT-operated apartment complexes. Through the council, a standing Housing Committee has been set up to deal with the varied housing problems that RIT students may face. The council is the voice of the off-campus students to the administration.

OCSA also has many student committees that work on programming for the off-campus student and provide needed services such as lockers, a computerized ride pool system and off-campus survival booklets. The OCSC lounge, located in the basement of the College-Alumni Union, is a place for the off-campus student to relax. OCSC also publishes a newsletter twice per quarter that contains beneficial off-campus news.

If you are interested in getting involved, stop in at the OCSA office in the basement of the Union, or call 475-6680 for more information.

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 Hearing Board, which provides for the self-discipline of the student body.

All full-time and part-time undergraduate and graduate students become members of the RIT Student Directorate through payment of the Student Activities Fee. All other 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 game room for bowling, billiards, foosball, and electronic games; a uni-sex hair-styling 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, Chaplains, Complementary Education, College Activities Board, Student Directorate, WITR radio station, Student Television Systems, Technilia, Reporter, Off-Campus Student Association, and other student organization offices.
The College Activities Board
The College Activities Board, which is composed of students, faculty and staff advisors and a College-Alumni Union staff representative, 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 Spring-In, 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 departmental 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 professional collegiate 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 staff—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.

Performing arts
The Division of Performing Arts at NTID supports a variety of activities.
• The NTID Theatre presents three plays during the year. These plays use deaf and hearing actors working together and are performed in both sign language and voice for the enjoyment of all audiences.
• The NTID Lab Theatre offers experimental, new or unusual productions. In addition, new directors and student writers use the space for developing their skills.
• The RIT Dance Company includes deaf and hearing dancers ir. at least one concert each year. They rehearse three times a week throughout the year; the company’s emphasis is on modern dance.
• Sunshine and Company consists of students and faculty who perform for special RIT events and community activities. Their shows include signed songs, dance, and drama for deaf and hearing audiences.
• Sunshine Too is a company of six performers traveling throughout the country from October to June. They present shows for schools, alumni groups, special RIT groups, and the general public. They provide information on RIT and deafness during their performances and workshops.
• The RIT Tiger Band performs at athletic events and RIT special events. In addition, they have concert appearances at various times during the year.
• The Sign/Sing Chorus includes students, faculty, and staff, who present a holiday show and a winter/spring event. Songs are sung by a chorus of 25-30 members and signed by another group of 10-15 people. Rehearsals are once a week.
• The NTID Music Combo is composed of NTID music students who perform contemporary music for RIT and community events.
• Guest artists are invited to perform in the NTID Theatre. A dance company, a professional mime, and the National Theatre of the Deaf are typical presentations each year.
Physical Education at RIT

Rochester Institute of Technology recognizes the need for physical fitness and recreation in today's society. To meet this demand, the Institute offers an exceptional program of courses designed to aid the student in developing and maintaining fitness, acquiring physical skills in a variety of lifetime activities and providing principles and elements for utilizing free time in an enjoyable and constructive manner.

The PE requirement is built on the premise that the attainment of good health and fitness are basic elements in the pursuit of excellence in many aspects of campus life. The learning experiences provided through the physical education curriculum are an integral part of the total educational experiences at RIT.

Institute's PE Policy

Baccalaureate Degree—All day-school candidates for the baccalaureate degree entering as first or second year day-school students must successfully complete six quarters, or the equivalent of two years of physical education. This requirement is normally met during the first and second years at RIT, but may be completed at any time during succeeding academic quarters.

Those entering as third or fourth year students must successfully complete three quarters of physical education unless they have completed the equivalent of three quarters or more of physical education or earned a baccalaureate degree at another institution.

Associate Degree—All day-school candidates for the associate degree are required to successfully complete three quarters, or the equivalent of one year of physical education. This is normally met during the first year at RIT, but may be completed at any time during succeeding academic quarters.

Transfer Credit—One semester of credit at another school equals one quarter of RIT credit; two semesters equals three quarters. Credit for independent activity may be granted if completed within one year before matriculation at RIT and approved by the Physical Education Department. Students who have met requirements may enroll in Physical Education on an elective basis.

Exceptions

Permanent Medical Excuse—This will be granted only by the RIT Student Health Service. One copy of the medical excuse should be filed with the Physical Education Department and the other copy taken to the student's department. Medical excuses from your family physician will not be accepted.

Intercollegiate Athletics—Students participating in the Institute's intercollegiate athletic programs will be excused from physical education during the season of participation. This experience will generate P.E. credit.

Veterans—Students who have completed six months or more of active military duty are not required to participate in the physical education program, but may voluntarily enroll in any course on a space available basis.

Age—Students who are 25 or older at the date of matriculation are exempt from the physical education requirement but may voluntarily enroll in any courses on a space available basis.

In the event a student is unable to fulfill the requirement for either a baccalaureate or associate's degree due to extenuating circumstances, the student's academic advisor must be consulted.

Physical Education Classes

Physical education courses are offered during all academic quarters, including summer. More than 60 courses are available during the year. Not all courses are offered every quarter. Registration is conducted by the entire Physical Education Staff in the main gymnasium within a week following academic registration. Hours for registration are 7:00 a.m. - 3:00 p.m. A nominal fee is charged in some courses requiring specialized instruction and/or facilities.

The following classes are Offered as selections in the Physical Education Department:

Cardio and strength activities

 Aerobic Dance, Army Conditioning Methods, Bicycling, Circuit Training, Conditioning, Fitness for Life, Jogging, Judo, Karate, Kung Fu, ROTC, Swimming for Fitness, Weight Training, Yoga.

Recreation and sports activities


Team activities

Basketball, Field Hockey, Ice Hockey, Lacrosse, Soccer, Softball, Touch Football, Volleyball.

Life support and safety programs


Intramural Activities at RIT

An extensive program of intramural activities is offered at RIT. Under the direction of the Department of Physical Education, Recreation and Intramurals, activities include co-rec, men's and women's teams in basketball, volleyball, softball, ice hockey, flag football, soccer, inner-tube water polo, bowling, tennis and golf.

Recreation at RIT

RIT offers some of the finest university recreational facilities available. Indoor facilities feature two gymnasiums, ice rink (with running surface around upper level), swimming pool, physical fitness and weight training center, wrestling room and game room (bowling, video games, bil-liards). Outdoor facilities include 12 tennis courts, an all-weather track and numerous athletic fields. The equipment cage provides equipment for recreation, athletic instruction and intramural needs and interests. Services include general information center, assignments of lockers, towel service, equipment loan and lost and found.
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 growth and success of intercollegiate athletics at the Institute has been tremendous in recent years. Last fall the men's soccer team posted a record of 14-2-3 and competed for the first time in the post-season national Collegiate Athletic Association (NCAA) Division III championships. The cross country team was 13-1 in dual meets, won the Upper New York State (UNYS) championship and placed 17th in the nationals.

Women's tennis continued its unbeaten string (26) and collected second-place honors in the New York State Association of Intercollegiate Athletics for Women (NYSAIAW) Championship. Women's volleyball produced its most successful campaign, finishing with a 17-6 dual record and advancing to the state championship. Women's soccer was elevated to varsity status in 1982, and the prospects for the future are excellent.

In winter, competition is offered in basketball, men's and women's hockey, men's and women's swimming and wrestling. The basketball team earned co-champion honors in the Independent College Athletic Conference (ICAC), posting a 10-2 league record. Men's hockey, RIT's lone Division II sport, continued its success story by qualifying for NCAAAs and hosting the championships. The icemen won the New York Collegiate Hockey Association (NYCHA) title and the national Division II title for the first time in 1982-83.

Swimming continued to provide much excitement at the Institute. More than 50 men and women have earned All-American status, placed by Barry Zacharias, the first national champion in RIT men's swim history. Zacharias captured the 400-yard individual medley title in 1982. In wrestling, Darrell Leslie won the 142-pound national title in 1983. It marked his fourth straight All-American crown.

Spring competition features baseball, lacrosse, softball, men's tennis and men's and women's track. The lacrosse team won its first ICAC title in 1982 with a 10-2 overall record. The softball squad won the Rochester Area Colleges (RAC) Invitational and the men's track team boasted its 14th straight UNYS championship. The men's track team has a phenomenal record of 148-7 under coach Peter Todd.

In addition to the NCAA, ICAC, NYSAIAW and NYCHA, the Tigers are members of the Eastern College Athletic Conference (ECAC) and United States Intercollegiate Lacrosse Association (USILA). With the exception of men's hockey, teams compete in Division III. All are governed by NCAA and ECAC rules. A student must be full-time (minimum 12 credit hours) and making satisfactory progress towards a baccalaureate degree to be eligible for intercollegiate competition.

In addition to the formal competition, students may become involved in intercollegiate athletics in a variety of ways. The icemen has a Tiger Pep Band, a precision dance corps (known as the Tigerettes), and a booster support group (T.I.G.E.R.S., Inc.). We invite you to participate and follow the teams throughout the year.

Resources for RIT Community Living

Day care
The Horton Child Care Center is a preschool 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 6-7. It is open all four academic quarters. The summer quarter has a day camp format and is open to children 2 years and 9 months through 7. 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
All New York State motor vehicle traffic laws are in effect on the RIT campus. RIT vehicle regulations supplement State Laws. All drivers on RIT properties must make themselves aware of and abide by these regulations. These regulations require that all vehicles operated on the RIT campus by students, faculty and staff must be registered with the Campus Safety Department. There is no fee attached to vehicle registration.

Failure to register a vehicle parked on campus will result in a $10.00 fine. Fines for other infractions of regulations are $5.00 and $10.00.

Questions regarding parking regulations should be addressed to the Traffic Coordinator at (475) 2074.

Campus Safety Department
The Campus Safety Department is a professional security agency that serves and protects the college community 24 hours a day, 7 days a week. 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 through your family insurance program. The Campus Safety Department provides services in: fire safety, criminal investigations, and lost-and-found property services.

You can contact the Campus Safety Department at these numbers:
General Information (475) 2853
Vehicle and Traffic Questions (475) 2074
Escort Service (475) 2853
Emergency (475) 3333
TTY (475) 6654

The Campus Safety Offices are located in the Grace Watson Dining Hall, building number 25.

RIT bookstores
Textbooks, school supplies, art and design supplies, and photographic equipment may be purchased at the RIT bookstore. Also in stock are general reading material and insignia 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 7). For hours of operation and special events call the Bookstore Infoline at 475-6033.
Alumni Association

The RIT Alumni Association is an organization of more than 40,000 graduates. All graduates are automatically members of the association, which is governed by the National Alumni Council. Council members come from all parts of the United States; one member is from Mexico.

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 support the fund raising objectives of the Institute; 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; the Alumni News, published four times a year; use of the library and athletic facilities (with ID card); help from the Center for Cooperative Education and Career Services in locating a job, and many social events, including Homecoming.

There are also many programs within which the 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.

Alumni may assist the financial development of the Institute by giving to the RIT Fund, which provides needed support for student financial aid and other operations of the Institute.

Alumni House, located at John and Wilson streets, houses the Office of Alumni Relations and 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.

Student Academic Development

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 the non-native language. In addition, the center makes arrangements for peer tutoring in most college level courses. Special programs, built around student 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.

In addition to these programs the center offers three full-time programs of study: A College Anticipation Program, a specialized program of instruction for high school graduates desiring additional preparation prior to full matriculation at a college/university; an instructional program for students who have been suspended or are liable to suspension from college for academic reasons, and an ESOL (English for Speakers of Other Languages) program for students who do not meet the RIT admissions requirements on the TOEFL (Test of English as a Foreign Language) or who want to improve their English skills.

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 hoped 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 interaction with students, we guide them to explore their own approaches to learning, evaluate them and develop appropriate strategies for lifelong 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 1981-82 school year the Learning Development Center saw more than 4,000 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 individualized 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

Students 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.

**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 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-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 of 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).

The ESOL Department has recently initiated a program in which international students teach their native language. The international student meets with a trained language instructor who assists in the development of the curriculum, the design of exercises and the uses of appropriate materials. The international student then instructs in his/her native tongue. The language, the culture, and customs can all be part of this program. For more information about learning a new language or teaching your native language contact Rhona Genzel, supervisor of ESOL Programs, at the Learning Development Center.

---

**Academic Services**

**Supports instruction**

The Division of Academic Services is made up of three areas that support instruction at RIT: Instructional Media Services, Wallace Memorial Library and the Office of the Registrar. The goals of the division are to improve learning by providing a full range of media related resources and efficient service.

Specific functions of the areas include: providing and producing audiovisual instructional materials and providing equipment facilities, and assistance needed for their use (Instructional Media Services); selecting, distributing, and providing bibliographic services for the instructional use of printed materials (Wallace Memorial Library), and the full services of the Office of the Registrar, described on page 15.

**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.

The center support the RIT Cable Television courses.

**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.
Wallace Memorial Library

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 non-print 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 non-print media of any area college library.

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 700 student 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 and photography work is permanently displayed within the building. Several lounge areas also are located throughout the building.

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, and a separate Chemistry Library houses selected science material.

In addition the library offers computerized searching of information data bases and interlibrary loan service. Use of these services provides access to virtually all publicly available printed material.

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.

Faculty and Program Development Supports Better Teaching

The Division of Faculty and Program Development provides an array of services designed to enhance the quality and effectiveness of RIT’s educational programs.

Its specific functions include searching out and implementing ways of improving courses of instruction and curriculum design. This is achieved through cooperative efforts with the faculty in the planning, design, implementation and evaluation of learning systems appropriate to the Institute. The Division of Faculty and Program Development works closely with the colleges in implementing the Institute's academic computing objectives and, in general, supports the use of innovative instructional methods and technologies.

In addition, the division assists individual faculty in gaining additional professional and educational experience. It coordinates the Institute’s faculty career development programs such as exchanges and leaves.

The Division of Faculty and Program Development supports the Institute’s numerous faculty and instructional development programs.
College of Applied Science and Technology

Dennis C. Nystrom, Dean

Organized in 1973, the College of Applied Science and Technology incorporates the School of Engineering Technology; the School of Computer Science and Technology; the School of Food, Hotel, and Tourism Management; the Department of Packaging Science, the Department of Instructional Technology; and the Department of Career and Human Resource Development. The college has programs at the associate's, baccalaureate's, and master's degree levels.

The School of Engineering Technology has primarily upper-division programs accepting transfer students with appropriate associate's degrees. The exception is the school's new program in computer technology, which accepts freshmen students. With its excellent laboratories, strong tradition of cooperative education, and experienced faculty, the school offers quality programs emphasizing the application of existing technology to engineering problems in manufacturing, production, construction, and environmental concerns.

The School of Computer Science and Technology, started in 1971, is one of the largest schools of computer science in the nation. All programs in the school can be entered as a freshman or as a transfer student. To support its laboratories, the school is equipped with two Vax 11/780's, PDP 11/34, 11/45, and 11/70, and an array of mini, micro, and graphics computer facilities. Cooperative education is required of all students, further emphasizing the hands-on approach.

The School of Food, Hotel and Tourism Management became part of the College of Applied Science and Technology in 1982, but it has roots in the early history of RIT. With its recently remodeled laboratories, the programs offer a variety of state-of-the-art equipment and systems. Cooperative education, which alternates periods of study and employment, is required of all students and provides the possibility of assignments at locations throughout the country. Graduates who earn a BS degree with a major in dietetics are qualified to apply for American Dietetic Association internships.

The Department of Packaging Science, one of only a handful of baccalaureate degree packaging programs in the nation, draws heavily upon courses offered in other schools and colleges of the Institute. With a core of experientially based packaging courses, the broadly-developed curriculum is representative of the areas of knowledge that are basic to the packaging science industry. The cooperative education program is optional in this department.

The Department of Instructional Technology offers both upper-division work in audiovisual communications and graduate programs in instructional technology. The audiovisual communications program is one of only a few such baccalaureate degree programs in the country. Students obtain direct experience in creating and running multi-image presentations requiring 15 or more slide projectors. The Department of Career and Human Resource Development offers only the master's degree program.

Resources
The experiential nature of all of the programs in the College of Applied Science and Technology requires excellent facilities and equipment. The Institute continually updates and adds equipment to maintain laboratories that contain state-of-the-art equipment. The engineering technology programs are facilities with the College of Engineering with additional laboratories in CAD/CAM systems, robotics, and soils. The extensive computer facilities mentioned previously are totally dedicated to academic support. The packaging science laboratory has some of the most advanced and sophisticated packaging testing equipment in the country. The laboratories in the School of Food, Hotel and Tourism Management rival those in the industry and are coordinated by computer systems. The audiovisual communications laboratory is probably the only one in the world with the resources required to produce and stage 30 projector multi-language shows on three different major programming systems.

Acceptance of the associate's degree
With the exception of the computer technology program, 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.

Engineering technology students may receive the engineering technology B. Tech degree in three years of additional study in the cooperative educational 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 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 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 13-14 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, the Department of Packaging Science, and the School of Food, Hotel and Tourism Management.

Computer Science: The computer science program educates students for positions requiring a strong background in computing theory and practice. Graduates are prepared to enter graduate school, or to pursue careers as research programmers, systems programmers, applications specialists, or computer systems analysts. Degrees granted: AAS-2 year; BS—4-5 year.

Information Systems: The computer systems option is designed for students interested in business applications programming, systems analysis, and information systems design. The systems software option prepares students for careers as systems programmers or systems software specialists. 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 two options—management or technical—prepare students for initial employment in such areas as management, sales, marketing, purchasing, structural design, product development, and the technical and engineering phases of production and package development. 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.

Computer Technology: A program of electronic hardware and computer software as applied to digital computers. Courses emphasize current technology in computers and graduates are prepared for employ-

<table>
<thead>
<tr>
<th>Freshman Admission Requirements</th>
<th>Transfer Admission with junior standing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Program</strong>†</td>
<td><strong>Required High School Subjects</strong></td>
</tr>
<tr>
<td>Computer Systems</td>
<td>Elem. Algebra</td>
</tr>
<tr>
<td>Systems Software Science</td>
<td>Inter. Algebra</td>
</tr>
<tr>
<td>Computer Science</td>
<td>Trigonometry</td>
</tr>
<tr>
<td>Plane Geometry</td>
<td></td>
</tr>
<tr>
<td>Physics or Chemistry</td>
<td></td>
</tr>
<tr>
<td>Packaging Science</td>
<td>Elem. Algebra; Inter. Algebra</td>
</tr>
<tr>
<td>1 year</td>
<td></td>
</tr>
<tr>
<td>any science</td>
<td></td>
</tr>
<tr>
<td>Additional for the Technical option; Plane Geometry; Trigonometry</td>
<td></td>
</tr>
<tr>
<td>Civil Engineering Technology</td>
<td>First two years available at many two-year colleges.</td>
</tr>
<tr>
<td>Electrical Engineering Technology</td>
<td>First two years available at many two-year colleges and RIT's College of Continuing Education.</td>
</tr>
<tr>
<td>Mechanical Engineering Technology</td>
<td>First two years available at many two-year colleges and RIT's College of Continuing Education.</td>
</tr>
<tr>
<td>Manufacturing Engineering Technology</td>
<td>First two years available at some two-year colleges and RIT's College of Continuing Education</td>
</tr>
<tr>
<td>Energy Technology</td>
<td>First two years available at some two-year colleges</td>
</tr>
<tr>
<td>Audiovisual Communications</td>
<td>First two years available at some two-year colleges.</td>
</tr>
<tr>
<td>Food Management, Hotel and Resort Management Option, Travel Option</td>
<td>Elem. Algebra; Inter. Algebra; 1 year chemistry preferred</td>
</tr>
<tr>
<td>Dietetics</td>
<td>Elem. Algebra; Inter. Algebra; 1 year chemistry preferred</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.
ment in designing, manufacturing, and servicing computer systems. Transfer into the program with junior standing is available for those with associate degrees in appropriate fields. Degrees granted: AAS—2 year; B. Tech.—5 year with co-op.

**Electrical Engineering Technology:** Early emphasis in this program is on further mastery in electronics 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:** 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 increasingly complex field. 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 increasingly complex field. Degree granted: B. Tech.—3 year with co-op.

**Agricultural Technology:** Preparing students for management training positions in the hotel/resort industry. The Travel Management option prepares graduates to plan, arrange, and coordinate travel for business and industry, wholesale tour operations, travel agencies and convention bureaus. Degrees granted: AAS—2 year; BS—2 year. Specialties include hotel and restaurant management, food and beverage management, culinary management, and local agencies. Also, large national restaurant chains often have dietitians in responsible staff positions. Degrees granted: AAS—2 year; BS—4 year.

Upper division program only

**Department of Instructional Technology**

Clint Wallington, Director

**Bachelor of science in audiovisual communications**

Audiovisual support for a speaker used to be something special. Now it is commonplace. Presentations that, a decade ago, would have used one slide projector now use half-a-dozen. Not so long ago, audiovisual was thought of as an adjunct to communications. Today it is hard to think of communications without thinking of audiovisual. Behind the scenes of every show, every presentation, every training package is a core of professional audiovisual communications specialists who translate ideas into the reality of media. While the growth of audiovisual communications brings about a need for specialists in a particular medium like television, there is also a demand for a generalist in audiovisual—someone who can work in a variety of media formats and who can work at any stage of the process, from determining the client's need to staging the final presentation.

RIT's audiovisual communications program is specifically designed to expand and improve the skills of graduates of two-year programs in media or audiovisual technology. The program features the experiential base required to enter the job market and the creative and management skills required for career advancement. To help meet these objectives, faculty and students in the program participate in professional audiovisual associations and are involved in the design, production, and staging of audiovisual presentations for a wide range of clients. An advisory committee composed of audiovisual leaders and practitioners from both the private and public sector reviews the program periodically to keep the curriculum and educational activities up-to-date and relevant.

**Curriculum**

The curriculum concentrates on three major areas: designing audiovisual presentations, producing audiovisual presentations, and designing and...

---

**Curriculum Table**

<table>
<thead>
<tr>
<th>Yr.</th>
<th>Audiovisual Communication, BS degree</th>
<th>Qtr.</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>FALL</td>
<td>WTR</td>
</tr>
<tr>
<td>1</td>
<td>ICIC-401 Message Design</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>ICG-430 Audiovisual Presentation Design</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>ICG-489 Audio for AV Presentations</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>ICG-440 Audio Program Design I</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>ICG-424 Visual Production Technique</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>ICG-450 Audiovisual Design II</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>ICG-510 Writing for AV Programs</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>GLCSS-402 Conference Techniques</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SSEG-201 Contemporary Science</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>Liberal Arts</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Management Elec.</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Professional Elec.</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Free Elec</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Physical Education</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>ICIC-595 Senior Project I</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>ICIC-405 AV Seminar</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>ICG-596 Senior Project II</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SSEG-202, 203 Contemporary Science</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>AV Production Elective</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Management Elec.</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Liberal Arts</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Professional Elec.</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Free Elec</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Physical Education</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>
coordinating audiovisual programs which have one or more audiovisual presentations as well as other activities leading to the communications goals of the program. Featured as a specialty within presentation design and production is multi-image—the use of multiple slide projectors for high impact communications.

The emphasis of the curriculum is on technical competence combined with creative design skills and the interpersonal skills needed to work with clients and other production team members. Course assignments, stress direct, hands-on experience in the technical skills area. The practical skills are balanced with the theory of why and how audiovisual communications work. A project—the design and production of an audiovisual presentation for a client—is required.

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 technology, photography, film making, television production, graphic design, and Sciences, with permission of the appropriate department and the student's academic advisor.

School of Computer Science and Technology

Wiley R. McKinzie, 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 staffing 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 hardware and software industries and computer applications departments of other major industries, or enrollment in graduate schools to pursue advanced degrees.

Graduation requirements
The BS in audiovisual communications degree requires the completion of a minimum of 125 quarter credit hours. Normally, entering students will have completed one half of this amount in a two-year program. In addition to the coursework, a design and production project is also required. All students must also meet the writing competency requirements of the program. In addition to the professional courses, liberal arts, sciences, and physical education courses are required.

Audiovisual production electives
ICIC-489 Audio for AV Productions
ICIC-490 Audio Techniques
ICIC-503 Practicum in Production
ICIC-580 Producing Multi-image Presentations I
ICIC-581 Producing Multi-image Presentations II
ICIC-583 Advanced Multi-image Project
ICIC-585 Producing Special Effects Slides
Other electives may be taken in the College of Continuing Education, the School of Engineering Technology, and the School of Photographic Arts.

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 technology, photography, film making, television production, graphic design, and related fields.

Graduation requirements
The BS in audiovisual communications degree requires the completion of a minimum of 125 quarter credit hours. Normally, entering students will have completed one half of this amount in a two-year program. In addition to the coursework, a design and production project is also required. All students must also meet the writing competency requirements of the program. In addition to the professional courses, liberal arts, sciences, and physical education courses are required.

Audiovisual production electives
ICIC-489 Audio for AV Productions
ICIC-490 Audio Techniques
ICIC-503 Practicum in Production
ICIC-580 Producing Multi-image Presentations I
ICIC-581 Producing Multi-image Presentations II
ICIC-583 Advanced Multi-image Project
ICIC-585 Producing Special Effects Slides
Other electives may be taken in the College of Continuing Education, the School of Engineering Technology, and the School of Photographic Arts.

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 technology, photography, film making, television production, graphic design, and related fields.

Graduation requirements
The BS in audiovisual communications degree requires the completion of a minimum of 125 quarter credit hours. Normally, entering students will have completed one half of this amount in a two-year program. In addition to the coursework, a design and production project is also required. All students must also meet the writing competency requirements of the program. In addition to the professional courses, liberal arts, sciences, and physical education courses are required.

Audiovisual production electives
ICIC-489 Audio for AV Productions
ICIC-490 Audio Techniques
ICIC-503 Practicum in Production
ICIC-580 Producing Multi-image Presentations I
ICIC-581 Producing Multi-image Presentations II
ICIC-583 Advanced Multi-image Project
ICIC-585 Producing Special Effects Slides
Other electives may be taken in the College of Continuing Education, the School of Engineering Technology, and the School of Photographic Arts.

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 technology, photography, film making, television production, graphic design, and related fields.

Graduation requirements
The BS in audiovisual communications degree requires the completion of a minimum of 125 quarter credit hours. Normally, entering students will have completed one half of this amount in a two-year program. In addition to the coursework, a design and production project is also required. All students must also meet the writing competency requirements of the program. In addition to the professional courses, liberal arts, sciences, and physical education courses are required.

Audiovisual production electives
ICIC-489 Audio for AV Productions
ICIC-490 Audio Techniques
ICIC-503 Practicum in Production
ICIC-580 Producing Multi-image Presentations I
ICIC-581 Producing Multi-image Presentations II
ICIC-583 Advanced Multi-image Project
ICIC-585 Producing Special Effects Slides
Other electives may be taken in the College of Continuing Education, the School of Engineering Technology, and the School of Photographic Arts.

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 technology, photography, film making, television production, graphic design, and related fields.

Graduation requirements
The BS in audiovisual communications degree requires the completion of a minimum of 125 quarter credit hours. Normally, entering students will have completed one half of this amount in a two-year program. In addition to the coursework, a design and production project is also required. All students must also meet the writing competency requirements of the program. In addition to the professional courses, liberal arts, sciences, and physical education courses are required.

Audiovisual production electives
ICIC-489 Audio for AV Productions
ICIC-490 Audio Techniques
ICIC-503 Practicum in Production
ICIC-580 Producing Multi-image Presentations I
ICIC-581 Producing Multi-image Presentations II
ICIC-583 Advanced Multi-image Project
ICIC-585 Producing Special Effects Slides
Other electives may be taken in the College of Continuing Education, the School of Engineering Technology, and the School of Photographic Arts.

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 technology, photography, film making, television production, graphic design, and related fields.

Graduation requirements
The BS in audiovisual communications degree requires the completion of a minimum of 125 quarter credit hours. Normally, entering students will have completed one half of this amount in a two-year program. In addition to the coursework, a design and production project is also required. All students must also meet the writing competency requirements of the program. In addition to the professional courses, liberal arts, sciences, and physical education courses are required.

Audiovisual production electives
ICIC-489 Audio for AV Productions
ICIC-490 Audio Techniques
ICIC-503 Practicum in Production
ICIC-580 Producing Multi-image Presentations I
ICIC-581 Producing Multi-image Presentations II
ICIC-583 Advanced Multi-image Project
ICIC-585 Producing Special Effects Slides
Other electives may be taken in the College of Continuing Education, the School of Engineering Technology, and the School of Photographic Arts.

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 technology, photography, film making, television production, graphic design, and related fields.

Graduation requirements
The BS in audiovisual communications degree requires the completion of a minimum of 125 quarter credit hours. Normally, entering students will have completed one half of this amount in a two-year program. In addition to the coursework, a design and production project is also required. All students must also meet the writing competency requirements of the program. In addition to the professional courses, liberal arts, sciences, and physical education courses are required.

Audiovisual production electives
ICIC-489 Audio for AV Productions
ICIC-490 Audio Techniques
ICIC-503 Practicum in Production
ICIC-580 Producing Multi-image Presentations I
ICIC-581 Producing Multi-image Presentations II
ICIC-583 Advanced Multi-image Project
ICIC-585 Producing Special Effects Slides
Other electives may be taken in the College of Continuing Education, the School of Engineering Technology, and the School of Photographic Arts.

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 technology, photography, film making, television production, graphic design, and related fields.

Graduation requirements
The BS in audiovisual communications degree requires the completion of a minimum of 125 quarter credit hours. Normally, entering students will have completed one half of this amount in a two-year program. In addition to the coursework, a design and production project is also required. All students must also meet the writing competency requirements of the program. In addition to the professional courses, liberal arts, sciences, and physical education courses are required.
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, database systems, programming languages, and systems analysis, to name just a few. It is important to note that programming is merely a tool, albeit an important one, and is not itself computer science. An undergraduate computer science technology student is required to take a certain number of computer science courses that will provide both a solid foundation in computing and a specialization useful for employment.

Programs
The School of Computer Science and Technology offers the following programs:
1. A computer science (BS) degree program with several upper division specialization tracks.
2. An information systems (B. Tech) degree program with options in computer systems and systems software science.

Students entering as freshmen may change programs or options during the first three years of study without losing credit, as long as they meet the math and science requirements of the BS program. All students in the school are required to obtain credit for one year (four quarters) of cooperative education prior to graduation. To help insure that the goals of integrated academic and experiential education are attained, students must attend classes at RIT for at least one quarter after their final co-op block.

Computer science program
The computer science program of the School of Computer Science and Technology is designed for students who are interested in both the technical aspects and the underlying mathematical theory of the field. Many employers look for students who not only are good scientists, but who also understand the tools and techniques of mathematics, science, and business. Thus the BS program is for the mathematically adept student who wishes to become a computing professional with knowledge of relevant applications areas. This program will also be attractive to students transferring to RIT with an associate's degree in computer science, or with an associate's degree in data processing backed up by significant course work in mathematics and science. Students interested in computer science and technology but who are weak in mathematics should consider the B. Tech options.

The program of study in computer science can be broken down into five major areas:
1. Computer science—required and elective courses in the areas of program development, computer organization, and systems software. Each student must complete a three-course concentration to attain advanced knowledge in a specialized area.
2. Mathematics and science—each student must take seven courses in the areas of calculus, physics, probability and statistics, and discrete mathematics.
3. Liberal arts—courses in language and literature, humanities, social science.
4. Minor—a coherent set of courses designed to provide experience in a discipline other than computer science.
5. Free electives—two courses chosen by the student based on his or her personal preferences.

The primary goal of the computer science program is to prepare well-rounded graduates who possess significant skills in mathematics, computer science, and at least one other discipline. Graduates of the computer science program are fully prepared for entry into professional computing positions or for continued education in graduate school.

Information systems
The information systems 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 is the case for the bachelor of science program.

The options of this program are structured so that approximately 50 percent of the course work is in computer science, 25 percent is in liberal arts and sciences, and 25 percent is in technology.

### Table: Computer Technology, B. Tech degree

<table>
<thead>
<tr>
<th>Yr.</th>
<th>Computer Technology, B. Tech degree</th>
<th>Qtr. Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SMAM-204 College Algebra and Trigonometry</td>
<td>FALL 4</td>
</tr>
<tr>
<td>1</td>
<td>SMAT-420 Calculus for Technologists I</td>
<td>FALL 4</td>
</tr>
<tr>
<td>1</td>
<td>SMAT-421 Calculus for Technologists II</td>
<td>FALL 4</td>
</tr>
<tr>
<td>1</td>
<td>ICSP-241 Programming I</td>
<td>FALL 4</td>
</tr>
<tr>
<td>1</td>
<td>ICSP-242 Programming II</td>
<td>FALL 4</td>
</tr>
<tr>
<td>1</td>
<td>ICSP-243 Programming III</td>
<td>FALL 4</td>
</tr>
<tr>
<td>1</td>
<td>ITEE-201 DC Circuits</td>
<td>FALL 4</td>
</tr>
<tr>
<td>1</td>
<td>ITEE-202 AC Circuits</td>
<td>FALL 4</td>
</tr>
<tr>
<td>1</td>
<td>ITEE-203 Electronic Devices</td>
<td>FALL 4</td>
</tr>
<tr>
<td>1</td>
<td>Liberal Arts (Core)</td>
<td>FALL 4</td>
</tr>
<tr>
<td>1</td>
<td>Physical Education</td>
<td>FALL 4</td>
</tr>
<tr>
<td>2</td>
<td>SPSP 211 College Physics I</td>
<td>FALL 4</td>
</tr>
<tr>
<td>2</td>
<td>SPSP 212 College Physics II</td>
<td>FALL 4</td>
</tr>
<tr>
<td>2</td>
<td>SPSP 213 College Physics III</td>
<td>FALL 4</td>
</tr>
<tr>
<td>2</td>
<td>SPSP 271, 272, 273 College Physics Labs</td>
<td>FALL 4</td>
</tr>
<tr>
<td>2</td>
<td>ICSS-325 Digital Organization and Management</td>
<td>FALL 4</td>
</tr>
<tr>
<td>2</td>
<td>ITEE-301 Digital Fundamentals</td>
<td>FALL 4</td>
</tr>
<tr>
<td>2</td>
<td>SMAT-422 Solution of Engineering Problems (B. Tech) or Liberal Arts (AAS)</td>
<td>FALL 4</td>
</tr>
<tr>
<td>2</td>
<td>ICSP-305 Assembly Language Programming</td>
<td>FALL 4</td>
</tr>
<tr>
<td>2</td>
<td>ITEE-302 Linear Integrated Circuits</td>
<td>FALL 4</td>
</tr>
<tr>
<td>2</td>
<td>Liberal Arts (Core)</td>
<td>FALL 4</td>
</tr>
<tr>
<td>2</td>
<td>ITEE-303 Microprocessors</td>
<td>FALL 4</td>
</tr>
<tr>
<td>2</td>
<td>ITEE-305 Drafting and Fabrication</td>
<td>FALL 4</td>
</tr>
<tr>
<td>2</td>
<td>SMAM-205 Finite Mathematics</td>
<td>FALL 4</td>
</tr>
<tr>
<td>3</td>
<td>SMAM-206 Probability</td>
<td>FALL 4</td>
</tr>
<tr>
<td>3</td>
<td>Liberal Arts (Core)</td>
<td>FALL 4</td>
</tr>
<tr>
<td>3</td>
<td>ITEE-538 Digital Computer Design I</td>
<td>FALL 4</td>
</tr>
<tr>
<td>3</td>
<td>ITEE-409 Technical Reports</td>
<td>FALL 4</td>
</tr>
<tr>
<td>3</td>
<td>SMAM-207 Statistics</td>
<td>FALL 4</td>
</tr>
<tr>
<td>3</td>
<td>ITEE-403 Advanced Circuits</td>
<td>FALL 4</td>
</tr>
<tr>
<td>3</td>
<td>ITEE-539 Digital Computer Design II</td>
<td>FALL 4</td>
</tr>
<tr>
<td>3</td>
<td>ICSS-440 Operating Systems</td>
<td>FALL 4</td>
</tr>
<tr>
<td>4</td>
<td>ITEE-429 Advanced Electronics</td>
<td>FALL 4</td>
</tr>
<tr>
<td>4</td>
<td>ITEE-405 Power Controls</td>
<td>FALL 4</td>
</tr>
<tr>
<td>4</td>
<td>ICSS-420 Data Communications</td>
<td>FALL 4</td>
</tr>
<tr>
<td>4</td>
<td>Liberal Arts (Core) (Concentration)</td>
<td>FALL 4</td>
</tr>
<tr>
<td>4</td>
<td>ITEE-527 Semiconductor Devices</td>
<td>FALL 4</td>
</tr>
<tr>
<td>4</td>
<td>ICSS-500 Computer Architecture I</td>
<td>FALL 4</td>
</tr>
<tr>
<td>4</td>
<td>ITEE-472 Instrumentation</td>
<td>FALL 4</td>
</tr>
<tr>
<td>4</td>
<td>ITEE-471 Topics in Computer Technology</td>
<td>FALL 4</td>
</tr>
<tr>
<td>4</td>
<td>Liberal Arts (Concentration)</td>
<td>FALL 4</td>
</tr>
<tr>
<td>4</td>
<td>Liberal Arts (Senior Seminar)</td>
<td>FALL 4</td>
</tr>
<tr>
<td>4</td>
<td>Professional Electives</td>
<td>FALL 4</td>
</tr>
</tbody>
</table>
percent is in a professional elective area chosen outside computer science from such areas as business, mathematics, and engineering technology. This additional course work permits students to tailor their overall programs to a computer application or technical area of their own choosing.

The liberal arts portion of the program consists of basic course work in language and literature, the humanities, and the social sciences. Students in this program are also required to take an applied calculus sequence and a course in statistics. These mathematics courses provide the necessary background for dealing with many applications of computer science and technology. Students who desire a more intensive background in mathematics can take the calculus, probability, and statistics sequence required in the BS program, applying the extra credits towards the professional elective requirements.

Students transferring to RIT with an associates degree in data processing and related areas will find the bachelor of technology program particularly attractive. Except in unusual cases, these students can expect to receive both full transfer credit for their AAS course work and a balanced mapping of these courses into the required curriculum. Since most students transfer into the program with junior standing, they are normally eligible for co-operative education after one quarter of course work at RIT.

Most graduates of the information systems program go on to full-time employment in their chosen 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 applications programming, system specification and design, data communications, and database design and implementation.

<table>
<thead>
<tr>
<th>Yr.</th>
<th>Computer Systems option, B. Tech. degree</th>
<th>Qtr.</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ICSS-202 Introduction to Computer Science</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ICSS-241 Programming I-Algorithmic Structures</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ICSS-242 Programming II-Data Structures</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ICSS-243 Programming III-Design and Implementation</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SMAM-214, 215 Introductory Calculus</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SMAM-309 Statistics</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>GLCC-220 English Composition</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Liberal Arts</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Physical Education Electives</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>ICSS-305 Assembly Language Programming</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>ICSS-315 Digital Computer Organization</td>
<td>11</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>ICSS-325 Data Organization and Management</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>ICSS-570 Introduction to Computer Graphics</td>
<td>13</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Group A: Systems Software—Software Emphasis</td>
<td>14</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>ICSS-565 Computer Systems Selection</td>
<td>15</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>ICSS-520 Computer Architecture I</td>
<td>16</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>ICSS-521 Introduction to Microprocessor Systems</td>
<td>17</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>ICSS-440 Technical Writing for Computer Scientists</td>
<td>18</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>ICSS-450 Systems Specification; Design and Implementation</td>
<td>19</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>ICSS-485 Database Concepts</td>
<td>20</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>ICSS-486 Programming Workshops</td>
<td>21</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Restricted Computer Science Electives</td>
<td>22</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Professional Electives</td>
<td>23</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Liberal Arts</td>
<td>24</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Physical Education Electives</td>
<td>25</td>
<td>4</td>
</tr>
</tbody>
</table>

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

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

[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 Computer Systems option: Students must take one course from Group A and one course from Group B.

Group A: Systems Software—Software Emphasis
- ICSS-450 Programming Language Concepts
- ICSS-440 Operating Systems
- ICSS-450 Fundamentals of Discrete Simulation
- ICSS-420 Data Communication Systems
- ICSS-570 Introduction to Computer Graphics

Group B: Systems Software—Hardware Emphasis
- ICSS-565 Computer Systems Selection
- ICSS-520 Computer Architecture I
- ICSS-521 Introduction to Microprocessor Systems

[3] Mathematically inclined students may satisfy the mathematics requirement by substituting SMAM-351, 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 other programmers. These tools include operating systems, language translators and interpreters, text editors, and database systems.

Students in this option must learn to understand, design, and implement 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 background 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.

<table>
<thead>
<tr>
<th>Yr.</th>
<th>Systems Software Science option, B. Tech. degree</th>
<th>Ot. Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ICSS-202 Introduction to Computer Science</td>
<td>4</td>
</tr>
<tr>
<td>1</td>
<td>ICSP-241 Programming I-Algorithmic Structures</td>
<td>4</td>
</tr>
<tr>
<td>1</td>
<td>ICSP-242 Programming II-Data Structures</td>
<td>4</td>
</tr>
<tr>
<td>1</td>
<td>ICSP-243 Programming Ill-Design and Implementation</td>
<td>4</td>
</tr>
<tr>
<td>1</td>
<td>SMAM-309 Statistics [3]</td>
<td>4</td>
</tr>
<tr>
<td>1</td>
<td>GLLC-220 English Composition</td>
<td>8</td>
</tr>
<tr>
<td>1</td>
<td>Liberal Arts</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>Physical Education Electives</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>ICSP-305 Assembly Language Programming</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>ICSS-315 Digital Computer Organization</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>ICSP-306 Systems Programming Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>ICSS-325 Data Organization and Management</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>Computer Science Electives [1]</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>Professional Electives</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>Liberal Arts</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>Physical Education Electives</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>ICIC-444 Technical Writing for Computer Scientists</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>ICSS-450 Programming Language Concepts</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>ICSS-420 Data Communication Systems</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>ICSS-440 Operating Systems</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>ICSS-580 Language Processors</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>Restricted Computer Science Electives [2]</td>
<td>12</td>
</tr>
<tr>
<td>5</td>
<td>Computer Science Electives [1]</td>
<td>28</td>
</tr>
<tr>
<td>5</td>
<td>Professional Electives</td>
<td>24</td>
</tr>
<tr>
<td>5</td>
<td>Liberal Arts</td>
<td>14</td>
</tr>
</tbody>
</table>

[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-555 Systems Programming Laboratory
- Group B: Advanced Digital Computer Principles
  - ICSS-520 Computer Architecture I
  - ICSS-521 Introduction to Microprocessor Systems
- Group C: Application Areas
  - ICSS-485 Database Concepts
  - ICSS-515 Analysis of Algorithms
  - ICSS-530 Fundamentals of Discrete Simulation
  - ICSS-570 Introduction to 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.
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 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.

Upper-division programs
The School of Engineering Technology offers the following upper-division (junior-senior) programs leading to the bachelor of technology (B. Tech) degree:

1. Civil Engineering Technology with options in construction and environmental controls
2. Electrical Engineering Technology
3. Mechanical Engineering Technology
4. Manufacturing Engineering Technology
5. Energy Technology

The School of Engineering Technology upper-division programs are designed specifically to accept graduates of associate 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. 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.

Five-year program
The School of Engineering Technology offers a five-year cooperative education program leading to the bachelor of technology degree in computer technology.

Students have the option of exiting the program after two years with an AAS degree. Transfer into the upper division of the program is available to graduates of associate degree programs in related engineering technology fields.

Careers
The B. Tech 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.

The AAS graduate—an engineering technician—works closely with engineers and technologists and is prepared for positions requiring skills in fabricating and producing equipment as well as maintaining and operating apparatus and systems.

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 plan 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 helps 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 of the upper-division 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
Admission to the upper-division programs in the School of Engineering Technology is open to persons holding an associate degree in appropriate engineering technology fields, 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.

Admission to the five-year computer technology program is open to high school graduates who have completed elementary and intermediate algebra, plane geometry, trigonometry, and physics or chemistry. Emphasis is placed on math and science skills. Transfer admission is open to graduates of appropriate two-year college programs.

Program requirements
In addition to the required technical courses of each program, a minimum of 38 quarter credit hours of liberal arts and 35 quarter credit hours of mathematics/sciences is required for the B. Tech degree. For transfer students, the quantity of credits to be completed at RIT is the specified minimums minus the amount of credits of liberal arts and mathematics/sciences transferred from the two-year college.

Graduation requirements
The minimum academic requirements in the School of Engineering Technology 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.

B. Tech degree—The bachelor of technology 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 cooperative education blocks for the program.
Accreditation
The programs of study leading to the bachelor of technology degree in civil engineering technology, environmental and construction options, 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
Kevin M. Foley, 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, work drawings, specifications, and construction.

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.

Admission requirements
All students enter this program at the third-year level or higher having already received an appropriate associate's degree in Civil Engineering technology or an acceptable equivalent. An appropriate associate's degree should include:

- Technical Math (2 college-level courses with introduction to calculus)
- Drafting
- Technical Physics
- Soil Mechanics
- Surveying (2 semesters including Route Surveying)
- Statics and Strength of Materials
- Structural Design

Students lacking these courses may be required to take the missing courses prior to entry into the program or concurrently within a reasonable time.

Cooperative education plan
Work experience gained while completing alternate work and study quarters is especially valuable. A typical co-op job at a consulting firm might include assisting engineers in design drafting, feasibility or preliminary report writing or inspecting, surveying, or investigating in the field. Other co-op students work in water treatment plants, checking control panels; operating valves, pumps, and other equipment; performing laboratory tests; or doing maintenance work.

The scope of work accomplished varies with the interests of each student and increases in complexity with each succeeding job.

Graduates
Past graduates with their B. Tech. in civil engineering technology are employed by consulting engineers, construction companies, industries, and by federal, state, and local governmental agencies. They are scattered from coast to coast and from New York to Texas. Their titles range from project or design engineer to plant operator, inspector, field party chief, and environmental officer. Also several graduates have successfully completed master’s degrees at other universities and have also registered as professional engineers in several states.

Some students work their co-op quarters with the same employer while others choose various work experiences. All are expected to use their education on the job and to bring back innovative, new and unusually successful technologies and ideas to share with classmates.

<table>
<thead>
<tr>
<th>Yr.</th>
<th>Civil Engineering Technology, B. Tech degree-Environmental option</th>
<th>Otr. Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Completion of an appropriate Associate's degree at a two-year college</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td><img src="" alt="Courses list" /></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td><img src="" alt="Courses list" /></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td><img src="" alt="Courses list" /></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td><img src="" alt="Courses list" /></td>
<td></td>
</tr>
</tbody>
</table>

*Students who successfully complete a proficiency exam in hydraulics will take an elective in lieu of ITEC-420
††Entering students will take SMA 7-420 or SMA 7-421 depending on an evaluation of their mathematics background. Those students assigned to SMA 7-420 will be taking a 3-course sequence in mathematics and will, therefore, defer taking ITEE-414 until the first quarter of the fifth year (in lieu of a technical elective)
**Offered in Spring Quarter only
*See Pg. 23 for Policy on Physical Education.
*See Pg. 97 for Liberal Arts requirements.
# Students who successfully complete a proficiency examination in hydraulics will take an elective in lieu of ITEC-420
‡‡Entering students will take SMAT-420 or SMAT-421 depending on an evaluation of their mathematics background. Those students assigned to SMAT-420 will be taking a 3-course sequence in mathematics, and will, therefore, defer taking ITEE-414 until the first quarter of the fifth year in lieu of a technical elective.
**Offered in Spring Quarter only
†See Pg. 23 for Policy on Physical Education
‡See Pg. 97 for Liberal Arts requirements.

## 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
CTEM-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.

Students are encouraged to utilize the first-class computer facilities and to work with professors on additional applications of computer graphics. The RIT College of Continuing Education offers evening courses, and all of the day college courses are open if schedules can be arranged and the students have the capacity to handle additional credits.

### Civil Engineering Technology cooperative education plan

<table>
<thead>
<tr>
<th>Year</th>
<th>Block</th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>A</td>
<td>RIT</td>
<td>Work</td>
<td>RIT</td>
<td>Work</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>Work</td>
<td>RIT</td>
<td>Work</td>
<td>RIT</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>Work</td>
<td>RIT</td>
<td>Work</td>
<td>RIT</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>RIT</td>
<td>Work</td>
<td>RIT</td>
<td>Work</td>
</tr>
<tr>
<td>5</td>
<td>A</td>
<td>RIT</td>
<td>Work</td>
<td>RIT</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>Work</td>
<td>RIT</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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 profession 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.

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 a particular area, a sequence of courses is shown which provides a strong program in this area.

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's 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-524 Microwave Systems
ITEE-528 Introduction to Minicomputers
ITEE-534 Communication Systems I
ITEE-535 Communication Systems II
ITEE-536 Control Systems II
ITEE-538 Digital Computer Design I
ITEE-539 Digital Computer Design II
ITEE-543 Minicomputers, Controllers and Peripherals
ITEE-546 Industrial Electronics
ITEE-547 Digital Processing of Signals
ITEE-550 Power Systems I
ITEE-551 Protective Relaying
ITEE-552 Power Systems II
ITEE-554 Electronic Optic Devices
ITEE-555 Transmission Lines and Antennas
ITEE-560 Microelectronics I
ITEE-561 Microelectronics II
ITEE-562 Construction and Failure Analysis
ITEE-580 Senior Project
ITEF-424 Statistical Quality Control I
ITEM-550 Topics in Machine Design for Electrical Majors

**Computer technology program**
The demand for graduates who are able to use both knowledge of computer programming and computer electronic hardware is very great. This is true for both technicians with an AAS degree and for technologists with the bachelor of technology degree.

Based on a foundation in physics and applied mathematics, the computer technology program is designed to develop the hardware and software skills necessary for design and development of systems involving computers. The upper division of the program also includes a required co-op work/study component, giving the student valid work experience before graduation.

Students completing a slightly modified first two years of the program will be eligible to receive the AAS degree and enter the employment field as a computer technician.

Electives are available in the upper division and may be taken from computer science or electrical engineering technology courses. Other courses are available on approval by an advisor.

**Admission requirements**
Freshmen are admitted by normal RIT procedures with an emphasis given to mathematics and science skills.

Transfer admission is open to graduates of closely allied associate degree programs. Transfer students from these closely allied programs may normally expect to complete the requirements for the B. Tech degree in three years which includes seven academic quarters and four quarters of cooperative employment experience. Recognizing that no single program of study can effectively integrate all AAS transfer students into the curriculum, each qualified transfer student will be evaluated on a course-by-course evaluation and will be given a specific program of study that best meets his or her career goals, provides a meaningful cooperative work experience, and permits the student to fulfill the degree requirements in a reasonable period of time.

**Cooperative education plan**
Students in the five-year program attend classes during the Fall, Winter, and Spring quarters of their first and second years and begin their cooperative education plan during the third year. Students transferring with an associate degree in a similar program begin their cooperative education plan during their first year of the program. The charts illustrate the cooperative education plan for the five-year program and shows a typical plan for those transferring with an AAS degree.

**Technical electives**
A wide variety of technical electives can be taken from existing courses in Computer Science and Electrical Engineering Technology. Examples of these are:

A. ICSP 350 Professional Language Concepts
    ICSS 580 Language Processors
B. ICSP 306 Advanced Assembly Language
    ICSS 540 Operating Systems Lab.
C. ICSS 541 Introduction to Computer Networks
    ICSS 545 Computer Architecture II
D. ITEE 528 Introduction to Minicomputers
    ITEE 543 Minicomputers, Controllers and Peripherals
E. ITEE 520 Electrostatic and Magnetic Fields
    ITEE 534 Communications Systems I
    ITEE 535 Communications Systems II
F. ITEE 560 Microelectronics I
    ITEE 561 Microelectronics II
    ITEE 562 Construction and Failure Analysis
G. ITEE 550 Power Systems I
    ITEE 551 Protective Relaying
    ITEE 552 Power Systems II

**Other special electives might be:**
ITEE 524 Microwave Systems
ITEE 547 Digital Processing of Signals
ITEE 554 Electronic Optic Devices
ITEE 555 Transmission Lines and Antennas
ITEE 570 Introduction to Computer Graphics

**Elective sequences**

**Digital Computer Design**
ITEE 538 Digital Computer Design I
ITEE 539 Digital Computer Design II
ITEE 543 Minicomputers, Controllers and Peripherals

**Electronic Communications**
ITEE 524 Microwave Systems
ITEE 534 Communications Systems I
ITEE 535 Communications Systems II
ITEE 547 Digital Processing of Signals
ITEE 555 Transmission Lines and Antennas

**Electric Power Systems**
ITEE 550 Power Systems I
ITEE 551 Protective Relaying
ITEE 552 Power Systems II

**Microelectronics**
ITEE 560 Microelectronics I
ITEE 561 Microelectronics II
ITEE 562 Construction and Failure Analysis
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 the design problem and to derive 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, test engineering, 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. 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.

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

---

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

Yr. Mechanical Engineering Technology, B. Tech degree Otr. Credit Hours

1,2
Completion of appropriate Associate’s degree or equivalent

- **SMAT-420 Calculus for Technologists I** (4)
- **SMAT-421 Calculus for Technologists II** (3)
- ICSP-205 Computer Techniques
- ITEM-404 Applied Mechanics of Materials
- ITEM-407 Mechanical Engineering Technology Lab I
- ITEM-414 Materials Technology I

3
- Physical Education
- **SMAT-422 Solution of Engineering Problems I** (4)
- **SMAT-423 Solution of Engineering Problems II** (3)
- ITEM-405 Applied Dynamics
- ITEM-409 Mechanical Engineering Technology Lab II
- ITEM-415 Materials Technology II
- Machine Design
- Liberal Arts
- Physical Education

4
- **SMAT-422 Solution of Engineering Problems I**ITEM-404 Applied Thermodynamics
- ITEE-411 Electrical Principles for Design I
- Technical Elective
- Liberal Arts
- Physical Education
- ITEM-460 Applied Fluid Mechanics
- ITEM-506 Machine Design
- ITEE-412 Electrical Principles for Design II
- Liberal Arts

5
- ITEM-465 Thermofluid Laboratory
- ITEM-521 Logic Control Systems
- Technical Elective
- Liberal Arts
- Technical Elective
- Free Elective
- Liberal Arts
- Liberal Arts (Seminar)

---

***Entering students will take SMAT-420 or -421 depending on an evaluation of their mathematics background. Those assigned to SMAT-420 will not be required to take a fourth-year technical elective.

‡ See Pg. 23 for Policy on Physical Education.

* See Pg. 97 for Liberal Arts requirements.
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 with the 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.

Technical electives-energy technology
ITEC-544 Contracts and Specifications
ITEC-550 Construction Practices
ITEE-425 Power Concepts
ITEE-550 Power Systems I
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-545 Solar Thermal Applications
ITEM-547 Special Topics
ITEM-530 Instrumentation
ITEM-560 Pipe Design
ITEM-565 Duct Design
ITEM-570 HVAC Load Analysis
ITEM-575 Computer-Aided HVAC Design
ITEM-580 Power Plant Design

Energy Technology co-operative education plan

<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>RIT</td>
<td>RIT</td>
<td>Work</td>
<td>Work</td>
</tr>
<tr>
<td>4</td>
<td>RIT</td>
<td>Work</td>
<td>RIT</td>
<td>Work</td>
</tr>
<tr>
<td>5</td>
<td>Work</td>
<td>RIT</td>
<td>RIT</td>
<td></td>
</tr>
</tbody>
</table>

***Entering students will take SMAT-420 or 421 depending on an evaluation of their mathematics background. Those assigned to SMAT-420 will not be required to take a fourth-year technical elective.
‡See Pg. 23 for Policy on Physical Education.
*See Pg. 97 for Liberal Arts 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 principle 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 new manufacturing technologies: numerical control, machine tools, micro-processor controls, robotics, computer-aided manufacturing, and manufacturing systems.

Objectives of the program

The primary objective of the manufacturing engineering technology program is 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: numerical control, machine tools, micro-processor controls, robotics, computer-aided manufacturing, and manufacturing systems.

Curriculum

The manufacturing engineering 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 industry. The program includes courses in Advanced Manufacturing Processes, Computer Numerical Control, Computer-Aided Manufacturing, Manufacturing Laboratory and Management Studies. Students are encouraged to select technical electives to enhance their particular areas of interest.

Admission requirements

The most appropriate qualification for students entering the third-year level of the program is the associate degree in mechanical or manufacturing technology. It is expected that these programs will have provided coverage in the following topics:

- Mathematics through pre-calculus
- Physics
- Strength of Materials
- Materials Technology
- Numerical Control
- Metrology

Students from other backgrounds will be considered, but they may be required to take additional courses as prerequisites to the main program of study.

Technical electives-manufacturing engineering technology

ITEF-460 Computer-Aided Design
ITEF-485 Robots in Manufacturing
ITEF-473 Compact II
ITEF-491 Production Control
ITEF-511 Process Design II
ITEF-425 Statistical Quality Control II

**Entering students will take SMAT-420 or 421 depending on an evaluation of their mathematics background. Those assigned to SMAT-420 will not be required to take a fourth-year technical elective.‡See Pg. 23 for Policy on Physical Education. *See Pg. 97 for Liberal Arts requirements.
ITEF-526 Quality Systems
ITEF-481 Work Simplification and Measurement
ITEF-599 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.

School of Food, Hotel and Tourism Management

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 requires 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 freshman and senior years. The work-study program can provide financial assistance, stimulate 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 management

The food service industry employs more people than any other in the nation. The program is designed to prepare persons for management training positions in restaurants and food service operations of differing types of institutions such as hotels, motor lodges, resorts, clubs, airlines, colleges and schools, business firms and governmental agencies.

Hotel and resort management

The Hotel and Resort Management option is a professionally oriented curriculum for students seeking careers involving the development, management, and operation of hotel 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.

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 of those years.
**Travel management**

The dynamic growth of modern travel has created many technical problems for the traveling public and with them the need to consult highly qualified experts, to plan, arrange and coordinate travel. Today, more than ever before, travelers are faced with a myriad of alternatives for transportation, accommodations and other travel services, and are increasingly beginning to rely upon the travel professional to help guide them wisely and honestly. Travel agencies and travel counselors have an important impact on tourist economics and on firms (food service, lodging, transportation) which supply services to tourists.

The Travel Management program combines a study of specialized courses in travel management with a sound general education. In addition to the specialty courses, students are provided a broad-based curricular approach with courses in accounting, management principles, marketing, business law, foreign languages, and the computer sciences. The program is structured so as to provide the students with a balance of "hands on" experience and business theory. This is necessary to further their understanding as to the "whys" the travel industry operates as it does in its business environment. Thus, this career education orientation provides both the four year student and the transfer student with a balance of theoretical classroom based instruction with the experiential opportunities that are furnished by cooperative education.

Students are prepared for management careers in Tour Promotion; Corporate Travel Planning; Federal and State Tourist Boards; Convention Bureaus; Airline/Steamship/Motor Coach Companies; retail and wholesale Travel Bureaus; Hotel/Resorts and a variety of leisure business industries.

**Opportunities**

Our nation is now a service economy which means that the majority of employment will be service oriented. The food service areas 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 the 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 management and hotel and resort 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 BS degree in two years which includes six academic quarters and two quarters of approved 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.

### Table: Hotel and Resort Management

<table>
<thead>
<tr>
<th>Year</th>
<th>Course Title</th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ISMF-210 Introduction to Food, Hotel &amp; Tourism Management</td>
<td>4</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ISMF-220 Career Seminar</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ISMF-215 Principles of Food Production</td>
<td>4</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>GLCC-220 English Composition</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SMAM-225 Algebra for Mgmt. Sciences</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>GSSE-210 Intro. to Economics</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>GLLC-330 Literature</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SMAM-226 Calculus for Mgmt. Sciences</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ISMF-314 Fundamentals of Food Sanitation</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>BBUO-301 Financial Accounting</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ISMD-213 Nutrition Science</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SBIG-302 Microbiology OR</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SCHG-289 Cont. Science—Chemistry</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>*Liberal Arts</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>‡Physical Education</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>ISMF-499 Cooperative Education</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Course Title</th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>BBUB-201 Management Concepts</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>BBUO-351 Statistics I</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ICS-200 Survey of Computer Science</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Liberal Arts</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ISMF-400 Resort &amp; Recreation Enterprises</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ISMF-401, 402, 403, 404, 406 Resort &amp; Rec. Ent. Lab</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>BBUA 302 Managerial Accounting</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>BBUO-352 Statistics II</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Liberal Arts</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ISMF-331 Food Systems Management</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ISMF/ISM/IMT Elective</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>*Liberal Arts</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>‡Physical Education</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>ISMF-499 Cooperative Education</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Course Title</th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>BBUM-463 Principles of Marketing</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ISMF-426 Personnel &amp; Training</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ISMH-423 Hotel Operations</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ISMT-220 Travel Intermediaries</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ISMF-420 Hotel &amp; Travel Law</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ISMF-340 Beverage Operations</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ISMF-341 Beverage Operations Lab</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ISMF-434 Food/Labor/Cost Control</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Liberal Arts</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ISMF/ISM/IMT Elective</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>*Liberal Arts</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>‡Physical Education</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>ISMF-499 Cooperative Education</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Course Title</th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>BBUA-431 Cost Accounting OR</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>BBUF-441 Corporate Finance</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ISMF-554 Senior Career Seminar</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ISMH-412 Maint. Hotel/Resort</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ISMF/ISM/IMT Elective</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Liberal Arts</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ISMF-499 Cooperative Education</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ISMF-511 Banquet &amp; Catering</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ISMF-450 Hotel Marketing/Convention Sales</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ISMF/ISM/IMT Elective</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ISMF-499 Cooperative Education</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>*Liberal Arts</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>‡Physical Education</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

‡See Pg. 23 for Policy on Physical Education. *See Pg. 97 for Liberal Arts Requirements.
In every instance, it is the policy of the college to recognize as fully as possible the past academic accomplishments of each student.

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, 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.

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 program, 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
- General and Organic Chemistry
- Biochemistry 1
- Physiology
- Management Courses:
  - Mathematics, Accounting and Statistics
  - Economics
- TOTAL of 24 credit hours of Liberal Arts (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 professional 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.

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

David L. Olsson, 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 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.

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 two options: management 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.

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, and 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.

‡See Pg. 23 lor Policy on Physical Education.
*See Pg. 97 lor Liberal Arts requirements.
The College of Business offers programs in accounting, management and retailing through the School of Business Administration and the School of Retailing. Majors are offered in accounting, finance, management, personnel and human resources, marketing, retail management and photographic marketing management. Within these majors, several options for further specialization are possible.

The environment which graduates of the College of Business will enter is both competitive and rapidly changing. A well-educated and prepared manager must have a broad foundation of knowledge not only in business but also in the social sciences and humanities in order to understand and act intelligently in this business environment. In addition, specialization is necessary if one hopes to make immediate contributions to an organization following graduation.

Plan of education

To achieve the educational aims described above, the College of Business has prepared a program which has four components: the liberal arts, the business core, the major and the cooperative work experience.

The liberal arts component of the business student's program is found in 13 courses (nearly one third of the total program) in the humanities, social sciences and sciences. Within this component the student is expected to display writing proficiency and choose a humanities or social science concentration. The capstone course of the liberal arts program is a senior seminar in which a subject in the concentration is explored in depth.

The business core component, described later in the bulletin, is comprised of a variety of courses in economics, business, mathematics, statistics and computer science. These courses, required of every student regardless of major, provide the fundamental knowledge and analytical skills necessary for successful performance in the pursuit of advanced study in a major. They also provide the background and perspective for consideration of career alternatives.

The third component, the major, provides an opportunity for the student to concentrate study in a specific career field in business. Majors are offered by the departments and the School of Retailing as follows:

- Accounting Major
  - Public Accounting Option
  - General Accounting Option

- Finance Major
  - Financial Management Option
  - Security Analysis Option

- Business Management Major
  - General Business Option
  - Small Business Option

- Personnel and Human Resource Management Major

- Marketing Major

- Retail Management Major
  - Retail Merchandising Management Option
  - Retail Interior Design Management Option
  - Retail Operations Management Option

- Photographic Marketing Management Major

By building on the liberal arts and science and the business core components, the major will provide mastery of marketable skills which are conceptually grounded in the knowledge of larger organizational and societal issues and perspectives.

The final component, cooperative work experience, gives the student a chance to apply and question what has been learned in the classroom. These "hands-on," paid work opportunities are planned for the student's last two years so that he or she will have sufficient educational background to contribute to the cooperative organization and so that advanced coursework taken between cooperative work terms will become more meaningful. A major impact of the cooperative experience is that it makes the student a more attractive candidate for employment following graduation.

The rigorous, challenging program described above is designed to provide unique level of competence as well as to lay the foundation for continuous intellectual and career growth.

The Cooperative Plan

Cooperative employment is an integral part of the program in the College of Business. Students obtain practical work experience in either an area related to their chosen field of interest or an area they may wish to investigate further. This work experience is part of the student's career exploration and provides not only practical experience which can be related to coursework, but also an opportunity to observe and perform work directly related to the student's major. This experience should help the student develop a greater insight into his or her chosen field and provide a record of practical experience which may increase the student's opportunities for placement and more rapid career advancement upon graduation.

Cooperative education

All College of Business students are expected to complete two successful cooperative work experiences. These "work blocks" take place following the completion of the sophomore year. One or more of the cooperative education experiences may be waived at the discretion of the director of cooperative education based upon prior work experience in the student's field of study. While RIT and the College of Business cannot guarantee anyone cooperative employment, RIT's Center for Cooperative Education and Career Services is available to assist students in their job search efforts.

Transfer programs

The College of Business has, for years, integrated transfer students into its baccalaureate degree programs. Typically, students who have earned an associate degree in business 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 required quarters of cooperative employment experience.

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 required quarters of approved cooperative education assignments.

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 2.00 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 cooperative education blocks for the program.

Resources
The College of Business is housed in the Max Lowenthal Memorial Building. In addition to modern classrooms, facilities include time-sharing computer terminals on line with RIT's new computer system, extensive software support and up-to-date collection of business texts, periodicals, and reference services in the Wallace Memorial Library.

Professional affiliation
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.

Memberships in professional organizations contribute to the quality of the programs in the College of Business. The College of Business maintains membership in the American Assembly of Collegiate Schools of Business and the Middle Atlantic Association of Colleges of Business Administration. The School of Retailing is a member of the American Collegiate Retailing Association, which promotes the profession of retail management and maintains high standards of education for the retail profession.

Graduate programs
The College of Business offers master's degree programs in business administration, human services management, and accounting on a part-time and full-time basis.

The programs are professional in nature and prepare the student in 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.

Admission at a Glance:
College of Business Programs

General Information on RIT's admission requirements, procedures and services is included in detail on pages 13-14 of this Bulletin.

The College of Business offers programs of study through its School of Business Administration and School of Retailing. The programs are referred to as majors and often have options within. This allows a student to focus on a specific area of interest. A more detailed description of each major is provided in subsequent pages.

Accounting—Students majoring in accounting may choose the public accounting option or the general accounting option. Graduates of the public accounting option meet requirements for the C.P.A. examination. Students interested in the certification in management accounting (CMA) are encouraged to follow the general accounting option. The accounting major is designed to provide career opportunities in public accounting as well as in accounting departments in corporate organizations. Degrees Granted: AAS-two year, BS-four year.

Finance—Students majoring in finance may choose the financial management or security analysis option. The finance major will prepare students for entry level financial management positions in business organizations and entry level management positions in financial institutions. Degrees Granted: AAS-two years, BS-four year.

Management—Students majoring in management may choose the general business management or small business management option. Both areas have been developed to prepare students for positions in the field of management, consistent with their personal characteristics and career goals. Degrees granted: AAS-two year, BS-four year.

Personnel and Human Resource Management—This highly specialized program provides the opportunity for students to concentrate in the field of personnel, developing skills necessary for a professional career. Degrees granted: AAS-two year, BS-four year.

Marketing—The marketing major is designed to enable students to develop a high degree of personal and marketing management competence as a foundation for a successful career. There are a great variety of employment opportunities for students majoring in marketing and the program is correspondingly flexible. Degrees Granted: AAS-two years, BS-four year.

Retail Management—The retail management major is an industry oriented field of study. It is designed to focus the managerial skills acquired in the College of Business core curriculum on specific managerial issues and problems facing the contemporary retail industry. Students will have the option of specializing in retail merchandising management, interior design management and retail operations management. Students interested in a managerial career in fashion and its many allied industries should consider the Rochester Institute of Technology/Fashion Institute of Technology Joint Degree Program. Degree Granted: AAS-two year, BS-four year.

Photographic Marketing Management—This program is designed to provide students with a thorough knowledge of the photographic process and a solid background in business administration. A combination of work in these two disciplines prepares the student for a multi-faceted management-level career in the photographic business. Degrees Granted: AAS-two years BS-four year.
## The College of Business Core Curriculum

All students in the College of Business are required to take the business core courses described below (and later displayed in the sample four-year programs). These courses provide the analytical economic and quantitative skills specific functional competencies in accounting, finance, marketing and production management, and the behavioral, social and organizational knowledge necessary for successful management performance and advanced study.

### Business Core Courses

- Introduction to Business
- Career Seminar I & II
- College Algebra & Matrices
- Business Calculus
- Survey of Computer Science
- Economics I (Macro)
- Economics II (Micro)
- Financial Accounting
- Managerial Accounting
- Legal Environment
- Organizational Behavior
- Management Science
- Applied Statistics I
- Applied Statistics II
- Corporate Finance
- Principles of Marketing
- Principles of Management
- Operations Management
- Business Environment
- Integrated Business Analysis

---

### Freshman Admission Requirements

**Program** | **Required High School Subjects** | **Desirable Elective Subjects** | **Two-Year College Programs** | **Desirable Minimum GPA**
---|---|---|---|---
Accounting | Elem. Algebra; Inter. Algebra; 1 year any Science | Additional mathematics and science | An earned associate degree in accounting. | 2.40
Finance | Elem. Algebra; Inter. Algebra; 1 year any Science | Additional mathematics and science | An earned associate degree in accounting or business administration. | 2.40
Management | Elem. Algebra; Inter. Algebra; 1 year any Science | Additional mathematics and science | An earned associate degree in business administration or marketing. | 2.40
Marketing | Elem. Algebra; Inter. Algebra; 1 year any Science | Additional mathematics and science | An earned associate degree in business administration or marketing. | 2.40
Retail Management | Elem. Algebra; Inter. Algebra; 1 year any Science | Additional mathematics and science | An earned associate degree in business administration, marketing or retailing, retail merchandising. | 2.40
Photo Marketing Management | Elem. Algebra; Inter. Algebra; 1 year any Science | Additional mathematics and science | An earned associate degree in business administration or marketing. | 2.40

One 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.

---

### Transfer Admission with junior standing

### Business Administration—Typical Schedule

<table>
<thead>
<tr>
<th>Yr.</th>
<th>Qtr.</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FALL</td>
<td>WTR</td>
</tr>
<tr>
<td>1</td>
<td>0102-202 Introduction to Business</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>0511-301, 302 Prin. of Economics I &amp; II</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>1016-226 College Algebra with Matrices</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>1016-226 Business Calculus.</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Contemporary Science Electives</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>0102-210 Career Seminar I</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>0603-200 Survey of Computer Science</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>0106-351 Applied Statistics I</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>0102-202 Introduction to Business</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>0511-301, 302 Prin. of Economics I &amp; II</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>1016-226 College Algebra with Matrices</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>1016-226 Business Calculus.</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Contemporary Science Electives</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>0102-210 Career Seminar I</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>0603-200 Survey of Computer Science</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>0106-351 Applied Statistics I</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>0106-352 Applied Statistics II</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>0101-301, 302 Financial and Managerial Accounting</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>0102-315 Legal Environment of Business</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>0102-320 Organizational Behavior</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>0106-334 Management Science</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>0105-463 Principles of Marketing</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>0104-441 Corporate Finance</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>0102-310 Career Seminar II</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>0106-351 Applied Statistics I</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>0106-352 Applied Statistics II</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>0101-301, 302 Financial and Managerial Accounting</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>0102-315 Legal Environment of Business</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>0102-320 Organizational Behavior</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>0106-334 Management Science</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>0105-463 Principles of Marketing</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>0104-441 Corporate Finance</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>0102-310 Career Seminar II</td>
<td>4</td>
</tr>
</tbody>
</table>

Students in finance, marketing and personnel and human resource management will follow this typical course schedule.

*See Pg. 97 for Liberal Arts requirements.*
School of Business Administration

The four academic departments of the College of Business—accounting and finance, decision sciences, management, and marketing—offer majors designed to provide understanding of the concepts and behaviors essential to competence in specific career fields in business. The required courses in each major and elective courses permit the student to gain in-depth knowledge that will provide a solid foundation for career development.

Department of Accounting and Finance

E. James Meddaugh, Chairman

The accounting major provides fundamental theory and practice of accounting in the accounting core courses which are required for all accounting majors. Beyond this core, students must choose an option which best fits their career interests.

Students wishing to become certified public accountants must choose the public accounting option and complete each course prescribed in this program. This program is registered by the New York State Board for Public Accountancy, which means that the prescribed coursework satisfies the state's CPA examination entrance requirements. Candidates must have earned at least a C grade in each accounting course to be admitted to the CPA exam.

The general accounting option allows more flexibility in choice of courses. This flexibility has been designed to permit students to tailor their programs to meet diversity of industrial, commercial and municipal opportunities for accounting graduates. Of particular interest to both students and employers in the current environment is the opportunity here to take advanced courses in the computer and information sciences. Students should consult with their advisor before choosing electives in this option.

Students will select courses for their major electives from those offered through the various departments in the College of Business. Students who wish to sit for the CPA exam upon graduation must take the following as their professional electives: 0101-523, Tax Accounting II; 0101-540, Advanced Accounting; 0101-530, Auditing; 0101-550, Accounting Theory; and 0104-445, Advanced Corporate Finance.

*See Pg. 97 for Liberal Arts requirements.

Accounting Major Curriculum Chart

*These courses are required for New York State certification. If certification in another state is desired, the appropriate courses will be selected.
Finance major
The finance major will prepare students for financial management positions in financial, commercial, industrial, and governmental organizations. Students are taught the principles of financial decision making and given an understanding of the economic, legal, and financial environment in which they must operate.

All students majoring in finance are required to complete the Finance Major Core and choose one of two options: financial management or security analysis. Financial management graduates would pursue positions in commercial, industrial, or governmental organizations, while the security analysis graduate usually will find positions in asset and securities management with financial institutions such as banks, brokerage houses, insurance companies, and real estate firms.

Department of Management
Andrew J. DuBrin, Chairman

Business management major
This major is designed for students who wish to occupy general management positions in a business organization. Career may develop in areas as diverse as sales or production, and while most students will work in middle management, many will rise to the executive level.

The two options in this major are general business management and small business management. Although the two options are quite similar, small business management has required coursework in areas such as entrepreneurship, small business administration and intermediate microeconomics.

<table>
<thead>
<tr>
<th>Finance Major Curriculum Chart</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Core</td>
</tr>
<tr>
<td>Finance Core</td>
</tr>
<tr>
<td>Advanced Corporate Finance</td>
</tr>
<tr>
<td>Theory of Finance</td>
</tr>
<tr>
<td>Security Analysis</td>
</tr>
<tr>
<td>Financial Institutions and Markets</td>
</tr>
<tr>
<td>Intermediate Microeconomics</td>
</tr>
<tr>
<td>Intermediate Macroeconomics</td>
</tr>
<tr>
<td>Financial Management Option</td>
</tr>
<tr>
<td>Financial Problems</td>
</tr>
<tr>
<td>*3 electives</td>
</tr>
<tr>
<td>Security Analysis Option</td>
</tr>
<tr>
<td>Portfolio Management</td>
</tr>
<tr>
<td>*3 electives</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Business Management Major Curriculum Chart</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Core</td>
</tr>
<tr>
<td>Management Core</td>
</tr>
<tr>
<td>Personnel and Human Resource Management</td>
</tr>
<tr>
<td>Financial Institutions</td>
</tr>
<tr>
<td>Business Management Major Core</td>
</tr>
<tr>
<td>1 Finance Course (Note A)</td>
</tr>
<tr>
<td>1 Marketing Course (Note B)</td>
</tr>
<tr>
<td>General Management Option</td>
</tr>
<tr>
<td>1 Intermediate Economics Course (Micro or Macro)</td>
</tr>
<tr>
<td>2 Management Electives (Note C)</td>
</tr>
<tr>
<td>2 Business Electives</td>
</tr>
<tr>
<td>2 Approved Other Electives</td>
</tr>
<tr>
<td>Small Business Management Option</td>
</tr>
<tr>
<td>Microeconomics</td>
</tr>
<tr>
<td>Small Business Administration</td>
</tr>
<tr>
<td>Entrepreneurship</td>
</tr>
<tr>
<td>Purchasing</td>
</tr>
<tr>
<td>Organization Theory</td>
</tr>
<tr>
<td>Small Business Administration Seminar in Management</td>
</tr>
</tbody>
</table>

Note A: Approved Finance Courses:
- Inter. Microeconomics
- Inter. Macroeconomics
- Security Analysis
- Adv. Corporate Finance
- Theory of Finance
- Financial Institutions

Note B: Approved Marketing Courses:
- Consumer Behavior
- Consumer Services Analysis
- Advertising
- Sales Management
- International Marketing
- Seminar in Marketing

Note C: Approved General Management Courses:
- Employee and Labor Relations
- Purchasing
- Organization Theory
- Small Business Administration
- Seminar in Management
Personnel and human resource management major
This major is designed to provide students with the knowledge and skills necessary to pursue a career in personnel administration. Coursework in labor relations, compensation, human resource planning, etc., will provide the academic background necessary for one to be effective in this rapidly changing profession.

Marketing Major Curriculum Chart

Personnel and Human Resource Management Curriculum Chart

Department of Marketing

Eugene H. Fram, Chairman

Marketing major
The marketing major prepares students to develop qualifications for entry-level management positions and to acquire management knowledge of markets, marketing, and people necessary to advance professionally. Students accomplish this developmental objective through a combination of academic education and cooperative field education. This combination provides an understanding of marketing problems related to a number of areas; e.g., advertising, sales management, retailing, marketing research and product planning.

For the student interested in a business career whose objective is to explore, experience, and experiment, the marketing major is an ideal option. With a marketing background, the student will find a wide variety of employment opportunities centering on customer understanding, the chief focus of any business. To develop this focus, the marketing curriculum provides an understanding of business and various marketing operations, with an emphasis on motivating customers and business colleagues.

School of Retailing

John S. Zdanowicz, Director

The College of Business at RIT has long recognized the increasing demand by the retail industry for well-trained business graduates. In order to meet this demand, the College of Business, through its School of Retailing, offers students the opportunity to earn a bachelor of science degree in business administration with a major in retail management.

Retail management major
The retail management major is an industry-oriented field of study. It is designed to focus the managerial skills acquired in the College of Business core curriculum on specific managerial issues and problems facing the contemporary retail industry. The retail management major employs all the functional areas of business, such as accounting, finance, personnel, marketing and information systems management, but places them in a distinctive industry framework. Thus, the major—like the industry—is broad based, with the opportunity for students to design a unique curriculum to prepare for a managerial career in any functional area of the industry.

Retail management core
All students in the School of Retail Management are required to complete the retail management core, which consists of the following four courses:

Introduction to the Retail Industry
Retail Buying and Merchandise Control
Retail Store Operations and Management
Senior Seminar in Retail Management

These courses will carry students through a designed growth and learning process. The first course, a broad-scale introduction to the contemporary retail industry, will focus on the distinctive characteristics of the industry, its current structure, and the nature of careers within the industry. The second course will focus on merchandising, the most important function of any retail operation. Topics will include the acquisition of goods, presentation, planning and control. The third course will reflect the operations function within the firms in the retail industry. It will be the foundation course for those students interested in careers in the non-merchandising areas of the industry. The final course will focus on current issues and strategic perspectives that are of concern to top-level retail managers. In addition to the tour-course retail management core, students will be allowed to select six additional electives, which will prepare them in their area of specialization.

Retail Merchandising Management Option. The electives suggested in the retail merchandising management option will prepare students for careers in buying and merchandise control. This option emphasizes vendor and consumer analysis, merchandise selection, planning and control, the relationship between merchandise control and financial control, the application of the computer in the merchandising function. Students selecting this option will also have the opportunity of spending a week "in the market" in New York City in order to gain exposure to the activities of a buyer.
Interior Design Management Option.
The electives suggested in the interior design management option will prepare students for management careers in home furnishings departments in retail organizations as well as management positions in residential and commercial interior design organizations.

Retail Operations Management Options. Students selecting this option will have the opportunity of selecting electives from the course offerings of other departments in the College of Business. This option will allow students to develop their skills for management careers in the various operations functions of the retail industry, such as accounting, finance, marketing, and personnel management. Students who choose this option should consult with their academic advisor in order to select electives which are compatible with their career objectives. The following are suggested electives for various sub-specializations in the retail operations management option. Students may elect to enroll in courses from more than one specialization.

Retail Management Major Curriculum Chart
Rochester Institute of Technology-Fashion Institute of Technology
Joint Degree Program

Students enrolled in the School of Retailing will have the option of selecting sub-specializations related to the fashion industry by attending the Fashion Institute of Technology (FIT) during their junior year. Students selecting the FIT option will enroll for specific classes during the fall and spring semesters at FIT and will return to RIT for their senior year. Upon completion of all requirements for their bachelor of science degree from the College of Business and the School of Retailing, students will also be certified for their associate in applied science (AAS) degree from FIT in their area of specialization.

Co-op
Students who select this joint degree program will be required to complete one quarter of full-time, paid, cooperative work experience. Additional co-ops are available for students who wish to gain additional experience.

Fashion Institute of Technology
The Fashion Institute of Technology, located at 27th St. and Seventh Avenue in New York City, is a specialized college under the program of the State University Of New York. FIT is devoted exclusively to developing students for creative careers in the fashion and its many allied industries. FIT’s location and curriculum will provide students with an academic year of concentrated study of the many different segments of the fashion industry. Students who select the RIT-FIT joint degree program will have the option of selecting one of the following five areas of specialization and will be required to complete the courses for their selected specialization during their junior year at the FIT campus.

RIT-FIT Joint Degree Program Chart

*The areas of specialization listed represent the seven majors in which students may receive an AAS degree upon completion of the RIT BS degree program in retail management. Details on each of these areas may be obtained from the School of Retail Management.

‡See Pg. 23 for Policy on Physical Education.
*See Pg. 97 for Liberal Arts requirements.
Photographic marketing management major

The photographic marketing management major is a joint degree program offered by the School of Retailing and the School of Photographic Arts and Sciences. This program is designed to provide students with a thorough knowledge of the photographic process and a solid background in business administration and retail management. The combination of course work in these two disciplines prepares students for management careers in the photographic industry. Opportunities for positions includes those in customer service aspects of photofinishing and professional color laboratories, and management positions with the photographic manufacturers and photographic retailers.

Cooperative work experience is optional for students majoring in photographic marketing management.

Photographic Marketing Management Major Curriculum Chart

<table>
<thead>
<tr>
<th>Yr</th>
<th>Photographic Marketing Management</th>
<th>Qtr</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BBUB-202 Introduction to Business</td>
<td>FALL</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SMAM-226 College Algebra &amp; Matrices</td>
<td>FALL</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>GSSE-301 Principles of Economics I</td>
<td>FALL</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>BRER-201 Introduction to the Retail Industry</td>
<td>FALL</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SMAM-226 Business Calculus</td>
<td>FALL</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>GSSE-302 Principles of Economics II</td>
<td>FALL</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>ICSS-200 Survey of Computer Science</td>
<td>FALL</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>BBUA-301 Financial Accounting</td>
<td>FALL</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>BBUB-210 Career Seminar I</td>
<td>FALL</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>*Liberal Arts</td>
<td>FALL</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Physical Education Electives</td>
<td>FALL</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>PPHM-211, 212, 213 Principles of Photography I, II, III</td>
<td>FALL</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>BRER-301 Retail Merchandising and Control</td>
<td>FALL</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>BBUB-351 Applied Statistics I</td>
<td>FALL</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>BBUA-302 Managerial Accounting</td>
<td>FALL</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>BBUB-352 Applied Statistics II</td>
<td>FALL</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>BBUB-320 Organizational Behavior</td>
<td>FALL</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>BBUB-334 Management Science</td>
<td>FALL</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>BBUB-310 Career Seminar I</td>
<td>FALL</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>*Liberal Arts</td>
<td>FALL</td>
<td>0</td>
</tr>
</tbody>
</table>

|    | BBUB-507 Business Environment | WTR | 4            |
|    | PPHT-311 Color Photography: Design | WTR | 4            |
|    | BRER-501 Senior Seminar in Retail Management | WTR | 4            |
|    | PPHT-312 Color Printing: Theory | WTR | 4            |
|    | PPHM-320 Mechanics of Photographic Hardware I | WTR | 4            |
|    | BBUB-351 Integrated Business Analysis | WTR | 4            |
|    | PPHM-321 Mechanics of Photographic Hardware II | WTR | 4            |
|    | PPHM-310 Survey of Production Processing & Finishing | WTR | 4            |
|    | Photo/Retail/Business Electives | WTR | 4            |
|    | *Liberal Arts | WTR | 0            |
|    | Physical Education Electives | WTR | 0            |

|    | BBUB-507 Business Environment | SPG | 4            |
|    | PPHT-311 Color Photography: Design | SPG | 4            |
|    | BRER-501 Senior Seminar in Retail Management | SPG | 4            |
|    | PPHT-312 Color Printing: Theory | SPG | 4            |
|    | PPHM-320 Mechanics of Photographic Hardware I | SPG | 4            |
|    | BBUB-351 Integrated Business Analysis | SPG | 4            |
|    | PPHM-321 Mechanics of Photographic Hardware II | SPG | 4            |
|    | PPHM-310 Survey of Production Processing & Finishing | SPG | 4            |
|    | Photo/Retail/Business Electives | SPG | 4            |
|    | *Liberal Arts | SPG | 0            |
|    | Physical Education Electives | SPG | 0            |

Note: Second- and third-year students may co-op during summer vacation.
†See Pg. 23 for Policy on Physical Education.
*See Pg. 97 for Liberal Arts requirements.

Photographic Marketing Management Major Curriculum Chart
College of Continuing Education

Robert A. Clark, Dean
At Rochester Institute of Technology, the College of Continuing Education is your access to the future. With over 15 years experience in continuing education, we can help you meet your future goals of career and professional advancement and personal satisfaction. At the College of Continuing Education you have access to courses and programs designed to keep pace with rapid technological changes. You have access to faculty and staff who are experienced professionals in their fields and in working with adult students like you. You have access to academic advisors who will help you tailor a program to meet your needs. And, you have access to the services and facilities at Rochester Institute of Technology, long known as a forerunner in career education and development.

We know that time, now and in the future, is your biggest problem. We give you an alternative to full-time study through part-time study at night, on weekends, or during the day. Working closely with the other eight colleges of the Institute, we develop flexible educational opportunities for you. Class hours and course offerings are scheduled to meet specific needs of employers, employees and non-working people alike. As a result, many people attain educational goals not otherwise available.

Our Open Admission Policy allows you to take any course or to pursue any degree for which you have sufficient background. Academic advisors are available throughout the year to answer questions regarding your course or program choices.

If you choose to follow a specific program of study, you have numerous options in fields as diverse as management and photography, machine tool and general education. We also offer you diploma programs in 19 fields, as well as a certificate in management. If you are interested in earning your associate degree in applied science, we have 22 options from which to choose. An associate in arts degree is also available to you in general education.

In addition, you may earn your bachelor of science degree in 14 programs. Or, you may wish to enter one of our programs, designed primarily for transfer students with associate degrees, to earn your bachelor of technology degree in electrical or mechanical technology. If you're a graduate student, the master of science degree is offered in applied and mathematical statistics.

The college also offers workshops, seminars and short courses to meet specific needs of community groups, professional organizations, agencies, industries, government and business. 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 and field personnel.

We offer another alternative through the college Summer Session. Along with the opportunity for you to continue work in your chosen academic program, 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.

If you want to be ready to meet the future's challenges through career growth updating skills, or just by keeping abreast with technological and societal changes, then let RIT's College of Continuing Education be your access to the future.

School of Applied Industrial Studies

James D. Forman, Director
The School of Applied Industrial Studies (SAIS) in the College of Continuing Education was initiated in the late 1970s to help meet the needs of Rochester industry for skilled workers. With renovated classrooms, laboratory and office facilities and an extensive range of up-to-date equipment, SAIS was established at RIT's City Center in downtown Rochester.

Programs
SAIS offers one-year (12-month) programs leading to a diploma of the Institute in the following fields: 1) drafting technology; 2) electromechanical technology; 3) machine tool technology; and 4) packaging machinery mechanics.

All programs are designed especially to prepare persons for entry-level positions in a wide range of industrial organizations.

Job placement
SAIS retains a full-time staff to assist with all activities related to job placement. The school has contacts with hundreds of employers who commonly hire the graduates, and every effort is made to provide graduates with as many opportunities as are available.

A continuous effort is made to develop new and wide-ranging job opportunities for SAIS graduates in all of the program fields.

Admissions requirements
The School of Applied Industrial Studies offers admission to high school graduates (or equivalent) who have an interest in and an aptitude for the specific technical field. Applicants are accepted on a continuous basis through the year for admission to any one of the three entry dates: fall (September), winter (December), and spring (March).

Those who wish to enroll in specific courses or who wish to pursue the program on a part-time basis must meet the general program requirements and (if appropriate) any course prerequisites.

Admission information and applications should be obtained directly from the School of Applied Industrial Studies, 33 N. Fitzhugh St., Rochester, N.Y., 14614 (telephone [716] 262-2736).
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 five-five-year cooperative programs leading to the bachelor of science degree with majors in electrical, computer, industrial, mechanical and microelectronic 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 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 new program in microelectronic engineering utilizes its own growing laboratory facility as well as existing laboratories in electrical engineering and photo science.

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>
<th>Summer</th>
</tr>
</thead>
<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.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>RIT</td>
<td>Work</td>
<td>RIT</td>
<td>Work</td>
</tr>
<tr>
<td>B</td>
<td>Work</td>
<td>RIT</td>
<td>Work</td>
<td>RIT</td>
</tr>
<tr>
<td>5th yr.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>RIT</td>
<td>Work</td>
<td>RIT</td>
<td></td>
</tr>
<tr>
<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 five 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 or 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 programs in computer engineering and microelectronic engineering are "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.

The College of Engineering offers jointly with the College of Science a program leading to the master of science degree in Materials Science and Engineering.

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

Five-five year cooperative programs leading to the BS degree are offered. The four majors are: electrical, computer, industrial, mechanical and microelectrical 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.

Microelectronic Engineering—Offered in conjunction with the College of Graphic Arts and Photography and the College of Science, the new five-year program will emphasize the photolithographic aspects of microelectronic processing. It will provide the broad interdisciplinary background in optics, chemistry, device physics, computers, electrical engineering, and statistics necessary for entry into the microelectronic industry.

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.

<table>
<thead>
<tr>
<th>Program</th>
<th>Required High School Subjects*</th>
<th>Desirable Elective Subjects</th>
<th>Two-Year College Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Electrical</strong></td>
<td>Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; Physics and Chemistry</td>
<td>additional mathematics</td>
<td>Engineering Science (liberal arts with math/science option considered on individual basis) or Electrical Technology (A.A.S. Degree)</td>
</tr>
<tr>
<td><strong>Computer</strong></td>
<td>Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; Physics and Chemistry</td>
<td>additional mathematics</td>
<td>Engineering Science (liberal arts with math/science option considered on individual basis).</td>
</tr>
<tr>
<td><strong>Industrial</strong></td>
<td>Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; Physics and Chemistry</td>
<td>additional mathematics</td>
<td>Engineering Science (liberal arts with math/science option considered on individual basis).</td>
</tr>
<tr>
<td><strong>Mechanical</strong></td>
<td>Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; Physics and Chemistry</td>
<td>additional mathematics</td>
<td>Engineering Science (liberal arts with math/science option considered on individual basis).</td>
</tr>
<tr>
<td><strong>Microelectronic</strong></td>
<td>Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; Physics and Chemistry</td>
<td>additional mathematics</td>
<td>Engineering Science (liberal arts with math/science option considered on individual basis).</td>
</tr>
</tbody>
</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, 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.

<table>
<thead>
<tr>
<th>Yr.</th>
<th>BS degree in Computer Engineering</th>
<th>Qtr. Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ICSP-241 Programming I Algorithmic Structures</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>ICSP-242 Programming II Data Structures</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>ICSP-243 Programming III Design &amp; Implementation</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SCHG-208, 209 Chemistry I, II</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SMAM-251, 252, 253 Calculus I, II, III</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SMAM-265 Foundations of Discrete Math</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SPSP-311, 312 University Physics I, II</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SPSP-375, 376 University Physics Lab I, II</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>*Liberal Arts</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>**Physical Education</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>EECC-341 Intro to Digital Systems for Computer Engineers</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>EMEM-331, 332 Mechanics I, II</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>ICSP-305 Assembly Language Programming</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>ICSP-325 Data Organization &amp; Management</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>ICSP-319 Scientific Applications Programming</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SMAM-305 Calculus IV</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SMAM-306 Differential Equation</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SPSP-313 University Physics III</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SPSP-377 University Physics Lab III</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SPSP-314 Modern Physics</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>*Liberal Arts</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>**Physical Education</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>EEEE-352 Circuit Analysis II</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>EEEE-353 Linear Systems I</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>EEEE-441, 442 Electronics I, II</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SMAM-351 Probability</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>EEEE-420 Complex Variables</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>*Liberal Arts</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>EECC-660 Interface Electronics &amp; Logic</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>EEEE-431 Linear Systems II</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>EEEE-531 Energy Conversion</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>EEEE-613 Introduction to Controls</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>ICSS-440 Operating Systems</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>EECC-550 Computer Architecture for Computer Engineers</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>*Liberal Arts</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>EECC-655 Real Time Computation</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>EEEE-693 Digital Data Communications</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>EECC-551 Computer Architecture II for Computer Engineers</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Professional Elective</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>*Liberal Arts</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>*Liberal Arts (Senior Seminar)</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>**Physical Education</td>
<td>2</td>
</tr>
</tbody>
</table>

‡See Pg. 23 for Policy on Physical Education.
*See Pg. 97 for Liberal Arts requirements.
Electrical Engineering

Harvey E. Rhody, Head

The cooperative five-year engineering program

The bachelor of science program in electrical engineering at RIT has been developed in direct response to the increasing diversity in talent and training required of engineers by society. While providing a sound engineering core, the program offers significant opportunity for personalized curriculum planning. Individualized study plans may range from intense specialization to broad general coverage with ample opportunity for interdisciplinary activity in all cases. An integrated co-op work program adds this flexibility to produce a mature graduate with well-developed academic and industrial perspectives.

The role of the engineer has been defined as "applying the laws of mathematics and the principles of science to the solution of practical problems." Within this definition, the content of the program and the sequence of courses are easily understood.

The first two years of the program are devoted to the mastery of those laws of mathematics and principles of science with an introduction to engineering fundamentals. After this basic groundwork has been covered, the third year begins the study of core electrical engineering subjects in circuit theory and electronics, along with some advanced mathematics. The fourth year continues this exposure to basic electrical engineering topics in electromagnetics, communications, controls, energy conversion, and advanced electronics.

The fifth and final year allows the student to specialize in areas suited to his or her professional interests. The professional electives may be taken, with the approval of the student's advisor, from courses offered by the Electrical Engineering Department, the College of Engineering and the College of Science. The free electives may be chosen from offerings anywhere in the Institute.

In today's world, engineering decisions are rarely taken in a vacuum but rather within an ethical and socioeconomic 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 23 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.

### BS degree in Electrical Engineering—Typical Program

<table>
<thead>
<tr>
<th>Yr.</th>
<th>Quarter Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FALL</td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

Transfer students will generally follow the upper-division of the BSME program (years III, IV, V). However, it may be necessary to take some additional courses or substitute a course for a free elective if there are deficiencies corresponding to courses in the lower-division portion of the BSME program (years I and II).

**See Pg. 97 for Liberal Arts requirements.**
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 process.

The curriculum stresses the application of computers in solving the engineering problems of today. For example:

1. The undergraduate industrial engineer at RIT utilizes computer graphics in designing the layout of manufacturing plants and in the development of dynamic, animated computer simulation models.
2. The industrial engineer utilizes computers to control flexible manufacturing systems involving robots, machines, and conveyors.
3. Industrial engineers at RIT utilize the computer in conjunction with touch-sensitive devices, voice recognition systems, and robots in the analysis and design of man/machine systems.

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, manufacturing, and management consulting.

Balance rather than specialization has allowed our graduates to pursue varied paths. Examples of the 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 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.
Mechanical Engineering

Bhalchandra V. Kariekar, 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 tool 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 gets considerable background in design. This is accomplished with two sets of courses—Group I and Group II. Each student takes at least three courses from Group I and at least two from Group II. Each Group I course has two of its credit hours devoted to design. Group II courses are entirely design—four credit hours each. In consultation with his or her academic advisor, each student also selects two elective courses. These may be other undergraduate courses in mechanical engineering or courses offered by other colleges within RIT. By appropriate selection of Group I courses, Group II courses, and Elective courses a student may tailor his or her program to a specific area of interest such as solid-body mechanics or thermal-fluid systems.

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.

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 can generally anticipate entering the BS program in mechanical engineering as an alternative for continuing formal education. Because 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 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 AS (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 227 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.

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

Group I Courses
EMEM-601 Alternative Energy Sources
EMEM-605 Applications in Fluid Mechanics
EMEM-615 Heat Transfer II
EMEM-620 Turbomachinery
EMEM-658 Engineering Vibrations
EMEM-660 Refrigeration and Air Conditioning
EMEM-672 Dynamics of Machinery
EMEM-694 Stress Analysis

Group II Courses
EMEM-620 Optimal Design
EMEM-625 Creative Design
EMEM-632 Advanced Mechanical Systems Design
EMEM-665 Thermal Fluid Design

Elective Courses
Advanced Strength of Materials
Advanced Thermodynamics
Engineering Economy
Gas Dynamics
Laser Engineering
Patent Law
Graduate courses
Courses from other colleges

Microelectronic Engineering

Lynn Fuller, Head
The College of Engineering is proud to introduce its undergraduate degree program in microelectronic engineering, believed to be the first in the nation. Offered in conjunction with the College of Graphic Arts and Photography and the College of Science, the new five-year program will emphasize the photolithographic aspects of microelectronic processing. It will provide the broad interdisciplinary background in optics, chemistry, device physics, computers, electrical engineering, and statistics necessary for entry into the microelectronic industry.

Students in the program will have hands-on experience in the processing of integrated circuits, the vital component in almost every advanced electronic product manufactured today. The nationwide shortage of microelectronic engineers grows by 400 a year and is expected to total 2,000 by 1985. RIT graduates in this program will be prepared to enter industry immediately after graduation or to go on to advanced work in graduate school.

Developed with the assistance of many national corporations, the microelectronic engineering degree curriculum strongly reflects RIT's philosophy of quality education for careers. The program offers an unparalleled opportunity to prepare for professional challenge and success in one of the leading technologies of our time.

Yr. | BS degree in Microelectronic Engineering | Qtr. Credit Hours
--- | --- | ---
1 | | |
2 | | |
3 | | |
4 | | |
5 | | |

‡See Pg. 23 for Policy on Physical Education.
*See Pg. 97 for Liberal Arts requirements.
College of Fine and Applied Arts

Robert H. Johnston, Dean

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 graphic design, industrial and interior design, painting, packaging design, printmaking and medical illustration. In the School for American Craftsmen concentrations are given in ceramics and ceramic 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 the studios of the School of Art and Design are superior. 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, designers and craftspeople. They have been broadly educated in Europe and the United States, and are well acquainted with contemporary practice in their art design 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 Computer Center, available for student use, is equipped with Apple, Mergenthaler Tetronics and Genigraphic terminals. Photo darkrooms also support the assigned problems. The Craft Village provides additional support for blacksmithing, sculpture and ceramics firing needs.

The Wallace Memorial Library is particularly strong in the extensive list of contemporary periodicals in design, arts and crafts available for study and research.

The hearing-impaired student receives assistance through the educational support team within the college.

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 and Design. The college is a charter member institution of the National Association of Schools of Art and Design.

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. The packaging design program is four years and leads to the bachelor of science degree. 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. The MST may be earned in programs carried during the regular and summer studies, depending on admission and department offerings. 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 and design majors. Successful completion of this program qualifies students for second year standing in the following options: graphic design, industrial and interior 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 if arrangements are made prior to departure. 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 instructor. 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, designers or craftspeople in mind, further emphasize the practical character of this 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.

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 8 1/2” x 11” vinyl slide protector page with identification.

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.

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 ensure 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
Box 9887
Rochester, New York 14623
Telephone: (716) 475-6631

Visits to the campus and College of Fine and Applied Arts are encouraged. Please contact the Admissions Office.
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 13-14 of this Bulletin.

This college is composed of the School of Art and Design and the School for American Craftsmen, with approximately 750 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, designers and craftsmen. Students learn by working in the studios equipped with excellent facilities. Most graduates earn their living utilizing their RIT background.

Graphic Design—Graphic design has many facets. A visual problem-solver at the core, the graphic designer is concerned with achieving the highest level of information and aesthetic quality in the work. Graphic designers work for advertising, corporate design offices, government, magazines, industrial firms, printers, museums and other organizations.

Fine Arts—Students concentrate in printmaking, painting or medical illustration and take other art electives. They prepare as professional artists and through elective choices have exploratory potential for later careers in many of the visual arts fields or 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.

Industrial and Interior Design—The program in industrial and interior design prepares students for careers in the expanding professions of industrial design and interior design. Artistic talent and analytical thought are applied to the design of products and interior spaces. Practical design projects develop aesthetic understanding, technical abilities, sensitivity to human needs and awareness of the social consequences of the designer's efforts. Degrees granted: AAS-2 year; BFA-4 year.

Packaging Design—Students study design applications for product packaging in an interdisciplinary program emphasizing design, management, packaging theory and techniques, and liberal arts. Practical application of design theory is an important component of this program. Graduates are prepared to enter corporate packaging and marketing departments and packaging consulting firms. Degree granted: BS-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.

Double Crafts Major—Requests for the double crafts major are reviewed after successful completion of two years of study in one major concentration. A portfolio is submitted, and if accepted into the second major, the student completes first and second year work in the second major during the junior and senior year.

*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 graphic, industrial and interior, and packaging 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 Liberal Arts 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.

### Programs

Major concentrations are offered in graphic design, industrial and interior design, packaging design and the fine arts (painting, printmaking, medical illustration). Electives may be pursued, beginning in the second year, in painting, printmaking, industrial and interior design, graphic design and the crafts. The first year forms the foundation preparation for the major concentration, with two courses required in drawing and two- and three-dimensional design. Graphic design is a program that deals with systematic thinking, strong visual fundamentals, aesthetic/informational requirements, problem-solving and methodology. New communications technologies such as computer graphics are utilized. The program in Industrial and Interior Design prepares students for careers in the expanding professions of industrial design and interior design. Artistic talent and analytical thought are applied to the design of products and interior spaces. Practical design projects develop aesthetic understanding, technical abilities, sensitivity to human needs and awareness of the social consequence of the designer's efforts. Packaging design is an interdisciplinary program that emphasizes design, management, packaging theory and techniques. The practical application of design theory is also an important component of the program.

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 students will be taught Gross Anatomy through the University of Rochester during the Fall Quarter of the junior year. A tuition surcharge will be in effect that quarter.

The credit requirements for students admitted September 1981 in Fine Arts—Painting, Printmaking; Graphic Design; and Industrial and Interior Design programs are as follows:

<table>
<thead>
<tr>
<th>Yr.</th>
<th>Graphic Design, Painting, Printmaking, Industrial and Interior Design Majors</th>
<th>qtr.</th>
<th>cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>FADF-231, 232, 233 Two-Dimensional Design</td>
<td></td>
<td>84</td>
</tr>
<tr>
<td></td>
<td><strong>Liberal Arts.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>FADF-421, 422, 423 Three-Dimensional Design</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Liberal Arts.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>FADF-301, 302, 303 Graphic Design</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>FADC-225, 226, 227 Art and Civilization</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Liberal Arts.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>FADC-301, 302, 303 Industrial and Interior Design</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Liberal Arts.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>FADC-301, 302, 303 Painting</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Liberal Arts.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>FADC-301, 302, 303 Illustration</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Freshman Kit for art and design students is approximately $260. There is an additional cost for supplies.

**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 Graphic Design
FADC-511, 512, 513 Graphic Design
FADC-520 Professional Design Business Practices
FADD-320 Graphic Visualization
FADD-311, 312, 313 Industrial and Interior Design
FADP-320 Color
FADP-321, 322, 323 Illustration
FADP-411, 412, 413 Drawing and Painting
FADP-511, 512, 513 Painting
FADR-411, 412, 413 Printmaking
FADR-511, 512, 513 Printmaking
FADS-411, 412, 413 Sculpture
FADP-450 Drawing Problems
FSCC-251, 252, 253 Ceramics I
FSCG-251, 252, 253 Glass I

FSCM-251, 252, 253 Metalsmiths I
FSCT-251, 252, 253 Textiles I
FSCW-251, 252, 253 Woodworking I
PPHF-207, 208 Introduction to Filmmaking
PPHF-209 Introduction to TV
PPHG-207, 208, 209 Still 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-340 Man and His Symbols
FSCF-350 Asian Art
FSCF-360 18th and 19th Century Art
FSCF-370 20th Century Art
FSCF-390 Selected Topics
### Medical Illustration option

(CFAA portfolio and additional six drawings of natural forms, to be presented as slides, are required for admission.)

<table>
<thead>
<tr>
<th>Yr.</th>
<th>Qtr. Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FALL</th>
<th>WTR</th>
<th>SPG</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Art Electives listed on previous page.**

**Core courses that are prerequisite to the third year.**

Tuition surcharge will be applied in this quarter.

Upon successful completion of the second year, the associate in applied science (fine arts—painting) degree is awarded.

†See Pg. 23 for Policy on Physical Education.

*See Pg. 97 for Liberal Arts requirements.

Fine and Applied Arts students are required to study only 20 q. cr. of Liberal Arts core curriculum. They are advised to select from nine courses other than fine arts.
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 designer-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 Liberal Arts 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. After two years of study in one media field a student may present a portfolio and request admission to a second media concentration. If accepted, the student would complete first- and second-year work in the second media during the junior and senior year. A bachelor of fine arts is awarded after a total of four years study.

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

<table>
<thead>
<tr>
<th>Yr.</th>
<th>Craft Majors</th>
<th>Qtr. Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>FALL</td>
</tr>
<tr>
<td>1</td>
<td>*Liberal Arts</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>*Liberal Arts</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives—
FADC-411, 412, 413 Graphic Design
FADC-511, 512, 513 Graphic Design
FADC-520 Professional Design Business Practices (Spg. Qtr.)
FADD-310 Graphical Visualization
FADD-311, 312, 313 Industrial and Interior Design
FADD-320 Color
FADC-321, 322, 323 Illustration
FADP-411, 412, 413 Drawing and Painting
FADP-511, 512, 513 Drawing and Painting
FADR-411, 412, 413 Printmaking
FADR-511, 512, 513 Printmaking
FADS-411, 412, 413 Sculpture

The credit requirements are:
- Required Craft Major 87
- Required Professional Electives 21
- Open Electives 6
- General Studies 50
- Art History 18
- Creative Sources 6

Total 188 quarter credits of Art History; Art and Civilization and Contemporary Art required.
College of Graphic Arts and Photography

Dr. Mark F. Guldin, 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 biomedical photographic communications, a BS degree in film and television, a BS degree in imaging and photographic science, a BS degree in technical photography and a BFA degree in professional photographic illustration with major options in contemporary/illustrative/commercial photography, narrative/documentary/editorial photography, or photography as a fine art. Two programs are offered jointly by the School of Photographic Arts and Sciences and the College of Business: a BS degree in photographic marketing management and a BS degree in photographic processing and finishing management. Graduate programs lead to an MS degree in imaging and photographic science and to an MFA degree in photography. More than 1,000 students are enrolled from nearly every state and many foreign countries. The curriculum in imaging and photographic science 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 schools' offerings. It also offers programs leading to an MS degree in printing technology. 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 the students. They are also individuals who are educationally qualified and have had extensive professional experience and training in the graphic arts and photographic industries.

The establishment of four 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 Richard S. Hunter Professorship in Color Science was established to meet academic and industry needs for more clearly defined color measurement and specification criteria from which further knowledge might be ascertained. The Munsell Color Laboratory, which will complement the professorship, will clearly support efforts to further define color measurement in all fields of academic and industry endeavor. Together they have established Rochester Institute of Technology as a unique center for color science, technology and appearance in the United States. 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 a center of research in 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, 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 of 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 Liberal Arts 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.

Some 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. If 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 meetings of scientific and professional societies and printed in appropriate journals.

The School of Printing offers a Senior Seminar which brings to campus each year some 15-20 industry people who discuss new developments and technologies in the graphic arts and how students can prepare to meet new challenges evolving from them.

**Transfers**

With the growth of community, junior, and two-year technical colleges throughout the country, many men and women have a better chance to identify their occupational and professional goals. The college recognizes the value of these programs and, for students who perceive such goals within the scope of the college's programs, every effort is made to accept the maximum amount of transfer credit from the two-year college curriculum. Some scholarships are available.

**Degrees and requirements**

Candidates for the BS and BFA degrees must complete the requirements of a major program.

Requirements for the MS degree in imaging and photographic science, printing technology, and printing education, for the MFA degree in photography and the MST degree in printing education are to be found in the Graduate Bulletin.

Except for the newspaper production, printing systems management and printing and applied computer science programs, the associate in applied science degree is awarded all students who successfully complete the requirements of the first two years of the BS or BFA programs.

**Summer Session and special programs**

During the Summer Session the School of Printing offers a wide range of technical and management courses which may be taken for credit. Special, intensive summer courses are also available in graphic arts orientation, flexography, gravure and screen printing.

Additional specialized short-term summer programs can be designed by the School of Printing to meet the particular needs of paper, ink and equipment manufacturers and related segments of the graphic arts industry.

The School of Photographic Arts and Sciences offers several special courses each summer to meet professional or avocational needs not met by four-year programs. It also offers special transfer programs enabling qualified students to enter at the second- or third-year level.

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. 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 offers programs to industry through product testing, especially color reproduction. Eighteen continuing titles repeat through the calendar year, and special tailor-made seminars are held for companies on request. Seminars on the RIT campus offer printers around the world a chance to encounter new ideas, work with quality control tools, and try procedures firsthand, including time to work on the web press. Traveling seminars bring current technical information to other cities across the country.

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 Photographic Conversation, 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 13-14 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. Degree granted: AAS-2 year; BS-4 year.

Imaging and Photographic Science — Students learn of the application of physics, chemistry, and mathematics to 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.

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. Degrees granted: BS-4 year.

Photographic Processing and Finishing Management — Students develop a thorough knowledge of photographic processing, production techniques and procedures, and business, including aspects of promotion and selling in a competitive market. 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.

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.

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.

Professional Photographic Illustration — After two years of photography in the general BFA program at RIT, a student enters one of the following major options: contemporary, illustrative and commercial photography; narrative/documentary/editorial photography; or photography as a fine art. In these areas students learn photographic skills to solve visual communication problems. Students develop innovative and individualized responses to visual problems and are expected to become sensitive to contemporary graphic design. These lead to a broad range of career options that call for a background in esthetics, technical skills, and the ability to solve visual problems with imagination and originality. Degrees granted: AAS-2 year; BFA-4 year.

Technical Photography — Prepares students for entry into any of a variety of positions in the field of technical photography, as distinct from providing highly specialized training for a specific position. These include both picture-making positions (such as scientific photography, high-speed photography, technical illustration, audiovisual production, and photographic testing) and non-picture-making positions (such as technical writing, quality control, technical representative, sales, product development and testing, applied research, laboratory supervision, and management). AAS-2 year; BS-4 year.
<table>
<thead>
<tr>
<th>Freshman Admission Requirements</th>
<th>Transfer Admission with junior standing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Program</strong></td>
<td><strong>Required High School Subjects</strong></td>
</tr>
<tr>
<td>Professional Photographic Illustration and Fine Art Photography</td>
<td>2 years any mathematics; 1 year any science</td>
</tr>
<tr>
<td>Biomedical Photographic Communications</td>
<td>Elem. Algebra; Plane Geom. or Inter. Algebra; Trigonometry; Biology</td>
</tr>
<tr>
<td>Film and Television†</td>
<td>Elem. Algebra; Plane Geom. or Inter. Algebra; 1 year any science</td>
</tr>
<tr>
<td>Photographic Processing and Finishing Management</td>
<td>Elem. Algebra; Plane Geom. or Inter. Algebra; Chemistry or Physics</td>
</tr>
<tr>
<td>Imaging and Photographic Science</td>
<td>Elem. Algebra; Plane Geom. or Inter. Algebra; Trigonometry; Physics or Chemistry</td>
</tr>
<tr>
<td>Technical Photography</td>
<td>Elem. Algebra; Plane Geom. or Inter. Algebra; 1 year any science</td>
</tr>
<tr>
<td>Printing</td>
<td>Elem. Algebra and Inter. Algebra; 1 year science</td>
</tr>
<tr>
<td>Newspaper Production Management</td>
<td>Elem. Algebra; Trigonometry, or Inter. Algebra; Physics or Chemistry</td>
</tr>
<tr>
<td>Printing Systems Management</td>
<td>Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; Physics and Chemistry</td>
</tr>
<tr>
<td>Printing and Applied Computer Science</td>
<td>Elem. Algebra; Inter. Algebra; Trigonometry; Plane Geometry; Physics or Chemistry</td>
</tr>
</tbody>
</table>

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

**A report is required from the applicant covering visits to photographic departments of at least two hospitals.

† All applicants 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 video tape, 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. Most chemicals and specialized equipment are supplied. Students are encouraged to purchase photographic equipment that will further their chosen careers. All first year BFA students in photography and students in Biomedical Photographic Communications and Technical Photography are required to have their own hand-held small or medium format camera and a professional light meter.

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 represent a rich cross-section of various photographic fields; science, technical, professional-illustrative and art. Faculty members are highly active in professional societies, publications and exhibitions. Each one considers teaching to be his or her first and most important function. Several have received outstanding teaching awards and other professional recognition.

Department of Applied Photography: Thomas Iten, Chairman—BFA Degree in Professional Photographic Illustration.

Department of Fine Art Photography: Dr. Richard D. Zakia, Chairman—BFA Degree in Professional Photographic Illustration, Photography as a Fine Art option; MFA Degree in Photography.

Department of Film and Video: Dr. Russell Kraus, Acting Chairman and Program Coordinator—BS Degree in Film and Television.

Department of Photographic Technology: Dr. Leslie Stroebel, Chairman—BS Degree in Biomedical Photographic Communications, BS Degree in Photographic Processing and Finishing Management; BS Degree in Technical Photography.

Department of Imaging and Photographic Science: Dr. Ronald Francis, Chairman—BS Degree in Imaging and Photographic Science, MS Degree in Imaging and Photographic Science.

Graduate programs

The School of Photographic Arts and Sciences offers two master's degree programs: MFA in photography and the MS in imaging and photographic science. These are described in a 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. 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 their 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 an 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.

Degrees Offered

Professional Photographic Illustration

Applicants for photographic illustration must have had two years of mathematics and one year of science. Art courses are recommended.

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 is required from the applicant covering visits to photographic departments of at least two hospitals. A personal interview may be required.

Film and Television

Applicants must have had two years of high school mathematics, including either intermediate algebra or plane geometry, and one year of science. A personal interview may be required.

Photographic Marketing Management

Offered jointly by the College of Business and the College of Graphic Arts and Photography, RIT’s 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 with courses in economics, finance and marketing principles. The combination of work in these two disciplines prepares the student for a multi-faceted management-level career in the photographic business. Opportunities for positions include these in customer service aspects of photofinishing and professional color laboratories and management positions with photographic manufacturers and photographic retailers. For further information, including transfer requirements, contact the College of Business.

Photographic Processing and Finishing Management

Applicants for admission in this program must have had two years of high school mathematics, elementary algebra and either plane geometry or intermediate algebra, and chemistry. Additional science is recommended.

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 reasonable chance of success.

**Technical Photography**

Applicants for admission to the technical photography program must have had two years of high school mathematics and one year of science.

**Course descriptions**

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

**Transfer Admission**

**Transferring from Another College or University**

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 the 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 in professional photographic illustration, technical photography, or film and television from imaging and 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. (Requirements for portfolio submission may be obtained by writing to the Office of Admissions.)

Transfer students should expect to have light schedules during part of their residence at RIT because of prerequisite requirements and scheduling problems.

**Summer Transfer**

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.

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.

The School of Photographic Arts and Sciences has several transfer programs for students who have completed background work in an accredited college or university. The preparatory work varies according to photography program.

**Second-Year Entry (Transfer credit requirements):**

**Film and Television**

A minimum of 30 quarter credits of which there are 6 credits in a studio art course, such as design; 12 credits of liberal arts; and 12 credits of photography or photography and studio art. The student must also complete the 10-week intensive summer courses PPHG-210 Materials and Processes of Photography with a "C" grade or better.

**Professional Photographic Illustration**

A minimum of 30 quarter credits of which there are 6 credits in a studio arts course, such as design; 12 credits of liberal arts, and 12 credits of photography or photography and studio art. The student must also complete the 10-week intensive summer courses PPHG-210 Materials and Processes of Photography with a "C" grade or better.

**Imaging and Photographic Science**

A minimum of 39 quarter credits of which there are 8 credits in a general chemistry course (including lab); 4 credits in an introductory organic chemistry course; 12 credits in differential and integral calculus; 12 credits in liberal arts; and 3 credits in additional math or science courses. The students must also complete the summer courses PPHS-200 Introduction to Photographic Science I with a "C" grade or better.

**Technical Photography**

A minimum of 34 credit hours of which there are 4 credits in a college algebra course; 6 credits in introductory calculus or the mathematics of business and finance; 12 credits in liberal arts; and 12 credits of photography or a mix of photography and additional mathematics or science. The students must also complete the 10-week intensive summer courses PPHG-200 or Photography I and PPHG-210 Materials and Processes of Photography with a "C" grade or better.

**Third-year entry (Transfer credit requirements):**

**Fine Art Photography**

After successfully completing two years in RIT's BFA foundation program, or two years at an accredited college with an acceptable portfolio (RIT summer transfer course may be required), the student may major in fine art photography in the third and fourth years.

**Professional Photographic Illustration**

(entry in the contemporary/illustrative/commercial photography option). Applicant must have completed an associate degree or equivalent of two years of college with a major in photography (completion of a minimum of 30 quarter credits of photography) plus completion of studio art courses for a minimum 12 quarter credits, liberal arts for a total of 24 quarter credits, and art history courses for a total of 18 quarter credits. The student must also complete the 10-week intensive summer course PPHL-300 BFA Photography with a "C" grade or better. The student must make up the course Materials and Processes of Photography and History and Aesthetics of Photography. Portfolio required.

**Entry into Professional Photographic Illustration via the submission of a portfolio to earn transfer credits for photographic courses.**

If a student has completed two or more years of intensive study in photography at an accredited school and has earned a 3.0 (B) average, he may submit a portfolio for evaluation by the BFA faculty. A list of the requirements for submission of the portfolio may be obtained from Prof. David A. Engdahl, College of Graphic Arts and Photography, RIT, One Lomb Memorial Drive, Box 9887, Rochester, New York 14623.

**Imaging and Photographic Science**

A minimum of 80 quarter credits of which 8 are credits in a general chemistry course (including lab); 4 credits in an introductory organic chemistry course; 12 credits in
differential and integral calculus; 8 credits in advanced mathematics including differential equations; 24 credits in liberal arts; 15 credits in university physics (including lab); 3 credits in a computer course; plus 6 additional credits in math or science. The student must also complete the 10-week intensive summer courses PPHS-200 and 210, Introduction to Photographic Science I and II, with a "C" grade or better.

**Professional Photographic Illustration Program**

**Contemporary/Illustrative/Commercial Photography Option**

The curriculum leading to a bachelor of fine arts degree in professional 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, billboard, 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 are qualified to function as artists using photography as a principal means of expression. They may become scholars, photohistorians, or photojournalists.

**Areas of concentration:**
The bachelor of fine arts programs in professional photographic illustration is subdivided into 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 to select those courses which provide for and best suit his or her particular needs. The first year is common to photo journalism and photographic illustration programs. After the second year the student plans a program that will fulfill his or her objectives. With an advisor, a tentative two-year program is planned for available courses that will meet the BFA degree requirements.

**Professional Photographic Illustration Electives**

PPHF-300 Conceptual Film Production, 4 cr. hrs.
PPHF-302 Narrative Film Production, 4 cr. hrs.
PPHF-303 Fiction and Dramatic Short Film Prod., 4 cr. hrs.
PPHF-407, 408, 409 Film History, 3 cr. hrs.
PPHF-411 Visualization and Commercial Film Prod., 4 cr. hrs.
PPHF-412 Film Planning and Studio Operations, 4 cr. hrs.
PPHF-413 Film Project with Sound, 4 cr. hrs.
PPHF-417 Portable Video Production, 4 cr. hrs.
PPHF-418 Studio and Documentary Video, 4 cr. hrs.
PPHF-419 Advanced Video Production, 4 cr. hrs.
PPHF-421, 422 Writing for Film and Television, 3 cr. hrs.
PPHF-424, 425, 426 Animation and Graphic Film Production, 4 cr. hrs.
PPHF-520 Sound Recording, 2 cr. hrs.
PPHF-541 Senior Production I, 4 cr. hrs.
PPHF-551, 552, 553 Special Topics in Photography, Variable
PPHL-401, 402, 403 Photography as a Fine Art I, 4 cr. hrs.
PPHL-421, 422, 423 Nature Photography, 4 cr. hrs.
PPHL-501, 502, 503 Photography as a Fine Art II, 4 cr. hrs.
PPHL-521, 522, 523* Color Photography Workshop, 4 cr. hrs.
PPHL-551, 552, 553 Special Topics in Photography, Variable
PPHL-599 Independent Study, Variable
PPHM-301, 302, 303 Production Processing and Finishing, 4 cr. hrs.
PPHM-320, 321 Mechanics of Photographic Hardware, 4 cr. hrs.
PPHM-401, 402, 403 Photographic Process Control, 4 cr. hrs.
PPHM-410, 411, 412 Training and Supervision of Personnel, 4 cr. hrs.
PPHM-501, 502, 503 Senior Seminar in Production Processing, 1 cr. hr.
PPHM-511, 512, 513 Advanced Production Processing/Finishing, 4 cr. hrs.
PPHS-201, 202, 203 Photography for Scientists & Engineers, 4 cr. hrs.
PPRT-591 Reproduction Photography, 3 cr. hrs.
PPRT-592 Printing Plates, 3 cr. hrs.
PPRT-593 Printing Process-Lithographic, 4 cr. hrs.
ICIC-421, 422, 423 Producing Audiovisual Presentations, 4 cr. hrs.
ICIC-489 Audio for AV Presentations, 3-4 cr. hrs.
ICIC-490 Audio Techniques, 4 cr. hrs.
ICIC-580, 581 Producing Multi-Image Presentations, 4 cr. hrs.
ICIC-583 Advanced Multi-Image Project, 1-4 cr. hrs.
ICIC-585 Producing Special Effects Slides, 3-4 cr. hrs.

**Photography as a Fine Art Option**

Through the gradual development of each individual's sensitivity and imaging skills, the student is prepared for a broad range of career options that require a solid background in esthetics, technical skills, craftsmanship, and the ability and confidence to solve visual problems with imagination and originality.

The program is designed to encourage each student's artistic development, individuality of style and uniqueness as a photographer. The program does not train photographic technicians or photographers for specific jobs. Rather, fine art photography is designed to enhance student prospects for a lifetime or work that is interesting, challenging, and that offers the potential for growth and change.

**Electives**

**Photography as a Fine Art**

PPHF-201 Structuring the Moving Image
PPHF-202 Narrative Film Production
PPHF-203 Fiction and Dramatic Short Film Production
PPHF-204 Fiction Film and Aesthetics
PPHF-205 Documentary Film History and Aesthetics
PPHF-206 Experimental/Animated Film History and Aesthetics
PPHF-321 Writing for Film and Video
PPHF-322 Writing for Film and Video
PPHL-411, 412, 413 Photojournalism I
PPHL-421, 422, 423 Nature Photography
PPHL-431, 432, 433 Illustration Photography I
PPHL-437, 438, 439 Visual Communications Workshop
PPHL-506, 507, 508 Photo Media Workshop
PPHL-511, 512, 513 Photojournalism II
PPHL-521, 522, 523 Color Photo Workshop
PPHL-531, 532, 533 Illustration Photography II
PPHL-541, 437, 438, 439 Visual Communications Workshop
PPHL-551 Semiotics and Photography
PPHL-599 Independent Study
PPRT-591, 592, 593 Reproduction Photography, Offset Platemaking/Offset Presswork
Others to be selected in consultation with advisors and chairman.

* (Needs Faculty Approval) OTHER COURSES CAN BE ELECTED BY THE APPROVAL OF DEPARTMENT CHAIRMAN
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 team 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, or others which can be selected in consultation with the advisor, 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.

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 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 communication with moving images and the aesthetic principles governing the art. They also are offered to students in Professional Photographic Illustration or Biomedical Photographic Communications. 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 cinematography 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.

Photographic Processing and Finishing Management

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.

**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-511, 512, 513 Advanced Machine Processing
- PPHM-599 Independent Study
- PPHM-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.

---

### Yr. Photographic Processing and Finishing Management

<table>
<thead>
<tr>
<th>Yr.</th>
<th>Qtr.</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FALL</td>
<td>WTR</td>
</tr>
<tr>
<td>1</td>
<td>PPHM-301, 302, 303 Production Processing and Finishing</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>ITEE-341, 311, 312 Electricity and Electronics</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>GSSE-301, 302 Economics I and II</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>ICSS-200 Survey of Computer Science</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>*Liberal Arts (Core)</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Physical Education Electives</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>PPHM-401, 402, 403 Photographic Process Control</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>PPHM-410, 411, 412 Training and Supervision</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SMAM-310 Data Analysis</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>PPHS-413 Statistics of Quality Control</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>BBUB-401 Behavioral Science</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>*Liberal Arts (Concentration)</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>PPHM-508 Theory of Correct Color Printing</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>Summer Internship</strong></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>BBUA-201, 211 Accounting</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Finishing Lab Operations Management</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>BBUM-263 Marketing</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Professional Electives</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>PPHM-520 Operation, Care &amp; Maintenance of Photofinishing Equipment</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>PPHM-501, 502, 503 Senior Seminar</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>*Liberal Arts Elective</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>*Liberal Arts (Senior Seminar &amp; Project)</td>
<td>2</td>
</tr>
</tbody>
</table>

---

### Yr. Film and Television

<table>
<thead>
<tr>
<th>Yr.</th>
<th>Qtr.</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FALL</td>
<td>WTR</td>
</tr>
<tr>
<td>1</td>
<td>Liberal Arts (Core)</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>English Composition</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>&quot;Acting and Stagecraft I&quot;</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>&quot;Acting and Stagecraft II&quot;</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>PPHF-201 Structuring the Moving Image</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>PPHF-202 Narrative Film Production</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PPHF-203 Fiction and Dramatic Short Film Production</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PPHF-204 Fiction and Aesthetics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PPHF-205 Documentary Film History and Aesthetics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PPHF-206 Experimental/Animated Film History &amp; Aesthetics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PPHF-210 Materials &amp; Processes of the Moving Image</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PPHF-310 Portable Video Production</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>PPHF-311 Studio &amp; Documentary Video</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PPHF-313 Electronic Field Production</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PPHF-310 Materials &amp; Processes of the Moving Image</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PPHF-316 Senior Project Seminar</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Electives (select one)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PPHF-321 Writing for Film and Video</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PPHF-322 Writing for Film and Video</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Liberal Arts (Concentration)</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>PPHF-411 Visualization &amp; Commercial Film Production</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>PPHF-412 Film Planning &amp; Studio Operation</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>PPHF-413 Film Project with Sound</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>PPHF-416 Materials &amp; Processes of the Moving Image</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>PPHF-420 Sound Recording</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>PPHF-430 High Speed Time Lapse Cinematography</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>PPHF-431 Writing for Film and Video</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>PPHF-435 Introduction to Animation</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>PPHF-434 Advanced Video</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>PPHF-432 Writing for Film and Video</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>PPHF-436 Animated Production</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>PPHF-438 Directing</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>*Non-Film/Video Photo School course</td>
<td>3</td>
</tr>
</tbody>
</table>

---

*Proposed new courses.

**Students may elect any still photography course for which they have the required prerequisites and/or the permission of the instructor. Such courses might include: PPHP-395 Photo Electronic Workshop; PPHP-410 Modern Perception Principles for Photographers; PPHP-430 Visual Communication Workshop; PPHP-440 News Writing & News Reporting; PPHP-301, 302, 303 History & Aesthetics of Photography.

---

†See Pg. 23 for Policy on Physical Education.

*See Pg. 97 for Liberal Arts requirements.
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 imaging and photographic science.

A broad segment of American business is an employer of graduates of the Imaging and Photographic Science Department; aerospace, business machines, information handling, microelectronics, scientific instruments, graphic arts, industrial chemicals, and photographic materials and equipment. Aside from the 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 Department of Imaging and Photographic Science 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.

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 summer photoscience industrial experience during their program at RIT.

Four-year program: Bachelor of Science in Imaging and Photographic Science

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 imaging and photographic science, 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 Imaging and Photographic Science

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, and the fifth year is completed with advanced coursework leading to a master of science degree.

The Department of Imaging and Photographic Science 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.

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 summer photoscience industrial experience during their program at RIT.

Fourth Year BS program
Fourth Year BS/MS program
Fifth Year BS/MS Program

†Upon successful completion of the second year, the associate in applied science degree is awarded.
‡See Pg. 23 for Policy on Physical Education.
*See Pg. 97 for Liberal Arts requirements.

Fourth Year BS program
Fourth Year BS/MS program
Fifth Year BS/MS Program

†Upon successful completion of the second year, the associate in applied science degree is awarded.
‡See Pg. 23 for Policy on Physical Education.
*See Pg. 97 for Liberal Arts requirements.
courses in chemistry, physics, engineering and/or imaging and photographic science. 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 Imaging and Photographic Science
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, PPHS-600 (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 department.

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).

Recommended undergraduate electives
EEEE-441 Electronics I
EEEE-461,462 Electrical Engineering I, II
PPHS-421, 422, 423 Photographic Chemistry
PPHS-511, 512, 513 Optical Instrumentation
PPHS-531, 532, 533, Theory of the Photographic Process
PPHS-571,572 Photomicrography
PHHS-599 Independent Study
PPRT-591 Reproduction Photography
PPRT-592 Printing Plates
SCHA-311, 312 Analytical Chemistry
SCHA-313 Introduction to Physical Chemistry
SCHP-441, 442, 443 Physical Chemistry
SMAM-307 Differential Equations
SMAM-308 Engineering Mathematics
SMAM-420 Complex Variables
SMAM-501, 502 Advanced Differential Equations
SPSP-314, 315 Modern Physics
SPSP-411, 412 Electricity and Magnetism
SPP-455 Optical Physics
Others to be selected in consultation with advisors and chairman.

Recommended graduate electives
CASM-731, 741, 871 Statistics
CASM-761 Reliability
CASM-811, 812 Probability Theory and Application
CASM-821, 822, 823 Theory of Statistics
CASM-841, 842 Regression Analysis
CASM-851 Nonparametric Statistics
EEEE-702 Introduction to Random Variable and Signals
EEEE-734 Communication Techniques
EEEE-735 Digital Data Transmissions
PPHS-751, 752, 753 Special Topics in Photographic Science
PPHS-761, 762, 763 Principles of Remote Sensing and Image Analysis
PPRM-702 Computers in Management
PPRT-702 Graphic Reproduction Theory
SCHA-711 Instrumental Analysis
SMAM-711, 712 Advanced Engineering Mathematics
Others to be selected in consultation and with the approval of graduate coordinator. Undergraduates with proper prerequisites may take graduate electives for undergraduate credit upon approval of advisors and chairman.
**Technical Photography**

The technical photography curriculum has been designed to prepare students for entry into any of a variety of positions in the broad field of technical photography, as distinct from providing highly specialized training for a specific position. These include both picture-making and non-picture-making positions.

Picture-making courses are included in all four years of the program, with a transition from a comprehensive foundation course in black-and-white photography through color photography and color printing, motion-picture and television production, to more specialized courses in audiovisual production, high-magnification photography, high-speed photography, and non-conventional imaging systems. These picture-making courses are balanced with courses in technical photographic subjects, mathematics, science, business, and liberal arts. Students are given some options and electives, including the opportunity of serving a summer internship following the third year in place of the research project in the fourth year.

Employment statistics maintained by RIT's Office of Central Placement Services, as well as results of an industry questionnaire done by the School of Photographic Arts and Sciences, indicate that there is demand for graduates with technical backgrounds for such positions as technical and sales representatives, technical writers, quality control personnel, product development and testing, applied research, laboratory supervision, scientific photography, technical illustration, audiovisual production, photographic testing, and management.

<table>
<thead>
<tr>
<th>Year</th>
<th>Technical Photography</th>
<th>Quarter</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PPHT-201, 202, 203 Photography I</td>
<td>FALL</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>PPHT-211, 212, 213 Materials &amp; Processes of Photography</td>
<td>FALL</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>SMAM-204 College Algebra</td>
<td>FALL</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>SMAM-214, 215 Introductory Calculus, OR, SMAM-216, 217 Mathematics of Business &amp; Finance</td>
<td>FALL</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>&quot;Liberal Arts (Core)&quot;</td>
<td>FALL</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>&quot;Physical Education&quot;</td>
<td>FALL</td>
<td>7</td>
</tr>
<tr>
<td>2</td>
<td>PPHT-301 Photographic Sensitometry</td>
<td>FALL</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>PPHT-302 Technical Photographic Chemistry</td>
<td>FALL</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>PPHT-303 Photographic Optics</td>
<td>FALL</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>PPHT-311 Color Photography/Design</td>
<td>FALL</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>PPHT-312 Color Printing/Theory</td>
<td>FALL</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>PPHT-313 Color Measurement</td>
<td>FALL</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>SPSP-211, 212, 213 College Physics</td>
<td>FALL</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>&quot;Liberal Arts (Core)&quot;</td>
<td>FALL</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>&quot;Physical Education&quot;</td>
<td>FALL</td>
<td>7</td>
</tr>
<tr>
<td>3</td>
<td>PPHT-411 Preparation of Visuals</td>
<td>FALL</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>ICIC-412 Producing Audiovisual Presentations I</td>
<td>FALL</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>PPHT-412 High-Magnification Photography</td>
<td>FALL</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>PPHT-301 Structuring the Moving Image &amp; Conceptual Prod.</td>
<td>FALL</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>PPRM-201 Introduction to Technical Writing</td>
<td>FALL</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>ITEE-300 Electricity</td>
<td>FALL</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>SMAM-308 Statistics</td>
<td>FALL</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>ICSS-200 Survey of Computer Science</td>
<td>FALL</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>&quot;Liberal Arts (Core and Concentration)&quot;</td>
<td>FALL</td>
<td>7</td>
</tr>
<tr>
<td>4</td>
<td>PPHT-501 High-Speed/Time Lapse</td>
<td>FALL</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>PPHT-502 Introduction to Research</td>
<td>FALL</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>PPHT-503 Research Project, OR</td>
<td>FALL</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>PPHT-511, 512 Internship</td>
<td>FALL</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>PPHT-504 Nonconventional Imaging Systems</td>
<td>FALL</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Statistics, Computer or Electronics Elective</td>
<td>FALL</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>PPHT-209 Basic Television Production</td>
<td>FALL</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Professional Elective</td>
<td>FALL</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>BBU-401 Behavioral Science</td>
<td>FALL</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>BBUA-210 Accounting</td>
<td>FALL</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>&quot;Liberal Arts (Electives)&quot;</td>
<td>FALL</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>&quot;Liberal Arts (Senior Seminar)&quot;</td>
<td>FALL</td>
<td>7</td>
</tr>
</tbody>
</table>

† Waiver by examination permits substitution of an elective course.
‡ See Pg. 23 for Policy on Physical Education.
* See Pg. 97 for Liberal Arts requirements.
Photographic Marketing Management
Offered jointly by the College of Business and the College of Graphic Arts and Photography, RIT’s 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 with courses in economics, finance and marketing principles. The combination of work in these two disciplines prepares the student for a multifaceted management-level career in the photographic business. Opportunities for positions include those in customer service aspects of photofinishing and professional color laboratories and management positions with photographic manufacturers and photographic retailers. For further information, including transfer requirements, contact the College of Business.

School of Printing
William Pakan, Director

The School of Printing at Rochester Institute of Technology is the world’s largest and best equipped school for developing printing managers. It enjoys a position of leadership because of its extensive laboratory facilities, its up-to-date programs of study, its competent faculty, and its successful graduates. More than 700 students are enrolled in its bachelor’s and master’s degree programs.

The school has 25 laboratories with more than $25 million in up-to-date printing equipment, occupying 125,000 square feet of space. Most equipment is upgraded or replaced by manufacturers as they advance the state of the art. The school offers more than the 70 courses in printing technology and management from which students take about half their coursework. Other courses—including engineering, computer science, business, science and liberal arts—are taken in other RIT colleges.

The primary objective of the School of Printing is to prepare students—both men and women—for successful careers in 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 at all levels of graphic arts management: in selling, supervision, design, and research, among other positions.

All of the school’s programs require study in a broad range of courses but allow study in depth in particular areas of interests. All programs require students to take courses to help develop understanding and appreciation on the following areas—aesthetic qualities of good printing, procedures involved in the major important processes, principles of management, applications of science and engineering in the graphic arts and liberal arts courses as a means of developing personally as well-rounded individual and responsible citizen. To facilitate curriculum development, the faculty of the School of Printing is divided administratively into three sections: design-composition, photography-plate-press, and management. All of the school’s programs share the same faculty.

The School of Printing offers four bachelor of science degree programs and a master of science degree program. The bachelor’s degree programs are described here. The master’s program was developed for students who already have a bachelor’s degree (not necessarily in printing) and is described in the RIT Graduate Bulletin. Some college graduates with bachelor’s degrees choose to pursue a BS in printing rather than MS in printing technology degree because of its greater flexibility in program of studies. Upon admission, such students usually are given the equivalent of about two years of credit, allowing them to earn the BS in printing degree in two years of concentrated effort.

Scholarship and Financial Aid
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

More than 55 scholarships are available to School of Printing students through RIT’s Financial Aid Office. They range in size from $100 to full tuition. Some of these awards may be continued beyond one year depending upon the students' scholastic records. See the section on financial aid located near the front of this catalog.

The School of Printing also administers some scholarships directly. These usually are awarded to upperclassmen on the basis of previous performance at the school.

Cooperative program
The cooperative program in printing is flexible and voluntary. It is available to printing students who have successfully completed the first two years of the printing program and to qualified transfer students accepted at the third-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 have a wide variety of graphic arts work experiences available to them. Students in the co-op program may take up to five years to complete BS degree requirements.

Internships
A number of firms offer summer employment in selected areas to third-year students who are chosen competitively. These positions provide significant educational experience.

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

<table>
<thead>
<tr>
<th>Yr.</th>
<th>Printing Degree Program</th>
<th>Qtr.</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PPRT-301 Typography</td>
<td>F</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PPRT-202 Composition Technology</td>
<td>W</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PPRT-203 Layout &amp; Print Design I</td>
<td>TR</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PPRT-204 Flexography</td>
<td>T</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PPRT-205 Gruvure</td>
<td>S</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PPRT-206 Reproduction Photography</td>
<td>F</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PPRT-207 Printing Plates</td>
<td>W</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PPRT-208 Lithographic Press</td>
<td>TR</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PPRT-209 Screen Printing</td>
<td>T</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>PPRTM-301 Intro to Technical Writing</td>
<td>F</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PPRTM-302 Financial Controls</td>
<td>W</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PPRTM-303 Personnel Relations I</td>
<td>TR</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PPRTM-304 Project Management I</td>
<td>T</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PPRTM-305 Development Management</td>
<td>S</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PPRTM-306 Technical Sales</td>
<td>F</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PPRTM-307 Technical Writing</td>
<td>W</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PPRTM-308 Technical Illustration</td>
<td>TR</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PPRTM-309 Technical Consulting</td>
<td>T</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PPRTM-310 Technical Leadership</td>
<td>S</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>PPRTM-311 Planning &amp; Finishing</td>
<td>F</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PPRTM-312 Image Assembly</td>
<td>W</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PPRTM-313 Production Management</td>
<td>TR</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PPRTM-314 Technical Writing</td>
<td>T</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PPRTM-315 Technical Illustration</td>
<td>S</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>PPRTM-316 Technical Consulting</td>
<td>F</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PPRTM-317 Technical Leadership</td>
<td>W</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PPRTM-318 Technical Management</td>
<td>TR</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PPRTM-319 Technical Planning</td>
<td>T</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PPRTM-320 Technical Development</td>
<td>S</td>
<td>3</td>
</tr>
</tbody>
</table>

*See Pg. 23 for Policy on Physical Education.
‡See Pg. 97 for Liberal Arts requirements.

Printing Degree Program
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 students 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 students in the school continue 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 requires courses in important management areas. It allows numerous electives from which students may choose management or technical courses according to their career goals.

The printing program's list of required courses is indicated in a boxed tabulation at the end of this section.

While each student is expected to use initiative in selecting elective courses, the three faculty divisions administer optional program sequences to guide students toward specific career objectives.

Design Composition Division
Emery E. Schneider, Staff Chairman

Most people in the graphic arts need to have an appreciation for good design and typography because much of their time is spent evaluating printing 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 need well-qualified people in these areas. In addition, the needs of in-plant 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 course 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 sequence 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. This flexible program can be altered to fit the specific needs of others interested in the wide range of opportunities in the publishing industry.

**Design and typography.** A sequence for Students with a basic interest in the aesthetics of printing. It includes a broad range of courses—calligraphy to typography, design to copy preparation—that are important in the creative fields of the printing industry.

**Composing room procedure.** A sequence giving students an overview of typesetting techniques and management. The diversity and challenges in this field are reflected in a series of courses ranging from electronics in computerized typesetting through estimating and other management areas related to the composition room.

**Photography-Plate-Press Division**

*Walter G. Home,* Staff Chairman

The production segment of the industry is the core area of most printing facilities. All managers in the industry, from design through delivery and in nonproduction areas, need a firm grasp of this core area if their decisions are to be valuable. 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 majoring printing processes, encompassing camera work, image assembly, platemaking, presswork, inks, substrates, binding, finishing, and distribution.

This division administers sequences in various production areas such as:

**Lithography technology.** This sequence gives students 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.

**Package 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 sequence for students who wish to specialize in the photomechanical processes in printing. The student is prepared for management positions with the camera service departments within printing firms and with color separation service companies.

**Flexographic technology.** A sequence for students who wish to enter the flexographic industry. It 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, management personnel in the graphic arts needs to have a clear understanding of the interrelationships that exists 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 other divisions, the Management Division provides the topping for shaping future managers in the graphic arts. The division offers these sequences:

**Estimating.** Estimating is at the 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 prepare 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 more specialized applications ranging from typesetting to process control. This sequence is designed to provide students with a basic understanding of computers and their potential in production management.

**Newspaper Production Management.** A sequence 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 also 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.** Drawing heavily on courses in the College of Liberal Arts, the sequence prepares students 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 sequence prepares students for positions in printing sales and marketing and printing equipment or supply sales as well as positions as technical representatives for graphic arts supply firms and as printing buyers and brokers.

**Career opportunities.** The graduate with a BS degree in printing has available a wide variety of technical and management positions in printing and related industries. Among these are positions in administration and general management, production management, production and quality control, sales, 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 and in the book, newspaper, and magazine publishing industries are available to graduates.

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 assistants 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 of 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, it is highly recommended that students take as much mathematics and science as possible in high school.

**Math/science sequences**
Each student must take 13 or 14 credits of college mathematics as required by the School of Printing. Nine or 10 of these mathematics credits are earned in the freshman year, and 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 College Physics (SPSP-211, 212, 213).

However, with departmental approval students can substitute certain other college chemistry or physics sequences. The third-year science sequence can be chemistry or physics, advanced chemistry, advanced physics, calculus, computer courses, or Photography for Scientists and Engineers (PPHS-201, 202, 203).

**Electives**

**Liberal arts electives**
In general, the program requires that the student take at least one course per quarter from this area, which includes such subjects as economics, psychology, logic, ethics, language, communications, literature, and fine art appreciation.

**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 if the subject matter is approved as relevant to the student’s 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.

**Printing electives**

**Printing management**
PPRM-320 Intro to Magazine Publishing & Management (Cr-3)
PPRM-402 Estimating II (Cr-4)
PPRM-404 Printing Production Management II (Cr-4)
PPRM-502 Financial Controls II (Cr-4)
PPRM-506 Business Law (Cr-3)
PPRM-507 Computer Estimating Workshop (Cr-4)
PPRM-509 Economics of Production Management (Cr-4)
PPRM-510 Personnel Relations II (Cr-4)
PPRM-511 Labor Relations in Graphic Arts (Cr-4)
PPRM-512 Collective Bargaining in the Graphic Arts (Cr-3)
PPRM-513 Sales in the Graphic Arts (Cr-4)
PPRM-514 Newspaper Management (Cr-4)
PPRM-515 Legal Problems of Publishing (Cr-4)
PPRM-516 Marketing in Graphic Arts (Cr-4)
PPRM-518 Purchasing in the Graphic Arts (Cr-3)
PPRM-599 Independent Study (Cr-arranged)

**Printing technology**
PPRT-210 Newspaper Presses (Cr-3)
PPRT-213 Principles of Copy Preparation (Cr-3)
PPRT-301 Typography II (Cr-4)
PPRT-303 Layout and Printing Design (Cr-4)
PPRT-306 Tone Reproduction Photography (Cr-3)
PPRT-308 Litho Press Problems (Cr-4)
PPRT-309 Advanced Screen Printing (Cr-3)
PPRT-310 Advanced Image Carriers (Cr-3)
PPRT-313 Copy Preparation (Cr-4)
PPRT-314 Advanced Flexography (Cr-3)
PPRT-315 Ink and Color (Cr-4)
PPRT-317 Calligraphic Forms (Cr-3)
PPRT-319 Newspaper Design (Cr-3)
PPRT-320 Newspaper Production (Cr-3)
PPRT-321 Web Offset (Cr-3)
PPRT-322 Circulation and Mailrooms (Cr-3)
PPRT-324 Newspaper Composition (Cr-3)
PPRT-329 Introduction to Book Design (Cr-3)
PPRT-330 Newspaper Production II (Cr-3)
PPRT-333 Introduction to Book Production (Cr-3)
PPRT-335 The Printed Book in America (Cr-3)
PPRT-401 Typographic Workshop (Cr-4)
PPRT-403 Layout and Printing Design (Cr-4)
PPRT-406 Color Separation Photography (Cr-3)
PPRT-500 Quality Control in the Graphic Arts (Cr-3)
PPRT-501 Development of Printing Types (Cr-3)
PPRT-506 Advanced Color Reproduction (Cr-3)

Other electives to be selected in consultation with advisors.

**U.S. Industrial Outlook** says, "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, and 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 that prepare graduates for engineer-type positions in the printing industry. At the same time, this preparation enhances the graduate for a variety of production management positions.

**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 as 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 the printing plant, or by general interest in graphic communications and engineering.

High school graduation is a requirement along with the coursework in elementary algebra, plane geometry, intermediate algebra, trigonometry, physics and chemistry. Preference is given to those who have
additional work in mathematics, physics, and chemistry. Students admitted to this program must meet the full entrance requirements of the RIT College of Engineering on mathematics, physics, chemistry, and SAT scores.

**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 credits in printing technology, 29 credits in printing management, 40 credits in industrial engineering, 32 credits in math/science, 54 credits in general studies, and six elective credits. The first-year curriculum of this program and that of the Printing and Applied Computer Science program are practically the same. Therefore, a student may transfer between the program at that time with no loss of credit.

**Electives**
Students may elect professional courses in printing or industrial engineering to complete their course requirements.

Liberal arts electives
In general, the program requires that the student take at least one course per quarter from this area, which includes subjects such as economics, psychology, logic, ethics, language communications, literature, and fine arts appreciation.

**Newspaper Production Management**

**Robert G. Hacker,** coordinator

The printing and publishing industries are undergoing dynamic changes in technology. Within the newspaper field changes are particularly drastic, completely altering how things are accomplished. In addition, advances in technology and market penetration of related information-handling result in greater competition in the areas of reader interest and advertising appeal. These advances have made it imperative to alter not only the way in which a newspaper is printed and distributed, but also 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 a function of advertising and editorial preparation, a direction enveloping previously distinct 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 then to control production and delivery.

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 complete 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 useful and profitable position in the marketplace. The revolution in this field points 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 its name implies, the program concentrates on those courses that have been most helpful to graduates particularly interested in careers in newspaper production management.

**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, technical specialists with suppliers 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 a 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. The entrance requirements and general program scope are similar to those in the printing program. It requires coursework aimed at the newspaper industry, rather than the printing industry, in general.

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. The newspaper industry is large: 383,000 people in 8,200 establishments producing more than 1,700 dailies and 7,400 weeklies. The U.S. Industrial Outlook says of the newspaper industry, "The continuing development and the implementation of new technologies, successful research efforts and educational programs will support a growth rate ranging between 7 and 8 percent per year to the mid-80's."

The program stresses management, engineering, sciences, computer printing technology, along with liberal studies.

Math/science sequences
Each student must take 13 or 14 credits of college mathematics as required by the School of Printing. Nine or ten of these mathematics credits are earned in the freshman year, and 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, 293). 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
Liberal arts electives
In general, the program requires that the student take at least one course per quarter from this area, which includes subjects such as economics, psychology, logic, ethics, language communications, literature, and fine arts appreciation.

Professional electives
These are usually selected from the electives listed below, but may also include any other School of Printing course. 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.

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—a program combining coursework in Industrial Engineering and Printing

Walter A. Cambell, Coordinator

The printing industry needs people who have competency in both printing and industrial engineering. 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 daily occurrences. The program in printing systems management integrates coursework in printing technology, printing management, industrial engineering, math/science, and general education to prepare...
managers for the printing industry who are excellent problem solvers when analyzing printing plant operations. Most engineering courses in this program are based on computer applications.

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 at least one 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.

Printed and Applied Computer Science
William H. Birkett, Coordinator

In recent years computers have become widely used in most areas of the graphic arts industry. From typesetting to management information and from inking systems to automated bindery operations, 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, custom engineering, custom 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 and coursework in elementary algebra, plane geometry, intermediate algebra, trigonometry, physics, and chemistry is required. Preference is given to those who have had additional work in physics, calculus, and computer usage.

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 coursework 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 the 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. The first-year curriculum of this program and that of the Printing Systems Management programs are practically the same. Therefore, a student may transfer between the programs at that time with no loss of credit.

Professional electives
Students may elect professional courses in printing or computer science and technology to complete their elective course requirement.

Liberal arts electives
In general, the program requires that the student take at least one course each quarter from this area, which includes such subjects as economics, psychology, logic, ethics, language, communications, literature, and the fine arts appreciation.
**College of Liberal Arts**

**Liberal Education In the Humanities And Social Sciences**

Dr. Mary C. Sullivan, R.S.M., Dean

The College of Liberal Arts 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 capabilities 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 varied fields of human endeavor.

The program of the College of Liberal Arts, 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 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 their 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 knowledge of 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 Liberal Arts 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 with the humanistic studies of the other Liberal Arts 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 Liberal Arts Curriculum

The new curriculum of study in the humanities and social sciences which all RIT students will pursue in the College of Liberal Arts may be understood by examining the following chart. Students in the various RIT associate and baccalaureate degree programs will complete this entire Liberal Arts curriculum or a modification of it, as applicable to their particular degree programs. Faculty academic advisors in the College of Liberal Arts and in other colleges of the Institute will assist students in interpreting the Liberal Arts curriculum as it applies to their particular degree program. The new Liberal Arts curriculum as outlined here was approved in March 1981 and was 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 (200-300 course numbers);
3. A disciplinary or interdisciplinary concentration of three advanced courses (400 course numbers);
4. Three advanced electives (400 & 500 course numbers);
5. The Liberal Arts Senior Seminar and Project.

Visually, the curriculum may be represented as follows:

In addition to English Composition, the specific Core Courses are:

<table>
<thead>
<tr>
<th>Literature: required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fine Arts: one required</td>
</tr>
<tr>
<td>Fine Arts: Visual Arts</td>
</tr>
<tr>
<td>Fine Arts: Musical Arts</td>
</tr>
<tr>
<td>Fine Arts: Film Arts</td>
</tr>
<tr>
<td>History: one required</td>
</tr>
<tr>
<td>History: Modern American</td>
</tr>
<tr>
<td>History: Modern European</td>
</tr>
<tr>
<td>Philosophy: or Science, Technology and Values: one required</td>
</tr>
<tr>
<td>Philosophy: Ethics</td>
</tr>
<tr>
<td>Philosophy: Critical Thinking</td>
</tr>
<tr>
<td>Philosophy: Selected Issues Science, Technology, and Values</td>
</tr>
<tr>
<td>Social Sciences: two required</td>
</tr>
<tr>
<td>Introduction to Economics</td>
</tr>
<tr>
<td>American Politics, or</td>
</tr>
<tr>
<td>Ideology and the Political Process</td>
</tr>
<tr>
<td>Introduction to Psychology</td>
</tr>
<tr>
<td>General Sociology, or</td>
</tr>
<tr>
<td>Cultural Anthropology</td>
</tr>
</tbody>
</table>

### Concentrations

A concentration is a group of closely related advanced courses from which the students choose three. The students' liberal education is enhanced by such a concentration in the following ways:

1. Students achieve greater depth in learning because they have, where necessary, taken the prerequisites for these courses and benefited from the accumulated depth of the three-course concentration itself.
2. They achieve a kind of "minor" in an area of liberal education.

<table>
<thead>
<tr>
<th>Concentrations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liberal Arts: Critical Thinking</td>
</tr>
<tr>
<td>Liberal Arts: Philosophy of Science</td>
</tr>
<tr>
<td>Liberal Arts: Social Science</td>
</tr>
<tr>
<td>Liberal Arts: Fine Arts</td>
</tr>
<tr>
<td>Liberal Arts: History</td>
</tr>
<tr>
<td>Liberal Arts: Philosophy</td>
</tr>
<tr>
<td>Liberal Arts: Political Science</td>
</tr>
<tr>
<td>Liberal Arts: Psychology</td>
</tr>
</tbody>
</table>

For a full description of each concentration, please refer to the appropriate section in this bulletin.
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.

A concentration is pursued in the third, fourth or fifth year of the baccalaureate programs and can take either of the following forms:

1. Disciplinary Concentration: three related courses in a single discipline leading to an in-depth knowledge of the methods, problems and achievements of that mode of inquiry.

2. Interdisciplinary Concentrations:
   a. three interdisciplinary courses on a single broad theme or topic;
   b. three related courses from different disciplines each one of which speaks to some aspect of a common area, subject, 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.

The Liberal Arts concentrations available to RIT baccalaureate students will be the following:

Language Communications
Economics
American Artistic Experience
History
The Social Impacts of Science and Technology
International Relations
Literature
Philosophy
American Politics
Psychology: Human Growth and Development
Sociology: American Society in Transition

Interdisciplinary Concentrations:
A number of interdisciplinary concentrations are 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.

The Interdisciplinary concentrations now available to students are the following:

- Environmental Studies
- Perspectives on Religion
- Women's Studies

In the future additional Interdisciplinary Concentrations will be available.

**Electives**

The opportunity to choose three elective courses provides students with an element of choice in planning their Liberal Arts 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."

**Senior Seminar and Project**

The purposes of the Senior Seminar and Project are the following:

- to give senior students the opportunity to prepare these or projects that call for analysis and synthesis and for the application of their Liberal Arts 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 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 Liberal Arts 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 applies to entering students (freshmen and transfers) as follows:

- Students entering in:
  - Fall 1978: (Graduating Class of 1982*)
    - Same requirements as Fall 1978.
    - These students will receive a waiver on one credit on each upper division Liberal Arts course they take in 1982-1983. They will not take the Senior Seminar Project.
  - Fall 1979: (Graduating Class of 1983*)
    - Same requirements as Fall 1978.
    - These students will receive a waiver on one credit on each upper division Liberal Arts course they take in 1982-1983. They will not take the Senior Seminar Project.
  - Fall 1980: (Graduating Class of 1984*)
    - These student will be required to take the former ("old") Liberal Arts lower division** courses and the new advanced Liberal Arts curriculum as it applies to their degree program:
      - 3 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 Liberal Arts lower division courses in the light of the new curriculum as applicable to their degree programs and as needed for the concentration of advanced courses they may later wish to pursue.
  - Fall 1982 and Fall 1983: (Graduating Class of 1986 and 1987*)
    - The entire new Liberal Arts curriculum will apply to these students, as this curriculum is applicable to their degree programs.

### Registration

The courses of the College of Liberal Arts are available to students registered in one of the colleges of the Institute as well as to part-time non-matriculated students. (Degree programs in social work and criminal justice are available to students through the School of Human Services in the College of Liberal Arts, and are described on the next page of this section.)

It should be noted that 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 Liberal Arts 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 Liberal Arts requirements.

### Faculty

The faculty of the College of Liberal Arts 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 Liberal Arts offers a number of courses each summer in Language and Literature, Science and Humanities, and Social Science.

Information concerning summer 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 the RIT Office of Admissions.

**One Lomb Memorial Drive**

P.O. Box 9887

Rochester, New York 14623
College of Liberal Arts: Human Service Degree Programs

Dr. Mary C. Sullivan, R.S.M., Dean

The School of Human Services

Social Work

Criminal Justice

Arnold J. Berman, Director

The School of Human Services in the College of Liberal Arts offers two programs leading to the B.S. degree. They are Criminal Justice and Social Work.

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 students with an opportunity to relate academic learning to professional practice through relevant individual, group, family, and community experiences. Degree granted: BS 4-year.

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, through a field placement program, offers unique opportunities for practical on-the-job learning experiences. Degree granted: BS 4-year.

General information on RIT’s admission requirements, procedures and services is included in detail on pages 13-14 of this Bulletin.

Criminal Justice Program and Career Opportunities

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 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 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 liberal education courses, students will be stimulated to develop their capacities for sound judgment and their decision-making skills. Through careful academic guidance, they will be encouraged to design a well-balanced program of study leading to professional competencies as well as to breadth in personal development.

A particularly important aspect of the program is the supervised field education placement, a supervised internship in the criminal justice system.

These specific goals are undergirded by a program that pursues the following objectives:

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 the 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

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.

Further, the program offers a 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 thousand new positions a year.

Curriculum
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.

Field Placement
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.

Faculty
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 8 quarter credit hours. This credit may be used to replace criminal justice upper 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 160 students are matriculated in the program.

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 Program and/or the 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 Program. These courses are grouped under only one general heading, even though many are appropriate for students with diverse 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 them to develop 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
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:
- College of Business
- College of Graphic Arts and Photography
- College of Liberal Arts—Social Work
- College of Applied Science and Technology—School of Computer Science and Technology

Therefore, students in the Criminal Justice program may develop special concentrations in:
- Accounting
- Computer Science
- Management
- Photography
- Social Work or its related concentrations

Social Work Program Offered in Response to Community Need

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 commitment.

The Social Work Program 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 to 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 the 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 people, 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 social services, corrections, school social work, day care, 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) required service courses offered through the College of Liberal Arts, College of Business, College of Graphic Arts and Photography, Social Work, Computer Science.

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.

Curriculum
The curriculum leading to the baccalaureate degree in social work rests

<table>
<thead>
<tr>
<th>Yr.</th>
<th>Bachelor of Science in Criminal Justice</th>
<th>Quarter Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>GCJC-201 Fundamentals of the Criminal Justice System</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>GCJC-203 Criminology</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>GCJC-303 Law Enforcement in Society</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>GCJC-301 Fundamental Concepts of Criminal Law</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>1 Mathematics course (e.g. College Algebra)</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>1 Liberal arts course</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>GCJC-304 Judicial Process</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>GCJC-207 Corrections</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>*1 Computer Science course (ICSS-200 or ICSS-202)</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>1 Science/Math/Computer Science course</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>GCJC-309 Juvenile Justice</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>1 Liberal arts course</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>1 Liberal arts/Math/Science/Computer Science course</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>*1 Professional Elective</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>1 Open Elective</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>*1 Professional Elective</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>GCJC-526 Seminar in Law Enforcement</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>GCJC-526 Ecology of Crime</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>2 Liberal arts courses</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>GCJC-207 Seminar in Corrections</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>*1 Professional Elective</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>GCJC-401 Scientific Methodology</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>1 Liberal arts course</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>*2 Professional Electives</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>GCJC-403, 404 Field Experience and Seminar</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>GCJC-541 Field Research</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>1 Liberal arts course</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Liberal Arts: Senior Seminar</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>*1 Liberal arts/Math/Science/Computer Science course</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>*2 Professional Electives</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>GCJC-514 Planning and Seminar</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>1 Open Elective</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>*1 Professional Elective</td>
<td>4</td>
</tr>
</tbody>
</table>

*Selection from Liberal Arts, Natural Science, Mathematics, or Computer Science.
**Selection for a cognate concentration may be made for 50% of the Professional Electives in the areas of Liberal Arts, College of Business, College of Graphic Arts and Photography, Social Work, Computer Science.
on the following general areas of content. Most students entering RIT
with two years of previous undergraduate study can complete the Social
Work program in seven academic quarters (two academic years).

1. Foundation Courses
Taken within first two years, foundation courses define the role of
the professional social worker, explore the history of the social
welfare system, basic theory and knowledge about families, groups and
communities, 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 interventive techniques and strategies fundamental to pro-
fessional practice with individuals, groups, families and the community.
Emphasis is placed in the development of interventive 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 knowl-
edge, attitudinal and skill criteria as
set forth in the Field Placement Policy
before advancing to a field placement
(see the Social Work Program
Student Handbook for a full state-
ment 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 supervision of RIT faculty.

4. Minority Content
Course content on minority popula-
tions 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, and is also
integrated into all other social work
courses. In addition, Spanish
language courses, manual language
courses and a course in sexism 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 charac-
teristics 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
t heir ability to engage in independent
inquiry. Course work in human
behavior is designed to help students
become aware of alternate approaches
to human problems, and to see their
role in a wider philosophical and
historical perspective.

These courses promote a greater
awareness of psychological, social,
political, and economic issues so that
the student’s professional training in
social work is supported by a solid
foundation of knowledge and theory.
In addition, these academic opportunities will help students to develop those techniques indispensable to good written and oral communication and to 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.

9. 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 Program and other programs 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

Students desiring to focus their professional electives in a specific area of study may develop a professional concentration. Basically, a concentration is a sequence of at least three professional elective courses, offered within the Social Work Program or in other programs focused on a single unified field of service. Professional concentrations include:

- Deafness
- Alcoholism and Substance Abuse
- Families and Children
- The legal System (Criminal Justice)
- Management
- Computer Science
- Advanced Field Placement

Course Descriptions

For a description of course content and sequencing, please request the Courses catalog from the Admissions Office.
The undergraduate in the College of Science at RIT gets a different kind of education than at any other school in New York State.

Our program combines work-study with the potential for undergraduate research and a strong faculty-student interaction brought about by the smallness of the various departments and the resulting classes. Our main interest is high quality teaching at the undergraduate level.

The industrial work-study program, which pays a salary, enables students to maintain this high quality education at a cost comparable to a public education. In addition, it allows students to see what industry is all about early in their undergraduate training rather than waiting until after graduation.

Our stress is on the practice of science in the real world, not just classroom lecturing. We're career-oriented and train students for where the jobs are.

In addition to the educational work-study experience, the science student at RIT is exposed to research by having the opportunity to work with a faculty member on a project. A number of these projects have resulted in publication in scientific literature.

We seek faculty members with a proper blend of interests in both teaching and research. Research permits the faculty member to practice his profession and stay up-to-date and provides projects for our students.

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 has an ideal size to provide quality undergraduate education. It has 80 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. Each year, new funds are expended in replacing and updating our equipment. As a result, we are as well-equipped as some universities that 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 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 had 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 20 years of its history as an integral academic unit of RIT, the College of Science has developed into a first rate educational center which not only services and supports nearly all of RIT's programs but offers a great variety of its own major programs.

In addition to the four basic programs leading to a bachelor's degree in biology, chemistry, applied mathematics, and physics, the college has developed an associate's degree program in chemical technology, six bachelor's degree programs in biomedical computing, computational mathematics, medical technology, nuclear medicine technology, ultrasound technology, and biomedical computing. As a major in any of these programs, a student may prepare for a professional school through the advice and counsel of the College's Pre-Professional Advisory Committee.

Choice of majors
A student may enroll in the College of Science as a science major without designating a specific major. In 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, make it possible to take a series of courses which could result in an elective concentration (i.e., minor) in an area related to, but not required for, the major.

To illustrate, the following is a typical distribution of courses for the first year as an undeclared 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.

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 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. Some students attend classes during the Fall Quarter while the rest work on their cooperative jobs. The two groups change at the beginning of the Winter Quarter, when those who were on co-op attend classes and the others work on co-op jobs. This interchange of the work/study periods continues throughout the remainder of the third, fourth and fifth years.

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.

Teacher certification option

Students majoring in biology, chemistry, mathematics and physics can participate in a teacher preparation program offered jointly by Rochester Institute of Technology’s College of Science and the University of Rochester’s School of Education and Human Development. The professional semester is taken at the University of Rochester during fall term of the senior year. Activities include a seminar on secondary teaching methods followed by a student teaching experience.

Students completing the program qualify for a N.Y. State teaching certificate for grades 7-12.

Admission at a Glance: College of Science Programs

General information on RIT’s admission requirements, procedures and services is included in detail on pages 13-14 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 the 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.

Biotechnology—Biotechnology is defined as the use of living organisms or their components in applied research and industrial processes to meet fundamental needs of society in agriculture, food production, pharmaceuticals, chemistry and energy. Graduates will be prepared to work as technicians or assistant scientists in biotechnology or to enter advanced degree programs in that field or in related areas such as molecular biology, genetics, microbiology, and physiology. Degree granted: BS-4 year.

![Table: Undeclared Science option](Image 198x630 to 530x715)

Yr. | Undeclared Science option | Qtr. | Credit Hours |
---|---|---|---|
| | FALL | WTR | SPR |
| SBIB-205, 206, 207 Gen. Biology Lab... | 1 | 1 | 1 |
| SBIB-201, 202, 203 General Biology Lec... | 3 | 3 | 3 |
| SCHC-211, 212 General Chemistry Lec... | 3 | 3 | 3 |
| SGHO-230 Intro. to Organic Chemistry | 3 | 3 | 3 |
| SCBA-262, 263 Intro. to Chemical Analysis | 3 | 3 | 3 |
| SMAM-281, 282, 283 Calculus I, II, III... | 3 | 3 | 3 |
| SFSP-311, 312 University Physics I, II | 4 | 4 | 4 |
| Liberal Arts Core | 4 | 4 | 4 |
| Physical Education | 0 | 0 | 0 |

*Any two of these three in a given quarter. See Pg. 23 for Policy on Physical Education. See Pg. 97 for Liberal Arts requirements.
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.

Applied 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. Degree 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.

Ultrasound Technology—Prepares students for positions in hospitals, clinics, research and administration. Graduates are trained in abdominal, obstetrical and gynecological ultrasound scanning techniques and procedures. Baccalaureate option—three years at RIT and one year of clinical internship. Certificate option—one year of clinical internship. Degree granted: BS-4 year. Certificate-1 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, optometry, 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.

Cooperative schedule for chemical technology

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st year A</td>
<td>RIT</td>
<td>RIT</td>
<td>Work</td>
<td>RIT</td>
</tr>
<tr>
<td>1st year B</td>
<td>RIT</td>
<td>Work</td>
<td>RIT</td>
<td>Work</td>
</tr>
<tr>
<td>2nd year A</td>
<td>Work</td>
<td>RIT</td>
<td>Work</td>
<td>RIT</td>
</tr>
<tr>
<td>2nd year B</td>
<td>RIT</td>
<td>Work</td>
<td>RIT</td>
<td>Work</td>
</tr>
<tr>
<td>3rd year A</td>
<td>Work</td>
<td>RIT</td>
<td>Work</td>
<td>RIT</td>
</tr>
<tr>
<td>3rd year B</td>
<td>RIT</td>
<td>Work</td>
<td>RIT</td>
<td>Work</td>
</tr>
</tbody>
</table>

Cooperative schedule for five-year program in biology, mathematics, physics and biomedical computing

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st and 2nd years A</td>
<td>RIT</td>
<td>RIT</td>
<td>RIT</td>
<td>Vacation</td>
</tr>
<tr>
<td>3rd, 4th years A</td>
<td>RIT</td>
<td>Work</td>
<td>RIT</td>
<td>Work</td>
</tr>
<tr>
<td>3rd, 4th years B</td>
<td>Work</td>
<td>RIT</td>
<td>Work</td>
<td>RIT</td>
</tr>
<tr>
<td>5th year A</td>
<td>RIT</td>
<td>Work</td>
<td>RIT</td>
<td></td>
</tr>
<tr>
<td>5th year B</td>
<td>Work</td>
<td>RIT</td>
<td>RIT</td>
<td></td>
</tr>
</tbody>
</table>

Cooperative schedule for five-year chemistry program

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st year</td>
<td>RIT</td>
<td>RIT</td>
<td>RIT</td>
<td>Vacation</td>
</tr>
<tr>
<td>2nd, 3rd years A</td>
<td>RIT</td>
<td>Work</td>
<td>RIT</td>
<td>Work</td>
</tr>
<tr>
<td>4th years B</td>
<td>Work</td>
<td>RIT</td>
<td>Work</td>
<td>RIT</td>
</tr>
<tr>
<td>5th year A</td>
<td>RIT</td>
<td>Work</td>
<td>RIT</td>
<td></td>
</tr>
<tr>
<td>5th year B</td>
<td>Work</td>
<td>RIT</td>
<td>RIT</td>
<td></td>
</tr>
</tbody>
</table>

Students in these programs receive an AS in General Science upon the successful completion of the first two years.
# College of Science Admission Guide

## Freshman Admission Requirements

<table>
<thead>
<tr>
<th>Program</th>
<th>Required High School Subjects*</th>
<th>Desirable Elective Subjects</th>
<th>Two-Year College Programs</th>
<th>Desirable Minimum GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applied Mathematics, Computational Mathematics</td>
<td>Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; Chemistry or Physics</td>
<td>Physics or Chemistry; additional mathematics</td>
<td>Liberal arts major with a math/science option. Changes from engineering, science or other math-oriented programs-can be arranged.</td>
<td>2.0</td>
</tr>
<tr>
<td>Biology</td>
<td>Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; Biology</td>
<td>Physics or Chemistry; additional mathematics, C.E.E.B. Biology Achievement Test</td>
<td>Liberal arts major with a math/biology option or equivalent. Changes from other science major or engineering science can be arranged.</td>
<td>2.0</td>
</tr>
<tr>
<td>Biomedical Computing</td>
<td>Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; Biology</td>
<td>Physics; Chemistry; Additional Mathematics Computer Science</td>
<td>Liberal arts major in science, mathematics, computer technology and engineering. Changes from other allied health majors can be arranged.</td>
<td>2.5</td>
</tr>
<tr>
<td>Biotechnology</td>
<td>Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; Biology</td>
<td>C.E.E.B. Biology or Chemistry Achievement Test</td>
<td>Not Applicable Decided on individual basis</td>
<td>2.0</td>
</tr>
<tr>
<td>Chemistry</td>
<td>Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; Chemistry</td>
<td>Physics, C.E.E.B. Chemistry Achievement Test, additional mathematics</td>
<td>Liberal arts major with a math/chemistry option or equivalent. Changes from other science majors or engineering science can be arranged.</td>
<td>2.0</td>
</tr>
<tr>
<td>Chemical Technology</td>
<td>Elem. Algebra; 1 year any science</td>
<td>Additional mathematics and science</td>
<td>Program terminal at AAS degree-no junior year courses.</td>
<td>2.5</td>
</tr>
<tr>
<td>Medical Technology</td>
<td>Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; Biology</td>
<td>Physics or Chemistry</td>
<td>Medical laboratory technology, other allied health programs or equivalent programs.</td>
<td>2.0</td>
</tr>
<tr>
<td>Medical Imaging Technologies</td>
<td>Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; Biology; Chemistry</td>
<td>Calculus, Physics</td>
<td>Biology, medical technology, radiologic technology, other allied health programs.</td>
<td>2.0</td>
</tr>
<tr>
<td>Ultrasound Technology</td>
<td>Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; Biology</td>
<td>Additional mathematics and science</td>
<td>Biology, medical technology, radiologic technology, other allied health programs.</td>
<td>2.5</td>
</tr>
<tr>
<td>Physics</td>
<td>Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; Physics or Chemistry</td>
<td>Chemistry or Physics; additional mathematics, C.E.E.B. Physics Achievement Test</td>
<td>Liberal arts major with a math/physics option or equivalent. Changes from other science majors or engineering science can be arranged.</td>
<td>2.0</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>
<td>Not applicable</td>
<td>2.0</td>
</tr>
</tbody>
</table>

*About one-third of the program includes electives in social science, literature, and humanities.

*Four years of English are required in all programs, except where state requirements differ.
Biology Program

G. Thomas Frederick, 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 18 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 17 of this bulletin. In addition, the student must complete a minimum of 80 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 three in general analytical and three in organic chemistry. A minimum of three courses in physics and three courses in mathematics, including at least two courses in calculus, is also required.

Institute requirements for Liberal Arts may be found on page 97. The policy on Physical Education is described on page 23.

The specialization track
In conjunction with a faculty advisor, individual student programs can be 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 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 students 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. 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 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).
7. 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.

Biotechnology Program

G. Thomas Frederick, Head

The Department of Biology offers a program leading to the BS degree in biotechnology. This undergraduate program is one of only a few such programs in the United States.

The program requires a strong aptitude and interest in biology, chemistry, biochemistry, and genetics. Students learn the modern techniques and applications of biochemistry, cell physiology, genetics (general, microbial and viral), genetic engineering, microbiology, molecular biology and hybridoma formation. The program provides experience in using gel electrophoresis, a biohazard cabinet, fermentation systems, centrifugation, and scintillation counting, as well as other laboratory techniques and instruments.

Graduates of the program are prepared for employment as technicians or assistant scientists in industrial and academic research laboratories in the field of biotechnology. Industries that employ biotechnologists include those involved in agriculture, food production, pharmaceutics, chemistry, and energy. The program also prepares students for possible entrance into advanced degree programs in biotechnology or related areas.

Requirements for the BS degree in biotechnology
The student must meet the minimum graduation requirements of the Institute as described on page 17 of this bulletin. In addition, the program requires the successful completion of a total of 68 quarter credit hours in biology: General Biology, Introduction to Biotechnology, Molecular Biology, Plant and Cell Tissue Culture, Tissue Culture, Introductory Microbiology, Immunology, Hybridoma Techniques, Genetics, Plant Physiology, Microbial and Viral Genetics, Cell Physiology, Industrial Microbiology, Genetic Engineering, Topics in Biotechnology, and the Biotechnology Senior Project.

Additional requirements include general and analytical chemistry, organic chemistry, two courses in biochemistry, analytical chemistry/s separations, and survey of physical chemistry. Two course in calculus, one in statistics, and one in computer science are also required.

Institute requirements for Liberal Arts may be found on page 97. The policy on Physical Education is described on page 23.
Chemistry and Chemical Technology

Terence C. Morrill, 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 photoscience, business, graphic arts, audio visual communications, biology, criminal justice, engineering, environmental studies, packaging science, printing, computer science, physics or mathematics. Students may also elect to complete the BS degree requirements in a traditional (non-cooperative) four-year program.

---

**Courses for students on Co-op (FALL, SPG.)** available from the Chemistry Department.

†Upon completion of the third year, the associate in applied science degree is awarded.
‡See Pg 23 for Policy on Physical Education.
*See Pg 97 for Liberal Arts requirements.
**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 biochemistry 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 18 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. 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 187 quarter credit hours and 374 quality points.

All students must meet the requirements for the Institute’s writing policy, as specified by the Chemistry Department.

---

<table>
<thead>
<tr>
<th>Yr.</th>
<th>Chemistry (Biochemistry option)</th>
<th>Qtr. Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SCHC-200 Chemical Safety</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SCHC-230 Intro. to Co-op Seminar</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SCHC-211, 212 General Chemistry Lec.</td>
<td>3 3</td>
</tr>
<tr>
<td></td>
<td>SCHC-261, 262, 263 Intro. to Chemical Analysis</td>
<td>4 3 4</td>
</tr>
<tr>
<td></td>
<td>SCHO-230 Intro. to Organic Chemistry</td>
<td>3 3 3</td>
</tr>
<tr>
<td></td>
<td>SMAM-251, 252, 253 Calculus I, II, III</td>
<td>3 3 3</td>
</tr>
<tr>
<td></td>
<td>SIBB-201, 202, 203 General Biology Lec.</td>
<td>3 4 4</td>
</tr>
<tr>
<td></td>
<td>SIBB-205, 206, 207 General Biology Lab.</td>
<td>1 1 1</td>
</tr>
<tr>
<td></td>
<td>*Liberal Arts (Core)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>‡Physical Education Electives</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SCHC-311 Anal. Chem. Instrumental Analysis Lec.</td>
<td>3 3 4</td>
</tr>
<tr>
<td></td>
<td>SCHO-431 Organic Chemistry Lec.</td>
<td>4 3 3</td>
</tr>
<tr>
<td></td>
<td>SCHO-435 Organic Chemistry Lab.</td>
<td>3 3 3</td>
</tr>
<tr>
<td></td>
<td>SMAM-305 Calculus IV</td>
<td>4 3 3</td>
</tr>
<tr>
<td></td>
<td>ICSP-205 Computer Techniques</td>
<td>3 3 3</td>
</tr>
<tr>
<td></td>
<td>SPSP-311, 312 University Physics Lec.</td>
<td>1 1 1</td>
</tr>
<tr>
<td></td>
<td>SPSP-371, 372 University Physics Lab</td>
<td>3 3 3</td>
</tr>
<tr>
<td></td>
<td>or SPSP-211, 212 College Physics Lec.</td>
<td>3 3 3</td>
</tr>
<tr>
<td></td>
<td>SPSP-271, 272 College Physics Lab</td>
<td>3 3 3</td>
</tr>
<tr>
<td></td>
<td>SCHO-201 Chemical Literature (WTR. or SPG.)</td>
<td>2 2 2</td>
</tr>
<tr>
<td></td>
<td>*Liberal Arts (Core)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>‡Physical Education Electives</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SCHO-432, 433 Organic Chemistry Lec.</td>
<td>3 3 3</td>
</tr>
<tr>
<td></td>
<td>SCHO-435, 437 Organic Chemistry Lab</td>
<td>3 3 3</td>
</tr>
<tr>
<td></td>
<td>SPSP-331 Electronics and Electricity</td>
<td>3 3 3</td>
</tr>
<tr>
<td></td>
<td>SCHC-312 Anal. Chem. Separation Techniques Lec.</td>
<td>3 3 3</td>
</tr>
<tr>
<td></td>
<td>SCHC-319 Anal. Chem. Separation Techniques Lab</td>
<td>3 3 3</td>
</tr>
<tr>
<td></td>
<td>SMAM-306 Differential Equations</td>
<td>3 3 3</td>
</tr>
<tr>
<td></td>
<td>*Liberal Arts (Core)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>‡Physical Education Elective</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SCHP-340 Intro. to Physical Chemistry</td>
<td>3 3 3</td>
</tr>
<tr>
<td></td>
<td>SCHP-441 Physical Chemistry Lec.</td>
<td>3 3 3</td>
</tr>
<tr>
<td></td>
<td>SCHP-445 Physical Chemistry Lab.</td>
<td>3 3 3</td>
</tr>
<tr>
<td></td>
<td>SCHB-702 Biochemistry</td>
<td>3 3 3</td>
</tr>
<tr>
<td></td>
<td>SCHB-704 Biochemistry—Molecular Biology</td>
<td>3 3 3</td>
</tr>
<tr>
<td></td>
<td>SCHC-402 Introduction to Research</td>
<td>3 3 3</td>
</tr>
<tr>
<td></td>
<td>*Liberal Arts (Concentration)</td>
<td>3-4 3-4</td>
</tr>
<tr>
<td></td>
<td>Science Electives</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SCHB-703 Biochemistry—Metabolism</td>
<td>3 3 3</td>
</tr>
<tr>
<td></td>
<td>SCHP-442, 443 Physical Chemistry Lec.</td>
<td>3 3 3</td>
</tr>
<tr>
<td></td>
<td>SCHP-445, 447 Physical Chemistry Lab</td>
<td>3 3 3</td>
</tr>
<tr>
<td></td>
<td>*Liberal Arts Electives</td>
<td>3 3 3</td>
</tr>
<tr>
<td></td>
<td>Liberal Arts (Senior Seminar)</td>
<td>3 3 3</td>
</tr>
<tr>
<td></td>
<td>Science Electives</td>
<td>3 3 3</td>
</tr>
</tbody>
</table>

*Associate’s degree award upon successful completion of third year
†See Pg. 23 for Policy on Physical Education.
‡See Pg. 97 for Liberal Arts requirements.
Mathematics

George T. Geogantas, Head

Programs
The Department of Mathematics offers two types of programs: Applied Mathematics and Computational Mathematics. Each program is designed to lead to a bachelor of science degree in applied mathematics or computational mathematics, as the case may be. However, one may become eligible for the associate of science degree in applied mathematics upon successful completion of the first two years of the program.

Applied Mathematics
The Applied Mathematics Program has been specially designed to prepare students as applied mathematicians and analysts in high-technology industry and federal agencies, as well as in medical research units. Students in this program must select some mathematics-related area as their minor concentration. Possible minors include: applied statistics, physics, biology, business and economics, chemistry, computer science, electrical engineering, industrial engineering, operations research, photoscience.

Because of increasing opportunities for employment of our graduates with a background in statistics, the department offers a special sequence of courses in applied statistics. Courses in this minor concentration include: Probability, Applied Statistics I-II, Regression Analysis, Design of Experiments, and Mathematical Statistics I-II.
Computational Mathematics
The Computational Mathematics Program prepares students for a career in applied mathematics and computers. It has been specially designed to incorporate a heavy concentration of computer science courses. Students are prepared to become mathematical analysts and scientific programmers. In this program, much emphasis is given to usage of the computer as a tool in solving physical problems which have been mathematically modelled.

Co-op
RIT’s co-operative education program, known as “co-op,” enables students to alternate periods in school (academic blocks) with jobs in their chosen field (work blocks) after the successful completion of the first two years of their program requirements. Co-op is optional for students, but nearly every student in the Department of Mathematics opts for it for the obvious reasons: good salary, experience in applying classroom knowledge to the "real world," motivation, and enhancement of full-time job opportunities upon graduation. *

Transfer Programs
Transfer programs are arranged on an individual basis.

Requirements for the AS and BS degrees:
The student must meet the minimum requirements of the Institute as described on page 17; 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. Additional information is available from the Department of Mathematics.

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

<table>
<thead>
<tr>
<th>Yr.</th>
<th>Computational Mathematics</th>
<th>Qtr. Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NOTE: A detailed analysis of the above program is contained in a booklet prepared by the Department of Mathematics and is available upon request.

*See Mathematics Department for approved mathematics and computer science electives.
**If science sequence begins in the winter quarter, an extra Liberal Arts course should be taken in the fall quarter of the first year, and no liberal arts course taken in the fall quarter of the second year.
Physics

Arthur Z. Kovacs, Head

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 17 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

J. Richard Garnham, 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, medical sciences, and computer science with emphasis on clinical and laboratory applications. This array of courses provides graduates with the ability to communicate with medical personnel and trains them to use computers for the solution of clinical problems, laboratory analyses, medical information systems, and medical research.

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 field 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 programs 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 17 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 may be required to take additional course work, 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 medical technology program prepares students for employment in hospital laboratories, industrial, medical or research laboratories and pharmaceutical companies. As medical technologists they will perform analyses which aid in the diagnosis and treatment of disease. They must be able to carry out complex text determinations, operate sophisticated instrumentation, and detect and correct errors. The program leads to a bachelor of science degree and meets all requirements of the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS).

Students enrolled in the medical technology program attend classes at RIT during the Fall, Winter and Spring quarters for three years. During the third year, students take a concentration of clinically-oriented courses which will prepare them for their hospital experience. In the Fall Quarter of their third year they apply to hospital schools of medical technology that are approved by the Committee on Allied Health Education and Accreditation (CAHEA). They will then spend their fourth academic year at the hospital that accepts them as an intern for clinical training in medical technology. While at the hospital the student will receive additional course work as well as practical experience in each of the laboratory areas: hematology, microbiology, chemistry, and immuno-hematology.

The medical technology program is affiliated with Rochester General Hospital and St. Mary’s Hospital in Rochester and with Millard-Fillmore Hospital in Buffalo. Students may, however, seek admission to any approved hospital for their clinical experience.

Upon successful completion of the hospital experience, a bachelor of science is awarded. The student is then eligible to take a national registry examination for certification as a medical technologist.

Requirements for the BS degree in medical technology

The student must meet the minimum graduation requirements of the Institute as described on page 17 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 will be required to complete a minimum of 45 quarter credit hours on campus and to complete all program requirements before beginning the clinical training experience. Specific requirements will be determined for each transfer student by the program director.

Course descriptions

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

Nuclear Medicine Technology Program

Judith Newell, 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 May of the following year. The first four weeks of training are an intensive introduction to the theory and practice of nuclear medicine technology. 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 (RIA) 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 is also affiliated with Veterans Administration Hospital, St. Louis, Missouri. Students who wish to intern at this hospital make application in the month of December preceding the start of the clinical year. Students selected for training there 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 17 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. 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 Committee on Allied Health Education and Accreditation (CAHEA) and the Joint Review Committee on Education Programs in NMT of the American Medical Association.
Medical Imaging Technologies

Ultrasound Technology Program

Roger W. Warner, Program Director

The Diagnostic Medical Sonography (Ultrasound) Program offers two options—one leading to a BS degree and the other to a certificate.

The program aims at professional preparation of ultrasound technologists with specialty training in abdominal, obstetrical and gynecological ultrasonic techniques and procedures. Depending upon their background, professional experience and career goals, graduates may pursue staff, administrative, research, or teaching positions, or continue their education toward an advanced degree. Both program options will also allow allied health or nursing professionals to be trained in a second health specialty.

Requirements for the BS degree in ultrasound:
The student must meet the minimum graduation requirements of the Institute as described on page 17 and, in addition, must complete the requirements contained in the particular curriculum listed below or its equivalent as determined and approved by the Department of Clinical Sciences. The program is a two- or four-year effort, including the one-year clinical internship. Associate degree graduates and registered or certified practitioners from a related health field can earn a BS degree by entering the last two years of the program. Additional course work may be required, depending on the program completed at a previous school.

Requirements for the certificate option:
The student must meet the Institute requirements as well as the specific requirements listed below. The certificate option is a one-year clinical internship that has a cross-sectional anatomy prerequisite course requirement. It is available to associate's and baccalaureate degree graduates who are licensed or certified practitioners with two years of experience in a related health field.

Clinical training in ultrasound technology:
The clinical internship for both the BS degree and certificate options will be conducted in a consortium of 13 affiliated hospitals in the major medical centers of Rochester, Buffalo, Syracuse and Binghamton. An intensive introduction to ultrasound will be taught during the first month of the internship. Students will then be assigned to rotate through 2 different hospital sites for their clinical training.

Both certificate and BS degree programs will allow graduates to take the national certifying exam for specialization in abdominal, obstetrical and gynecological ultrasound procedures.

Accreditation
The ultrasound technology program is designed to meet the Essentials of Accredited Educational Programs for the Diagnostic Medical Sonographer as set forth by the Committee on Allied Health Education Accreditation (CAHEA).

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

William E. Castle, Director
Peter J. Pere, Dean

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 1983-84 enrollment will be approximately 1,200.

The partnership: NTID at RIT
As one college in nine 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's degrees from RIT. Most NTID students take some courses along with hearing students in 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 the other colleges of RIT. Special educational support departments 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 Ellington Hall, Peter N. Peterson Hall, and Alexander Graham Bell Hall.

The Hettie L. Shumway Dinning 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 RIT campus.

A new NTID building of offices and classrooms will be completed and open by Fall 1983 to accommodate additional student enrollments.

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, media, 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 associate, bachelor's or master's degree 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 department 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.

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 colleges of RIT. The information is provided through the student's personal references.

6. A student must be a citizen or permanent resident of the United States.

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 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, personal 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 suit their individualized needs. The students are also guided through a series of specially designed living arrangements and self-governance experiences which assist them in making satisfactory adjustments to college life and developing interpersonal relationship skills. The Summer Vestibule Program has proven invaluable in improving students' ability to take full advantage of opportunities at RIT.

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 the 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, every NTID-sponsored student has a personal/career counselor, who helps the student plan his or her educational program and adjust to college life. Mental health services and preventive mental health programming are provided for all hearing-impaired students. 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.

Personal, social, and cultural growth
Experiences aimed at enriching and increasing students' educational opportunities in personal, social, cultural, and aesthetic areas of growth are provided throughout NTID and RIT. Both academic courses and co-curricular programs support these areas of student development. Formal certification for many of these learning experiences is available through RIT's Complementary Education program. Successful experiences in these areas help students become more well-rounded individuals. Skills and attitudes are developed and practiced which help students become more successful professionals in their chosen careers, as well as more successful in their personal and community lives.

Educational experiences include Outdoor Experiential Education, Community Services, wellness programs, Leadership Development, Educational Travel, intramurals, discussion sessions on issues of mental health and life adjustment, theatre, music and dance, student government and clubs, student newspaper, and student T.V. productions. Such activities are not only fun and educational, but also give hearing-impaired students opportunities, to meet people from all areas of RIT and to become creative and experienced leaders.

In addition to intramural athletics, male and female hearing-impaired students may also become members of RIT's varsity teams for intercollegiate competition. Hearing-impaired 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. Many 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 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.

Employment advisors constantly monitor employment and economic trends in order to provide the most current information to students. They also maintain liaisons with employers in order to provide feedback to technical departments regarding employers' needs in terms of technical skills. This helps NTID monitor and update its educational programs to make students marketable in business and industry nationwide.

Programs of study
Technical and professional education at NTID prepares students for a variety of successful careers. These programs are designed to meet the increasing demand for technicians, semi-professionals, and specialists for employment in industry, business, government, and the professions.

Technical programs are available at the certificate, diploma, and associate degree levels. 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 among three 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.

The electromechanical technology program involves work with systems and special equipment used in industry throughout the country. The A.A.S. programs in Industrial Drafting, Electromechanical, Civil and Architectural Technology Accreditation Commission of the Accreditation Board of Engineering and Technology. (ABET)

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 technology.

Visual Communication Careers offers four program areas: applied art, printing production, applied photography, and media production. The NTID Applied Art Department sponsors an In-House Co-op. In-House Co-op is a cooperative work program on campus where students get experiences with the real world of applied art.

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.

NTID at RIT recognizes the need for good communication and has services covering all types of communication instruction. Related services are provided in reading, writing, use of residual hearing, speechreading, speaking, and manual/simultaneous communication.

### NTID Undergraduate Programs

<table>
<thead>
<tr>
<th>Business Occupations</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Office Practice &amp; Procedures</td>
<td></td>
</tr>
<tr>
<td>Data Processing</td>
<td></td>
</tr>
<tr>
<td>Architectural Drafting</td>
<td></td>
</tr>
<tr>
<td>Architectural Technology</td>
<td></td>
</tr>
<tr>
<td>Civil Technology</td>
<td></td>
</tr>
<tr>
<td>Industrial Drafting</td>
<td></td>
</tr>
<tr>
<td>Industrial Drafting Technology</td>
<td></td>
</tr>
<tr>
<td>Manufacturing Processes</td>
<td></td>
</tr>
<tr>
<td>Electromechanical Technology</td>
<td></td>
</tr>
<tr>
<td>Physician's Office Assistant</td>
<td></td>
</tr>
<tr>
<td>Histological Assistant</td>
<td></td>
</tr>
<tr>
<td>Hematology Assistant</td>
<td></td>
</tr>
<tr>
<td>Microbiology Assistant</td>
<td></td>
</tr>
<tr>
<td>Clinical Chemistry Assistant</td>
<td></td>
</tr>
<tr>
<td>Medical Laboratory Technician</td>
<td></td>
</tr>
<tr>
<td>Medical Records Technician</td>
<td></td>
</tr>
<tr>
<td>Optical Finishing Technology</td>
<td></td>
</tr>
<tr>
<td>Applied Art</td>
<td></td>
</tr>
<tr>
<td>Media Production Technology</td>
<td></td>
</tr>
<tr>
<td>Applied Photography</td>
<td></td>
</tr>
<tr>
<td>Printing Production Technology</td>
<td></td>
</tr>
<tr>
<td>Interpreting for the Hearing Impaired</td>
<td></td>
</tr>
</tbody>
</table>

### Cooperative work experience

Cooperative work experience (co-op) is an important component, of NTID students' career development at RIT. Almost every program of study requires at least one co-op experience before students can be certified for graduation. Co-op jobs range from one quarter (10 weeks) to five quarters (50 weeks) of actual job experience, depending on the requirements of the specific program. Most co-ops occur during summer quarter.
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 and other positions requiring a combination of skills. The AAS may also serve as a starting point for more advanced educational degree 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 or 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.

### 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

### Interdisciplinary Study:
NITP-391 Principles of Tutoring/Notetaking
NITP-395 Mainstreaming: Educational Programs and Alternatives

Courses may be offered/taken in quarters other than shown.
* Technical requirements vary from 6-15 hours depending on the concentration; maximum is represented.
Department of Military Science and Reserve Officers’ Training Corps (ROTC)

LTC Richard K. Reinholdz, Professor of Military Science

Background
The Military Science Department and ROTC was established at RIT in 1969. The Professor of Military Science has commissioned officers every year since 1971. Over the years the program has included students from every academic discipline in the Institute.

Today the Military Science Department and ROTC is an academic course, a physical education course, an extra-curricular activity. Participation in the program includes classroom instruction, laboratory practicums, physical training, and some weekend field exercises. RIT students who join the Reserve Officers’ Training Corps become cadets in a dynamic and challenging aspect of life at RIT. The title of cadet carries with it the potential for many rewards and responsibilities as a member of the Institute community. Annual social events include the Dining-In and the spring Military Ball. Also, cadets participate in student orientations, demonstrations of military training throughout the academic year, special events geared towards fostering community relations and fund raising for worthy charities.

Military Science Department and ROTC graduates of RIT are working in commissioned officer positions that range from commanding units overseas to writing computer programs in North Carolina. RIT Military Science Department and ROTC graduates may be trained as pilots, linguists, lawyers, and scientists when they enter service in the Army of the United States.

Airborne, Air Assault (helicopter) and Ranger training are available to cadets in the upper division of ROTC. RIT cadets may earn their badges as parachutists, air assaultists, or rangers and become fully qualified to be assigned duties in these activities after commissioning.

ROTC extracurricular activities include adventure training, pistol team, and numerous Ranger outings. The department has cross-country ski equipment, conducts rafting exercises in the fall, and offers survival training.

For those cadets enrolled in the upper division (described below) the program includes an annual trip to Fort Drum, N.Y. Usually conducted during April, this exercise is preparation for the Advanced Camp. The Advanced Camp at Fort Bragg, N.C., trains and evaluates thousands of cadets annually from all schools on the Eastern Seaboard of the United States. After Advanced Camp, selected cadets have continued their training in positions ranging from Special Forces platoon leaders to Engineer platoon leaders.

Characteristics of the program
The Department of Military Science and ROTC offers a unique educational experience. A cadet is exposed to a curriculum that cannot be effectively duplicated. Modern military weapons, tactics, and leadership experiences cannot be gained from other sources. Only through this department can a college graduate acquire the knowledge and skills to serve his country as a commissioned officer in the U.S. Army. In addition, Army ROTC offer the college student adventure, training, extra money, and an option concerning job opportunities.

The four-year army ROTC program.
This program is divided into two parts: the Basic Course (Junior Division) and Advanced Course (Upper Division).

The Basic Course is available throughout the freshman and sophomore years and is open to all students. ROTC physical education courses may be substituted for Military Science courses. Students enrolled in the Basic Course study basic military organizations, military first aid, psychology and leadership, and military history. This complete experience qualifies a student for enrollment in the Advanced Course (Upper Division), scholarships, airborne training, summer employment, air assault training, ranger training and many other opportunities to gain valuable on-the-job experience.

<table>
<thead>
<tr>
<th>Yr.</th>
<th>Department of Military Science Four-Year Program</th>
<th>Qtr. Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Department of Military Science Four-Year Program</td>
<td>FALL</td>
</tr>
<tr>
<td>1</td>
<td>MMSM-201 Introduction to Military Science and Basic Map</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>MMSM-202 Applied Health Dynamics OR</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>XPEF-Military Preventive Medicine and First Aid</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>MMSM-203 Military Heritage OR</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>XPEF-Drill and Ceremonies</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Leadership Laboratory (optional)</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>*MMSM-301 Military Geography</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>*MMSM-302 Psychology &amp; Leadership</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>*MMSM-303 The Military and American Society</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>*Anyone of the following courses may be taken in lieu of this course:</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>XPEF-Orientation (Fall only)</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>XPEF-Military Preventive Medicine and First Aid (Winter only)</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>XPEF-Drill and Ceremonies (Spring only)</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>XPEF-ROTC Rangers</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>XPEF-Army Conditioning Drills</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Leadership Laboratory (optional)</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>MMSM-401 Military Tactics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MMSM-402 Military Communications</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MMSM-403 Military Operations</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>MMSM-501 Combined Arms Operations</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>MMSM-502 Military Administration &amp; Logistic Management</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>MMSM-503 Military Ethics</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>MMSM-510 Senior Seminar</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Yr.</th>
<th>Department of Military Science Two-Year Program</th>
<th>Qtr. Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Basic Camp/Advanced Placement/Summer Compression</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MMSM-401 Military Tactics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MMSM-402 Military Communications</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MMSM-403 Military Operations</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>MMSM-501 Combined Arms Operation</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>MMSM-502 Military Administration &amp; Logistic Management</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>MMSM-503 Military Ethics</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>MMSM-510 Senior Seminar</td>
<td>2</td>
</tr>
</tbody>
</table>
The Advanced Course is conducted during the last two years of college and includes attendance at the ROTC Advanced Camp, normally between the junior and senior years. Military Science Department classes during the Advanced Course serve as a prelude to subsequent instruction at specific Army Service Schools. Advanced Course ROTC cadets perform in leadership positions within a cadet battalion and may participate in and/or help conduct various corps of cadets training activities.

The six-week Advanced Camp at Fort Bragg, N.C., gives each person an opportunity to plan, organize and lead his or her peers through a vigorous and challenging training program. Attendees are paid travel expenses and a salary for this intellectually and physically rewarding experience.

The two-year program. This program is offered to all qualified students with two school years remaining who did not previously participate in the Basic Course. Students in this program attend a six-week Basic Summer Camp between their sophomore and junior years. Upon successful completion of Basic Camp, the student may be enrolled in the Advanced Course for the last two years. It should be noted that 2-year scholarships are available on a competitive basis during the Basic Camp. Interested students should begin processing applications for this program early in the sophomore year.

Commissioning
Commissioning of cadets as second lieutenants takes place during graduation day ceremonies. Prior to commissioning ceremonies, each cadet must successfully complete the following requirements:
1. Complete all degree requirements
2. Complete the Military Science curriculum
3. Attend and successfully complete the six-week Advanced Summer Camp
In addition, cadets desiring a commission must complete at least one course in each of the following fields of study:
1. Written Communication Skills
2. Human Behavior
3. Military History
4. Management
5. National Security Studies
*These courses may be deferred until after graduation only if approved.

Financial Benefits
A monthly subsistence allowance of $100 per month is provided tax free, directly to each Advanced Course or Scholarship cadet throughout the school year. This, plus pay for Advanced Camp attendance, amounts to over $2,500 for the last two years of college. In addition, ROTC offers two and three year scholarships which pay for full tuition, fees, books, and required supplies.

Graduate Study Opportunities
Commissioned officers usually have an opportunity to pursue graduate work in their chosen discipline. Normally, the cost of a graduate degree or attendance at a professional school is at the individual's expense. Certain academic specialties may be paid in full by the U.S. Army.

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

Call:
Department of Military Science
Rochester Institute of Technology
Phone: (716) 475-2881 or 2882

or Visit
Department of Military Science
George Eastman Memorial Building,
Room 03161
Rochester Institute of Technology
Rochester, New York 14623


**Trustees**

Maurice I. Abrams, M.D.*
Honorary Director
American School for the Deaf, Inc.

James R. Alsdorf*
Former Vice President & 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 Chairman
Board of Trustees
Rochester Institute of Technology
Vice President
E.F. Hutton & Company, Inc.

George S. Beinetti*
Former Chairman of the Board
Rochester Telephone Corporation

John L. Blake
Director
City of Rochester & Monroe County
Private Industrial Council

W. Frank Blount
Southeastern Regional Vice President for Business Services at AT&T

Mrs. Clinton E. Braine*
President
Rochester Institute of Technology's
Women's Council

Theodore C. Briggs*
Retired Chairman of the Board
Lawyers Co-operative Publishing Co.

Mrs. David L. Brooke

William A. Buckingham
Vice President and Deputy General Manager
Manufacturers Hanover, N.A.

Howard F. Carver*
Former Chairman of the Board
The Gleason Works

Colby H. Chandler
Vice Chairman, Board of Trustees and Chairman of the Executive Committee
Rochester Institute of Technology
Chairman of the Board and Chief Executive Officer
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
Rapidc Machine Corporation

Hugh E. Cumming
Former 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
Francis E. Drake, Jr
Retired Chairman of the Board
Rochester Gas & Electric Corporation

Mrs. James C. Duffus
Former President
Rochester Institute of Technology's
Women's Council

Richard H. Eisenhart
Chairman Emeritus
Board of Trustees
Rochester Institute of Technology
Chairman
R.H. Eisenhart, Inc.

Walter A. Fallon
Retired Chairman of the Board and Chief Executive Officer
Eastman Kodak Company

Mrs. Julian M. Fitch
Former President
Rochester Institute of Technology's
Women's Council

Maurice R. Forman*
Retired Chairman
B. Forman Company

Karol F. Fuchs*
President
Alliance Tool Corporation

Daniel E. Gill
Chairman of the Board and President
Bausch & Lomb, Incorporated

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
Treasurer
Board of Trustees
Rochester Institute of Technology
President
Lawyers Co-operative Publishing Co.

Ezra A. Hale*
Honorary Chairman
Board of Trustees
Rochester Institute of Technology
Honorary Chairman of the Board
Central Trust Company

Alfred M. Hallenbeck
Counsel
Board of Trustees
Rochester Institute of Technology
Vice President and General Counsel
Sybron Corporation

Alexander D. Hargrave
Chairman of the Board and Chief Executive Officer
Lincoln First Banks, Inc.

James C. Henderson
President
Rochester Telephone Corporation

John E. Heselden
President
Gannett Newspaper Division

John D. Hostutler
President
Industrial Management Council

Thomas E. Hustead
Retired General Manager
Rochester Products Division
General Motors Corporation

Frank M. Hutchins
Chairman
Board of Trustees
Rochester Institute of Technology
Chairman of the Board
Hutchins/Young & Rubicam

Stanley R. Jacobs*
Former Member
New York Stock Exchange

Herbert W. Jarvis
President and Chief Operating Officer
Sybron Corporation

Paul C. Jenks, M.D.
Physician

Byron Johnson
Senior Partner
Johnson, Mullan, Brundage & Keigher, P.C.
John Wiley Jones*  
Chairman of the Board  
Jones Chemicals, Inc.

Thomas F. Judson, Sr.*  
Chairman of the Board  
John B. Pike & Son, Inc.

Arthur M Lowenthal*  
William J. Maxson  
Director  
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 Co., Inc.

Mrs. Edward T. Mulligan  
Alfred J. Murrer  
Chairman of the Board  
The Gleason Works

Raymond E. Olson*  
Retired Vice Chairman of the Board  
Sybron Corporation

Frederick G. Ray  
Chairman of the Board  
President and Chief Executive Officer  
Rochester Savings Bank

Ernest I. Reveal  
Retired Chairman of the Board  
R.T. French Company

Jorge A.G. Rivas  
Presidente  
Grupo RIMA, S.A.

M. Richard Rose  
President  
Rochester Institute of Technology

Harris H. Rusitzky  
Secretary  
Board of Trustees  
Rochester Institute of Technology  
President  
Serv-Rite Food Service & Consulting Corporation

John E. Schubert  
Former Chairman of the Board  
The Community Savings Bank

James E. Shapiro  
Vice President  
Xerox Corporation

F. Ritter Shumway*  
Honorary Member of the Board  
Sybron Corporation  
Ritter Company

Mrs. F. Ritter Shumway*  
Former President  
Board of Health  
County of Monroe

Robert J. Strasenburgh II  
Former Chairman and President  
Strasenburgh Laboratories

Robert L. Tarnow  
Chairman of the Board  
Goulds Pumps, Inc.

Gaylord C. Whitaker*  
Matrix Unlimited, Inc.

Ronald A. White  
President  
Graphic Systems Division  
Rochester Savings Bank

Wallace E. Wilson*  
Group Vice President (Retired)  
General Motors Corporation

Kenneth W. Woodward, M.D.  
Manager  
Clinical Services  
Xerox Corporation

*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 Stanley Widrick

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: Professor Ellsworth J. McCune

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: Professor John D. Hromi

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

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: Presently open

College of Graphic Arts and Photography

Melbert B. Cary, Jr. Professorship in Graphic Arts
Established: 1969
Donor Mary Flagler Cary Charitable Trust
Purpose: To provide a permanent memorial for Mr. Cary as a former president of the American Institute of Graphic Arts and to perpetuate his interest in the field.
Held by: Professor Alfred F. Horton

Richard S. Hunter Professorship of Color Science, Appearance and Technology
Established: 1982
Donor Mr. and Mrs. Richartl S. Hunter
Purpose: To enable RIT to increase its research and educational efforts in the areas of color science, technology and appearance science in order to benefit the industry and science of color.
Held by: Professor Franc Grum

Held by: Professor Marjorie Grene

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: Professor Ellsworth J. McCune

College of Liberal Arts

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 Marjorie Grene

All Institute

William A Kern Professorship in Communications
Established: 1971
Donor Rochester Telephone Corporation
Purpose: To commemorate the 100th Anniversary of that company and to provide a memorial for a former president of the company and a man who served as RIT Trustee from 1959 to 1964.
Held by: Professor Mihai Nadin
Office of the President

M. Richard Rose, BS, MS, Ph.D. President
Andrew J. Dougherty, BS, MBA Executive Assistant to the President
Catherine Cappell-Whittmore Administrative Assistant to the President

Deans

Paul Bernstein, BS, MA, Ph.D. Graduate Studies
David Clark, BS, Ph.D. College of Continuing Education
Mark F. Guidlin, BS, MS, Ph.D. College of Graphic Arts and Photography
Robert H. Johnston, BS, MA, Ph.D. College of Fine and Applied Arts
Richard A. Kenyon, BME, MS, Ph.D. College of Engineering
Walter F. McCanna, BS, Ph.D. College of Business
Dennis C. Nystrom, BS, Ed.D. College of Applied Science and Technology
John E. Pallouras, BA, MA, Ph.D. College of Science
Peter J. Pere, BBA, MA, Ed.D. National Technical Institute for the Deaf
Mary C. Sullivan, RSM, BA, MA, Ph.D. College of Liberal Arts

College of Applied Science and Technology

George T. Ahuy, BA, MS—Director, School of Food, Hotel and Tourism Management; Professor
Donald D. Baker, BA, M.Ed., MBA, Ed.D.—Associate Dean, Associate Professor
W. David Baker, BS, MS—Director, School of Engineering Technology; Associate Professor
Wiley R. McKinzie, BA, MS—Director, School of Computer Science and Technology; Associate Professor
Dennis C. Nystrom, BS, Ed.D.—Dean; Professor
David L. Olsson, BS, MS, Ph.D.—Director, Department of Packaging Science, Professor
Clinton J. Wallington, BA, Ph.D.—Director, Department of Instructional Technology; Professor

School of Computer Science and Technology

Peter G. Anderson, Ph.D., BS, Massachusetts Institute of Technology—Professor
Rodger Baker, BM, BS, MS, University of Rochester—Associate Professor
John A. Biles, MS, BA, University of Kansas—Assistant Professor
James R. Carbin, BS, SUNY at Albany; MS, Rensselaer Polytechnic Institute—Professor
Warren Carithers, BS, MS, University of Kansas—Instructor
Ethis Comte, RN, BA, University of Illinois (Chicago Circle); MS, Rochester Institute of Technology—Instructor
Lawrence Coon, AB, University of Rochester; MA, Oakland University; Ph.D., Ohio State University—Assistant Professor
Evelyn Culbertson, BS, State University of New York—Brockport; MS, Syracuse University—Associate Professor
Roy Czernikowskii, BEE, Catholic University of America; ME, Ph.D., Rensselaer Polytechnic Institute—Professor
Mary Ann Dvonch, BS, SUNY at Brockport; MS, Rochester Institute of Technology—Instructor
John L. Ellis, Ph.D., MS, University of Toledo; MS, University of Oregon—Assistant Professor
Henry Ettinger, BS, University of Rochester; MS, Syracuse University—Assistant Professor
James Hammerton, BA, Cambridge University; MBA, New York University—Assistant Professor
James E. Heliots, BS, MS, Cornell University; Ph.D., University of Rochester—Assistant Professor
Jack Hollingsworth, BS, BA, University of Kansas; MS, Ph.D., University of Wisconsin—Professor
Daryl Johnson, BS, St. John Fisher College; MS, Rochester Institute of Technology—Visiting Professor
Guy Johnson, BS, Pennsylvania State; MS, Syracuse—Associate Professor
Andrew Kitchen, MA, University of Edinburgh, Scotland; MS, Rochester Institute of Technology; Ph.D., University of Rochester—Associate Professor
Jeffrey Lasky, BBA, City University of New York; MBA, City University of New York; MS, University of Minnesota—Assistant Professor

Michael J. Lutz, BS, St. John Fisher College; MS, SUNY at Buffalo—Associate Professor
Peter Lutz, BS, St. John Fisher College; MS, Ph.D., SUNY at Buffalo—Associate Professor
Wiley R. McKinzie, BA, University of Wichita; MS, SUNY at Buffalo—Associate Professor
Rayno Niemi, BS, MS, Ph.D., Rensselaer Polytechnic Institute—Associate Professor
Kenneth Reek, B Tech, MS, Rochester (Institute of Technology—Assistant Professor
Margaret Reek, BT, MS, Rochester Institute of Technology—Instructor
William Stratton, BS, MS, Hunter College; MS, SUNY at Buffalo—Associate Professor
Walter A. Wolf, BA, Wesleyan University; MA, Brandeis University; Ph.D., Brandeis University—Lecturer

Adjunct Faculty

Vishwas Abhyankar, Ph.D., University of Rochester
James Chmura, BS, MS, Rutgers University
TeiU Furugori, MS, University of Rochester; Ph.D., SUNY at Buffalo
Ralph Longobardi, BSEE, Rochester Institute of Technology; MS, Ph.D., Syracuse University
Walter Maurer, BA, University of Wisconsin; MS, Rochester Institute of Technology
Donald McClamans, BA, University of Rochester; MS, Perdue
Werner Schenk, BA, Los Angeles State College; MBA, University of Rochester
William Thiels, MS, Rochester Institute of Technology

School of Engineering Technology

John F. Adams, BEE, MSEE, Clarkson College—Professor
Ronald F. Almberger, BME, Rensselaer Polytechnic Institute; M.Eng., Penn State University—Professor
W. David Baker, BS, Monmouth College, MS, Rochester Institute of Technology—Director, School of Engineering Technology; Associate Professor
Charles L. DeRolier, BS, ME, Rochester Institute of Technology—Chairman, Mechanical Engineering Technology; Associate Professor
Thomas J. Dingham, AAS, AUB, Hudson Valley Community College; BSEE, MS (ET) Rochester Institute of Technology—Associate Professor
Robert H. Easton, BS, US Military Academy; MSEE, Iowa State University—Associate Professor
Kevin M. Foley, AAS, AS, Monroe Community College; BS, SUNY College of Environmental Science and Forestry, Syracuse University; MBA, Rochester Institute of Technology—Chairman, Civil Engineering Technology, Assistant Professor

Burton S. Gireet, ME, Stevens Institute of Technology; MS, University of Michigan—Associate Professor
Louis B. Gennaro, MS, Northeastern University; BS, U.S. Military Academy—Assistant Professor
Joseph D. Greenfield, BEE, City College of New York; MSEE, Pennsylvania State—Professor
Alan C.H. Hu, BSCE, Ta Tung University—Shanghai; MPH, Minnesota; Ph.D.—Ohioan—Professor
Richard A. Hultin, BSME, MSME, Northeastern University; P.E.—Assistant Professor
David G. Krzpinisky, MSEE, BE, Youngstown University—Assistant Professor
William C. Larsen, BS, MSCE, Dartmouth; P.E.—Associate Professor
Curt A. Lundgren, BS, Rensselaer Polytechnic Institute; MBA, University of Rochester—Assistant Professor
Robert E. McGrath, Jr., MSCE, Syracuse University; BCE, Rensselaer Polytechnic Institute—Professor
Robert A. Merrill, BS, Clarkson College; MS, Northeastern; P.E.—Associate Professor
Mark Piterman, MCE, Odyssey Marine Engineers—Assistant Professor
Charles G. Porter, BSEE, Columbia University, MBA, Rochester Institute of Technology—Assistant Professor
Veneen Param Raju, BS, MS, Madras University; MBA, Missouri State University; ME, Rochester Institute of Technology—Assistant Professor
James A. Reynolds, AAS, BS, Rochester Institute of Technology; MSEE, Illinois—Professor
Carol A. Richardson, MSEE, Union; BSEE, University of Wyoming—Assistant Professor
John D. Sherrtick, BEE, Clarkson; MSEE, Worcester Polytechnic; P.E.—Associate Professor
Martin J. Siebach, AAS, BS, Rochester Institute of Technology; MSEE, Illinois; P.E.—Associate Professor
John A. Stratton, AAS, BS, Rochester Institute of Technology; MS, Rensselaer Polytechnic Institute; P.E.—Chairman, Electrical Engineering Technology, Associate Professor
Thomas Young, BA, Hunter College; MS, New York University—Assistant Professor

School of Engineering Technology Adjunct Faculty

Mark P. Allen, AAS, Suffolk County Community College; CT, Rochester Institute of Technology; P.E.
Charles M. Buhtier, BSEE, University of Wisconsin
Lloyd Merrill, ME, MME, Cornell University; P.E.
Joseph F. Santoro, BS, Oswego State; MA, Ohio State University
School of Food, Hotel and Tourism Management

George Alley, BA, Michigan State University; MS, Rutgers University-Doctor, School of Food, Hotel and Tourism Management; Professor
Frank A Bucci, BS, University of New Hampshire; MBA, Boston College—Associate Professor
Francis M. Donoy, BS, MA, SUNY at Buffalo; Ph.D., Michigan State University—Associate Professor
Leila P. Hopkins, BA., MA., Michigan State University—Associate Professor
Dorothy C. Humm, R.D., BS, Drexel University; MBA, Rochester Institute of Technology—Assistant Professor
Richard Manecki, BA, MA, Ph.D., CTC, SUNY Buffalo—Associate Professor

Linda Underhill, R.D., BS, MS, Rochester Institute of Technology—Instructor
Carol Whltlock, BA., MS, University of Massachusetts—Associate Professor

Clinical Faculty
Jean Fox, Director of Dietetics, Rochester General Hospital

Jean Queale, Chief of Dietetic Service, The Veterans Administration Hospital, Canandaigua, New York

Adjunct Faculty
Alan Argulskl, AAS, Erie Tech.; BS, Rochester Institute of Technology
William Bruton, BS, St. Bonaventure University; BS, University of Minnesota
Ruby Jurincic, R.D., AAS, Mars Hill Junior College; BS, University of Tennessee; MS, SUNY at Buffalo
David Van Varick, AB, Bowdoin College; JD, Boston University
Donna Sorenson, BA, Wheaton College; MA Wesleyan College; MS, Cornell University

Instructional Technology
Clinton J. Wellington, BA, University of Missouri at Kansas City; Ph.D., University of Southern California—Professor
Thomas Zigon, BS, MS, Rochester Institute of Technology—Instructor

Packaging Science
A. Ray Chapman, MBA, Rochester Institute of Technology; BS, Michigan State University—Assistant Professor
Daniel L. Goodwin, BS, MS, Michigan State University—Professor
David L. Olsson, BS, MS, Ph.D., Michigan State University—Director, Department of Packaging Science; Professor
Karen L. Proctor, BS, Michigan State University; MBA, Rochester Institute of Technology—Assistant Professor
Fritz J. Yambrach, BS, Michigan State University; MBA, Utah State University—Assistant Professor

Adjunct Faculty
James A. Ebmeyer, BS, Michigan State University; MBA, Rochester Institute of Technology
Anita S. Olsson, BS, Wheaton College; MA, Michigan State University
Joan L. Pierce, BS, Michigan State University
Robert H. Van Valkinburgh, BID, Syracuse University; MFA, Rochester Institute of Technology

College of Business

Walter F. McCanna, BS, Marquette University; Ph.D., University of Wisconsin-Madison—Dean; Professor
Thomas E. Comte, BS, University of California-Davis; MBA, Columbia University; Ph.D., University of Missouri at Columbia—Associate Dean; Associate Professor
Gary J. Bonvillian, BS, MS, Rochester Institute of Technology—Assistant Dean for Operations
Terry L. Dennis, BS, Clarkson College; MS, Ph.D., Purdue—Director of Cooperative Education; Associate Professor
Barbara J. Howard, BS, MBA, Rochester Institute of Technology—Director, Graduate Programs
Philip R. Tyler, BS, Rochester Institute of Technology; MBA, Drexel University—Director, Center for Management Development; Associate Professor

Department of Accounting and Finance
E. James Meddaugh, BS, Rutgers; MBA, Drexel; Ph.D., Pennsylvania State; C.P.A., New York—Staff Chairman, Department of Accounting and Finance; Professor
Stanley M. Dye, BA, Haverford College; C.P.A., New York; Distinguished Lecturer
Gene D. Hoff, BBA, Hartwick College; BBA, University of Rochester; CMA; Assistant Professor
Paul A. Lewobitz, BA, Case Western Reserve University; MS, Rochester Institute of Technology; Assistant Professor
Jose A. Rullan, BS, Western Carolina University; MS, Rochester Institute of Technology; C.P.A., New York; Instrutor
Daniel D. Tesson, BBA, St. John Fisher College; Clarksong College of Technology; C.P.A., New York—Instructor; Assistant Professor
Robert J. Warth, BS, Rochester Institute of Technology; C.P.A., New York; Lecturer
Eugene O. Wilson, BS, MS, Syracuse University; MBA, Rochester Institute of Technology; Assistant Professor
Lorraine P. Wolch, BA, Harper College; MBA, Rochester Institute of Technology; C.P.A., New York; Instructor
You-Keng Chiang, BA, Central University, Chunking; MA, Ph.D., University of Chicago; Professor
James C. Galloway, BA, University of Rochester; MBA, University of Pennsylvania; DBA, University of Virginia; Assistant Professor
Steven C. Gold, BA, BS, Rutgers; MA, Ph.D., SUNY-Binghamton; Assistant Professor
John A. Himuth II, BA, MA, Old Dominion University; Ph.D., University of South Carolina; Assistant Professor
Frank E. Holley, BS, University of Illinois; Distinguished Lecturer
Lawrence E. McLean, BA, Duke University; MBA, University of Chicago; Assistant Professor
Michael R. Vetsuyvens, BA, Rijksuniversiteit Gent, Belgium; MS, University of Rochester; Lecturer

Department of Management
Andrew J. DuBrin, AB, Hunter College; MS, Purdue University; PhD, Michigan State University—Staff Chairman, Department of Management; Professor
Robert J. Barbato, BA, LeMoyne College; Ph.D., Michigan State University; Assistant Professor
Janet C. Barnard, BS, Nazareth College; Ed.M., Ed.D., University of Rochester; Professor
Kenneth Graham, BA, Brown University; MBA, Ph.D., Union College and University; Assistant Professor

John K. Hartley, BS, MS, Georgia Institute of Technology; Associate Professor
William L. Mihal, BS, MS, Clarkson College; Ph.D., University of Rochester; Associate Professor
William A. Nowlin, BS, Empire State College-SUNY; MPA, SUNY-Brockport; Lecturer
Karen H. Paul, BA, MA, Ph.D., Emory University; Assistant Professor
Robert F. Pearse, BA, Olivet College; AM, Ph.D., University of Chicago; Distinguished Lecturer
George M. Sullivan, BS, St. Peter's College; JD, Seton Hall University; LL.M, New York University; Assistant Professor
Nathan B. Winstanley, BS, University of Massachusetts; MS, Ph.D., Purdue University; Lecturer

Department of Marketing
Eugene H. Fram, BS, BA; University of Pittsburgh; Ed.D., SUNY-Buffalo; Staff Chairman, Department of Marketing; Professor
Yasu F. Choudhry, BE, East Pakistan University of Engineering and Technology; MBA, Syracuse University; Lecturer
Dale F. Gibson, BA, St. Lawrence University; MBA, University of Pennsylvania; Professor
Lorraine P. Wolch, BA, Harper College; MBA, Duke University; Ph.D., University of North Carolina; Assistant Professor
Patricia Sorce, BA, BS, Kent State University; MS, Ph.D., University of Massachusetts; Assistant Professor

Julian E. Yudeison, BS, University of Pennsylvania; MBA, Emory University; Ph.D., Northwestern University; Associate Professor
Stuart M. Widrick, BS, Clarkson College; MBA, SUNY-Buffalo; Ph.D., Syracuse University; Associate Professor

Department of Decision Sciences
Thomas A Williams, BS, Clarkson College; MS, Ph.D., Rensselaer Polytechnic Institute—Staff Chairman, Department of Decision Sciences; Professor
Bernard J. Isselhardt, BA, MS, Southern Illinois University; Ph.D., University of Iowa; Associate Professor
George A. Johnson, BS, University of Rochester; MBA, DBA, Indiana University; Professor
Thomas F. Pray, BS, MS, Clarkson College; Ph.D., Rensselaer Polytechnic Institute; Associate Professor
William J. Stevenson, BISE, MBA, Ph.D., Rochester University; Associate Professor
Paul D. Vanness, BA, MBA, University of Michigan; MS, Rochester Institute of Technology; Associate Professor

School of Retailing
John S. Zdanowicz, BS, Rochester Institute of Technology; MBA, Ph.D., Michigan State University—Dean, School of Retail Management; Associate Professor

College of Continuing Education

Administrative Officers and Staff
Robert A. Clark, BS, Ph.D.; Dean; Professor
Frederic P. Gardner, BS, MS, Ed.D.; Associate Dean; Professor
Norman A. Flannigan, BS, M.Ed., Ph.D.; Assistant Dean Operations; Associate Professor
Delores Baxter, Administrative Assistant to the Dean
Lottus C. Carson, BA, MA; Director; Community Programs & Services
Betty J. Gliesnapp, MBA; Administrative Coordinator, Summer Session
Irene M. Hawryszuk, BA; Coordinator, Information and Advising Services
Ronald J. Hilton, BA, MA, Ph.D.; Director of Research and Professional Development; Professor
Genevieve Knapp, Management Diploma; Coordinator, Financial Services
Robert N. Klafehn, BS, MS; Chairperson, ElectroMechanical; Associate Professor
Orville H. Adler, AAS, B. Tech.; Chairperson, Machine Shop
Center for Applied Statistics
John D. Hromi, BS, BEE, M.Litt. D.Eng.; Director, Professor
School of Applied Industrial Sciences
James D. Forman, AAS, BS, MS; Director, Russel McCarthy; Professor
Orville H. Adler, AAS, B. Tech.; Chairperson, Machine Tool Technology
John Amon, AAS, Senior Technical Associate; Lecturer
Doris DeMers, B, BA, M.Ed.; Senior Technical Associate, Lecturer
Joseph Donoghue, BA, MA; Student Affairs
William Foons, Senior Technical Associate, Lecturer
Robert Holdridge, Senior Technical Associate, Lecturer
Robert Holmes, BSME; Senior Technical Associate, Lecturer
William C. Kicherer, BSEE; Manager Academic Technical Services
Robert N. Klafehn, BS, MS; Chairperson, Electro-Mechanical; Associate Professor
Carol Lennox, BS, MS; Senior Technical Associate, Lecturer
D. Kevin Loucks, AAS; Senior Technical Associate, Lecturer
Richard Merriam, BS, Senior Technical Associate, Lecturer
Lutha R. Mets, BA, Ed.D.; Communications, Lecturer
Sheila Mitchell, BA, MS; Mathematics, Lecturer
James E. Morton, MA, Th.B.; Senior Technical Associate, Lecturer
Marcus E. O’Connell, Senior Technical Associate, Lecturer
Elizabeth Paciorek, AAS; Senior Technical Associate, Lecturer
Frank Pachla, Senior Technical Associate, Lecturer
John Peck, BA; Career Development Specialist
Ronald Perry, AAS; Senior Technical Associate, Lecturer
Alan J. Reiter, BS, MS Ed.; Senior Technical Associate, Lecturer
William Stanton, AAS, BS; Senior Technical Associate, Lecturer
Marion Thot, BA; Senior Technical Associate, Lecturer
Deborah Urquhart, BS, MS; Admissions Counselor

College of Engineering
Richard A. Kenyon, BME, MS, Ph.D.; Dean, Professor
Swaminathan Madhu, MA, MSEE, Ph.D.; Associate Dean for Graduate Studies—Professor
Charles W. Haines, AB, MS, Ph.D.; Associate Dean for Co-operative Education and Administrative Services—Associate Professor
Margaret M. Urckfritz, Assistant to the Dean
Betty M. Weatherhog, Administrative Assistant to the Dean
Roy S. Czermikowski, BEE, ME, Ph.D.—Head, Computer Engineering Department; Professor
Harvey Rhody, BSEE, MSEE, Ph.D.—Department Head, Electrical Engineering Professor
Richard Reeve, BS, MS, Ph.D.—Department Head, Electrical Engineering; Professor
Baihchandra V. Karlekar, BEME, MSME, Ph.D, P.E.—Department Head, Mechanical Engineering; Professor

Computer Engineering Department
George A. Brown, BSEE, Vanderbilt; MSEE, University of Rochester—Professor
Dr. Tong-han Chang, BS, Jiao Tong University, Shanghai, China; Ph.D., Chinese Academy of Sciences, Peking, China—Associate Professor
Roy S. Czermikowski, BEE, Catholic University of America; ME, Ph.D., Rensselaer Polytechnic Institute—Professor
John J. Ellis, Ph.D., MS, University of Toledo; MS, University of Oregon—Assistant Professor
V.C.V. Pratapa Reddy, BE, M.Tech., Osmania University, India; Ph.D., Indian Institute of Technology, Madras—Assistant Professor

Electrical Engineering Department
George A. Brown, BSEE, Vanderbilt; MSEE, University of Rochester—Professor
Roy S. Czermikowski, BEE, Catholic University of America; ME, Ph.D., Rensselaer Polytechnic Institute—Professor
Sotirios A. Dianat, BSEE, Aria-Mehr University, Iran; MSEE, Ph.D.—George Washington University—Visiting Assistant Professor
Antonije R. Djordjevic, BS, S.C., D.Sc., University of Belgrade, Yugoslavia—Visiting Associate Professor
Dr. Mohammed K. El-Sherbiny, BSEE, M.Sc., Assiut University, Egypt; Ph.D., Iowa State—Visiting Associate Professor
Lynn F. Fuller, BS, MS, Rochester Institute of Technology; Ph.D, SUNY at Buffalo—Associate Professor
Roger E. Heintz, BSEE, Michigan Technological University, MSEE, Ph.D., Syracuse—Associate Professor
Robert A. Houde, BSEE, Northeastern University; MSEE, University of Rochester; Ph.D., University of Michigan—Associate Professor
Kenneth W. Hsu, BS, National Taiwan Normal University, China; MSEE, Ph.D., Marquette, P.E.—Assistant Professor
Robert E. Lee, BSEE, MSEE, Ph.D., Rochester—Associate Professor
Swaminathan Madhu, M.S., University of Madras; MSEE, Tennessee; Ph.D., Washington—Professor

Athimoottil V. Matthew, BEE, Jadavpur University, India; M. Tech., Indian Institute of Technology, India; Ph.D., Queens University, Canada—Associate Professor
James E. Palmer, BSc, University of Western Ontario; MSEE, University of Pennsylvania; Ph.D., Case Institute of Technology—Professor
Robert E. Pearson, AAS, BSEE, Rochester Institute of Technology—Instructor
David Perian, BS, MS, Cornell, Associate Professor
V.C.V. Pratapa Reddy, BE, M.Tech., Osmania University, India; Ph.D., Indian Institute of Technology, Madras—Assistant Professor
Harvey Rhody, BSEE, Wisconsin; MSEE, Cincinnati; Ph.D., Syracuse—Professor
Alton F. Riemthaler, BSEE, Valparaiso University; MSEE, University of Rochester—Associate Professor
Edward R. Salem, BSEE, Pennsylvania State; MSEE, Catholic University of America; Ph.D., Buffalo—Professor
Tapan K. Sarkar, B. Tech., Indian Institute of Technology, India; MS, Ph.D., University of New Brunswick, Canada; MSEE, Ph.D., Syracuse; P.E.—Associate Professor
Ronald B. Standlee, B. Sc, University of Denver; M.Sc. Physics, Ph.D., New Mexico Institute of Mining and Technology—Associate Professor
Fungyi Tseng, BSEE, Taiwan University; MSEE, Chiao-Tung University, Taiwan; Ph.D., Syracuse—Associate Professor
Raman M. Unnikrishnan, BSEE, University of Kerala, India; MSEE, South Dakota State University; Ph.D., Missouri—Associate Professor
Dr. Jayanti Venkataraman, BS, MS (Physics) Bangalore University; Ph.D., Indian Institute of Science, Bangalore, India—Visiting Assistant Professor
Watson F. Walker, BSEE, Brooklyn Polytechnic Institute; Ph.D., Syracuse—Professor

Industrial Engineering Department
Barbara Brenner, BSIE, Rochester Institute of Technology; MSEE; Purdue—Instructor
Rajendra B. Nalavade, B. Tech., Chemical Engineering, Indian Institute of Technology, Bombay, India; MSIE, National Institute of Technology, Bombay, India; Ph.D., Ohio State—Assistant Professor
Sudhakar R. Paidy, BS, Osmania University, India, MSEE, Ph.D., Kansas State—Assistant Professor
Richard Reeve, BS, MS, Ph.D., Buffalo—Professor
Jasper E. Shealy, BS, Georgia Institute of Technology; MS, Ph.D., SUNY at Buffalo—Professor
Kai Sung, BS, National Chiao Tung University, Taiwan; MS, Washington University; Ph.D., Case Western Reserve—Distinguished Visiting Professor
College of Graphic Arts and Photography

Mark F. Guldin, BS, MS, Ph.D.—Dean, Professor
Carol J. Johnson, BS—Assistant to the Dean
John L. Kronenberg, BS—Associate Dean
Warren Daum, BS, MS—Administrative Consultant

Department of Academic Support Services
David A. Engdahl, BS, M.Ed.—Director, Professor
James R. Walsh, BS, M.Ed.—Associate Director, Associate Professor
William A. Urso, BFA—Administrative Assistant
Linda A. Tolan, BA—Administrative Assistant

School of Photographic Arts and Sciences

Administrative Staff
Russell C. Kraus, BA, Ed.D.—Director, Associate Professor

Thomas Iten, BFA, MS—Chairman, Applied Photography; Associate Professor
Ronald Francis, AB, Ph.D.—Chairman, Imaging and Photographic Science; Professor
Leslie Stroebel, BS, M.Ed.—Chairman, Photographic Technology; Professor
Richard D. Zakia, BS, Ed.D.—Chairman, Fine Arts Photography; Professor

Faculty
Peter Anderson—Visiting Associate Professor
Charles A. Arnold, Jr., BFA, Rhode Island School of Design; MBA, Rochester Institute of Technology—Lecturer
Joseph Biegel, MS, Rochester Institute of Technology—Lecturer
Terry L. Bollman, AB, Drury College; MS, Rochester Institute of Technology—Assistant Professor
Willem Brouwer, Ph.D., Delft, Holland—Visiting Professor
Owen Butler, BFA, Rochester Institute of Technology—Assistant Professor
Tim Catellan, BS, Rochester Institute of Technology—Lecturer
Burt H. Carroll, B.Ch., Cornell, Ph.D., Wisconsin
Guenther Cartwright, BA, University of Oregon, MFA, Bufalo—Assistant Professor
Kathleen Collins, AB, Stanford, MFA, Rochester Institute of Technology—Assistant Professor
John C. Compton, BS, MS, Rochester Institute of Technology—Associate Professor
Ira B. Current, BA, Colorado—Associate Professor
Andrew Davidhazy, BFA, MFA, Rochester Institute of Technology—Associate Professor
Mary A. Donadio, BS, Nazareth—Lecturer
William W. DuBois, BFA, Ohio University; M.Ed., Bowling Green State University—Assistant Professor
David A. Engdahl, BS, M.Ed., University of Rochester—Professor
Lothar K. Engelmaier, Ph.D., University of Frankfurt—Professor
Richard Flioberg, BA, Iowa State; MS, Boston University—Associate Professor
Michael A. Geissinger, BFA, MST, Rochester Institute of Technology—Assistant Professor
Edward Granger, Ph.D., University of Rochester—Lecturer
Franc Grum, Ph.D.—Richard S. Hunter Professor
John Head, MFA, Rochester Institute of Technology—Assistant Professor
Bradley T. Hindson, BA, Rutgers; MFA, Ohio University—Associate Professor
John E. Karpen, BS, MFA, Rochester Institute of Technology—Associate Professor
Robert Kasner, BS, City College of New York; MS, Rochester Institute of Technology—Assistant Professor

Weston D. Kemp, MFA, Rochester Institute of Technology—Associate Professor
Robert B. Kushner, MS, Rochester Institute of Technology—Associate Professor
Leon LeBeau, Ph.D., University of Illinois—Adjunct Professor
Hadrian Lechner, MS, Boston University—Assistant Professor
Henry W. Leichtner, Master Photographer—Adjunct Professor
Howard LeVant, BS, Institute of Design, Illinois Institute of Technology—Assistant Professor
Amok) Langershausen, MA, Ohio University—Lecturer
Ellsworth McCune, BSEE, Ohio University—James E. McGehee Professor, Lecturer
James E. McMillion, Jr., BFA, MFA, Ohio University—Professor
Beatrice Nettles, BFA, Florida; MFA, Illinois—Associate Professor
Richard Norman, BA, Rochester Institute of Technology—Lecturer and Technical Associate
James Reilly, BA, Franklin and Marshall; MA, Buffalo—Lecturer and Technical Associate
Martin A. Rennials, Prof. Cert. (Film), West Indies Film; Kingston, Jamaica; Prof. Cert. (Film), Colonial Film Unit, London; MS, Boston University—Professor
John Retallack, BFA, Rochester Institute of Technology—Lecturer
David J. Robertson, BFA, Pratt Institute; MA, Columbia University Teachers College—Professor
Nile R. Root, MS, Rochester Institute of Technology—Associate Professor
Elliott Rubenstein, BA, MA, St. John's University; MFA, Bufalo—Associate Professor
John Schott, BS, Canisius College, MS, Ph.D., Syracuse University—Assistant Professor
Martin Scott, AB, Lafayette College—Lecturer
William S. Shoemaker, BS, Rochester; MS, University of Miami—Professor
Donald L. Smith, BS, Rochester—Associate Professor
Michael Soluri, BS, Brockport; MFA, Rochester Institute of Technology—Assistant Professor
Malcolm Spaul, BS, St. Lawrence University; MFA, Rochester Institute of Technology—Assistant Professor
Erik Timmerman, WS, Wisconsin, MFA, Southern California—Assistant Professor
John F. Trauger, AB, Bucknell; MLS, SUC at Geneseo—Associate Professor
Charles C. Werberig, BFA, MS, Syracuse—Associate Professor
John Westbrook, MS, Rochester Institute of Technology—Lecturer
Tom Murw Wilson, BFA, Cranbrook Academy of Art; MFA, Rochester Institute of Technology—Associate Professor

School of Printing

Administrative Staff
William A. Pakan, BS, MS, Ph.D.—Director, Professor
W. Frederick Craig, BS, M.Ed., Staff Chairman, Management Division, School of Printing; Associate Professor
Walter G. Home, BS, M.Ed., Staff Chairman, Photography Plates, and Press Division, School of Printing; Professor
Emery E. Schneider, BS, M.Ed., Staff Chairman, Design Composition Division, School of Printing; Associate Professor
Joseph L. Noga, BS, MS—Coordinator, Graduate Program, School of Printing; Associate Professor

Technical and Education Center Administrative and Technical Staff
Herbert E. Phillips, AAS—Director
Sven Ahrens—Assistant to the Director
Chester J. Daniels, BS, MS—Senior Technician
William S. Eisner, BS—Director, Technical Services
Zeno A. Elly—Senior Technician
A. Val Johnson, BS, M.Ed.—Seminar Coordinator
Patricia Knittel, BA—Editor
William D. Siegfried—Seminar Director
Franz Sigg—Research Associate

Faculty
Beki E. Arpag, BS, Rochester Institute of Technology—Associate Professor
Barbara Birkett, BA, Aquinas College; MBA, Michigan—Lecturer
William H. Birkett, BS, Illinois; MBA, Michigan; CMA—Associate Professor
Edward A. Brabant, BS, Rochester Institute of Technology—Professor
Joseph E. Brown, BS, Carnegie-Mellon University; MS, Kansas State—Associate Professor
Walter A. Campbell, BA, Hobart; MBA, M.Ed., Rochester—Professor
Walter E. Capell, BA, Buffalo; J.D. New York Law School—Lecturer
Robert Y. Chung, BA, Eastern Washington State University; MS, Rochester Institute of Technology—Assistant Professor
Frank J. Coit, BS, Eisenhower College—Instructor
W. Frederick Craig, BS, West Virginia Institute of Technology; M.Ed., Rochester—Associate Professor
Joseph D. Delorenzo, BS, Alabama, MS, Polytechnic Institute of Brooklyn, Ph.D., Boston University—Lecturer
Hugh R. Fox, AB, Dartmouth; JD, Rutgers—Assistant Professor
John Marciniak—Coordinator, Technical Services
Larry Pocobello, BS, Rochester Institute of Technology—Technical Associate

College of Liberal Arts

Mary C. Sullivan, RSM, BA, MA, Ph.D.—Dean; Professor
Diane R. Gordon, BA, BA, MA—Associate Dean; Professor
Robert E. Golden, AB, MA, Ph.D.—Associate Dean; Associate Professor
Amok J. Berman, BA, MA, MSW—Director, School of Human Services, Assistant Professor
Thomas J. O'Brien, BS, MA—Staff Chairperson, Language and Literature; Professor
Joanne M. Jacobs, BA, MA—Staff Chairperson, Social Science; Assistant Professor
Glenn J. Kist, AB, MA, Ph.D.—Staff Chairperson, Science and Humanities; Associate Professor
Marjorie G. Greene, BA, Wellesley College; MA, Ph.D., Radcliffe College, Harvard University—Caroline Werner Gannett Professor of the Humanities
Mihai Nadin, MS, MA, PhD, University of Bucharest—William A. Kern Professor of Communications

Language and Literature Faculty
Sam Abrams, AB, Brooklyn College; MA, University of Illinois—Assistant Professor
Bruce A. Austin, BA, Rider College; MS, Illinois State University; Ph.D., Temple University—Associate Professor
Andrew W. Boone, BA, Stonehill College; MA, Candidate, Middlebury College—Lecturer
Anne Cirrocco, BA, MA, SUNY at Buffalo—Lecturer
Sarah Collins, AB, Centre College; MA, Ph.D, Indiana University—Professor
Martha Cummings, BA, MA, Ed.D, University of Florida—Lecturer
William DeRitter, BA, St. Lawrence; MA, University of Rochester—Associate Professor
Catherine Doyle, BA, University of Colorado; MA, SUNY at Brockport—Lecturer
Rhona Genzel, BA, City College of New York—Lecturer
Robert E. Golden, AB, University of Michigan; MA, Ph.D., University of Rochester—Associate Director
Kathleen Hanford, BA, Mount Holyoke College; MS, Nazareth College—Lecturer
Diane Hope, BS, SUNY at Brockport; MA, SUNY at Buffalo; Ph.D., SUNY at Buffalo—Assistant Professor
Ellen Kuiper, BA, University of North Carolina; MA, University of Maryland—Lecturer

Andrew Malcolm, BS, MS, Rochester Institute of Technology—Lecturer
Lakshmi Mani, BA, MA, Calcutta; MA, SUC at Genesee; Ph.D., McGill—Professor
Megan Marks, BFA, Emerson College; MFA, University of Iowa—Lecturer
Stanley B. McKenzie, BS, Massachusetts Institute of Technology; MA, Ph.D., University of Rochester—Professor
David Murdock, BA, Shurtleff College; MA, Redlands University; Ph.D., Occidental College—Professor
Joseph M. Nassar, BA, MA, University of Toledo; Ph.D., SUNY at Binghamton—Associate Professor
Thomas J. O'Brien, BS, University of Rochester; MA, Columbia University—Professor
Janet K. Pattow, BA, Wells College; MS, SUNY at Brockport; MA, University of Rochester—Lecturer
James J. Philbin, BA, MA, SUNY at Buffalo; MA, Stanford—Professor
Mark L. Price, BA, MA, Miami University—Associate Professor
Katrina M. Quill, BA, College, MA, Ph.D., University of Rochester—Associate Professor
Sandra E. Saari, AB, Carleton College, MA, Ph.D., Occidental College—Professor
L. Robert Sanders, BA, MA, SUNY at Albany—Professor
Alan Sandy, BA, Amherst College; Diplome de langue, ESPPPEFE, Sorbonne; MA, Ph.D., Berkeley—Visiting Professor
Norris M. Shear, BA, Gannon; MA, Western Reserve—Professor
Caroline Snyder, BA, MA, Radcliffe; Ph.D., Harvard—Professor
Sister Mary Sullivan, BA, Nazareth College; MA, Ph.D., University of Notre Dame—Professor
U.T. Summers, AB, Vassar; MA, Radcliffe—Associate Professor
Elaine C. Thiesmeyer, AB, Connecticut College; MA, Cornell University—Associate Professor
Paul G. Ventura, BA, MS, University of Pittsburgh—Lecturer
Wilma Wierenga, AB, Calvin College; MA, Middlebury College, Johannes Gutenberg University—Lecturer

Science and Humanities Faculty
Lars Aagaard-Morgensen, Mag. art., Aarhus University; MA, State University of New York; MA, Temple University; Lie. theol., Aarhus University—Associate Professor
Frank Annunziata, AB, Manhattan College; MA, City College of the City University of New York; Ph.D., Ohio State University—Professor
Roderick A. Bailey, BA, University of Connecticut; Ph.D., Washington State University—Associate Professor
James I. Campbell, BA, Mount St. Mary's College; MA, Marquette University; Ph.D., University of Notre Dame—Professor

Richard Chu, BA, Taiwan University; MA, University of California at Berkeley; Ph.D., Columbia University—Professor
William Clohesy, BS, Loyola University; MA, Southern Illinois University—Professor
Douglas R. Coffey, Diploma, Cleveland Institute of Art; BFA, Denver; MA, Western Reserve—Associate Professor
Charles D. Collins, AB, Rutgers University; MA, University of Iowa; Ph.D., University of Iowa—Visiting Associate Professor
Norman R. Coombs, BS, MS, Ph.D., Wisconsin—Professor
Thomas Cornell, BA, Southwestern at Memphis; MS, Georgia Institute of Technology—Professor
Dane R. Gordon, BA, MA, University of Cambridge; BA, University of London; MA, University of Rochester—Professor
Elizabeth Haigh, BA, Pomona College; University of California—Berkeley; Ph.D., University of Rochester—Visiting Assistant Professor
Warren L. Hickman, AB, Colgate University; MA, Columbia University; Docteur Sciences Politique, Graduate Institute of International Studies, University of Geneva—Professor
Nabil M. Kaylani, BA, American University of Beirut; MA, Ph.D., Clark University—Professor
Glenn J. Kist, AB, MA, Xavier, Ph.D., Loyola University, Chicago—Associate Professor
Tina Lent, BA, MA, University of California at Los Angeles—Instructor
Richard D. Lunt, BA, Oberlin; MA, Ph.D., New Mexico—Professor
Paul A. Miller, BS, West Virginia; MA, Ph.D., Michigan State—Professor
Salvatore Montelio, BA, MA, PhD; New York University—Professor
PELLERINO NAZZARO, BA, PH. GIANNONE; Ph.D, University of Naples—Professor
Kenneth R. Nelson, AB, University of Connecticut, MA, Georgetown University, Ph.D., University of Virginia—Professor
Robert J. Paradowski, BS, Spring Hill College; MA, Brandeis University; Ph.D., University of Wisconsin—Professor
John T. Sanders, BA, Purdue University; MA, Ph.D., Boston University—Associate Professor
Edward Schuck, B.A, MUs, Ed., Westminster College; MM, Westminster Choir College—Instructor
David B. Suits, BA, Purdue University; MA, Ph.D., University of Waterloo—Associate Professor
Charles W. Warren, AB, MA, State University of Iowa; MA, Ohio State University—Professor
Houghton Wetherald, BA, Brown University; MFA, Oberlin—Professor
John A. White, BA, Ph.D., Cambridge University—Associate Professor
Fred L. Wilson, BA, Murray State University; Ph.D., University of Kansas—Dean; Professor
Hans W. Zandvoort, MFA. Royal Academy of Fine Arts, the Hague—Professor

Social Science Faculty
Louis J. Andolino, BS, Rochester Institute of Technology; MA, Kent State University—Associate Professor
Brian P. Barry, BA, St. John Fisher; MSSc, Ph.D., Syracuse—Associate Professor
N. Evelyn Brandon, BS, MS Howard—Professor
Robert J. Brown, BS, SUNY at Potsdam; Ph.D., Syracuse—Associate Professor
Kathleen C. Chen, BA, Rangoon University, Burma; MA, Bryn Mawr College; Ph.D., Pennsylvania State—Professor
Constantino Dumangane, Sr., BA, MPA, Syracuse University—Assistant Professor
Donald L. Ellens tine, AB, Ottawa University, Kansas; MA, Ph.D., University of Kansas—Professor
Louis R. Ellscher III, Houghton; MA, American University—Associate Professor
Janet E. Famum, BA, SUNY at Brockport; Ph.D., University of Rochester—Assistant Professor
John L. Faulkner, BS, University of Michigan; MBA, University of Rochester; MA, SUNY at Brockport—Assistant Professor
Boris Mikoijl, H. John Jacobi, Joseph E. Fitzpatrick, Colorado; MBA, University of Rochester; MA, SUNY at Albany—Instructor
Morton Isaacs, Rochester; MS, Ph.D., Oklahoma University; M.Ph., Ph.D., Candidate, George Washington University—Instructor
Joseph E. Fitzpatrick, BA, M.Ed., Buffalo—Professor
James S. Fleming, AB, Wake Forest University; MA, Ph.D., University of Arizona—Associate Professor
Paul F. Grebinger, BS, Columbia University; Ph.D., University of Arizona—Visiting Associate Professor
Roger W. Hamish, BA, Rochester University; MS, Ph.D., Oklahoma State University—Assistant Professor
Morton Isaacs, BA, Chicago, BS, MA, Columbia; Ph.D., Yeshiva—Professor
Janice M. Jacobs, BA, MA, Ph.D., Pennsylvania State University—Visiting Assistant Professor
Joanne M. Jacobs, BA, University of Rochester; MA, SUNY at Buffalo—Associate Professor
Young Lee, BA, Seoul National University, Korea, MA, Ph.D., Maryland—Associate Professor
Boris Mikoijl, BA, University of Graz; MA, Ph.D., Western Reserve—Professor
Francena L. Miller, BS, MS, Cornell; Ph.D., Pennsylvania State—Professor
Stephen Riley, BS, San Diego State University; MA, Ph.D., University of California, Riverside and U.C.L.A.—Associate Professor
Homa Shabahang, BS, Pahlavi University, Iran; MA, Texas A & I University; Ph.D., Oklahoma University—Instructor

Muri M. Sinha, AB, Bihar University, India; MA, Patna University, India; MA, The City College of the City University of New York; Ph.D., Cornell University—Associate Professor
Fred W. Smith, BA, MA, Wheaton College; Ph.D., Michigan State—Professor
James L. Troisi, AB, Loyoming College; MA, Ph.D., Syracuse University—Visiting Professor
Hector Velez, AA, Bronx, Community College; AB, Herbert L. Lehman College (City University of New York); MA, Cornell University—Assistant Professor
Michael Venamelli, BS, University of Michigan; MA, Ph.D., SUNY at Binghamton—Assistant Professor

Criminal Justice Faculty
John O. Ballard, BA, MPA, Indiana University—Associate Professor
Paul Brule, BA, Wittenberg University; MA, Xavier University Graduate School—Assistant Professor
Patricia M. Carter, BA, Muskingum College; MA, SUNY at Albany; Ed.D., Western Colorado University—Assistant Professor
Elizabeth B. Croft, BA, MA, University of Rochester; MA, SUNY at Albany—Associate Professor
Richard B. Lewis, BA, SUNY at Albany; MS, Southern Illinois—Assistant Professor
John A. Muriel, BA, University of Dallas; MA, Claremont Graduate School and University Center—Assistant Professor
Charles Hales Pangburn, BS, SUNY at Empire; MA, SUNY at Brockport—Adjunct Lecturer

Social Work Faculty
Arnold J. Berman, BA, Hofstra University; MA, New York University; MSW, Syracuse University—Assistant Professor
Kijana Crawford-Adleye, BA, Tougaloo College; MSW, Atlanta University—Associate Professor
Leonard A. Gravitz, BSEd., SUNY Cortland; MA, MS, Washington University; Ed.D., University of Massachusetts, Amherst—Associate Professor
Helen W. Irving, BS, Gordon College; MSW, Syracuse University—Assistant Professor
Richard Morales, BA, Michigan State University, Michigan; MA, SUC at Brockport; MSW, Syracuse University—Assistant Professor
Marshall L. Smith, AB, MSW, University of Michigan; Ph.D., SUNY at Buffalo—Assistant Professor
Michael R. Stone, BA, SUNY at Geneseo; MSW, West Virginia University—Adjunct Lecturer
Betty Toney, BA, Pasadena Nazarene; MSW, University of California at Berkeley—Assistant Professor (joint appointment with NTID)

Adjunct Field Faculty
Kathryn Birke, MSW, University of Michigan-Agency: The Geneseo Hospital
Christine Dandino-Baron, MSW, Syracuse University-Agency: The Center for Youth Services
David Dickinson Kaiser, Esq., J.D., Syracuse University-Agency: Family Service of Rochester
Harry Lange, MSW, SUNY at Buffalo-Agency: Hillside Children’s Center
Paul Lippa, MA, SUNY at Buffalo-Agency: Fairport Central School District
Elaine Marchetti, MSW, University of California at Berkeley-Agency: Monroe Development Services
Harriette Rofer, MA, SUNY at Oswego-Agency: The Mental Health Chapter of Health Association
James Sorrentino, MSW, University of Buffalo-Agency: Easthouse Corporation
Karen Steitler, MS, Nazareth College-Agency: Substance Abuse Intervention Services for the Deaf, RIT, School of Human Services

College of Science
John D. Pallouras, BA, MA, Ph.D.—Dean; Professor
William Bums, BA, MS—Associate Dean; Professor
Judy A. Witzel, BS—Assistant Dean for Administration
G. Thomas Frederick, BS, MS, Ph.D.—Department Head, Biology; Associate Professor
Terence C. Morrill, BS, MS, Ph.D.—Department Head, Chemistry; Professor
Alfred Bacharach, BS, Ph.D.—Department Head, Clinical Science; Professor
George T. Georgantas, AB, AM, Ph.D.—Department Head—Mathematics; Associate Professor
Arthur Z. Kovacs, MS, Ph.D.—Department Head, Physics; Professor
Barbara R. Fox, MS—BS, MA—Assistant to the Dean for Support Services
David A. Lamb—Operations Manager

Biology Department
Margaret B. D’Ambrosio, BA, Wilson College; MA, Wellesley College—Associate Professor
Jean A. Douthwright-Fasse, BS, Skidmore College; MS, Pennsylvania State University; MS, Ph.D., University of Rochester—Visiting Assistant Professor
Irene M. Evans, AB, University of Rochester; MS, Wesleyan University; Ph.D., University of Rochester—Assistant Professor
G. Thomas Frederick, BS, MS, Ph.D., Ohio State University—Associate Professor
Paul A. Haefner, Jr., BS, Franklin & Marshall College; MS, Ph.D., University of Delaware—Professor

M. Joseph Klingensmith, BS, Wheaton College; MS, Ph.D., University of Michigan—Professor
Douglas Merrill, BS, Ph.D., SUNY College of Environmental Science and Forestry, Syracuse University—Associate Professor
Christine A. Sack, BA, University of Michigan; Ph.D., Michigan State—Associate Professor
Franz K. Seischab, BS, Cornell; MS, SUNY at Stony Brook; Ph.D., SUNY College of Environmental Science and Forestry, Syracuse University—Associate Professor
Raymond Sowinski, BS, Ph.D., Indiana University—Associate Professor
Egon Stark, BS, MS, University of Manitoba; Ph.D., Purdue—Professor

Chemistry Department
Jerry M. Adduci, BS, Rochester; Ph.D., Pennsylvania State—Associate Professor
Susannah Butler, BS, Michigan State; Ph.D., SUNY, Stony Brook—Assistant Professor
B. Edward Cain, BA, Harpur College; SUNY at Binghamton; Ph.D., Syracuse University—Associate Professor
Robert E. Gilman, AB, Dartmouth; MS, Ph.D., Michigan—Professor
Kay Henzel, BS, Bucknell University; Ph.D., Ohio State University—Assistant Professor
William Jensen, BS, Wisconsin; Ph.D., Wisconsin—Assistant Professor
Earl Krakover, BS, McGill; Ph.D., University of British Columbia—Professor
Terence C. Morrill, BS, Syracuse; MS, San Jose State; Ph.D., University of Colorado—Professor
John Neenan, BS, Wayne State University; Ph.D., University of California, Santa Barbara—Assistant Professor
Christian Reinhardt, BS, Lafayette; Ph.D., University of Rochester—Assistant Professor
L. Paul Rosenburg, BS, Bridgewater State; Ph.D., University of New Hampshire—Assistant Professor
F. Leslie Scott, BS, COR, Ph.D., University of Ireland—Visiting Professor

Mathematics Department
Peter Arzberger, BS, University of Massachusetts; MS, Ph.D., Purdue University—Assistant Professor
Frank Bemhart, BS, University of Oklahoma; MS, Ph.D., Purdue University—Assistant Professor

Paul A. Haefner, Jr., BS, Franklin & Marshall College; MS, Ph.D., University of Delaware—Professor
Shirley Gray, BS, MS, University of Rochester; MLS, SUC at Geneseo—Reference Librarian; Media Resource Center Supervisor; (Assistant Professor)
Joan S. Green, BS, Ohio State; M.Ed., Trenton State; Rochester Institute of Technology—Assistant Director (Associate Professor)
Claudia Greene, BS, Rochester Institute of Technology—Photography Supervisor
Atvin Herdklotz, AAS, Madison C.C.—Audiovisual Technician
Cheryl Herdklotz, BA, Nazareth College; Ph.D., University of Wisconsin—Media Specialist; (Instructor)
Susan B. Hubregen, BFA, Rochester Institute of Technology—Producer/Designer; (Assistant Professor)
Carol Lake—Traffic Manager, Television
Larry A. McKnight, AAS, BS, Rochester Institute of Technology—Assistant Director; (Assistant Professor)
Joan Marsh, BFA, Rochester Institute of Technology—Graphics Supervisor
Robert J. Michel—Maintenance Engineer, Television
Scott Ragan, BA, SUNY, Oswego—Head Graphics Artist
David Stone, AAS, Monroe Community College—Assistant Producer, Audio
Steve Wunrow, BS, Rochester Institute of Technology—Assistant TV Director

Wallace Memorial Library

Patricia Pitkin, BA, MLS, SUC/Geneseo—Director; (Assistant Professor)
Joan Bawden, BS, Rochester Institute of Technology—Financial Assistant
Karen Caviglia, BS, Kansas University; MA, Indiana University; MLS, SUC at Geneseo—Reference Librarian; (Assistant Professor)
Virginia Church, BS, Wilmington College, MLS, SUNY, Buffalo—Head, Catalog Department; (Instructor)
Christine DeGolyer, AB, Cornell University; MLS, Syracuse University—Reference Librarian; (Assistant Professor)
Dalia Eichtald, BA, State University of New York at Albany; MLS, SUNY at Geneseo—Original Cataloger; (Instructor)
Margaret F. Fallon, BA, SUC at Potsdam, MLS, SUNY at Albany—Original Cataloger (Instructor)
Elizabeth A. Gillimber, BS, SUNY at Buffalo; MA, Arizona State University; MLS, SUC at Geneseo—Reference Librarian; (Assistant Professor)
Lois A. Goodman, BA, SUNY at Brooklyn; MLS, Pratt Institute—Head, Public Services; (Associate Professor)
Charlotte Cooper, BA, Western Michigan University; MLS, Syracuse University—Head, Graphic Ordering Department; (Instructor)
Linda Karuth, BS, MLS, SUNY, Buffalo—Reference and Special Instruction Librarian
Ruth B. Lunt, BA, Oberlin; MLS, SUC at Geneseo—Reference Librarian; (Associate Professor)
Thomas G. McFadden, BA, College of Idaho; MA, Brown University; MLS, University of Pittsburgh—Reference Librarian; (Assistant Professor)
Chandra McKenzie, BS, MS, Rochester Institute of Technology—Head, Circulation Department
Barbara Polowy, AB, Clark University; MLS, Syracuse University—Reference Librarian; (Instructor)
Gladys M. Taylor, BS, SUC at Geneseo; MA, Cornell—Archivist; (Associate Professor)
Gregory M. Toth, BA, University of Toronto; MA, University of Virginia; MLS, SUC at Geneseo—Reference Librarian; (Assistant Professor)

Office of the Registrar

Daniel P. Vilenski, BS, MA, Central Michigan University; Ed.S, Michigan State University—Registrar
Richard M. Pettinger, AB, Georgetown University; MBA, Rochester Institute of Technology—Associate Registrar
Victoria Aspridy, BS, Oswego State, MS, Brockport State University—Assistant Registrar
Joanne W. Beardley, BS, St. Lawrence University—Assistant Registrar
Eric M. Hardy, BA, Tufts University, M.Ed., Cortland State—Assistant Registrar

Career Research

Nancy A. Neville, BA, Lehman College of CUNY; MS, Rochester Institute of Technology—Director
Kathryn A. Iuppa—Senior Research Assistant

The Center for Cooperative Education and Career Services

Gordon E. C. Fulher, BA, Brown University—Director
Mary Dean Brewer, BA, Winthrop University; MAT, University of South Carolina—Associate Director, Placement Counselor
Emanuel Contomanois, BA, State University of New York at Cortland; MA, Bowling Green State University—Assistant Director, Employer Services; Placement Counselor
Beverly Cudney, BS, State University of New York/Brockport; MS, Rochester Institute of Technology—Assistant Director, Student Services; Placement Counselor
Marie Sigrid Allen, BFA, Pratt Institute; MS, University of Rochester—Placement Counselor
James R. Austin, BA, St. John Fisher College; MS, Rochester Institute of Technology—Senior Placement Counselor, and Coordinator of Student Programming
Ted W. Brainard, BS, Rochester Institute of Technology—Placement Counselor
Patricia Burke-White, BS, Nazareth College of Rochester—Placement Counselor
Charles W. Dispenza, BS, MS, Cornell University—Senior Placement Counselor, Systems Coordinator

Lois A. Foley—Administrative Assistant
Suella C. Habbersett, BA, Muskingum College; M.Ed., University of Pittsburgh—Senior Placement Counselor, Coordinator of Job Development
Claire A. Periman, BA, Ithaca College; MBA, Northeastern University; Placement Counselor
Bonita M. Salem, BS, Rochester Institute of Technology—Placement Counselor
Pamela Bradley Smith, BS, M.Ed., University of Cincinnati—Placement Counselor
Joan Tiemey, BA, Cornell University; MA, State University College at Brockport—Placement Counselor

Faculty and Program Development

Lawrence W. Belle, BA, MA, Case Western Reserve University; Ph.D., University of Rochester—Assistant Vice President (Associate Professor)
Gordon I. Goodman, BA, SUNY, Binghamton; MS, Rochester Institute of Technology—Assistant Professor
Joyce Herrman, BA, University of Rochester, Rochester Institute of Technology—(Associate Professor)
Barbara Hodik, BS, Benedictine College, MA, New York University; Ph.D., Pennsylvania State University—Associate Professor
Donald A. Hoppe, BS, MA, SUNY Oswego; MA, Ph.D., Syracuse University—Professor
Charles M. Plummer, BA, DePauw University; MS, Ph.D., Indiana University, Bloomington—(Associate Professor)
Edward Stockham, AB, Ph.D., University of Pennsylvania—Associate Professor

Information Systems and Computing

Michael F. Charles, BA, SUNY at Buffalo; MBA, Canisius—Assistant Vice President of Information Systems and Computing
Barbara T. Cuthbertson, BS, Simmons College—Administrative Assistant

Academic Computing

Ronald E. Stappenbeck, BS, MS, Rochester Institute of Technology—Director of Academic Computing; (Associate Professor)
Donna Cullen, BA, Gordon College; MA, Northwestern University—Software Specialist; (Instructor)
Frederick Howard, BS, SUNY at Oswego—(Associate, Jr. Software Specialist)
Warren Kovitz—Jr. Software Specialist
C.R. Myers, BA, University of Rochester—Microcomputer Specialist
Dianne Parker, AAS, Cayuga Community College—User Computing Center Coordinator
Andrew Mathews, AAS, Cayuga Community College—User Computing Center Coordinator

Dorothy Proskin, BS, SUNY at Albany; MS, Rutgers University—Software Specialist; (Instructor)
Stephen A. Wilkins, AAS, SUC at Morrisville; BBBA, Kansas State; MS, Rochester Institute of Technology—Supervisor of Software Support; (Assistant Professor)

Data Center Operations

George C. Hopkins—Director of Data Center Operations
Donna Baliva—Operations Librarian
Steven Good—Technical Support
Robert C. Pfromm—Supervisor of Computer Operator Operations, Second Shift
Richard Rowley—Supervisor of Computer Operator Operations

Systems Development

Robert R. Miller, BS, Boston College; MBA, Rochester Institute of Technology—Director of Systems Development
Ramona Akposani, BA, University of Vermont; MA, SUNY at Plattsburg—Systems Analyst
Stan Armstrong, AAS, Community College of the Finger Lakes; BS, McGill University—Programmer
Paul Buflano, AAS, Morrisville—Supervisor of Programming
Vasanthy P. Christopher, BS, University of Madras; MS, Indian Institute of Technology; MSIE University of Wisconsin (Madison)—Sr. Systems Analyst
Richard Godown, AAS, Alfred State—Programmer
Lauren Johnson, BA, SUNY Binghamton—Systems Analyst
Peter F. Kulpa, BS, Rochester Institute of Technology—Sr. Systems Analyst
David B. McCandlish, BA, Johns Hopkins; MS, University of Rochester; MS, Rochester Institute of Technology—Sr. Systems Analyst
Moses Powell, AAS, Monroe Community College; BS, University of Rochester—Sr. Systems Analyst
Nancy Simonds, AAS, Monroe Community College—Programmer
Laura Smith, AAS, Monroe Community College—Programmer
Jim Tefft, AAS, Seminole Jr. College; BS, Florida Technical University—Sr. Systems Analyst
Wendy Thompson, AAS, Monroe Community College—Systems Analyst

Technical Support

Gregory Hawryschuk, AAS, Monroe Community College; BA, MBA, Rochester Institute of Technology—Manager of Technical Support
Alan Brown, BFA, Rochester Institute of Technology—Date Base Technician
Neal Garber—Systems Programmer
Barbara King—Systems Programmer
Andrew W. Ludwick, BS, Rochester Institute of Technology—Data Base Technician
I.P. Licata—Data Base Administrator
Thomas Rutkowski, AAS, SUNY at Alfred—Systems Programmer
Robert D. Weeks, Sr., BS, Rochester Institute of Technology—Systems Programmer

User Services
Robert C. Weeks, Jr., BA, State University of New York; MS, Rochester Institute of Technology—Manager of User Services
Clay Davis, AAS, BS, Rochester Institute of Technology—Applications Specialist
Sheila Maas, AAS, State University of New York, Alfred—Office Systems Specialist
Barbara Phillips, AAS, State University of New York, Alfred—Publications Specialist
Barbara Simmons, BS, State University of New York; MBA, Rochester Institute of Technology—Applications Specialist

Student Academic Development
Learning Development Center
Paul R. Kazmerski, MA, B.Ed., M.Ed., Duquesne: Ph.D., Syracuse—Director, (Professor)
Irene M. Payne, BS, MS, SUC at Geneseo—Associate Director, College Program (Associate Professor)
Gladyes Abraham, BA, SUNY at Albany; MS, SUC at Brockport—Associate Director, Community Program (Assistant Professor)
R. William Gage, BS, Rochester Institute of Technology; MA, University of Rochester—Assistant Director (Associate Professor)
Marcia Birken, AB, Mt. Holyoke College; MS, Courant Institute of Mathematical Sciences, New York University (Assistant Professor)
Anne Circo, BA, MA, SUNY at Buffalo—Assistant Professor
Martha Young Cummings, BA, MA, Ed.D., University of Florida—Assistant Professor
Rhona Genzel, BA, City College of New York—Supervisor, ESOL Program
Sue Heard, BA, Edinboro State College; MS, Duquesne University—Clinical Supervisor (Instructor)
Joseph M. Nasser, BA, MA, English University of Toledo; Ph.D., SUNY at Binghamton (Assistant Professor)
Mary Pizzente, BS, SUC at Geneseo; MS, Syracuse (Associate Professor)
J. Wixsom Smith, BS, SUC at Geneseo; MS, Rochester Institute of Technology (Associate Professor)

Department of Military Science
LTC Richard R. Reinholdt, BS, US Military Academy; MS, Purdue University—Professor
Major Michael Shinn, BS, Western Carolina College—Assistant Professor
Major Joseph Ciprich, BA, Villanova University—Assistant Professor

Captain Billy Freeborn, BA, Sam Houston State University—Assistant Professor
Captain James Carey, BA, Washington State University—Assistant Professor
Sergeant Major James Lyes—Detachment Sergeant Major
Master Sergeant Donald Roberts—Training Specialist
Staff Sergeant Robert Seay—Supply Specialist
Staff First Class Major L. Redd—Administrative NCO

Finance and Administration Division
H. Donald Scott, BA, University of Virginia; BS, Cornell University—Vice President, Finance and Administration

Audit Services
Joseph Pickard, BS, Arizona State University; MBA, Rochester Institute of Technology; C.I.A.—Director
Thomas Bolton, BS, Ithaca College; MBA, University of Rochester C.P.A., New York—Senior Auditor
James Fisher, BS, Rochester Institute of Technology—Staff Auditor
Gail Watch, BS, Rochester Institute of Technology—Staff Auditor

Business Services
Jamas L. Fox, BA, Florida State University—Director of Business Services
William H. Batcheller—Assistant Director of Business Services

Apartment Housing
Edward O. ingarick—Manager

Bookstore
William Simpson, BA, MBA, University of Massachusetts—Director of Bookstores
Sylvia Bail—Supplies Manager
Louis Gagliano, BS, Rochester Institute of Technology—Assistant Director

Thomas Guhl, BS, MS, Rochester Institute of Technology—PhotoDepartment Manager
David L. McIntrye, AAS, Jamestown Community College—Textbook Manager
Mariana Poison-Lorzac, AA, Berkshire Community College—Manager, Branch Stores and Specialty Services
Elian ToneHi, AAS, Monroe Community College—General Reading and Trade Book Manager

Campus Safety
Leslie Scoville, BS, Trenton State—Director
Andrea Benshoff—Administrative Coordinator
Robert Day—Public Safety Specialist

Karen Lawrence—Office Supervisor
Jeffrey Meredith, AAS, Monroe Community College—Assistant Director of Programming
Stanley Perry—Investigator
Richard Stem, BS, SUNY Empire State College, Assistant Director, Operations
John Yockel, BA, St. John Fisher—Assistant Director for Administration

Food Service
James C. Bingham, AAS, Morrisville; BS, Rochester Institute of Technology—Director
Robert D. Day, AAS, Rochester Institute of Technology—Manager, Dining Commons
Gary Gasper, AAS, Morrisville—Manager, Catering and Clark Dining Room

Diane Gorski, BS, Rochester Institute of Technology—Production Manager, Dining Commons
Mitchell Green, BAS, Boston University—Assistant Director/Cash Operations
Janet Lee, AAS, SUNY at Delhi—Manager, Grace Watson Dining Hall
Mary Anne McCay, AAS, Monroe Community College, BS, Buffalo State—Production Manager, Grace Watson Dining Hall
Craig Meal, AAS, Morrisville; BS, Oklahoma State University—Assistant Director, Residential Dining
Richard Swartz, AAS, SUNY at Morrisville; BS, Rochester Institute of Technology—Manager, College-Alumni Union

Purchasing
William Batcheller—Director
Lawrence Thibault—Assistant Director
Marine Bice—Purchasing Agent
Deborah Bourcy—Administrative Assistant
Frank Coca—Manager, Printing and Duplicating Services and Administrative Copy Center
Arthur D’Angelo—Manager, Mail Services
Robert Goldstein—Purchasing Agent

George Harland—Manager, Property & Risk Management
Edward Ziegler—Director, Ice Arena

Special Events
Edward Steffens, BS, MBA, Rochester Institute of Technology—Director
Shirley Masseth—Administrative Assistant

Carole Truster—Assistant Director

Controller
William J. Welch, BBA, Niagara; CPA, New York—Controller
David R. Moszak, AAS, Alfred State—Assistant Controller
John A. Brodie, BS, Rochester Institute of Technology—Director, Financial Analysis

Marie Nitzman—Technical Assistant
Norman S. Welch, BS, Rochester Institute of Technology—Staff Accountant

Accounting
James C. Murphy, BS, University of Rochester—Director
John P. McCormick, BBA, St. Bonaventure; MBA, University of Rochester—Supervisor
Kerry W. Phillips, AAS, SUNY, Alfred—Staff Accountant
Alina J. Palls, BA, Rochester Institute of Technology—Staff Accountant

Budget
David B. Caiman, BS, Rochester Institute of Technology—Director
William J. Bianchi, Rochester Institute of Technology—Assistant Director

Bursar’s Office
Richard B. Schonblum, BS, Rochester Institute of Technology—Bursar
Rosemarie Gross—Assistant Bursar
Patrick Bates, BS, SUNY, Oswego—Director of Student Accounts

Collections
Mark Davitt—Manager

Payroll
James C. Murphy, BS, University of Rochester—Director
Margaret Gardner—Assistant, Supervisor
Valerie A. Lottia—Supervisor

Personnel
Jeanne M. Healy, BS, LeMoyne College—Director
Date Andrewson, BS, University of Wisconsin; MA, Bowling Green State University—Associate Director for Operations
Wendy Benjamin, AAS, SUNY, Alfred—Administrative Assistant
Leslie Belkowitz, BA, Utica College—Training Administrator
Katherine Caracci—Personnel

Geri Curwin, BA, M.Ed., University of Massachusetts; MBA, Rochester Institute of Technology—Assistant Administrator, Staffing & Development

Catherine P. Dittmar, BS, Wittenberg University—Personnel Data Administrator
Bev Gibson, BS, Colby-Sawyer College—Coordinator, On-Campus Student Employment
Ida Hardy, BA, SUNY, Cortland; MS, SUNY, Binghamton—Human Resources Coordinator
Charles L. Hayes, MS, Springfield College—Coordinator

Denise L. Hess, BS, MA, Nazareth College—MBA, Rochester Institute of Technology—Compensation Analyst
Carole LaCentra, VA, B.Ed., University of Toronto; MA, University of Rochester—Student Employment Coordinator

James M. Papero, BS, Ed.M., University of Rochester—Associate Director
Mary Patricia Spinelli, BA, Wilkes College—Compensation Analyst

Physical Plant

William H. Mets, AAS, NYSU at Farmingdale; BS, University of Rochester—Director
Clifford E. Velve, BS, Tri-State University—Assistant to the Director

Lodewyk Boyon, AAS, Grotius College—Assistant Director for Energy Conservation
Donald G. Burkhardt, ABA, Rochester Business Institute—Assistant Director for Administrative Services
Roy S. Demenent, Jr., BS, Clarkson College—Assistant Director for Operations
Robert T. Downey—Assistant Director for Plant Engineering
Elizabeth Nolan Beat—Assistant Director for Telecommunications/Systems

Division of Resource Assessment and Analysis

George E. D. Brady, BA, Ed.M., University of Buffalo—Associate Vice President for Finance and Administration
Cheryl Becker, BA, MA, SUNY Albany, Secretary to the Associate Vice President for Finance and Administration

Institutional Research

John M. Whiteley, BS, MBA, Rochester Institute of Technology—Director
Lo-iy Chung, BA, Chung-shan Science & Technology Institute; MA, Eastern Washington State University—Research Associate
Joan C. Dammeyer—Secretary to the Associate Vice President for Finance and Administration

Administrations

James G. Miller, BS, The Pennsylvania State University—Associate Vice President
Beverly M. Miller—Administrative Assistant to Associate Vice President
David Finney, BA, Westminster College; MA, Bowling Green State University—Director
Joan M. Barrett, BS, Rochester Institute of Technology—Manager of Admissions Operations
Barbara Bell, BA, Indiana University; MS, Syracuse University—Assistant Director and Coordinator of Minority Recruitment
Joseph Denglser, BS, Rochester Institute of Technology—Associate Director/NTID
Arthur C. Friedel, BS, Rochester Institute of Technology—Assistant Director and Coordinator of International Admissions
Richard M. Fuller, BA, Ithaca College; MA, Bowling Green State University—Associate Director
George C. Hedden, BA, SUNY at Buffalo—Senior Admissions Officer
Edward Lincoln, AB, Eisenhower College—Assistant Director
Dorothy Lowe, BS, SUNY at Buffalo; Ed.M., University of Rochester—Assistant to the Director

Alumni Relations

Frank A. Cicha, BS, Rochester Institute of Technology—Director Rosalind Hawkins—Administrative Assistant

Center for Community/ Jr. College Relations (CCJCR)

Richard L. Rinehart, BS, MS, Ed.D—Director, Professor

Communications

Jack F. Smith, BA, University of Pittsburgh—Associate Vice President
Betty Adams, BA, University of Wisconsin—Executive Editor
Karen Beadling, BA, Antioch College—Coordinator of Publications
Carol Bonenfant, BA, SUNY at Buffalo—Assistant to the Director of Public Information
Elizabeth Cain—Production Coordinator

Financial Aid

Parvash Singh, BA, Jiwai University; MBA, University of Scranton—Director of Financial Aid
James Winter, BS, MS, SUNY Albany—Assistant Director of Financial Aid
Angela Brancato, AA, Onondaga Community College; BS, Rochester Institute of Technology—Financial Aid Counselor
Jane E. DeMallie, AA, Monroe Community College; BA, Utica College of Syracuse University, MS, SUNY at Albany—Financial Aid Counselor
Molly Diem—Administrative Assistant/Office Supervisor

Student Affairs Division

Fred W. Smith, BA, MA Wheaton College; Ph.D., Michigan State University—Vice President for Student Affairs and Dean of Complementary Education
Barry R. Culhane, BA, University of Windsor, Canada; Ed.D., University of Rochester—Assistant Vice President for Campus Life

Development

O. Terry Bruce, BS, Rochester Institute of Technology; MS, Rochester Institute of Technology—Director of Development Data Systems
Michael J. Catillaz, BA, SUNY Albany; MBA, Rochester Institute of Technology; Ed.S., SUNY Albany—Assistant to the Director of Development
Donna Lee Dey, BA, MA, University of Windsor—Research Assistant
Josephine Dudley—Special Assistant to Director of Development
Roger M. Hewett, BA, Union College—Senior Development Office
Warren W. Klenk, BA, LaSalle College; MA, Temple University—Development Officer
William H. Mathews, BA, Hobart College; MA, Temple University—Research Associate
Norman Miles, BA, University of Rochester; MA, Syracuse University—Director, National Development
John H. Potter, BA, MA, University of Missouri—Director of Planned Giving
Nancy Stallard Purdy, BA, Wells College—Records Manager
Ellie Smith—Coordinator, RIT Fund

Veterans’ Affairs

Eugene F. Clark, Jr., Director
Suzanne M. MacFall, Secretary

Campus Ministries

Sr. Shirley Pilot—Director; Catholic Campus Minister
Rev. James Sauers—Catholic Campus Minister
Rev. Kenneth H. Carlson—Lutheran Pastor; Protestant Campus Minister
Deacon Patrick Graybill—Catholic Campus Minister, NTID
Rabbi Alan Morse—Hillel Director, RIT/NTID
Rev. Daniel Finch—Methodist Campus Minister, NTID P.T.
Rev. Lawrence Mothersell—Episcopal Campus Minister, NTID P.T.
Mrs. Sally Taylor—Baptist Campus Minister, NTID P.T.
Rev. Jack Cleeton—Assembly of God Campus Minister, NTID P.T.
Emory Dively—Assembly of God Campus Minister, NTID P.T.
Rev. Mark Seeger—Lutheran Campus Minister, NTID P.T.
Mr. David Spaulding—InterVarsity Christian Fellowship P.T.
Rabbi Necemia Vogel—Jewish Campus Minister P.T.
Rev. Maggie Boyd—Genesea Campus Minister P.T.
Rev. Randall Burkham—Christian Church & Church of Christ, NTID P.T.
Dr. Paul Thayn—Church of Jesus Christ, Latter Day Saints, NTID P.T.

Complementary Education

Elaine M. Spaul, BA, George Washington University; MA, Georgetown University, Ph.D. (ABD), SUNY, Buffalo—Director
Horton Child Care Center

Lita Boudakian, BA, Queens College; MA, Southern Connecticut State College—Director
John Perriello, BS, University of Rochester—Teacher
Joroyce Robinson, BS, University of North Carolina, Appalachian State College—Teacher

International Student Affairs
Barbara Letvin, BS, Ohio State University; MS; SUNY at Brockport—Director
Nancy Buckett, BA, Adelphi University—Assistant Director
Carolyn DeHorty, BA, Earhart College—Coordinator, Special Programs

Department of Intercollegiate Athletics and Department of Physical Education, Intramurals and Recreation
Bruce E. Proper, BS, Ithaca College—Director, Department of Physical Education, Intramurals and Recreation
Losius W. Spotsi, Jr., BS, Ithaca College—Associate Director, PER & I (Associate Professor)
Fred Bleiler, BS, MS, Ithaca College—Associate Director, Business Affairs, Department of Athletics
Losius A. Alexander, Jr., BS, University of Rochester—Coordinator of Special Projects (Professor)
Janet J. Assenheimer, BS, MS, SUNY at Brockport—Head Coach, Softball and Volleyball; (instructor) Department of Intercollegiate Athletics
Raymond C. Bell—Trainer, (Instructor) Department of Intercollegiate Athletics
John P. Buckholz, Jr., BS, SUNY at Cortland—Men's Swim Coach; (Assistant Professor)
Earl W. Fuller, BS, Waynesburg State College; M.Ed., Pittsburgh—Wrestling Coach; (Professor)
Neil A. Kromer, BA, Eisenhower College—Coordinator of Operations, Department of Intercollegiate Athletics
Brian Mason, BS, Clarkson College—Men's Hockey Coach; Department of Intercollegiate Athletics
Douglas J. May, BS, SUNY at Brockport; MS, University of North Carolina at Chapel Hill—Soccer Coach; (Assistant Professor)
Gregory Moss, BS, SUNY at Oneonta—Director, Equipment Room
Ann Nealon—Women's Tennis Coach; (Instructor)
Kathy Robords, BS, SUNY at Cortland—Women's Swim Coach; (Instructor)
Helen F. Smith—Assistant Director of Athletics; (Associate Professor)
Daryl C. Sullivan, BS, Rochester Institute of Technology—Coordinator of Intramurals; (Assistant Professor)
William G. Tieney, BS, SUNY at Cortland; MS, Adelphi University—Lacrosse Coach; (Instructor)
Peter J. Todd, BS, SUNY at Cortland—Track and Cross Country Coach; (Assistant Professor)

Office of Minority Student Affairs
Cynthia McGill, BA, University of Rochester; MS, Rochester Institute of Technology—Director

Office of Special Services
Marie Giardino, BA, Nazareth College; Middlebury College—Director
David L. Watson, BA, MA, University of Montana—Counselor

Orientation and Special Programs
Joseph T. Naim, BA, Thiel College; M.Ed., University of Vermont—Director

Residence Life
H. Preston Herring, BA, West Virginia Wesleyan College, M.Ed., University of Vermont, Ph.D., Michigan State University—Director, Residence Life
Michael D'Arcangelo, BA, Westminster College, MA, Student Personnel, Bowling Green—Area Complex Director
Jeanne M. Ferranti, BA, University of Northern Colorado, MS, Career Human Resource Development, Rochester Institute of Technology—Assistant Director, Administrative Services
Joseph Gormont, Assistant Director, Building Services
Anne Kingston, BA, Bates College, M.Ed., University of Rochester—Area Complex Director
Paul Montinieri, BA, St. Michael's College, M.Ed., University of Vermont—Area Complex Director
Carol Rosa, BA, Ledyard College, M.Ed. University of Southern Maine—Assistant Director, Student Development
William VanderClock, BA, University of Maine, M.Ed., University of Maine—Coordinator of Assignments/Computer Operations
John Weas, BA, MS, Indiana University—Director of Off Campus and Apartment Life

Student Health Services
E. Cassandra Jordan, BA, Clark College; BS, Meharry Medical College; MS, SUNY at Geneseo—Director
Igor Mihajlov, MD, Faculty of Medicine, Zagreb University—Medical Director
Martin Zinaman, MD, Downstate Medical Center—Staff Physician
W. Patrick Bemal, MD, University of Virginia—Part-time Physician
Joseph Kutuchian, MD, Lusansue Medical University—Part-time Physician

Richard Perimutter, MD, University of Pennsylvania Medical School—Part-time Physician
Karen Ekstrom, BA, Albion College; BS, University of Rochester School of Nursing—Nurse Practitioner
Julie Leonard, BS, University of Rochester School of Nursing—Nurse Practitioner
Robert McCann, BS, Tufts University; MS, Pace University—Nurse Practitioner
Julia Shattuck, RN, Highland Hospital School of Nursing; MSN, University of Rochester School of Nursing—Nurse Practitioner
Julia Steigbigel, BS, University of Rochester School of Nursing; MS, University of Rochester School of Nursing—Nurse Practitioner
Mary Hansen, RN, Geneseo Hospital School of Nursing; BS, University of Rochester School of Nursing; MS, Nazareth College—Health Education Coordinator

Student Activities and Union Services
Margaret A. Chapa, BA, Michigan State University; MA, Michigan State University—Director
Helene K. Manglaris, BS and MS SU College at Brockport—Director
Michael D. D'Arcangelo, BA, Westminster College, MA, Bowling Green State University—Coordinator of Greek Affairs
Marta L. Stephens, BA, University of Missouri; MS, University of Missouri—Coordinator of Greek Affairs

Faculty and Staff Emeriti
Robert C. Baker, Professor Emeritus, Engineering
Hans J. Barschel, Professor Emeritus, Art and Design
Harold J. Brennan, Dean Emeritus, College of Fine and Applied Arts
Harold J. Brodie, Professor Emeritus, Mechanical Engineering
Mary E. Burnet, Professor Emeritus, Business Administration
Frank A. Clement, Professor Emeritus, General Studies
Silvio DeCrisofaro, Professor Emeritus, College of Continuing Education
Mark Ellingson, Professor Emeritus, Albert Erskine, Professor Emeritus, Mathematics
Loyd Fields, Professor Emeritus, National Technical Institute for the Deaf
Ruth E. Gutfrucht, Professor Emeritus, Art and Design
Mykola Hadsinsky, Professor Emeritus, Physics
Sherman Hagberg, Professor Emeritus, Mechanical Engineering
Frances H. Hamblin, Professor Emeritus, General Studies
William J. Hayles, Professor Emeritus, Chemistry
Edwin O. Henrick, Associate Professor Emeritus, General Studies
Edwina B. Hogadone, Dean Emeritus, College of Business
Clayton E. Hughes, Professor Emeritus, General Studies
Charles W. Hunt, Associate Professor Emeritus, Printing
Harold Kentner, Professor Emeritus, Continuing Education
Marion L'Amoreaux, Associate Professor Emeritus, Reading and Study Clinic
Alexander S. Lawson, Professor Emeritus, Printing
George H. Lecain, Professor Emeritus, Mechanical Engineering
Douglas Lytle, Professor Emeritus, Photographic Arts and Sciences
Douglas M. Marshall, Associate Professor Emeritus, Mechanical Engineering
Herbert J. Mosslen, Professor Emeritus, College of Business
Russell A. Norton, Professor Emeritus, College of Continuing Education
Egidio Papa, Associate Professor Emeritus, General Studies
Robert D. Pease, Dean Emeritus, College of Continuing Education
Daniel Petruzzi, Professor Emeritus, Eisenhower College
Harold Raphael, Professor Emeritus, Packaging Science
George W. Reed, Professor Emeritus, Electrical Engineering
Albert D. Rickmers, Professor Emeritus, Photographic Arts and Sciences
Donald L. Ritchie, Professor Emeritus, Printing
Donald C. Robinson, Department Head Emeritus, Electrical Engineering
Nina M. Sandberg, Associate Professor Emeritus, Chemistry
Julian Sallisnjak, Professor Emeritus, General Studies
Roy I. Satre, Jr., Vice President for Academic Affairs Emeritus
Paul Schuleshko, Professor Emeritus, Mechanical Engineering
Gerhard Schumann, Professor Emeritus, Photographic Arts and Sciences
Leo F. Smith, Vice President Emeritus, Academic Administration
Amok) Sovari, Professor Emeritus, Photographic Arts and Sciences
G. Hollister Spencer, Professor Emeritus, Administration Business
Hector Sutherland, Professor Emeritus, Printing
Vernon R. Titus, Professor Emeritus, Management
Hollis N. Todd, Professor Emeritus, Photographic Arts and Sciences
Arden L. Travis, Professor Emeritus, College of Business
Clarence E. Tuites, Professor Emeritus, Electrical Engineering
Norman J. Weinreber, Associate Professor Emeritus, Institute College
Mason E. Wescott, Professor Emeritus, Statistics
Helen W. Wheeler, Associate Professor Emeritus, Reading and Study Clinic
Edwin M. Wilson, Professor Emeritus, Photographic Arts and Sciences
Viola M. Wilson, Associate Professor Emeritus, Food Administration
Stanley H. Wittmeyer, Professor Emeritus, College of Fine and Applied Arts
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Events</td>
<td>22</td>
</tr>
<tr>
<td>Social Work (BS)</td>
<td>101</td>
</tr>
<tr>
<td>Social Work Transfer Program (BS)</td>
<td>103</td>
</tr>
<tr>
<td>Software Science, Systems</td>
<td>35</td>
</tr>
<tr>
<td>Sororities and Fraternities</td>
<td>20</td>
</tr>
<tr>
<td>Special Services</td>
<td>19</td>
</tr>
<tr>
<td>Sports and Recreation</td>
<td>23</td>
</tr>
<tr>
<td>Standard of Satisfactory Progress</td>
<td>11</td>
</tr>
<tr>
<td>Statistics, Applied (MS)</td>
<td>see Graduate Bulletin</td>
</tr>
<tr>
<td>Student Academic Development</td>
<td>25</td>
</tr>
<tr>
<td>Student Affairs</td>
<td>17</td>
</tr>
<tr>
<td>Student Association, Off-Campus</td>
<td>21</td>
</tr>
<tr>
<td>Student Conduct (Institute Standards)</td>
<td>5</td>
</tr>
<tr>
<td>Student Directorate</td>
<td>21</td>
</tr>
<tr>
<td>Student Employment</td>
<td>12</td>
</tr>
<tr>
<td>Student Handbook</td>
<td>22</td>
</tr>
<tr>
<td>Student Health Service</td>
<td>20</td>
</tr>
<tr>
<td>Student Housing</td>
<td>20</td>
</tr>
<tr>
<td>Student Life Quality, Research of</td>
<td>19</td>
</tr>
<tr>
<td>Student Loans</td>
<td>12</td>
</tr>
<tr>
<td>Student Professional Associations</td>
<td>22</td>
</tr>
<tr>
<td>Student Publications</td>
<td>22</td>
</tr>
<tr>
<td>Student Records</td>
<td>15</td>
</tr>
<tr>
<td>Student Retention</td>
<td>15</td>
</tr>
<tr>
<td>Student Services</td>
<td>17</td>
</tr>
<tr>
<td>Student Television Systems (STS)</td>
<td>21</td>
</tr>
<tr>
<td>Student Union (see College-Alumni Union)</td>
<td>21</td>
</tr>
<tr>
<td>Summer Session (see Summer Session Bulletin)</td>
<td></td>
</tr>
<tr>
<td>Summer Vestibule Program (NTID)</td>
<td>120</td>
</tr>
<tr>
<td>Supplies and Textbooks</td>
<td>7</td>
</tr>
<tr>
<td>Supplies and Textbooks (see Summer Session Bulletin)</td>
<td>24</td>
</tr>
<tr>
<td>Suspension and Academic Probation, Policy on</td>
<td>16</td>
</tr>
<tr>
<td>Systems Software Science</td>
<td>35</td>
</tr>
<tr>
<td>T &amp; E (Technical &amp; Education) Center</td>
<td>77</td>
</tr>
<tr>
<td>TAP (Tuition Assistance Program)</td>
<td>14</td>
</tr>
<tr>
<td>Technifile</td>
<td>22</td>
</tr>
<tr>
<td>Technical Photography (BS)</td>
<td>88</td>
</tr>
<tr>
<td>Television Center</td>
<td>27</td>
</tr>
<tr>
<td>Television, Film and Testing</td>
<td>34</td>
</tr>
<tr>
<td>Textbooks and Supplies</td>
<td>19</td>
</tr>
<tr>
<td>Textile Design, Weaving and (MS)</td>
<td>75</td>
</tr>
<tr>
<td>Textile Design, Weaving and TOFL (Test of English as a Foreign Language)</td>
<td>25</td>
</tr>
<tr>
<td>Textile Design, Weaving and (MS), see Graduate Bulletin</td>
<td></td>
</tr>
<tr>
<td>TOFL (Test of English as a Foreign Language)</td>
<td>25</td>
</tr>
<tr>
<td>Transcripts</td>
<td>15</td>
</tr>
<tr>
<td>Transfer Credit</td>
<td>13</td>
</tr>
<tr>
<td>Transfer Students</td>
<td>5</td>
</tr>
<tr>
<td>Travel Management</td>
<td>13</td>
</tr>
<tr>
<td>Trustees, Board of</td>
<td>23</td>
</tr>
<tr>
<td>Tuition</td>
<td>125</td>
</tr>
<tr>
<td>Tuition, see Graduate Bulletin</td>
<td></td>
</tr>
<tr>
<td>Tuition Assistance Program (TAP)</td>
<td>12</td>
</tr>
<tr>
<td>Tuition Payment Plans</td>
<td>12</td>
</tr>
<tr>
<td>Typography and Design</td>
<td>91</td>
</tr>
<tr>
<td>Ultrasound Technology Program</td>
<td>118</td>
</tr>
<tr>
<td>Undergraduate Programs (pre-professional)</td>
<td>3</td>
</tr>
<tr>
<td>Undergraduate Programs (NTID)</td>
<td>121</td>
</tr>
<tr>
<td>Undergraduate Programs, NTID</td>
<td></td>
</tr>
<tr>
<td>Vestibule Program, Summer (NTID)</td>
<td>120</td>
</tr>
<tr>
<td>Veterans</td>
<td>4</td>
</tr>
<tr>
<td>Veterinary Science (pre-professional)</td>
<td>7</td>
</tr>
<tr>
<td>Veterinary Science (pre-professional), see Graduate Bulletin</td>
<td></td>
</tr>
<tr>
<td>Wallace Memorial Library</td>
<td>27</td>
</tr>
<tr>
<td>Weaving and Textile Design (AAS, BFA)</td>
<td>75</td>
</tr>
<tr>
<td>Weaving and Textile Design (MFA, MST), see Graduate Bulletin</td>
<td></td>
</tr>
<tr>
<td>WITR Radio</td>
<td>21</td>
</tr>
<tr>
<td>Woodwork and Furniture Design (AAS, BFA)</td>
<td>75</td>
</tr>
<tr>
<td>Woodwork and Furniture Design (MFA, MST), see Graduate Bulletin</td>
<td></td>
</tr>
<tr>
<td>Writing Policy</td>
<td>17</td>
</tr>
<tr>
<td>Yearbook</td>
<td>22</td>
</tr>
</tbody>
</table>