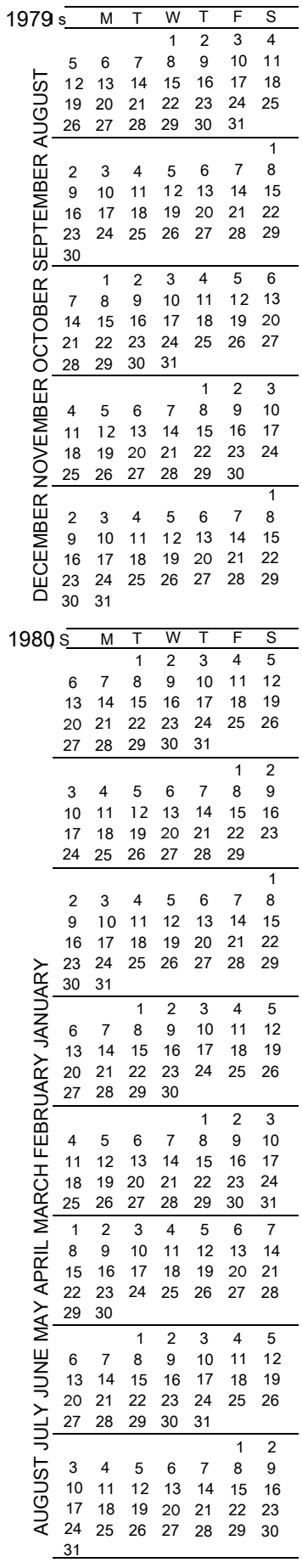

RIT
Official Bulletin
Rochester Institute
of Technology
Rochester
New York
General Information and Undergraduate Programs 1979-1980
August 1979

1979-1980 Institute Calendar



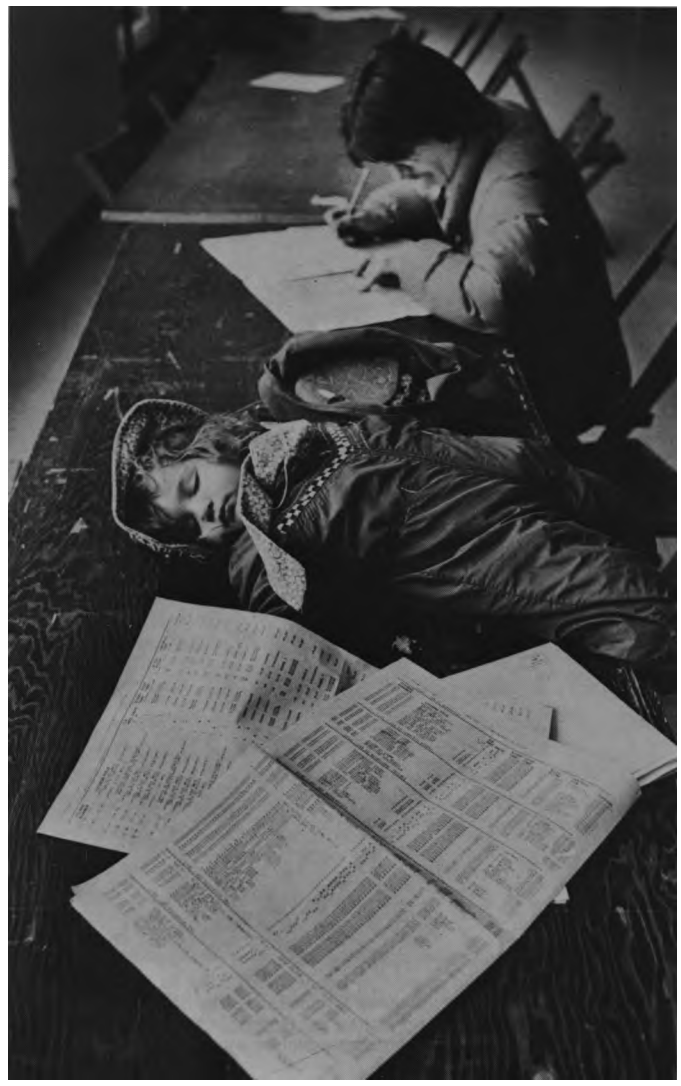
Fall Quarter 1979-80	June 11-August17	CCE Mail-in Registration for Fall
	June 11-August 31	CCE Walk-in Registration for Fall
	September 4, 5	CCE Open Registration
	September 5	Move-In Day - New Resident Students
	September 5-9	Orientation for New Students
	September 7	New Student Registration, Day College
	September 7, 8	Graduate Registration
	September 8	Returning Student Registration, Day College
	September 10	Non-Matriculated Student Day College Registration
	September 10	Classes Begin - Day and CCE
	September 11	Physical Education Registration
	November 15	Last Day of Classes (Day College)
	Nov. 16, 17, 19, 20	Exam Week
	November 20	Last Day of Classes (CCE)
	Nov. 21 - Dec. 2	Fall/Winter Break
Winter Quarter 1979-80	October 29 - Nov. 9	CCE Mail-in Registration for Winter
	October 29 - Nov. 20	CCE Walk-in Registration for Winter
	November 27, 28	CCE Open Registration
	December 3	Day College Registration (Undergraduate and Graduate)
	December 3	First Day of Classes (CCE)
	December 4	Non-Matriculated Student Day College Registration
	December 4	First Day of Classes (Day College)
	December 5	Physical Education Registration
	December 22	Last Day of Classes Before Christmas Break
	January 7	Classes Resume After Christmas Break
	February 5	Teaching Effectiveness Conference (No Day College Classes)
	February 26	Last Day of Classes (Day College)
	Feb. 27, 28, 29, March 1	Exam Week
	March 1	Last Day of Classes (CCE)
	March 2-9	Winter/Spring Break
Spring Quarter 1979-80	Feb. 4-Feb. 15	CCE Mail-in Registration for Spring
	Feb. 4-Feb. 29	CCE Walk-in Registration for Spring
	March 4, 5	CCE Open Registration
	March 10	Day College Registration (Undergraduate and Graduate)
	March 10	First Day of Classes (CCE)
	March 11	Non-Matriculated Student Day College Registration
	March 11	First Day of Classes (Day College)
	March 12	Physical Education Registration
	May 19	Last Day of Classes (Day College)
	May 20, 21, 22, 23	Exam Week
	May 24	Last Day of Classes (CCE)
	May 24	Commencement
	May 25-June 1	Spring/Summer Break
Summer Quarter 1979-80	April 28 - May 9	CCE Mail-in Registration for Summer
	April 28-May 23	CCE Walk-in Registration for Summer
	May 27, 28	CCE Open Registration
	June 2	Day College Registration (Undergraduate and Graduate)
	June 2	First Day of Classes (CCE)
	June 3	Non-Matriculated Student Day College Registration
	June 3	First Day of Classes (Day College)
	June 6	Physical Education Registration
	July 4	Holiday (No Classes)
	August 12	Last Day of Classes (Day College)
	August 13, 14, 15	Exam Week
	August 16	Last Day of Classes (CCE)

Dates of Various Summer Sessions to be announced.

REGISTRATION SCHEDULE FOR DAY COLLEGE - 1979-1980

	Fall	Winter	Spring	Summer		Fall	Winter	Spring	Summer
A	9:30	4:00	1:00	8:30	L	2:30	11:00	4:30	10:30
B	10:00	4:30	1:30	9:00	M	3:00	1:00	8:30	10:30
C	10:30	8:30	2:00	9:00	N, O, P	3:30	1:30	9:00	11:00
D, E	11:00	9:00	2:30	9:30	Q, R	4:00	2:00	9:30	11:00
F, G	1:00	9:30	3:00	9:30	S	4:30	2:30	10:00	11:30
H, I, J	1:30	10:00	3:30	10:00	T, U, V	8:30	3:00	10:30	11:30
K	2:00	10:30	4:00	10:00	W, X, Y, Z	9:00	3:30	11:00	8:30

Orientation
1978



The main entrance, more commonly known to RIT folks as "The Circle," contains the George Eastman Memorial Building which houses the seven-floor administrative tower, the College of Business and the offices of Institute College. The College-Alumni Union, center of constant and *varied activity, is just out of the photo's left-hand edge, and the George H. Clark Memorial Gymnasium, Frank Ritter Memorial Ice Arena and Edith Woodward Memorial Pool are directly behind the spot from which this picture was made.*

About this bulletin—

The RIT Undergraduate Bulletin does not constitute a contract between the Institute and its students on either a collective or individual basis. It represents RIT's best academic, social, and financial planning at the time the Undergraduate Bulletin was published. Course and curriculum changes, modifications of tuition, fee, dormitory, meal and other charges, plus unforeseen changes in other aspects of RIT life sometimes occur after the bulletin has been printed but before the changes can be incorporated in a later edition of the same publication. Because of this, Rochester Institute of Technology does not assume a contractual obligation with its students for the contents of this Undergraduate Bulletin.

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

General Information and Undergraduate Study 1979/80

Produced by RIT Communications

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

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RIT Official Bulletin

Vol. LXXIX No. 3 August 1979

The RIT Official Bulletin (USPS 715-400) is published by Rochester Institute of Technology, One Lomb Memorial Drive, Rochester, NY 14623, in March, July, August and September. Second-Class postage paid at Rochester, NY.

RIT at a Glance

A Data Capsule

Location
Main campus in the suburban town of Henrietta, New York, integral part of the Rochester metropolitan area of about 700,000 people; Metropolitan Center in downtown (urban) Rochester proper, and the Eisenhower College campus in rural Seneca Falls, New York

Type
Private, coeducational, non-sectarian

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

Size
Full-time equivalency enrollment in fall, 1978 was 8,706 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 Official Institute Calendar, inside the front cover of this Bulletin).

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

Facilities
Recently completed $140 million campus with complete academic and sports facilities; includes indoor ice rink and pool

Housing
Residence halls for single students, with on-campus apartments and townhouses for married students

Sports
Full intercollegiate sports schedule, as well as intramural and recreational programs

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

Alumni
37,000 in all 50 states and worldwide

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

What Is RIT?

Observing this year its 150th anniversary, Rochester Institute of Technology is a privately endowed, coeducational, non-sectarian major institution of higher education; its principal task is preparing students for technological competence in a world of change.

RIT is composed of 10 colleges: Business, Continuing Education, Eisenhower College, Engineering, Fine and Applied Arts, General Studies, Graphic Arts and Photography, Science, the federally-funded National Technical Institute for the Deaf, and Institute College (engineering technologies, computer science, packaging science and other career fields).

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

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

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

RIT's students reflect the diversity of its programs. They come from almost every state in the union and many foreign countries. Forty per cent transfer from two-year colleges or other four-year institutions. Older and part-time students are comprising a greater and greater proportion of the total enrollment.

The percentage of women also is increasing; today more than a quarter 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 37,000 in every state and worldwide.

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

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

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

The Institute maintains its Metropolitan 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. More than 1,200 students are currently advancing their educational, vocational, and avocational objectives at the Metropolitan Center. Besides its curricular uses, the Metropolitan Center provides many technical and community service programs.

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 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."

Undergraduate Programs

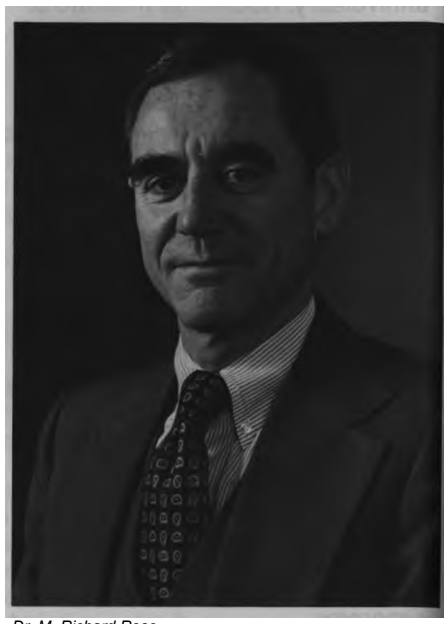
	Degree and HEGIS* Code				
	AS	AAS	BFA	BS	BTech
College of Business					
Accounting		5002		0502	
Business Administration		5001		0506	
Food Service Administration		5404		1307	
General Dietetics & Nutritional Care		5404		1306	
Photographic Marketing		5004		0509	
Retailing		5004		0509	
College of Engineering					
Computer Engineering+				0999	
Electrical Engineering				0909	
Industrial Engineering				0913	
Mechanical Engineering				0910	
College of Fine and Applied Arts					
Ceramics and Ceramic Sculpture		5012	1009		
Communication Design		5012	1009		
Double Craft Major			1009		
Environmental Design		5012	0201		
Fine Arts - Painting, Printmaking		5012	1002		
Fine Arts - Medical Illustration			1299		
Glass		5012	1009		
Metal Crafts and Jewelry		5012	1009		
Weaving and Textile Design		5012	1009		
Woodworking and Furniture Design		5012	1009		
College of General Studies					
Criminal Justice				2105	
Social Work				2104	
College of Graphic Arts and Photography I					
Biomedical Photographic Communications		5299		1217	
Newspaper Production Management				0699	
Photographic Illustration		5007	1011		
Photographic Processing & Finishing Management		5007		0599	
Photographic Science & Instrumentation		5007		0999	
Professional Photography		5007		1011	
Printing		5009		0699	
Printing Systems Management				0699	
Institute College |					
Audiovisual Communications				0605	
Computer Science		5101		0701	
Computer Technology		5101			0701
Civil Engineering Technology					0925I
Electrical Engineering Technology					0925I
Manufacturing Technology					0925I
Mechanical Engineering Technology					09251
Packaging Science				4999	
College of Science f					
Biology	0401			0401	
Biomedical Computing				1217	
Chemical Technology		5305			
Chemistry	1905			1905	
Computational Mathematics				1703	
Mathematics	1701			1701	
Medical Technology				1223	
Nuclear Medicine Technology				1299	
Physics	1902			1902	

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

**Higher Education General Information Survey*
+Joint program - Engineering and Computer Science and Technology

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

RIT Proud of Link With Rochester, Dr. Rose Asserts



Dr. M. Richard Rose

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

"For its alumni, RIT hopefully has | provided an opportunity to improve themselves and their families educationally, professionally, financially and socially.

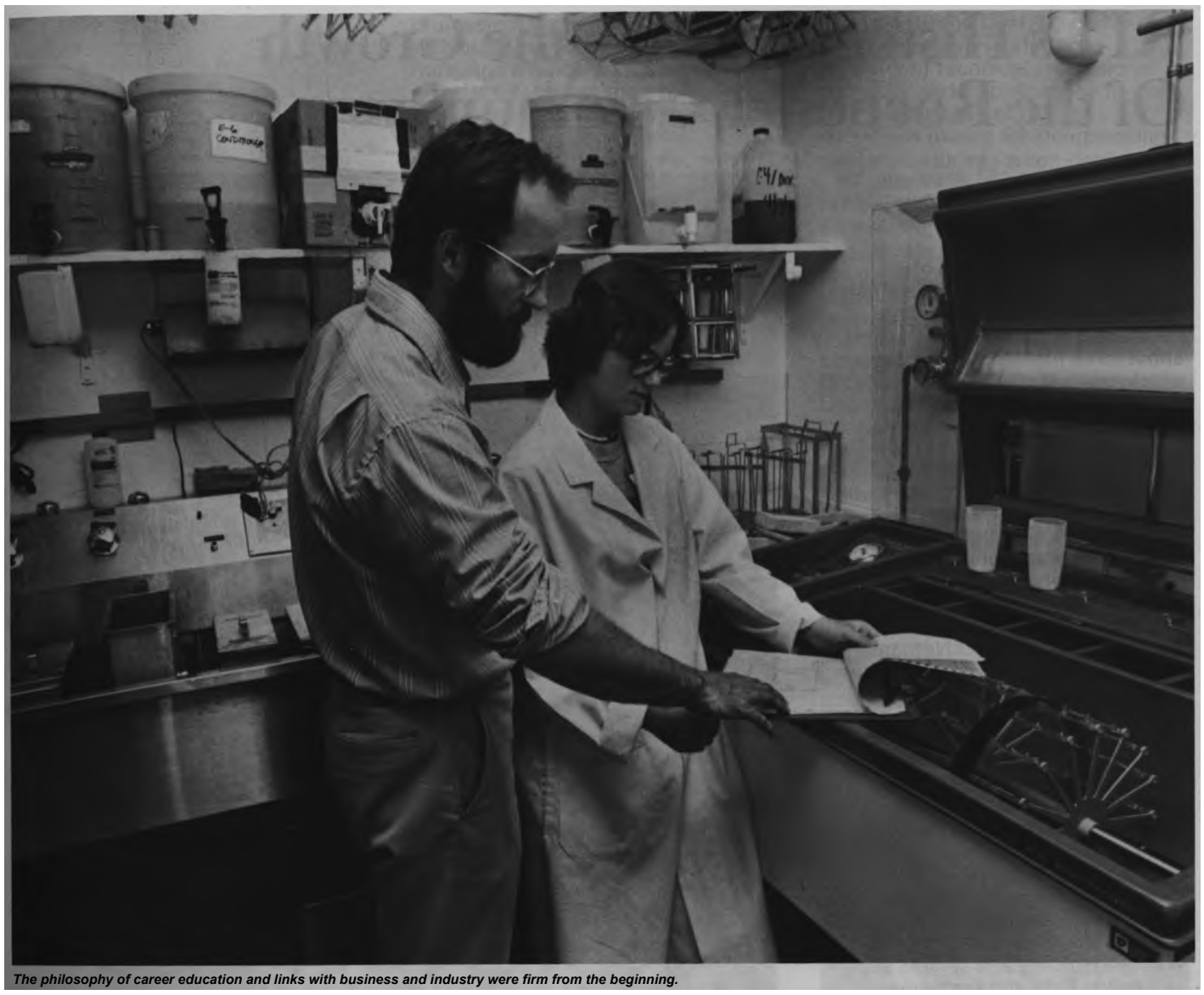
"And, we hope, RIT also is something special to that vast majority in the Greater Rochester community who have never studied or worked at any of our facilities. It's a special pride in having the main campus of the Institute here.

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

"RIT is progressive and relevant. It always has been willing to take chances if chances were necessary to further its unique approach to higher education.

"Yet in many ways, it has grown hand-in-hand with Greater Rochester itself. Its very roots are in the area's early industry.

"It is this link with Greater Rochester's history and growth that makes RIT a special place for the entire community, we believe. It's a link of which we're very proud. We hope you will share in the pride."



The philosophy of career education and links with business and industry were firm from the beginning.

Career Education Is a 'Very Old New Idea' at RIT

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

And today, a lot of institutions of higher education are trying to convince you it's the hottest-and newest-thing down the educational pike in a long time.

Nonsense!

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

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

What's career education?

In simplest terms, it's an education that prepares a student to leave college and go to work doing what he or she wants to do.

At RIT, it's an education in engineering or fine arts or science or social work or criminal justice or any of the other multitude of programs offered through the nine day and evening colleges.

But it's an education with a difference.

At RIT, it means our graduates can go directly from here to where they want to be- in the professional world, doing professional work. Or they can choose further study and research in graduate programs.

It means our students develop a technical competence that means something outside the academic world.

And it means we recognize that a lot of people already have careers-but want to further their knowledge. So we have programs and courses of study designed to accommodate these special needs.

Career education a new idea?

Maybe some places.

But at RIT, where we've made a career out of career education, it's the oldest young idea around.

RIT's History Mirrors the Growth Of the Rochester Community

From their origins 150 years ago, the Athenaeum, the Mechanics Institute and RIT have been closely linked with the community.

Professor Dane Gordon of the College of General Studies is writing an official history of the Institute.

Professor Gordon recently talked about some materials from his work which exemplify the Institute's contribution to local, state, and national history.

Contributions to general education in Rochester: the early years

The Village of Rochesterville was only 12 years old when the Athenaeum was founded in 1829. A community whose population was rapidly growing as a result of the Erie Canal, it needed an educational structure. With Colonel Nathaniel Rochester as its first president, the Athenaeum met in recently built Reynolds Arcade. The few who could afford $5 a year had access to a library of 400 books and many papers and journals from Britain and America.

After Reynolds added Corinthian Hall to the rear of his arcade in 1849, overflow crowds gathered to hear such distinguished lecturers as Richard H. Dana, Horace Greeley, Ralph Waldo Emerson and Oliver Wendell Holmes, and singers such as Adelina Patti and Jenny Lind.

"The Athenaeum," says Gordon, "succeeded quite well in leading the intellectual life of Rochester."

The post-Civil War period

The growing number of manufacturers in Rochester created the need for skilled workers trained by some means other than apprenticeship. On Oct. 21, 1885, the Mechanics Institute was organized to provide practical education to better prepare people for their lifetime occupations. Organizers of the Institute were mainly people from the business community, but there were also several prominent newsmen and men particularly interested in education.

The most loyal supporter and benefactor was Capt. Henry Lomb, the immigrant who had worked his way up to co-director of Bausch and Lomb. Interested in education at all levels, he started a kindergarten class as a branch of the Institute in 1887. The following year the Rochester Board of Education took it over and established kindergarten classes in all its elementary schools. Lomb also started homemaking courses in the Rochester public schools by providing free cooking classes for 11th and 12th graders from 1898 to 1908.

The Mechanics Institute's fourth president, John A. Randall, noted in 1922 that one of every two families in Rochester were in some way associated with the Institute. Almost 1,000 workers were studying there. Half the art teachers, many manual teachers, and 38 of 42 home economics teachers in the Rochester public schools were Mechanics Institute graduates.

"That's quite an achievement in 37 years," Gordon comments.

World War I and its aftermath

"The first world war had a long-term and damaging impact upon the Mechanics Institute," Gordon notes. The Institute supported the war effort with a total commitment. Beginning in 1917 the government sent 250 men to the Institute every 60 days for intensive practical training in such skills as building houses and machines, assembling and disassembling automobiles, occupational therapy, conservation of fuel, and cooking. The cabinet shops in the manual training building were changed to a lens grinding plant for war workers. Near the end of the war all students were placed on a war-time basis to help in farming.

After the war, a large number of handicapped men were sent by the

U.S. Veterans Affairs Bureau to the Mechanics Institute for rehabilitation.

"It was extremely difficult for the Institute to resume its normal academic program," Gordon relates. Equipment needed updating and buildings needed repairs. Younger civilian students had been frightened away by the older and generally rougher returned soldiers. Certain programs, such as the School of Industrial Arts, had been destroyed by the war. Community support in the form of donations of money helped the Institute survive the post-war years.

Links with business and industry
The Mechanics Institute was founded to supply the needs of Rochester industries for skilled workers. Eventually that changed to professional employees, but the link with business and industry has remained a fundamental purpose.

The Institute was the second educational institution in the country to embrace the cooperative education plan in which students complement their classroom studies with periods of employment in their career fields. Co-op, which began here in 1912, remains an integral part of RIT's modern curricula.

In the 1930's the Institute became famous for its job charts, which identified job expectations, responsibilities, and promotional prospects. The educational preparation for the jobs was adapted accordingly.

The Institute's philosophy of career preparation, firm from the beginning, was explicitly established in a declaration of a conference on the Educational Needs of Rochester held in 1922: "The Institute must continuously pass the test of utility in the work lives of its students." Two years later a special commission was appointed by the board of directors to consider the place of the Institute in the educational future of the community.

Granddaddy of the AAS degree in New York State
In the 1940's New York State established a number of Institutes of Applied Arts and Sciences as its old 'ag and tech' institutions. After RIT (the name had been changed to Rochester Institute of Technology in 1944) in 1950 became the first institution in the state to receive approval to grant the associate in applied science degree, the state's assistant commissioner for higher education asked for someone from RIT to evaluate the state schools.

The College of Continuing Education
The Athenaeum began as an evening school, and the College of Continuing Education keeps up that tradition. From its earliest years the Institute accommodated students who took only a course or two at a time.

The National Technical Institute for the Deaf.
In 1965 President Johnson signed a law creating a national advisory group to establish an institute for college-level training of deaf students in connection with an existing college or university. The following year RIT was selected as the site for the National Technical Institute for the Deaf. The Institute's new campus in Henrietta, its diversity of technical professional curricula, and its philosophy fit well with the purpose of NTID to determine means for incorporating deaf students into a non-deaf world.

"The purpose of RIT had long been to help any student relate better to his environment both professionally and socially," Gordon says. "It was the guiding principle in 1885, repeated and acted upon many times since."

Eisenhower College
On March 30, 1979, members of the boards of trustees of Eisenhower College and Rochester Institute of Technology resolved to have Eisenhower become the tenth college of RIT.

The new options which are made available to students by this association of a career oriented institute and a liberal arts college still are unfolding. In addition to the numerous programs available through RIT, Eisenhower currently offers study in the humanities, social sciences, and math and science. The foundation for the four-year programs offered by Eisenhower is the World Studies Core.

Photos courtesy of the Wallace Library Archives

The Rochester Area Community Is A Good Place To Live and Study

Rochester is a good place to live and a great place to go to school.

The Greater Rochester area, city and immediate suburbs has a population of about 700,000. Rochester, widely known for its leadership in technology and science, is an ideal location for Rochester Institute of Technology.

An international photographic center and the largest producer of optical goods in the United States, Rochester manufactures electronic and communications systems, fine machine tools, signaling devices, dental equipment and a variety of precision instruments. It is a food processing center, and its printing and lithographic houses are widely noted for quality work. These local industries, along with others throughout the nation, have contributed to the Institute's financial support; many have maintained cooperative employment; and all have provided a congenial and sympathetic community atmosphere for RIT.

Rochester is a noted cultural center where support of music, art, theater, libraries, and museums is a matter of civic pride. For students of the Institute, this cultural environment is an appreciable advantage.

RIT as an institution is very much involved with the city. So are many of its students and faculty. They use the appropriate people in business, government, and community action groups as resources to strengthen this involvement; they learn about the problems of the city and contribute ideas and talents to the solution of them. Recent examples of class projects are an exhibit interpreting plans for future transportation systems serving greater Rochester and a multimedia presentation aimed at developing public support for revitalizing the downtown business district.

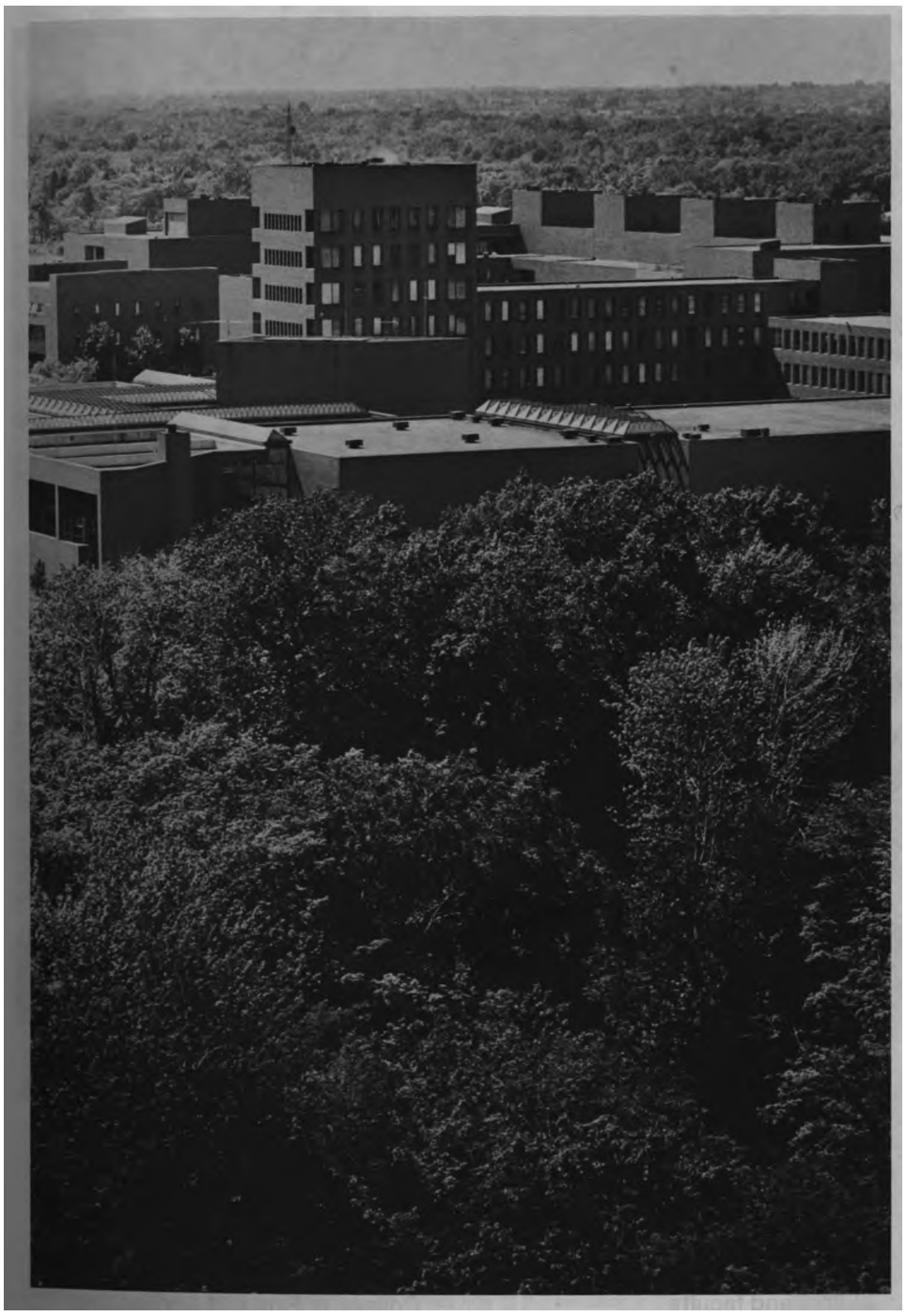
Institutional Advancement Division provides a link with the community

The Institutional Advancement Division at RIT is responsible for building bridges between campus and community. It keeps the community informed of significant programs and activities on campus and tells interested audiences-prospective students, donors, employers and others-what they should know about RIT. There are continuing efforts to communicate to the special constituents of Eisenhower College, the National Technical Institute for the Deaf, the Development Department, and the College of Continuing Education.

The division as a whole, working with all the colleges and other staffs, tries to build a concept of the community as a classroom and to build on RIT's long standing reputation as an institution deeply devoted to and involved with the community of which it is a part.

The Main Campus in Henrietta

Is a 1,300 Acre Suburban Site



RIT's campus in the Rochester suburb of Henrietta has received a variety of architectural awards, and been heralded as one of the most significant building accomplishments in the Monroe County area.

The main portion of the Henrietta campus was completed in 1968. An academic/residence complex to house facilities of the National Technical Institute for the Deaf was completed in 1974.

Valued at $140 million, it now occupies some 400 acres of the 1,300-acre site.

The campus is located about five miles from downtown Rochester, on Jefferson Road (Route 252) near the Ballantyne Bridge.

The third-largest city in New York State, Rochester is located in the Finger Lakes Region midway between Buffalo and Syracuse, within easy driving distance of Toronto, (Ontario, Canada), one of North America's most exciting cities. The area boasts ski centers, golf courses, fishing streams, state parks, hunting ranges and international road races.

The Institute is only a short distance from shopping centers, motels, the New York State Thruway (Interchange 46), and Rochester's major expressways. There is regular transit to the campus, and ample free parking is available.

RIT's Metropolitan Center, located in the heart of downtown Rochester at 50 W. Main Street, is easily reached by public transportation.

The campus as presently developed has an academic/ administrative complex of 13 buildings arranged in three adjacent quadrangles. The residential complex of 16 interconnected buildings is reached by a quarter-mile mall past the tennis courts and playing fields. Adjacent to this is the NTID academic/residence complex.

The main campus includes nearly 1,300 acres of land and will provide for the growth and development of the Institute for many years to come. Present buildings will enable the Institute to increase its combined enrollment in both day and evening divisions to about 20,000.

A campus map is located inside the back cover of this Bulletin.

Art on Campus Is 'Tribute To RIT's Historic Interest'

"We have reached the place in our project where it is physically impossible for everyone to decide everything, and for that reason I urge that you go ahead..."

These were the words that set in motion the major decisions on art works for the RIT campus.

They were written by Dr. Mark Ellingson, former RIT president, in the midst of those hectic, energy-absorbing days of building the present RIT campus in the 1960's.

Arthur L. Stern, then chairman of the Board of Trustees; his wife, Molly; and Mrs. Vanderbilt Webb, chairperson of the American Crafts Council and a member of the Honorary Board of Trustees, accepted the responsibility for choosing the 17 major art works on campus. They were aided by Harold J. Brennan, then dean of the College of Fine and Applied Arts, and Harris Prior, past director of the Rochester Memorial Art Gallery.

Working with a budget that was set at one per cent of the total cost of building the campus, they selected an impressive collection, including creations by several RIT alumni and faculty.

Some works, like the two wall murals in the Eastman Building by noted artist Josef Albers, became inextricable parts of the buildings they enhance. Others, like the bronze sculpture by Henry Moore, have been moved from their original locations to fresh viewing places.

In addition to the major collection, there are about 600 art works acquired over the years by the Institute, including portraits of the founders and benefactors, prints, paintings, and drawings by faculty, students and others, and even a Walt Disney original cartoon.

Many of these can be found throughout campus in offices, reception areas, and meeting rooms. Some are kept in storage in the College of Fine and Applied Arts, available for viewing upon request.

People on campus are collectors, too, and private offices and desks show everything from a Dr. Seuss drawing to a model of an 1879 railroad locomotive, to Etruscan vases.

All in all, this institution, begun 150 years ago as a cultural center, pays ample tribute to its historic interests in the arts.

Jose de Rivera's stainless steel sculpture (facing page) is located on the quadrangle between the Wallace Memorial Library, the College of General Studies and the College of Engineering; the abstract form is based on the Mobius strip discovered by 19th century German mathematician August Ferdinand Mobius; the strip consists of a *band that has been given a half twist before joining the ends together, resulting in a look of one continuous edge and one plane.*

Henry Moore's three-piece sculpture (top photo)—one of seven bronzes cast from the same mold—represents one of the artist's consistent themes, the reclining figure; it has been moved twice and stands now at the entrance to the Max Lowenthal Memorial Building. RIT Professor William A. Keyser, Jr. (above, left) of the School for American Craftsmen poses with some of his ecclesiastical art sculptures from wood during an exhibit of his work in the Bevier Gallery. At right, Bauhaus Artist Josef Albers came to RIT to supervise personally the painting of the monumental wall murals conceived by him for the main lobby of the George Eastman Memorial Building.

The RIT Student Body's Only Characteristic Is Diversity

There is no typical RIT student.

And if the student body could be characterized, 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 artists of almost every persuasion go to school with accounting majors; where those interested in a career in social work study with those interested in mechanical engineering.

Students have come from every state in the United States and many foreign countries. They come from widely differing economic and social backgrounds.

Yet, despite their diversity, they all have ideas about where they're going in life.

The latest 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" suddenly became a popular expression, RIT stood solidly behind the idea that education for work-for a job-was worthwhile and sound. And over the years it 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 the minimum problems of adjustment. Many programs at the Institute help vets deal with the machinery of the Veteran's 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, a veteran may obtain an application for the Certificate of Eligibility from the Veteran's Affairs Office, located on the first floor of the administration building.

V.A. Form 21E-1995 "Request for Change of Program or School" is used when the veteran wishes to transfer schools.

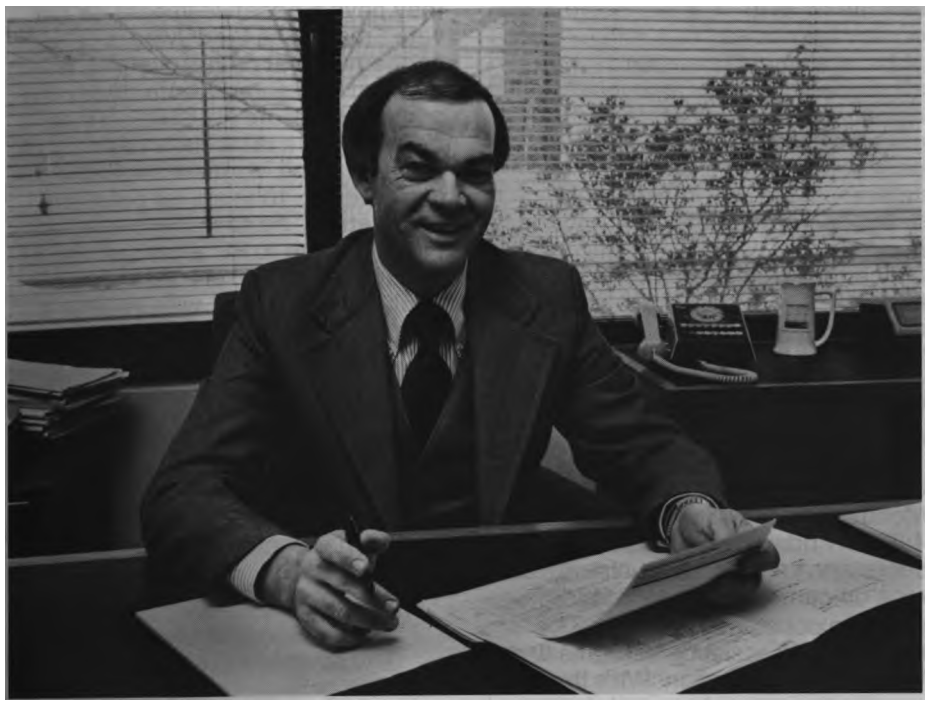
Transfer students

About 45 percent of all full-time students attending RIT transferred from another two-year or four-year college. RIT doesn't simply absorb them and ignore their previous experience; RIT thinks it's valuable. So in order to continue building on its excellent relationship with two-year colleges, RIT has established the Center for Community/Junior College Relations. This is an excellent two-way channel for cooperative action. For information on transferring to RIT, see page 24.

Deaf students

The 850 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, they 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. And hearing students also participate in programs for deaf students by interpreting, tutoring, and taking class notes for them. RIT is proud of its share in this national educational effort for deaf people. For more information on NTID see page 154.

Admissions Staff Strives To Serve Special Needs



E. Louis Guard

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

Women, veterans, middle age students, minorities, international students, commuters and the handicapped are all viewed by Admission Director E. Louis Guard as people with individual needs that require support from RIT's student services.

"Each of the admission staff members is assigned a particular group of students who may have special needs," he says. "In addition to daily counseling and recruiting responsibilities, each counselor acts as special advisor and program coordinator for a different group on campus.

"Arthur C. Friedel keeps in constant contact with the international students on campus, who are here from as far away as Algeria and Taiwan.

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

"An engineer from Kenya 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.

"The recent acquisition of Eisenhower College adds a unique liberal arts - World Studies option to compliment RIT's technical and Career Decision programs, as well as offering the contrast of a rural campus setting," Guard noted.

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

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

The intense involvement of the admission staff allows them to keep in contact with students currently enrolled. Guard points out that although his role as director is primarily managerial, he acts as 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-they're great for providing regular feedback."

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

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

A native of Geneva, New York, Guard is a graduate of the University of Buffalo.

'Vets Try Harder' Coordinator Says

Gene Clark

"Because our veterans are a little older and realize the value of an education, they undoubtedly try harder," says Gene Clark, Coordinator 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. And because of the complexities of governmental regulations and benefit payment," says Clark, "our veterans have become very dependent on our ability to service their needs. They come to the VA Office for counseling, information, assistance with problems, tuition deferments, and just to say 'Hello.' We, for the most part, are all veterans, and feel that having been there makes it easier for those who are to follow."

The Veteran's Affairs Office is open daily from 8:30 a.m. until 7 p.m. Monday through Thursday, and until 4:30 on Friday. The coordinator, secretary, veteran's administrative reps on campus, and work study staff are constantly handling inquiries and assisting veterans with VA related information. With their assistance a veteran can be sure of a steady transition into and through the educational experience.

"Successful contact with our veterans has proven that problems can be effectively dealt with before they have a negative impact on our vets," maintains Clark, who is concerned that many veterans, and children of veterans, both deceased and disabled, are not utilizing their benefits. "The rates have been increased and length of eligibility increased to 10 years for program completion," he says.

Gene came to RIT after working as an outreach counselor and education specialist with Veteran's Outreach. He's an Air Force veteran and presently serves as a commissioned artillery officer with the U.S. National Guard. His degree in business administration and his military expertise provide a background enabling him to successfully assist veterans and their dependents.

Orientation and Special Programs

Since the Office of Orientation and Special Programs was created, Ann Hayes, director of Orientation and Special Programs, and a number of students have been chipping away at some of the special student's concerns.

In September of each year, RIT provides incoming students with an orientation program to familiarize them with their new environment. This program includes tours, special workshops, department meetings, parents sessions, and social interaction. The entire week's events beginning after Labor Day is planned and implemented by a volunteer student group known as the "SOS Committee."

One of the new dimensions, which was first begun two years ago because of student recommendations, is the Summer Transfer and Advisement Program. This special option is offered in June prior to student enrollment in the fall. It is also open to students who may be starting the following Winter or Spring Quarters as well. All students planning to transfer to RIT are encouraged to apply early in order to qualify for this program option.

During the orientation process, students also are provided a student handbook known as *Facts,* which contains policies, procedures and helpful survival hints about RIT.

Special attention is given commuter students during the fall orientation program by participation in the two-day commuter live-in. This program provides commuters the opportunity to live in the residence halls for two days and attend special workshops geared to meet their needs as commuters.

In addition to the above, special programs have been developed for married students, international students, and resident students.

The Special Programs aspect of the office concentrates its efforts as a resource area for married students, commuters, and transfer students. This function includes working on an ongoing basis with the representative student groups tor the population. Half of the RIT student population consists of commuters.

RIT has an active Commuter Association and a Married Student organization (married students make up one-third of the commuter population) which have achieved some gains in improving the situation for their constituents. A Commuter Advisory Board and Married Students Coordinating Committee act as liaisons between the office, student organizations, and other administrative offices.

Ann Hayes

Student committees are exploring academic concerns, social activities, resident-commuter relations, transportation, and communications through the Commuter Association.

The Commuter Association provides a ride board system and an off-campus apartment listing to help commuters who want to coordinate car pools and find places to live.

If commuters want to stay on campus for just one or two nights, there are guest rooms in Greek houses to accommodate them. Quarter contracts are available for the commuter who wants to experience dormitory living when space is available.

Lockers have been installed in the lower level of the College-Alumni Union so commuters have a place to put their belongings. They may register for a locker in the Commuter Lounge.

A new dimension in commuter involvement is the Commuter Council started in 1978. The members represent constituents from the various geographic areas of Monroe County. Those interested in becoming members are welcome to visit the commuter lounge.

Married students living in on-campus apartments receive *News and Events,* the Institute newsletter, and *Reporter,* the student magazine.

The Talisman Film Festival has scheduled special Saturday afternoon matinees for children of married students.

A commuter-married student lounge was created three years ago and is located in the lower level of the College-Alumni Union. The Commuter Association and the Married Student Organization offices are also located in the lounge area.

Many of the activities for residents and commuters aim to bring the two groups together.

"Each group can learn from the other," believes Ms. Hayes. "The commuter student knows the city and can invite the resident into a home occasionally. The resident student may know the campus better." A commuter host program has been started to encourage commuters to invite residents to their homes during holidays and quarter breaks. The Residence Halls Association and the Commuter Association also host a Winter Quarter Live-In as a follow-up to the Orientation Live-In.

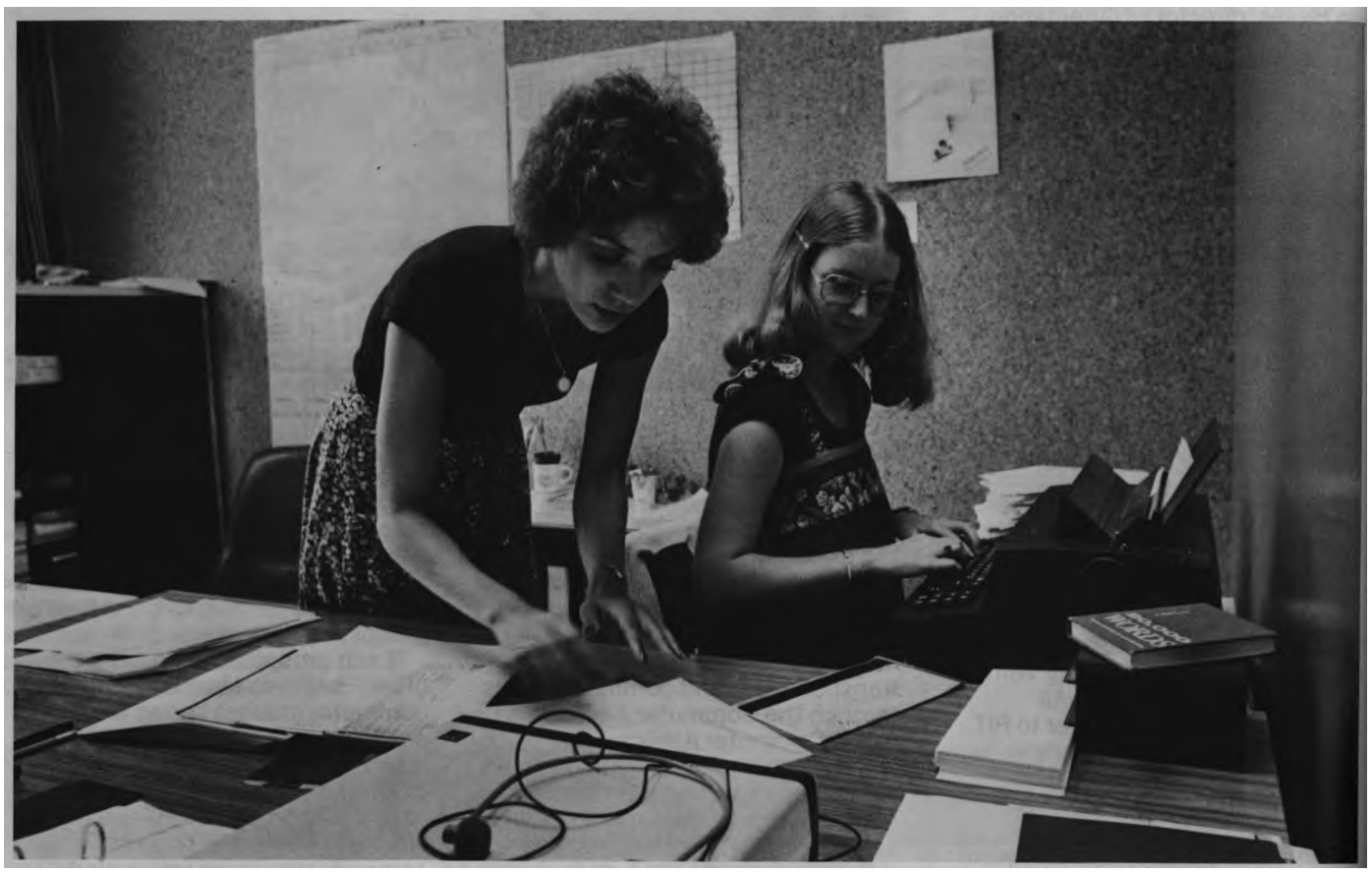
The resident student, Ms. Hayes has observed, usually makes a break from home and develops an independent personality sooner than the commuter.

RIT's Counseling Center serves about an equal number of residents and commuters. Dr. Richard Marchand, one of the counselors, believes the problems of the two groups are similar, but the commuters' are exacerbated by the tension of living with parents or being married.

Recognizing that the situations of commuters aren't unique to RIT, Ms. Hayes doesn't expect the difficulties to be resolved completely.

"I hope to lessen the barriers by encouraging more interaction between commuters and residents," she says. "Commuters will never be as integrated as resident students unless they become more involved in campus activities."

Cooperative Education Bridges The Gap from Classes to Careers



Kathy Carpenter (right), an NTID student at RIT, found Cooperative Education employment with the IBM Corporation, during the summer of 1978.

Co-op offers the RIT student the best of two worlds-the world of classroom and laboratory and the world of work. These two elements are combined to provide an education well recognized for its benefits.

A leader in the cooperative education movement since 1912, RIT made a further step in 1977 with the establishment of the Division of Career Education. Working with all colleges and departments at the Institute, the new division will encourage further types of experiential education which help the student in academic studies, at the same time refining his or her career goals.

A further benefit is immediately obvious to the student-the possibility of earning part of one's college expenses from cooperative employment. In addition, a good track record with one or more employers can be of real assistance in finding a good position after graduation.

Faculty and staff assist the student in identifying the type of experience related to the chosen discipline which will meet career development needs. Application procedures are taught and referrals are made to employment opportunities as they develop. Geographic mobility is strongly recommended to applicants to take advantage of the best openings on a nation-wide basis.

At least 2,000 students will participate in the various programs this year. Many field experiences are developed by RIT counselors and faculty members, but the students must compete for the positions and they are encouraged to initiate contacts of their own with professionals in their field of interest.

The cooperative work blocks are scheduled in the upper division (third, fourth and fifth) years, with the exception of chemistry which starts in the second year. Most students in the Colleges of Business, Engineering, Science, and Institute College follow the pattern of alternating between single blocks of full-time studies and full-time work; a double-block arrangement (six consecutive months) is sometimes feasible if convenient for the employer and the class scheduling needs of the student.

Several variations are followed in other departments: The School of Health Related Professions uses a one year internship mode, Social Work and Criminal Justice include a junior year field experience component, the School of Printing and Department of Packaging Science offer optional co-op plans.

The above is for illustration; it is not intended to be a complete catalog of possibilities. Applicants should contact the school or department of their choice for further details about the growing opportunities in experiential education.

What Will it Cost?

Payment Procedure/The Estimated Quarterly Bill

Charges at RIT are computed on a quarterly basis. The Institute must receive payment in full for each quarter before registration will be allowed. Any preregistered student whose payment is not received by the due date will not be eligible to register until payment is received. Payments sent by mail should be made by check, payable to Rochester Institute of Technology. Due dates for the 1979-80 school year are as follows:

Fall Qtr.	Aug. 10, 1979
Winter Qtr.	Nov. 5,1979
Spring Qtr.	Feb. 11,1980
Summer Qtr.	May 5,1980

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

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

Financial standing

Tuition and fees paid to the Institute cover approximately 60-70 percent of the actual expense of a student's education. The rest of the cost is borne by the Institute through income on its endowment and from the gifts of alumni and other friends.

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

The institute reserves the right to change its prices without prior notice

Other fees

Students enrolled in chemistry laboratory classes must purchase Breakage Deposit Cards at $5 each. In most cases the total will not exceed $15 for the year. This requirement applies to students of all departments who are enrolled in chemistry courses.

Students enrolled in courses requiring the use of the photography chemistry laboratories are required to make a $10 locker key deposit.

A Residence Halls Association Fee, currently $7, is established by the student governing bodies to be used for the benefit of students in residence. With the first bill, there is also a Security Deposit, explained in the Housing Office information. A late registration fee of $25 is charged to any student who fails to register by the designated quarterly Open Registration Day.

Deferred payment plan

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

Books and supplies

These vary widely with the program followed, and to some extent the electives chosen. Those having minimal expenses (e.g. sciences, business) will average $ 130-$ 150; in the arts or crafts, this may be in the neighborhood of $250-$275; in photographic illustration or professional photography, a realistic allowance is $600 in addition to cameras (but in photographic sciences and photo finishing, expenses are minimal).

Additional Expenses

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

Tuition	$3,495
Fees	42
Room	1,095
Board	1,092
Books	275
Personal	430
Travel	121

Total - $6,550

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

Based on three academic quarters, as freshman resident students†

Department or Major	Tuition	Fees*	Room†† and Board	Total**
Engineering	$3495	$42	$2187	$5724
Business Administration, Retailing	3420	42	2187	5649
Food Administration	3420	42	2187	5649
Art and Design	3495	42	2187	5724
School for American Craftsmen	3495	42	2187	5724
Printing	3495	42	2187	5724
Photography (including Photographic Science)	3495	42	2187	5724
Biology, Chemistry, Math, Medical Technology Nuclear Medicine Technology, Physics	3495	42	2187	5724
Chemical Technology (2 Quarters)	2330	28	1458	3816
ComputerScience&Technology	3495	42	2187	5724
Social Work, Criminal Justice	3495	42	2187	5724
Career Decision Program	3495	42	2187	5724
Packaging Science	3495	42	2187	5724

† Rochester area students who live at home and commute to campus should substitute their own estimates for room and board.

* Does not include $56 Orientation Fee.

** It is estimated that an additional $500 should be allowed for clothing, recreation, travel and incidentals.

†† Double Room and Board (20 meals per week).

An Aid To Estimating Tuition, Fees

College	School or Department	Co-op	Year	Tuition Per Year	Fees†	Total Per Year	Quarterly Payments* 1st. Qtr.	2nd. Qtr.	3rd. Qtr.
Business	Bus. Admin., Food Administration or Retailing	Yes	1 2** 3 4	$3420 3420 2280 3420	$42. 42. 28. 42	$3462 3462 2308 3462	$1154 1154 1154 1154	$1154 1154 1154 1154	$1154 1154 1154
	Photo Marketing	No	Each Year	3420	42.	3462	1154	1154	1154
Engineering	Electrical, Mechanical, Industrial, or Computer Engineering	Yes	1 & 2 3,4, 5	3495 2330	42. 28.	3537 2358	1179 1179	1179 1179	1179
Fine and Applied Arts	Art & Design School for American Craftsmen	No No	Each Year	3495	42	3537	1179	1179	1179
Graphic Arts & Photography	Photographic Arts and Sciences Printing	No ***	Each Year	3495	42.	3537	1179	1179	1179
General Studies	Criminal Justice Social Work	Yes	Each	3495	42.	3537	1179	1179	1179
Institute College	Computer Science and Technology	Yes	1 &2 3, 4,5	3495 2330	42. 28.	3537 2358	1179 1179	1179 1179	1179
	Engineering Technology	Yes	1 & 2	(Completion of 2 years at another college)					
			3, 4, 5	2330	28.	2358	1179	1179	
	Packaging Science	No	Each Year	3495	42.	3537	1179	1179	1179
	Audiovisual Communications	No	1 & 2	(Completion of 2 years at another college)					
			3,4	3495	42.	3537	1179	1179	1179
Science	Biology, Mathematics, or Physics	Yes	1 & 2 3,4,5	3495 2330	42. 28.	3537 2358	1179 1179	1179 1179	1179
	Chemistry	Yes	1 2-5	3495 2330	42. 28.	3537 2358	1179 1179	1179 1179	1179
	Health Related Professions involving Clinical Science	No	1, 2, 3	3495	42.	3537	1179	1179	1179
			4	(Full-time internship in approved hospital)					
Counseling Center	Career Decision	No	Only 1	3495	42.	3537	1179	1179	1179

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 $56 Orientation Fee.

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

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

***If printing students elect to follow the voluntary cooperative plan, tuition is charged only for quarters at RIT.

Any undergraduate carrying over 18 quarter credit hours will be charged regular tuition plus $99 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 $99 per quarter credit hour. Student Activity Fee is not accessed.

Note: RIT matriculated day college students taking CCE courses will be charged the day college tuition rates.

A graduation fee of $15 is payable at the beginning of the Spring Quarter of the year in which the student expects to receive an associate's or bachelor's degree. The graduation fee charge for those receiving a master's degree is $20 which also includes rental of the master's hood.

Refund Policies

Advance deposits are non-refundable.

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

For a full refund

1. Active military service: A student called to active military service during the first eight weeks of the term may receive a full tuition refund. If called after the eighth week, he may elect to complete the course by making special arrangements with both his instructor and department, or to withdraw and receive a full tuition refund. If he withdraws, he will have to repeat the course at a later date.

2. Academic reasons: Students sometimes register before grades for the previous quarter are available. If such a student later finds that he or she is subject to academic suspension, or has failed prerequisites, the student will be given a full refund upon withdrawal. It remains the student's responsibility to contact his or her department to assure that the withdrawal form and refund are properly processed.

For a partial refund

A partial refund will be made during a quarter if withdrawal is necessitated for one of the following reasons:

1. Illness, certified by the attending physician, causing excessive absence from classes.
2. Withdrawal for academic reasons at the request of the Institute during a quarter.
3. Transfer by employer, making class attendance impossible.
4. Withdrawal for academic or personal reasons at the request of the student, approved by the student's advisor or department representative, the Institute Coordinator for Academic Advising and the Bursar.

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

During the first week of classes—90%

During the second week of classes-75%

During the third week of classes-60%

During the fourth week of classes-50%

Fifth and subsequent weeks-no refund

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

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

Fees are not refundable.

Appeals Process

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

Room and board*

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

Partial refund schedule:

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

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

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

Student Financial Aid Can Help with the Costs

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

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

While students and parents are expected to contribute to college expenses as their resources permit, RIT's Student Aid Office can be of special assistance to students whose resources are insufficient to meet the entire cost of attending RIT.

It is RIT's intent that qualified 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 such as New York State Tuition Assistance Program Awards and Regents Scholarships or other state awards. The RIT Scholarship Committee bases its award on scholastic achievement as well as need. The full range of Veterans Administration benefits are available.

RIT's cooperative programs offer participating students an opportunity to make a very significant contribution to their total college expenses-from 40% to 60% during Co-op years-in addition to the valuable experience gained on the job.

Additionally, through the Central Placement Office, there are many part-time positions available to help defray expenses. Those needing the

income from full-time employment should consider attending RIT's College of Continuing Education evenings.

Inquiries for all types of financial assistance should be directed to the RIT Office of Student Financial Aid.

Scholarships

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

Scholarships from these sources may vary in size from $100 to $3,276. The amount of the scholarship and the recipients are determined on the basis of entrance examination data, high school record and the need for financial aid. These scholarships are awarded for one year only. Students receiving scholarship aid may apply for renewal of their scholarship as upperclassmen. Entering freshmen may be eligible for awards if they rank in the upper 20 per cent of their high school graduatihg class, while eligibility for enrolled students and transfers is contingent upon a cumulative grade point average of 3.00 through the Winter Quarter of the year preceding the one for which the award is requested. In each case the stipend is based on financial need.

A number of industry- or business-sponsored scholarships are available to entering students in specific departments. In some cases the scholarships are restricted to students from a particular geographic area. In general, scholarships of this type are for three to five years of study, and the student must maintain a specified academic average. Scholarships in this category vary in size from $300 to $4,000.

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.

To apply for aid

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

Although applications for scholarship aid aren't processed until a student has been accepted, a student shouldn't wait until receiving notification of acceptance to file for aid; this should be done when applying to the Institute.

Students are urged to submit all required admission data to the RIT Admission Office and file a Financial Aid Form with College Scholarship

Service no earlier than January 1 of the year prior to entrance. Copies of these forms must be received at the College Scholarship Service no later than March 1; applications received after March 1 will receive secondary consideration.

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 financial aid available through RIT. (In a few cases, special applications are required and eligible applicants will be notified.)

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

Notification of awards can be expected two to four weeks after arrival of the necessary financial aid analysis and your admission acceptance.

RIT awards financial assistance largely on the basis of need. Financial need is defined as the difference between the cost of an education and the amount of money an applicant and his or her family can make available from their income and assets to meet the expenses of that education.

Selection and Eligibility

To be awarded financial aid, an individual must be admitted as a matriculated student. RIT makes every effort to continue financial assistance to students each year provided they remain in good academic standing and financial need continues to be demonstrated.

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

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

Responsibilities

Recipients of financial aid from the Institute are responsible for reporting any significant changes in their financial situation during the year to the Director of Financial Aid, who will review and may revise the applicant's financial aid accordingly. Financial aid recipients are also expected to obtain summer employment to assist in financing their education.

Financial Aid at a Glance

Scholarship/Grant	Eligibility	Amounts	Where to apply
Regents College Scholarship (New York State)	New York State residents who plan to attend college and qualify through an examination in the senior year of high school.	$250 to $1,000 per year.	N.Y.S. Higher Education Services Corp., Tower Bldg. Empire State Plaza Albany, N.Y. 12223
Tuition Assistance Program (New York State)	New York State residents who show ability to pursue full-time programs.	$100 to $1,800 per year.	N.Y.S. Higher Education Services Corp., Tower Bldg. Empire State Plaza Albany, N.Y. 12223
Regents Awards for Children of Deceased and Disabled Veterans (New York State)	New York State residents who are children of certain deceased and disabled veterans	$450 per year.	N.Y.S. Higher Education Services Corp., Tower Bldg. Empire State Plaza Albany, N.Y. 12223
War Service Scholarship	New York State veterans who qualify through examination in the summer.	$350 per year.	N.Y.S. Higher Education Services Corp., Tower Bldg. Empire State Plaza Albany, N.Y. 12223
Basic Educational Opportunity Grants (Federal)	Undergraduate students who are pursuing their first bachelor's degree, in financial need, attending post-secondary institutions.	$250 to $1,800 per year.	File Financial Aid Form requesting submission to basic grant.
Supplemental Educational Opportunity Grants (Federal)	Students of academic promise who are accepted for college study and who are in exceptional financial need.	$200 to $1,500 per year or one-half of total aid provided by institution-whichever is less.	Through RIT by use of the Financial Aid Form
War Orphans Educational Assistance (Federal)	Children of certain deceased or disabled veterans.	Up to $220 per month.	Veterans Administration.
Social Security Education Assistance	Children whose parent(s) is deceased or retired.	Amounts per month vary.	Social Security Administration.
ROTC	Students enrolling in ROTC and who are academically qualified.	Tuition, fees, books, and monthly stipend.	RIT Department of Military Science.
Veterans Benefits	Veterans.	Amounts per month vary upon full-time/part-time status and number of dependents.	RIT Veteran Affairs Office.
RIT Scholarships and Grants	Eligibility varies.	Amounts vary.	File Financial Aid Form between Jan. 1 and March 1 (prior to the next year of attendance).
Higher Education Opportunities Program (HEOP)	Economically and academically disadvantaged residents of New York State.	Amounts vary.	Director of HEOP at RIT.
Other State Grants	Eligibility varies.	Amounts vary.	Consult your state's education department.
Student Loans			
New York State Higher Education Services Corporation Student Loans	New York State residents in full- and part-time degree programs.	Undergraduates, up to $2,500 per year, depending on level of study. Graduates, up to $5,000 per year for master's	Most banks in New York State and N.Y.S. Higher Ed. Services Corp., Tower Bldg. Empire State Plaza Albany, N.Y. 12223
Other State Loans	Eligibility varies.	Usually $1,000 to $2,500 per year.	Consult your state's education department.
National Direct Student Loans	College students in full- and part-time degree programs in financial need.	Up to $2,500 for first 2 years of undergraduate study. Maximum of $5,000 for 4 years of undergraduate study; $5,000 for graduate study.	Through RIT by use of the Financial Aid Form between Jan. 1 and March 1.
Law Enforcement Education Program (LEEP)	In-service law enforcement personnel and preservice students who are prior recipients and are studying criminal justice.	$250 to $2,950 per year depending on tuition.	Through RIT prior to academic quarter.
Employment			
College Work Study Program (Federal)	College students in full- and part-time degree programs who meet financial need requirements established by Federal Government.	Varies, depending on hours and wage rate. Wages range from $2.90 to $4.35 per hour.	Through RIT by use of the Financial Aid Form and through the Central Placement Office.
Other college part-time work	Considerable variation in kinds of positions, hours, and wages.		Consult other RIT publications and RIT Central Placement Office.

Admission Procedures and Services

Specific entrance data for each college is listed in a chart near the beginning of each college section in this bulletin.

For each program, we have indicated the required high school subjects, desirable elective subjects and other factors considered by the Admission Committee. We have also indicated minimum grade point averages required of students who are transferring from another college.

General Information

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

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

To apply as a freshman student

To apply as a freshman student, you must submit your completed undergraduate application and non-refundable $25 fee, official high school transcript and entrance examination scores. Applicants are required to have results of the Scholastic Aptitude Test (SAT) or the ACT American College Test submitted to the Admission 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 168, Iowa City, Iowa.

To apply as a transfer student

RIT welcomes transfer students. Currently, more than 45 percent of our students began their college education at another college.

To apply as a transfer student, you must submit your completed undergraduate application and nonrefundable $25 fee to the Admission 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 coming to RIT.
3. If your earlier study was outside New York State, send descriptive catalog(s) of previous study to our Admission Office with your name on inside cover(s), so we may give you full credit.
4. If you've already earned 16 or more college credits, submission of SAT or ACT test scores is optional.
5. If you've completed two or more years of college prior to enrollment at RIT, you do not need to submit your high school transcript.

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

Transfer credit

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

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

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

If you've had only a small amount of college study or will be making a significant program change when you come to RIT, we'll determine your transfer credit on an evaluation of individual courses in which you earned a "C" grade or better. Admission will be based on our prediction of probable success in the RIT program of your choice.

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

Articulation Council

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

This council's responsibilities are:

1) To act as a referral body to solve articulation problems. Although all articulation problems are within the scope of this body, articulation of an academic nature (e.g., transfer of courses, is of primary concern.

2) To make possible sufficient communications between the faculty, staff, and students of community colleges and the faculty, staff, and students at RIT. This communication includes mutual visitations as well as other activities.

3) To serve as a sounding board within the Institute, and elsewhere to identify the implications of RIT-community/junior college relations. The purpose of this objective, again, is to help insure two-year college students of smooth transfer to RIT.

4) To aid in the development and evaluation of research activities relating to two-year colleges.

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

Credit by examination

RIT grants credit for satisfactory scores on examinations covering objectives and contents parallel to

the RIT courses for which you seek credit. Usually these are CEEB Advanced Placement or College Level Examinations, New York State Proficiency Examinations, or RIT-prepared examinations. Contact the director of Admission 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 experiental learning should be directed to the Admission Office.

Visit to campus
Although not required, we encourage campus visits and personal interviews in order that you may see firsthand our modern 1,300 acre campus and be provided answers to questions you may have. A personal visit will hopefully further overall student 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 Admission Office, (716) 475-6631, Monday through Friday between 9 a.m. and 4:30 p.m.

Action on applications
RIT accepts students on a "rolling admission" basis. This means that applications are reviewed and decisions regarding acceptance are made within a few weeks after the application and supporting documents are received in the Office of Admission. 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 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
The $100 non-refundable admission deposit reserves a place in your class and is credited to your first quarter's tuition. The due date will be indicated with your offer of admission. For students entering in September, this is May 1, or within two weeks after acceptance, whichever is later.

International students
Students from countries outside the United States are extended a cordial welcome to study at RIT. Arthur Friedel serves as International Student Advisor. He assists students from other lands with some of the normal difficulties they are apt to face and helps students whenever possible adjust to the new scholastic setting.

The international community is well represented at RIT, with approximately 70 faculty and 150 students from more than 60 countries.

The basic requirement for admission is the satisfactory completion of secondary school, which may vary from country to country, but generally represents 12 years of study.

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

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

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

If admitted and the financial statement is satisfactory, the student will be sent Form 1 -20 for presentation to the American Consul in application for a "Non-Immigrant, 'F' Student Visa." Foreign applicants completing their applications after April 1 seldom have enough time to finish all the necessary details in time for enrollment in September.

Women's opportunities
The Women's Information Center, housed in the Admission Office, provides prospective women students of all ages with career information and opportunities available at RIT.

Whether you're 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 Women's Information Center is prepared to draw upon the various Institute resources and support services ranging from child care to vocational testing; from counseling services for those just beginning to explore the world of work to placement services for those ready to begin the job search. Through this assistance and referral, the center can give you a better insight into the opportunities and challenges at RIT.

Anyone interested in learning more about RIT's career programs and support services can contact the Women's Information Center in the Admission Office, at (716) 475-6631.

Registration and Student Records Keep Track of *You* and Your Courses

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

The scheduling process
The development of a quarterly master schedule of courses is coordinated by the Registrar's Office in conjunction with the academic departments. The goal is to produce academic schedules that fulfill curricular requirements and the interests of the student body.

The registration process
To be registered a student must (1) be scheduled into courses and (2) make a financial commitment.

Approximately six weeks into the Fall, Winter and Spring Quarters, a preregistration for the following quarter is conducted. Preregistration for Fall Quarter is held during the Spring Quarter. Preregistration is conducted in the student's academic department. For each quarter the Bursar's Office establishes a due date for payment. The due dates for the 1979-80 academic year are Fall Quarter-8-10-79, Winter Quarter-11/5/79, Spring Quarter-2/11/80, Summer Quarter-5/5/80. A student who preregistered ***and*** makes satisfactory financial arrangements by the specified due date is considered registered and will receive a listing of his or her scheduled courses (a program notice) in the mail before open registration. These students will also appear on the first day class lists. If their schedules are complete and correct, it is not necessary for them to attend open registration.

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

A student who has successfully completed the registration process by the billing due date will be on the first day class lists. A student who has made schedule adjustments or registered initially at open registration must use his or her copy of the Change in Class Schedule Form as proof of registration for each class listed.

Late and non-matriculated student registration
Late registration and registration for non-matriculated students occur the day following open registration. Students who are not formally accepted into a program register as non-matriculated students. Matriculated students who did not complete both steps in the registration process by the end of open registration must register late. Late registrants are subject to a $25 processing fee. There will be instructions on how to complete non-matriculated/late registration at the start of that registration.

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

The record keeping process
Transcripts

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

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

In most cases, the Family Rights and Privacy Act prohibits the release of information without the specific written consent of the student.

Grade reports

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

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

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

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

The statistics reported herein have been computed in a manner consistent with data reported to the State Education Department through the Institute's Division of Records and Institutional Research.

The Steps Toward Earning Your Degree(s)

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

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

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

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

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

A master's degree may be obtained in: accountancy, chemistry, engineering, electrical engineering, mechanical engineering, business administration, art education, fine and applied arts, applied and mathematical statistics, photographic science and instrumentation, photography, printing technology, printing education, instructional technologies, business technology for community college faculty, career information, and computer science and technology.

Upon completion of the stipulated requirements, a student's academic department certifies him or her for a degree. A statement of requirement completion will be listed on the transcript in the appropriate term. ***After commencement,*** a statement verifying that a degree has been awarded will be posted to the transcript. Degrees for fall, winter, and spring graduates are mailed during the Summer Quarter. Degrees for summer graduates are mailed during the Fall Quarter.

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

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

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

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

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

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

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

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

The grade point average is computed by the following formula:

$$\text{G.P.A.} = \frac{\text{Total quality points earned}}{\text{Total hours}}$$

Academic Standing
An RIT student is in good academic standing and maintaining satisfactory progress if he/she has been accepted into a program of study (matriculated) and is currently enrolled at this institution. Institute Policy with respect to suspension affects continuing enrollment, as specified in the following policy.

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

below. All actions are taken at the end of the quarter, however, a student may petition the dean of the college for reconsideration of probation or suspension should the removal of an incomplete grade (I) raise the appropriate Grade Point Average above those stated below. Each matriculated student will generate three different grade point averages. The ***Institute*** average reflects all course work completed at RIT. The ***Program*** average reflects course work completed at RIT applicable to graduation in a student's current academic program. The current academic program refers to the Institute and college degree course requirements specified by the degree granting college and noted in the Institute specified by the degree granting college and noted in the Institute catalog. The third average, in the *Principal Field of Study,* reflects course work completed in a student's specialized field of study.

1. Any student whose Program Quarterly Grade Point Average falls below a 2.00* or whose Cumulative Grade Point Average in the principal field of study** (based upon at least 20 credit hours attempted in the principal field at RIT) falls below 2.00 will be *placed on probation.*

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

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

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

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

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

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

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

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

Disciplinary probation

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

**"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 students' responsibility to make individual arrangements in advance of missing class due to personal obligations such as religious holidays, job interviews, athletic contests, etc., in order that they may meet their obligations without penalty for missing class.

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

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 in the college granting the degree (inclusive of service courses). If the student has successfully completed 45 quarter quarter credit hours in residence he or she may petition the dean to study 15 quarter credit hours in absentia in the final year of the degree; a minimum 30 of the final 45 quarter credit hours are to be completed in residence.
4. A program grade point average of 2.00.
5. Minimum number of quarter credit hours as required by that college, but in no case shall this be less than 90 quarter credit hours for the associate's degree and 180 quarter credit hours for the baccalaureate degree.
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
Rochester Institute of Technology is implementing a writing policy 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 meet any special demands for communication likely to be placed upon him in his intended career.

Beginning in September, 1980, students who entered the Institute in Fall 1978 or later will be required to demonstrate this skill as a condition for graduation. For the present academic year students will be required only to participate in certain activities intended to develop writing skills. The specific requirements of each degree program will be determined by each College. The nature and standards of the graduation writing requirement 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 Admission Office.

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

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

Student Affairs Offers Services

For Help In and Out of Classroom

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

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

The Division includes Physical Education, Athletics, Residence Halls, Student Health services, College-Alumni Union, Religious Activities and the Chaplaincy, Counseling Center, Learning Development Center, Higher Education Opportunity Program (HEOP), Orientation and Special Programs, Upward Bound and Special Services.

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

Complementary Education

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

Complementary Education is multi-faceted. The Complementary Education Grants Program makes funds available to students, faculty and staff who want to develop unique kinds of experiences. These projects are not credit-bearing, but formal recognition that describes what was learned is offered. Certification also is given to non-funded projects already taking place where students are involved in more 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 in related on-campus programs focusing each year on a different topic dealing with quality of life and our society.

Student Affairs

Mixes Academics,

Social and Cultural

Student Programs

In everything from the first days of Student Orientation until time for Commencement, a big part of the work done by the Division of Student Affairs is to try to "integrate academic programming and social programming" says Dr. Tom Plough, associate vice president for Student Affairs.

"Most of our students are very career oriented...and we find that instead of having to worry about how to keep them studying, we have to worry about how to get them out of the academic buildings at night."

"I'd say that this kind of intensity is a real characteristic of our students. They seem to be reluctant to get involved out of the classroom," Plough says. "Our challenge in the Student Affairs Division is to make it convenient and stimulating for our students to explore other complementary activities which may be helpful in developing their professional competence, such as exploring leisure time activities and career options as well as attending various informal seminars on such topics as consumer education, assertiveness training, composition skills, and others."

Dr. Tom Plough

Plough wears several hats at RIT

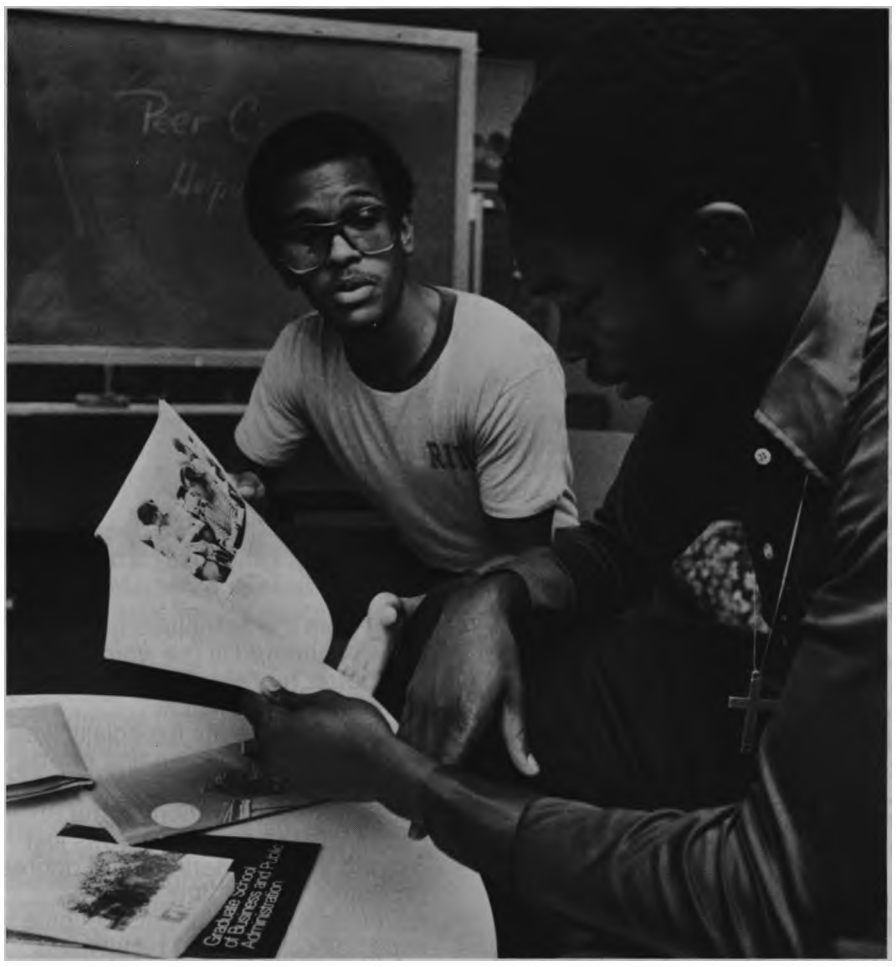
As administrator in the Student Affairs Division, he works with students and other administrators coordinating programs for service areas like the Student Health Service, the Athletic Department and Department of Physical Education, Recreation Office and others.

In addition, he teaches sociology courses at both the undergraduate and graduate levels through the College of General Studies.

And he is involved in various special academic administrative assignments such as the Academic Leadership Development Series and the Academic Program Planning Group for Eisenhower College.

Plough holds a BA, (social sciences), an MS (student personnel administration), and a Ph.D. (higher education administration) from Michigan State University.

Learning Development Services



Extra Help for Those Who Need it: HEOP

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

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

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

"HEOP's responsibility is to help them to reach and maintain academic competence."

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

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

The HEOP staff, which consists of Mr. Hetzel, an assistant director, two counselors and a remedial specialist, maintains an open-door policy. "We have to be especially sensitive to the needs and problems or the disadvantaged student," stresses Mr. Hetzel, who holds master's degrees in urban education and reading. "Each student is assigned a counselor for the duration of their years at RIT. That counselor gets to know each student on a personal level, to be really conversant with the student's problems. And the counselors are always available should an academic or social difficulty arise."

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

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

Every student admitted into HEOP must be both academically and financially disadvantaged. They are all provided with full financial support, which is provided jointly by RIT, 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.

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. 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.

In addition to these programs, the Center provides individual tutoring in most college-level courses, a College Restoration Program (described in a later section) for RIT students on probation or liable to suspension for academic reasons, and special programs for student groups and clubs.

Consultation, testing, and instructional services are free to all RIT students.

A Place for Students To Learn How To Learn

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

"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 & 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. Faculty, staff and students pondered the name change for nine months. "We think our name gets

Paul Kazmierski

away from the associations of illness connoted in the word 'clinic' and better represents what we are doing" says 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 1950's, RIT was just moving toward offering more 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. But in the future, LDC hopes to see more interfacing with faculty to improve instruction.

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

During the 1978-79 school year, the Learning Development Center saw more than 2,000 RIT students and helped nearly 700 community people. The current LDC staff consists of 10 full-time members and 70 part-time instructors. The center also trains students to assist in a number of programs. In the thick of the school year, there are as many as 90 people involved in instruction.

"We run a variety of different courses in reading, writing, math, and listening skills, plus some special workshops built around students' requests," says Dr. Kazmierski. Two of the most popular mini courses in the past have been "How to Write a $25,000 Resume" and "How to Psych-Out Your Prof and Cheat Legally on Examinations." These courses draw large numbers of students and both will be retained next year.

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.

But the student who isn't making it presents a special concern to the center.

"These students are struggling so hard to keep their heads above water that it is very difficult to get them to take the necessary time to work on underdeveloped skills," says Dr. Harvey Edwards, a member of the staff.

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 seven hours a day, five days a week, for the academic term.

Although the majority of LDC's work is centered on the RIT campus, it is well known in the Rochester community. Several community agencies refer clients to the RIT facility for diagnostic evaluation or specific course work.

College Restoration: Helping the Student To Come Back

The College Restoration Program is a specialized program of instruction for students who have been dismissed from college or put on probation for academic reasons. After having been accepted into the program, the student is classified for one academic quarter as a special student of RIT's College of General studies, and pursues an individualized program designed in cooperation with the Counseling Center and the Learning Development Center.

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

A student is offered acceptance to the program on the basis of a series of tests, including aptitude, personality and achievement. Once it has been determined that the College Restoration Program can be helpful, an individual program is planned for each student. The content of the program depends upon the student's needs and rate of progress during the program, but usually includes the following areas:

College Course: Each student in the College Restoration Program may enroll in one or more courses chosen from the Institute's regular offerings. Selection of the courses is under the strict guidance of the Learning Development Center.

Counseling: Weekly sessions with an academic advisor provide the student with an opportunity to clarify directions and goals, to discuss the relationship of his or her skills courses to the general studies courses, and to review progress in the student's academic program.

Counseling Center sessions give the student a chance to discuss problems, their causes and effects, with an RIT counselor.

Learning Development Instruction: As defined by particular needs, the student is also enrolled in a block of laboratories, classes, workshops and tutorials in reading, writing, study skills and mathematics.

Every student is asked to sign a contract with the College Restoration Program, in which he or she agrees to attend all scheduled classes, labs, tutorials and workshops, as well as meetings with the academic counselor. In addition, the student agrees to keep a daily journal, which serves to help the student to evaluate his or her own study skills and strategies, to incorporate suggestions for new strategies, and to react to the effectiveness of these new strategies in light of identified needs and goals.

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 program does provide recommendations and resumes of student achievement in the program to colleges upon request by the student or college.

Counseling Center Aids in Personal, Career Matters

RIT makes available its extensive counseling and testing facilities to all students registered in day or evening regular sessions at no additional charge. Any student may see a counselor promptly for assistance in solving a personal problem or in clarifying career plans.

The Counseling Center, located in Grace Watson Hall, offers these services:

Counseling: Concerns with academic adjustment, career choice, interpersonal relationships, personal-emotional adjustments, drug or alcohol abuse, and marriage may be discussed individually with a counselor or in a group on a confidential basis. When appropriate, tests may be used to obtain more information about interests, abilities, aptitudes, and personality characteristics.

Approaches to Self and Others Series: Throughout the academic year the Counseling Center offers a series of workshops, seminars, and non-credit courses in aspects of personal development. Announcements and descriptions of specific programs are printed in a pamphlet distributed under the title "Approaches" at the beginning of each quarter.

Resource Center: The center contains vocational and educational reference books and college catalogs. A computer-based career planning system, SIGI, is available to students on an appointment basis.

Special Services—Supportive Federal Student Program

Special Services is a federally funded program established to assist undergraduates with their academic, personal and social development. The program provides students with individual and group counseling, tutoring, academic skills development, career awareness, social and cultural enrichment and a leadership seminar. The objective of Special Services is to maximize students' chances of completing college.

Special Services programs are initiated through a joint effort of staff and students. Some of the activities featured are:

- -Forum on Careers-a series of workshops facilitated by professionals in the major fields of study offered at RIT.
- -The Awards Program-at the end of the academic year, Special Services provides a dinner, which is a social and academic achievement recognition event.
- -The Leadership Seminar-is a summer activity in which leadership potential of students is enhanced through training workshops and practical application.

The program is designed to support students who, because of financial pressures, educational unpreparedness, physical handicaps, or language difficulties, experience frustration in a college setting.

For more information about Special Services contact Claire Hurst, assistant director, at 475-2832 (Grace Watson Hall, Counseling Center).

Student Health Service

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

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

The health team at Student Health Service consists of primary care physicians, nurse practitioners, registered nurses, consulting psychiatrists, a gynecologist and an emergency medical technician. Professional personnel oriented to

the needs of the deaf are included on the staff. Students are seen on a walk-in basis between 8:30 a.m. and 4 p.m., Mondays through Fridays. Between 4 p.m. and 4:30 p.m. only emergency care will be provided. From 4:30 p.m. to midnight Monday through Friday, emergency care is provided in the residence halls by an emergency medical technician.

Health Insurance

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

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

Student Housing

The Residence Halls

The residence halls provide a living environment for approximately 3,500 students. The Department of Residence Halls, as an integral 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 residence hall environment has on the social, academic, educational, and total human development of a student. The aim of the Residence Halls Department is to create an environment that promotes this development.

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

RIT realizes that the student body is not homogeneous and that students exhibit diversity in interests, background, experience, needs and maturity. In recognition of this, a variety of living options is available. Many residence areas are coeducational; men and women living in separate rooms are housed on the same floor. New students are not assigned to a coeducational area unless they specifically request it.

No matter which residence hall you're in, the rooms are all pretty much the same at the start. But RIT students are inventive, and room interiors quickly take on the personality of their occupants. Some have even built in lofts for added space.

Most residence hall units have double rooms only. However, 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 information on housing arrangements by the Housing Office after the tuition deposit is paid.

All residents 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

Housing for married as well as certain single students, faculty and staff is available in Institute owned apartments and townhouses. A brochure describing the three complexes, Colony Manor, Perkins Green and Riverknoll, is available from the Married Student Housing Office, 113 Kimball Drive, Rochester, NY 14623; (716) 475-1290.

Student Activities Will Keep You Busy...

New Student Orientation

All new Fall Quarter students (freshman and transfer) are required to pay the Orientation Fee of $20. Orientation is a four-to-five day schedule designed to welcome the new student to the RIT community and its services. Orientation includes department meetings, registration, tours, seminars, lectures and various social events.

Student Association

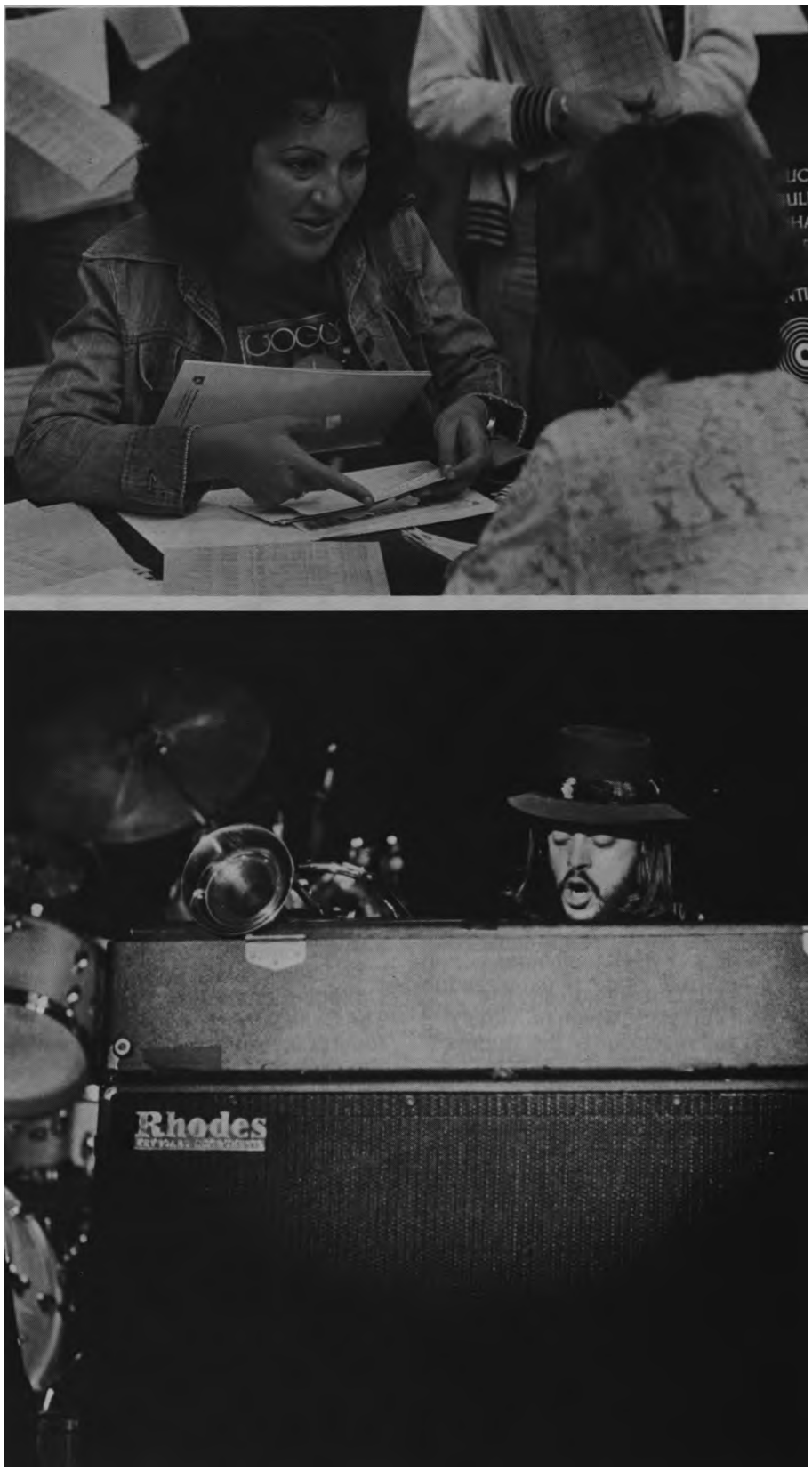
The Student Association is the governing body for students. It represents the student population by working with RIT administration, faculty and staff to communicate the needs and desires of the student body and to communicate the decisions of the administration to the students. It pulls together the student body to formulate and express student opinion and the Student Judiciary, which provides for the self-discipline of the student body.

All full-time undergraduate students become members of the RIT Student Association through payment of the Student Association Fee. Part-time, non-matriculated, or graduate students may become members of the Student Association, if they wish to participate in student-sponsored activities, by paying the Student Association 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.

... from Orientation to Graduation



The three-level facility, the center of cocurricular activities, features the 525-seat Ingle Auditorium; a self-service bookstore; a complete gameroom for bowling, billiards, table tennis; a uni-sex hairstyling salon; a candy and tobacco counter; three separate dining areas comprised of the main cafeteria, the Ritskellar, and the Clark Dining Room; meeting rooms and lounges. In addition to offices for the staff, there are the offices of Career Education, Student Affairs, Chaplains, College Activities Board, Student Government Association, WITR Radio Station, Student Television Systems, Techmila, Reporter, and Commuter Association.

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

Social Events
Major social events on the activities calendar include Fall Weekend, Homecoming, Winter Weekend and Spring Weekend. Many other dances, parties, speakers and events are sponsored by the College Activities Board, the Residence Hall Association, the Greek Council, special interest clubs of many kinds, and department and professional associations, such as Alpha Chi Sigma, Delta Lambda Epsilon, Delta Sigma Pi, Phi Gamma Nu, and Sigma Pi Sigma. Three national sororities and six 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 Association Fee helps to finance most student publications, distributed to all full-time students'.

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

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

An activities calendar is issued quarterly.

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

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

Religious activities

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

Hillel Foundation, Catholic Campus Ministry, and Lutheran Campus Ministry have local branches on campus, and other religious organizations are welcome to 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 black students at RIT. Each year the Committee sponsors various social and cultural programs which are designed to achieve these objectives.

And After Your Graduation, There's the Alumni Association

The RIT Class of 1928 poses with then President Paul A. Miller (center) during Homecoming Weekend in 1978.

The RIT Alumni Association is an organization of more than 37,000 graduates and former students of the Institute. All graduates are automatically members.

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

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

There are also many programs within which alumni work with the Institute's various departments. These include admission, placement, and alumni-student interaction programs. Alumni in many metropolitan areas throughout the country are participating 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.

Through the direction of the Alumni Affairs Office, the Alumni Association provides the organization through which alumni may assist the financial development of the Institute. The aid is channeled through the Alumni Annual Fund, which provides support for the operations of the Institute.

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

Department of Physical Education

The Physical Education Department has designed and developed an exceptional program of diversified physical activities and experiences to meet the growing needs and interests of students and the current trends of society. The curriculum includes courses in meaningful recreational, safety, and physical fitness activities which contribute to the physical and emotional well-being of students. The program also provides an opportunity for students to acquire lifetime skills in a variety of activities. Registration for classes is conducted in the main gymnasium two days following academic registration, from 7 a.m. to 3 p.m.

The courses available include:

Golf
Advanced Golf
Team Handball
Softball
Tennis
Badminton
Table Tennis
Volleyball/Softball
Soccer
Touch Football
Lacrosse
Bicycling
Field Hockey
Basketball
Advanced Basketball
Ice Skating
Ice Hockey
Ice Fishing
Skiing
Bowling
Conditioning (Women)
Weight Training
Jogging
Jogging and Conditioning
Gymnastics
Water Polo
LifeSaving
Water Safety Instruction
Beginning Scuba Diving
Advanced Scuba Diving
Modern Dance
Ballroom Dance
Creative Movement for the Deaf
English Horseback Riding
Western Horseback Riding
Beginning First Aid
Advanced First Aid
Care and Prevention of Athletic Injuries
Beginning Skeet and Trap
Advanced Skeet and Trap
Hunting
Predator Hunting
Fishing
Women's Track and Field
Judo
Karate
Fitness for Life
Racquetball
Juggling
Volleyball
Cross Country Skiing
Run for Your Life
Fencing
Swimming
Advanced Swimming
Swimming for Fitness
Diving
Yoga
Self Defense
Outdoor Living
Kung Fu
Billiards

A nominal fee is charged in some courses requiring specialized facilities and instruction.
Note: courses listed above represent those offered during the school year. Not all courses are offered every quarter. Consult the Physical Education Office for quarterly courses.

Requirements for degrees

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

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

Transfer students
All students who transfer to RIT from any other college or university also must comply with the physical education requirements for the associate's and baccalaureate degree, either at RIT or as transferable credit.

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

Intramural and Recreation Activities

The intramural program at RIT provides a wide range of individual and team activities designed to meet the structured and competitive needs of students who do not wish to participate in intercollegiate athletics. This program is a vital part of the recreational opportunities and services afforded all students to help balance academic endeavors with relaxing and enjoyable leisure time activities.

Information relative to the types of activities offered each quarter and registration dates will be posted and announced to the student body well in advance of the scheduled events. In addition to the intramural program, daily opportunities are provided in all facilities for unstructured, free play endeavors.

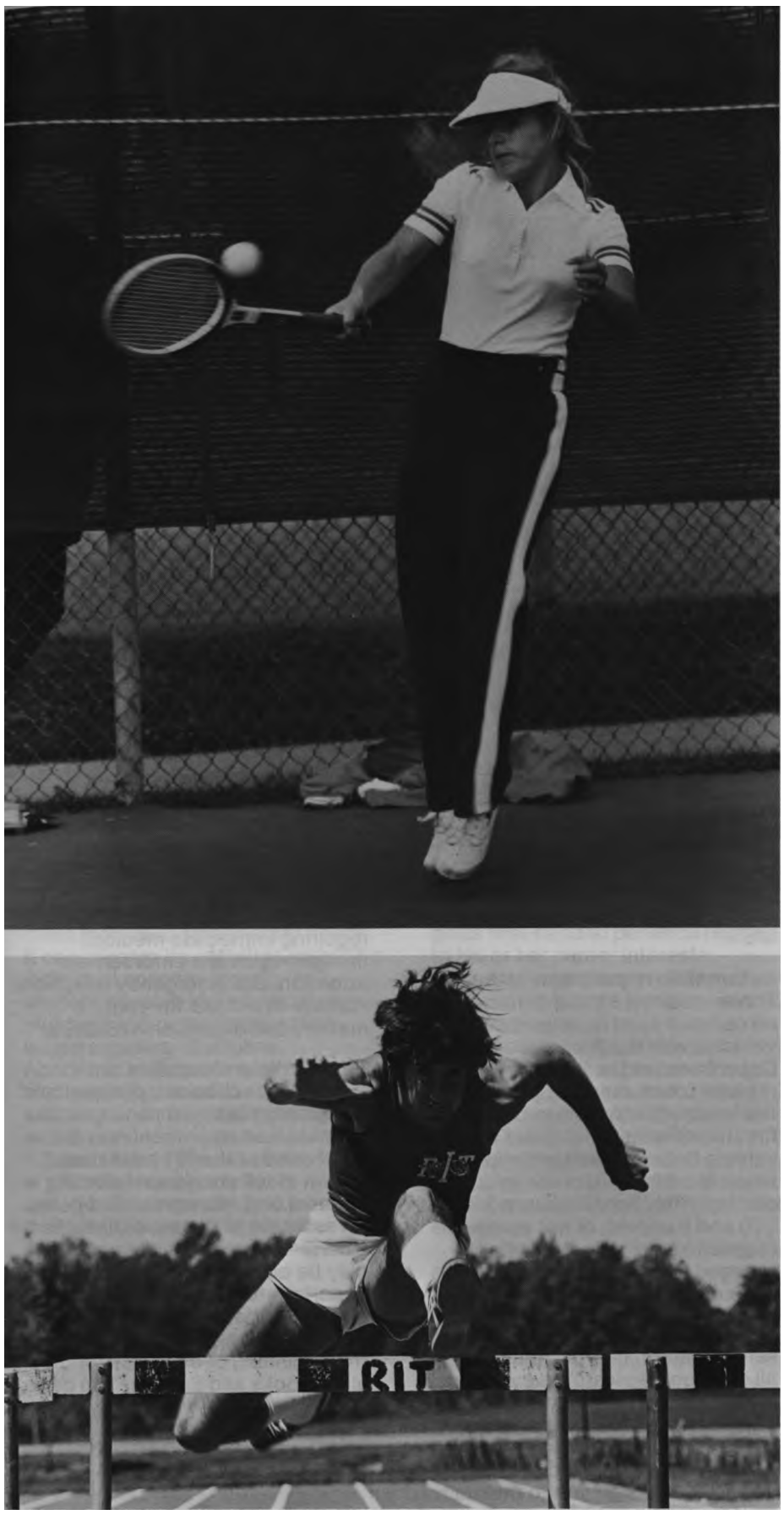
For those interested in competing, but not at the intercollegiate level, five sports are offered on an intramural basis. These include touch football, basketball, hockey, softball and coed volleyball.

Indoor and outdoor facilities are available at RIT personnel, including two gymnasiums, ice arena, swimming pool, fencing, weight and wrestling rooms. Outdoor facilities include numerous athletic fields, 12 tennis courts and an all-weather' track.

Daily facility hours for recreation are posted in the Physical Education Building and any changes to the schedule will be posted on the Reservation Board in the lobby of the gymnasium.

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

Department of Athletics



The RIT Tigers are members of the National Collegiate Athletic Association (NCAA), Eastern College Athletic Conference (ECAC), Independent College Athletic Conference (ICAC) and New York State Association of Intercollegiate Athletics for Women (NYSAIAW). The ICAC, which RIT joined in 1971, has seven member schools, including Alfred, Clarkson, Hobart, Ithaca, Rensselaer Polytechnic Institute, St. Lawrence and RIT.

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

Intercollegiate competition for men is broken into three quarters. In the fall, the men compete in soccer, cross country, tennis, golf and baseball. During the winter quarter the Tigers compete in basketball, bowling, hockey, rifle, swimming and wrestling. In the spring the Tigers are involved in baseball, golf, tennis, lacrosse and track.

Institute teams have won titles in just about every sport and boast numerous All-American athletes.

Women's intercollegiate competition is growing rapidly. Presently the women compete in volleyball and tennis (fall), and hockey, bowling and swimming (winter). The women are governed by NYSAIAW rules.

The Institute offers excellent facilities for intercollegiate competition. These include the George H. Clark Memorial Gymnasium (seating 2,200), Edith Woodward Memorial Swimming Pool (500), Franks. Ritter Memorial Ice Arena (2,200) and wrestling and weight rooms. Outdoors, RIT offers one of the best baseball fields in the region, 12 tennis courts, an all-weather track and recently-installed fields for soccer and lacrosse.

Resources for RIT Community Living

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

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

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

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

Automobile registration
Those students having automobiles on campus must register these vehicles with the Protective Services Department at the time they first register for classes, or upon bringing the automobile onto campus for the first time. Failure to register a vehicle to be parked on campus will result in a $20 fine for the initial parking infraction. Fines are $10 and $20 and if unpaid, or not otherwise reconciled, are automatically charged to students' accounts.

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

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

Textbooks and supplies
Textbooks, school supplies, art and design supplies, and photographic supplies and equipment may be purchased at the RIT bookstore. Also in stock are general reading material and monogrammed items. An estimate of expenses likely to be incurred in a specific area of study may be obtained by contacting departmental offices. The major portion of the expenditures for textbooks and supplies is made at the beginning of each quarter (see also "Books and Supplies" on page 19).

Career Education Division

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

1. Academic and Career Advisement
2. Cooperative and Experiential Education
3. Career Education Research
4. Central Placement Services

Academic and Career Advisement
Academic and career advisement's role at RIT is to assist the entering and continuing student with the development of career goals and academic plans. Advisement seeks to provide each student with a consistent system of communication with faculty and other professionals who posses expertise in the student's areas of interest.

Advisement is continually developing a bank of career information for faculty and student use. The system aids the RIT student in academic planning to meet individual career-entry needs. It coordinates its activities with RIT's individual colleges to help the student develop skills in academic planning and career exploration within a general discipline. Academic and career advisement also seeks to broaden student awareness of career alternatives within the current job market.

Each student has an advisor who is a faculty member in his or her college. Other faculty of the Institute, the coordinators of academic and career advising in the major academic areas, and Counseling Center Professionals stand ready to answer academic and career planning questions.

Dennis C. Nystrom

Cooperative and Experiential Education
Cooperative and experiential education provides the RIT student with experience related to his or her life career plans. A complement to academic course work, co-op and other forms of experiential education provide the environment for testing academics in career-related situations. Through combined efforts of students, RIT faculty, the Division of Career Education, and representatives of specific career fields, the student gains first-hand experience related to his or her career interests. Cooperative and experiential education promote learning beyond the classroom.

Cooperative education denotes RIT's philosophy of preparedness for a working society and offers students opportunities to develop further expertise in chosen career fields. During the typical co-op quarter, the student learns through actual employment within his or her discipline.

Colleges requiring cooperative education for graduation encourage the student to use the four quarters of co-op, interspersed with academic quarters, to develop a personal career path. The co-op experience is coordinated by the four partners, and it typically occurs within the junior and senior years.

The cooperative education program encourages students to seek learning/employment in geographic areas that they prefer for permanent employment and in areas that represent the growth of that particular job market. In many instances the co-op block leads to career possibilities upon graduation. Both student and employer have a chance to learn what each has to offer the other.

In addition to cooperative education, other forms of experiential education are available through various RIT colleges and programs. Like co-op, experiential learning opportunities are designed to provide a closer linkage between the realities of the classroom and the realities of the workplace. Internships, field work, simulations, and other forms of experiential learning are common educational activities at RIT.

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

First, the career education research function will provide a vehicle and support to RIT faculty, staff, and selected students for the conduct of career education research related to their particular areas or disciplines. Secondly, the career education research group will look at more broadly-based career concerns. Information relative to such topics as mid-career crisis and change, diminishing individual productivity growth, emerging career areas, multiple career planning, and many others is needed to keep RIT at the "cutting edge" of career development knowledge.

Central Placement Services

Judith Vollmer-Miller, director of Central Placement, says her office offers “a continuum of career direction."

“We encourage students to come in even before they enroll. Or a student’s first acquaintance may be as a freshman, when looking for help in finding a part-time job on campus or a summer job.”

“We see most students for the first time when they’re ready for a co-op job, since many of RIT’s schools and colleges require that kind of experience for graduation.”

Looking for a co-op job can be excellent preparation for the real thing. The Placement Office provides leads, shows students how to write a resume and to use the office’s resource library, and trains them in interviewing techniques. And the office refers students directly to companies who have requested students to work on a co-op basis.

Placement helps students find positions which are geared to their academic level, so they can utilize their course work on the job. As the student advances, the Placement Office aids the employers in developing more complex and challenging tasks for each successive co-op assignment.

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

The same is true when it comes to looking for a permanent position during the senior year. The Placement Office provides the same kind of guidance, including individualized counseling, to any student who seeks it. “We also have a job bank, and invite recruiters to interview seniors right here in campus. And opportunities have been excellent. During the 1978-1979 academic year, over 460 companies visited RIT, and conducted roughly 6,200 interviews with students. Based on survey information collected from approximately 58 percent of the 1977-78 baccalaureate degree

Judith Vollmer-Miller

graduates, Central Placement Services records indicate that more than 79 percent of the respondents secured employment in their chosen career field or entrance into graduate school soon after graduation. These figures are, of course, based on the information collected from only those responding to the follow-up survey.

But then, RIT has an edge on the competition, according to Ms. Vollmer-Miller. “It’s a known fact that employers are actively seeking RIT grads, for a number of reasons. They’re career oriented, and their education has been developed around current needs of business and industry. And they’re more aware of their career objectives. Usually they’ve chosen a field before they even come to RIT, and have had a chance to narrow it down to a specific type of position during their co-op experiences.

“So even in difficult economic times, when opportunities shrink, ours shrink less.”

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

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

Ms. Vollmer-Miller’s responsibilities include managing a staff of 16, coordinating the four different functions (part-time and summer work, cooperative employment, senior counseling and alumni placement), and counseling students herself. “I think it’s critical for me to keep in contact with students so that I can keep abreast of their expectations, goals, and competencies.

“And all of us are involved daily with contacts in business and industry, in order to maintain RIT’s visibility and market RIT graduates.”

A native of Pennsylvania, Ms. Vollmer-Miller holds a BA from Duquesne University and an MBA from RIT. She has been with RIT’s Central Placement Services since 1971, as assistant director, associate director and as director since 1976.

Function

The function of Central Placement Services is to aid students in making appropriate contacts with part-time, co-op, and full-time employers and to provide career counseling. The services offered are essentially the same for all students but vary in degree according to individual needs. They fall into the three major categories of counseling, instructional and administrative services.

Counseling Services assist in assessing general career interests and abilities, identifying specific employment options, implementing the job search, and evaluating the individual’s success to date.

Instructional Services are provided through group sessions which allow the Placement staff an opportunity to discuss with students, specific topics related to career planning; employers’ forums which help students obtain firsthand information on employment opportunities and what is expected of them on the job; and the resource library which is a source of information about specific organizations.

Administration Services include on-campus interviews, which are arranged and monitored by the Placement Office; job development, accomplished by having counselors visit employers at their places of business; job listings, which make students and alumni aware of existing openings; and coordination of work experience programs such as co-op and summer internships. The staff and facilities of Central Placement Services are available to students Monday through Friday, 8:30 a.m. to 4:30 p.m. CPS is located on the second floor wing of the George Eastman Memorial Building.

Educational Support and Development Seeks To Improve Quality of Learning

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

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

Instructional Media Services

Reno Antonietti, Director

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

Television

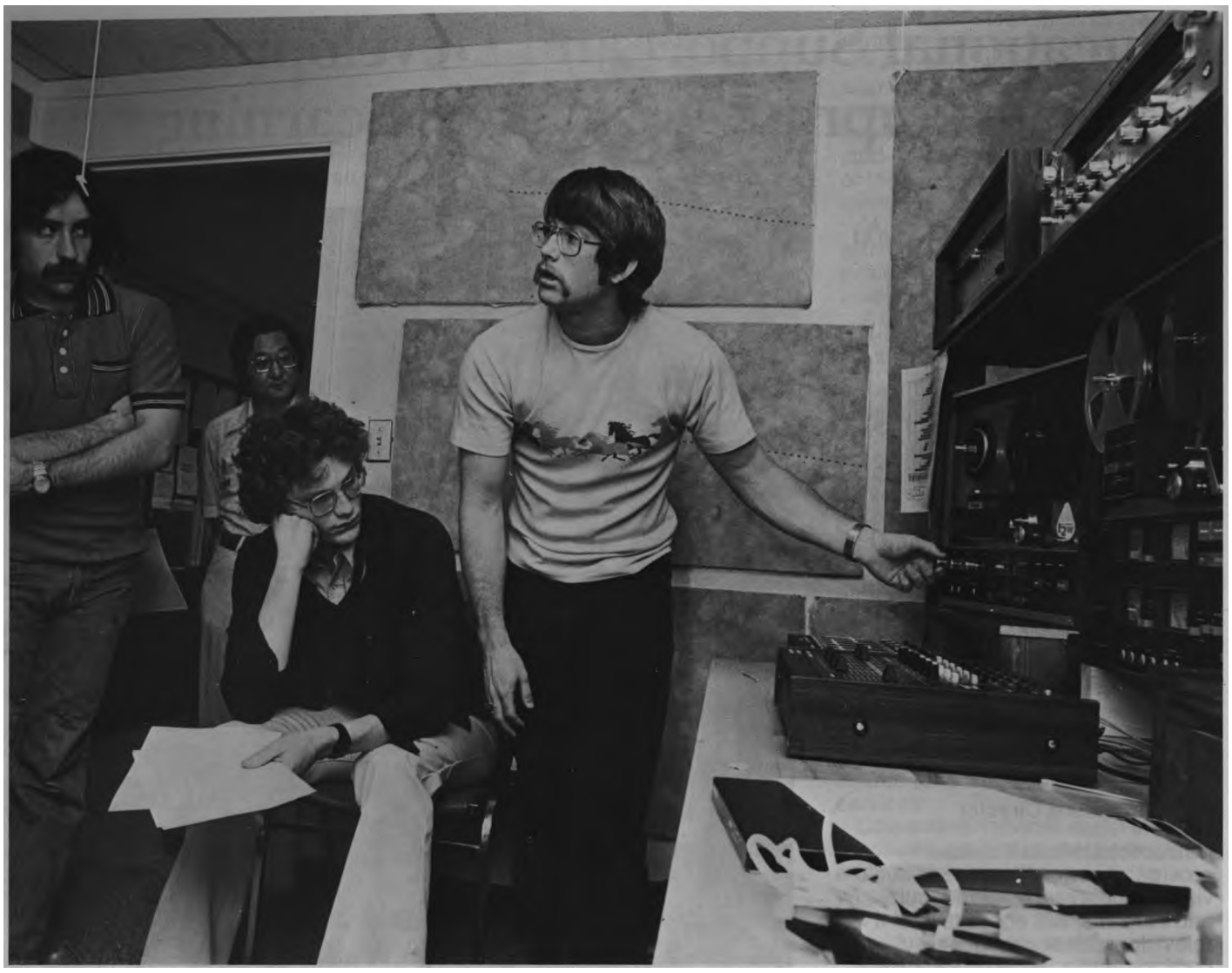
This center is utilized as both a distribution system for delivery of instructional media to locations throughout the campus and as a production system to create both black and white and color programming. A professional staff of producer/directors and graphic artists and engineers are available to aid 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. All standard video-tape formats are available ranging from two inch broadcast to half-inch and 3/4 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 video tapes on a wide variety of subjects and has access to video tape libraries throughout the country.

Production Services

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

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



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

Audiovisual Distribution Services
Faculty and students are provided access to the large number of instructional materials available from sources throughout the country. Research assistance is provided to search out and recommend the best of these materials. Equipment and projectionist services are also available as well as the loan of a variety of audiovisual hardware.

Media Resource Center
This center, located just inside the library entrance on the main floor, contains a variety of non-print media and audiovisual equipment for individual student use. In addition, the center contains an outstanding collection of over 70,000 slides as well as viewing facilities for the collection of approximately 500 motion picture prints. Videocassette playback equipment is also available for individual use.

Instructional Development studies the process of instruction

Lawrence W. Belle, Director

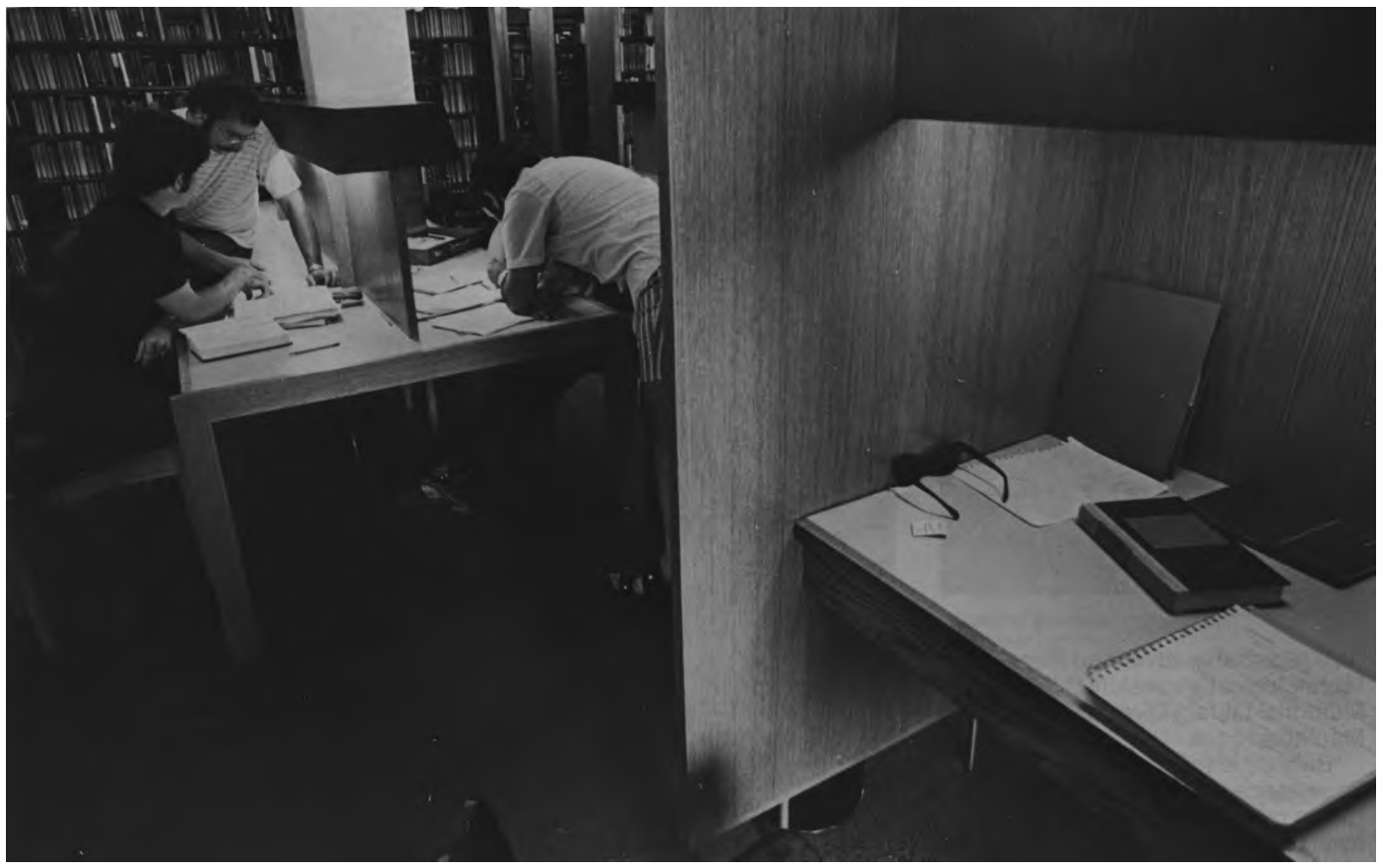
Instructional Development's primary goal is to search out and implement ways of improving the overall process of instruction at RIT. This is approached through cooperative planning, design, implementation, and evaluation of a variety of learning systems appropriate to the Institute.

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

Instructional Development works closely with the colleges and departments within the Institute to extend learning off campus. The office also helps academic deans, the dean of Records and Institutional Research, and others to identify RIT's priorities for improving the quality and cost of instruction.

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

RIT's Wallace Memorial Library Is a True Multi-media Learning Center



Gary MacMillan, Director

Information comes in many forms other than printed pages bound between two covers.

When a student wants to research a topic in RIT's Wallace Memorial Library, he or she may find a number of resources indexed in the catalog: printed matter in miniature on microfilm and microfiche, videocassettes, motion pictures, slides, filmstrips, sound/filmstrips, slidetapes, Super 8 cartridges with audiocassettes, and the traditional books and magazines.

RIT has the largest microfilm collection and the greatest use of non-print media of any area college library, reports Gary MacMillan, library director.

The library is a true multi-media learning center with expanded services and innovative procedures to increase its usefulness.

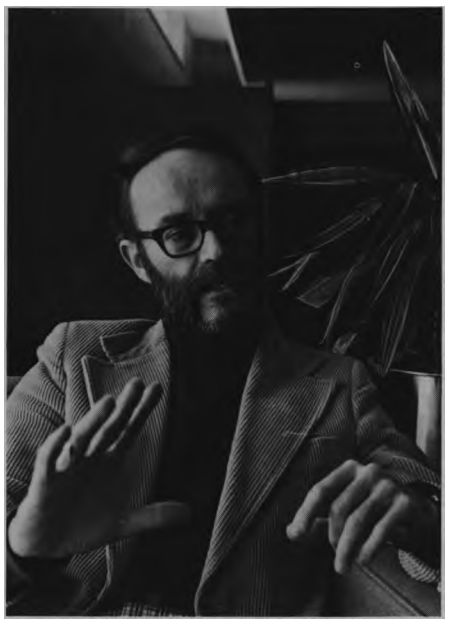
Particularly adapted to an institution of technology and the arts and sciences, the Wallace Memorial Library contains, in addition to material in the usual form of books, magazines, newspapers and pamphlets, material in the form of microfilm, microfiche, films and recordings. To assist the students in 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 over 900 student study stations, including individual study carrells and group study rooms.

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

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

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

Modern System Aids Retrieval Of Information, Director Notes



Gary MacMillan

"We're a pretty advanced library, technologically speaking," Wallace Memorial Library Director Gary MacMillan says.

"Books are losing some of their importance and other media are taking over...there's a growing awareness here that there are other ways to get information than from the printed word," he says.

And so, Wallace Library has phased out the traditional clumsy card catalog in favor of a microfiche system. "The entire card catalog," MacMillan says, "can be held in a notebook."

MacMillan came to RIT in December, 1970, fresh from a job at the University of Liberia in West Africa, where he was working in a joint United States government-Cornell University program.

A native of Alpena, Michigan, he's a graduate of Kalamazoo College (psychology/sociology) and the University of Michigan (library science).

"A library doesn't mean just books anymore," he says. "It's a collection of information kept in the way that's easiest to retrieve."

The Career Decision Program Enables Students to Explore Academic Objectives

Students often are attracted to RIT because of the opportunity to specialize in a career-oriented or technical program beginning with their first year of college. Most RIT students have chosen a career area when they arrive at RIT as freshmen or transfer students. Other students may be considering a technical, career-oriented education, but want an opportunity to explore several career fields before making a decision about a particular career objective.

The Career Decision Program is designed for this latter group, as well as for students who want to explore educational-vocational possibilities more generally.

The major goal of the Career Decision Program is to assist participating students in formulating an educational-vocational plan or in taking the next steps compatible with their still emerging plans. Such next steps might include applying for admission to one of RIT's degree programs, applying to another college or university for a program not offered at RIT, or-possibly-deciding to prepare for a career not requiring a college degree.

In addition to sampling introductory and foundation courses in one or more of RIT's departments, full-time Career Decision students enroll for general education courses, an independent "Career Study" course, and a "Career Exploration Laboratory."

For example, a particular Career Decision student may have tentatively chosen to prepare for a career in printing management. During the first term in the program, one might enroll in beginning printing courses (such as Typography I and Layout and Printing Design). In order to leave other options open while earning additional college credit, registration could be made for two general education courses (such as English Composition and Introduction to Psychology).

Another student may be fairly certain he or she wants to be either an accountant or an engineer, but needs further information about these fields in order to consider goals and values more thoroughly. With counseling, it may be decided to spend a year in the Career Decision Program sampling both accounting and engineering courses.

While in the program, each of these students completes at least one in-depth study of a career area and assesses personal qualifications and desired satisfactions in relation to career possibilities.

The formal "Career Study" course and the accompanying "Career Exploration Laboratory" are supplemented by the student's regular individual meetings with his or her assigned counselor in the Counseling Center. As part of these individual counseling sessions, the student may take aptitude, interest and personality tests, may consider personal values and occupational information through a computer-assisted career exploration system, or may discuss the advantages and disadvantages of various career plans based on increasingly clarified personal goals.

Depending upon available classroom space and the student's academic readiness, Career Decision students may sample courses in any major area represented by RIT departments, although possibilities for exploration in art, crafts and photography are very limited.

Career Decision students must, of course, meet standards and requirements of the RIT schools and colleges to which they might apply after making a decision. Additional time may be necessary to complete degree requirements because the Career Decision student has spent time in preliminary exploration.

After no more than one academic year (one to three quarters), each student may reasonably anticipate:

- A clearer basis for making a decision regarding long-range career plans.
- Credit for courses which would likely apply to RIT or other colleges.
- Assistance in matriculating in the curriculum of the student's choice at RIT or at another institution, provided that relevant standards and requirements are met.
- By special permission, a student may enroll for portions of this program on a part-time basis.

Program

In addition to general education courses, the career study courses and exploration laboratory, each student enrolls in specialized course work in one or more of the major fields available at RIT.

The range of options includes:

Business
Accounting
Business Administration
General Dietetics and Nutritional Care
Food Service Administration and Hotel/Tourist Industries Management
Photographic Marketing
Retailing

Engineering
Computer Engineering
Electrical Engineering
Industrial Engineering
Mechanical Engineering

Fine Arts
Communication Design
Fine Arts
Environmental Design
Crafts
Medical Illustration

General Studies
Criminal Justice
Social Work

Photography
Biomedical Photography
Photographic Illustration
Photographic Processing and Finishing Management
Photographic Science and Instrumentation
Professional Photography

Printing
Newspaper Production Management
Printing Management

Science
Biology
Biomedical Computing
Chemical Technology
Chemistry
Clinical Chemistry
Computational Mathematics
Mathematics
Medical Technology
Nuclear Medicine Technology
Physics

Institute College
Audiovisual Communications
Computer Science & Technology
Civil Engineering Technology
Electrical Engineering Technology
Manufacturing Technology
Mechanical Engineering Technology
Packaging Science

Admission Procedure

Obtain application forms and specific instructions from:

Director of Admission
Rochester Institute of Technology
One Lomb Memorial Drive
Rochester, NY 14623

College of Business Offers Programs Of Lasting Value in a Changing World

Dale F. Gibson, Acting Dean

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

Faculty members in the College of Business bring a combination of professional education and sound practical experience to their course work. The faculty has a personal interest in the progress of individual students and in assisting each student to achieve maximum benefit from his or her program of study. Freshmen students are assigned to advisers who provide friendly counsel during this period of adjustment.

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

Business Program Allows Options, Great Flexibility

RIT's curricula in the College of Business have been improved significantly during the past decade.

The Institute's business programs now allow greater flexibility; there are many more elective courses from which a student may choose.

The College of Business has 1,300 students and 45 faculty members.

Besides the upgrading of the curricula, there have been other developments during the recent past. Such developments as taking significant steps to revitalize the retailing and food-tourism programs and progress toward establishing a good learning center in the college.

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

What does the future hold?

For one thing, the college wants to explore program options that will provide the student with opportunities for managerial and executive positions in both the private and the not-for-profit sectors.

"Our programs should cover all types of institutions," leaders in the college feel. "We should design and develop programs to provide the student with managerial and executive experience in a variety of institutions, public or private."

There are great opportunities in the public sector for business graduates, RIT feels.

What do we believe a business career offers a person? Perhaps the answer to that question was best summarized by a former dean of the college in the following statement:

"The possibilities for a student to grow into a highly creative, innovative person, to deal with exceptionally complex and complicated social, economic, and business problems, and to earn a good salary, are as good in business as in most other fields."

Admission at a Glance:

College of Business Programs

General Information on RIT's admission requirements, procedures and services is included in detail on Pages 24-25 of this Bulletin.

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

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

Accounting—Graduates of the public accounting option meet candidacy requirements for the C.P.A. examination. There is a general accounting option for students who desire a broader and more flexible range of accounting and business electives. Degrees granted: AAS-2 year; BS-4 year.

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

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

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

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

Photographic Marketing—Designed to provide students with knowledge of the photographic process in combination with the economic, financial, and marketing principles necessary to establish and maintain a photographic wholesale or retail business. Degrees granted: AAS-2 year; BS-4 year.

	Freshman Admission Requirements		Transfer Admission with junior standing	
	red Hig l Subje *	Desirable Elective Sub	Two ear olleg Pr	ble minimum ue point average
Accounting	Elem. Algebra; Inter. Algebra; 1 year any science	Additional Mathematics and science	Accounting or equivalent	2.0
Business Administration	Elem. Algebra; Inter. Algebra; 1 year any science	Additional mathematics and science	Business administration, marketing, or any associate in arts, science or applied science graduate. This is an excellent opportunity for two-year liberal art graduates to enter a career-focused field.	2.0
Food Administration and Tourist Industries Management	Elem. Algebra; Inter. Algebra; 1 year chemistry preferred	Additional mathematics and science	Food service administration; hotel-motel management or equivalent.	2.0
Dietetics	Elem. Algebra; Inter. Algebra; 1 year chemistry preferred	Biology; additional mathematics	Hospital dietetics or equivalent.	2.0
Retailing	Elem. Algebra; Inter. Algebra; 1 year any science	Business; art and speech courses	Retailing; retail merchandising or equivalent.	2.0
Photographic Marketing	Elem. Algebra; Inter. Algebra; 1 year chemistry preferred	Additional mathematics and science	Business administration; marketing or equivalent.	2.0

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.

Accreditation and professional memberships

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

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

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

The plan of education

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

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

The cooperative plan

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

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

For more information about Co-op at RIT, see page 18.

Graduation requirements

The minimum academic requirements in the College of Business are:

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

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

Transfer programs

Junior standing will be granted to qualified students from accredited institutions who possess an associate’s degree or its equivalent and who wish to continue their education for the baccalaureate degree. Students interested in business administration, retailing, or food management may complete all requirements for the BS degree in two years, which includes six academic quarters and two quarters of cooperative employment.

A transfer student must (1) complete a minimum of 102 quarter credit hours with an earned minimum grade point average of 2.0 in the departmentally approved program, and (2) complete two quarters of approved cooperative education assignments.

Due to the special requirements of the accounting program and the dietetics program, the amount of transferable credit and the estimated time to complete work for these degrees must be determined by evaluation of each individual’s record. In every instance, however, it is the policy of the college to recognize as fully as possible the past academic accomplishments of each student.

Cooperative education plan

	Fall	Winter	Spring	Summer
1st year	RIT	RIT	RIT	Vacation
2nd year	RIT	RIT	RIT	RIT
				“A” Work
3rd year	“B" Work	RIT	“B” Work	RIT
	RIT	“A” Work	RIT	“A” Work
4th year	“B” Work	RIT	“B” Work	RIT
	RIT	“A” Work	RIT	RIT

Graduate programs

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

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

Course descriptions

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

Business Administration Program Provides Mastery in a Marketable Skill

Objectives

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

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

Programs of Study

Accounting

The accounting major has two options: the public accounting option and a general accounting option. The public accounting major has been registered with the State Education Department of New York, which means that graduates meet the requirements for candidacy for the Certified Public Accountant examination.

The general accounting option has been designed for students with varied interests. Not only has the curriculum been designed to help prepare students for the Certificate in Management Accounting examination as administered by the Institute of Management Accounting of the National Association of Accountants, but also the student has the opportunity to gain a more in-depth knowledge in taxation, international accounting, and accounting for non-profit organizations by electing courses in a seminar series.

Accounting programs (common curriculum, first two years)

Year		Quarter Credit Hours: Fall	Winter	Summer
First Year	BBUA-210 Financial Accounting		4	
	BBUA-211 Managerial Accounting			4
	BBUB-201 Management Concepts	4		
	BBUQ-291, 292 Math I & II	4	4	
	GSEE-301, 302 Economics I & II	4	4	
	ICSS-200 Survey of Computer Science			4
	*General Studies Electives-Lower Division	4	4	8
	‡Physical Education Elective	0	0	0
Second Year †	BBUA-308, 309, 310 Intermediate Accounting I, II, III	4	4	4
	BBUB-301 Business Law I			4
	BBUB-401 Behavioral Science in Management	4		
	BBUM-263 Marketing Principles	4		
	BBUQ-351, 352 Statistics I, II		4	4
	Science Electives		4	4
	*General Studies Electives-Lower Division	4	4	
	‡Physical Education Elective	0	0	0

†Upon successful completion of the second year, the associate in applied science degree is awarded.
**See Pg. 98 for General Studies requirements.*
‡See Pg. 40 for Policy on Physical Education.

Certified Public Accounting major

Year		Quarter Credit Hours: Su/Fall	Wtr/Spr	Summer
Third Year	BBUA-420 Cost Accounting	4		
	BBUA-422 Tax Accounting		4	
	BBUB-302 Business Law II	4		
	BBUF-441 Financial Management	4		
	BBUF-503 Financial Problems		4	
	*General Studies Electives-Upper Division	5	10	
Fourth Year	BBUA-504 Auditing	4		
	BBUA-505, 506 Advanced Accounting I, II		4	4
	BBUB-404 Administrative Policy			4
	BBUB-407 Environment of Business Activity			4
	BBUB-434 Operations Management	4		
	BBUE-405/406 Micro/Macro Economics		4	
	GLLC-402 Conference Techniques	4		
	Business Electives		4	
	*General Studies Electives-Upper Division	5	5	5

**See Pg. 98 for General Studies requirements.*

General Accounting major

Year		Quarter Credit Hours: Su/Fall	Wtr/Spr	Summer
Third Year	BBUA-420 Cost Accounting	4		
	BBUF-405 Micro Economics	4		
	BBUF-441 Financial Management	4		
	BBUF-503 Financial Problems		4	
	Accounting Elective		4	
	Business Elective		4	
	*General Studies Electives-Upper Division	5	5	
Fourth Year	BBUB-404 Administrative Policy			4
	BBUB-407 Environment of Business Activity			4
	BBUB-434 Operations Management	4		
	GLLC-402 Conference Techniques		4	
	Accounting Elective	4		
	Business Electives	4	4	4
	*General Studies Electives-Upper Division	5	10	5

**See Pg. 98 for General Studies requirements.*

Business Administration

The curriculum is designed to provide an understanding of and competency in essential business management principles and techniques. Additionally, the student may elect a concentration in accounting, consumer services, finance, management or marketing.

Photo Marketing Management

This program of study in photographic marketing is designed to provide students with a thorough knowledge of the photographic process in order that they may have an understanding of how their products work. At the same time, they will be involved in learning the economic, financial and marketing principles necessary to successfully establish and maintain a prosperous photographic wholesale or retail business.

This four-year baccalaureate program is directed towards marketing, merchandising, promotion and personnel management in the photographic dealer industry; however, those choosing to terminate after two years are awarded an AAS degree and should qualify for a store manager's position.

Business electives

(Each gives 4 Quarter Credit Hours)

Accounting

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

Economics

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

Finance

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

Management and Quantitative Methods

BBUB-450	Multinational Management
BBUB-531	Labor Relations
BBUB-534	Purchasing
BBUB-535	Planning and Decision Making
BBUB-536	Organization Theory
BBUB-547	Small Business Administration
BBUB-554	Seminar in Management
BBUQ-353	Statistics III
BBUQ-481	Mathematics

Marketing

BBUM-420	Consumer Behavior
BBUM-510	Consumer Services Analysis
BBUM-550	Marketing Management Problems
BBUM-551	Marketing Research
BBUM-552	Advertising
BBUM-553	Sales Management
BBUM-554	Seminar in Marketing
BBUM-555	International Marketing
BBUM-556	Marketing Logistics
BBUM-557	Comparative Marketing

Business Administration major

Year		Quarter Credit Hours: Fall	Winter	Spring
First Year	BBUA-210 Financial Accounting	4		
	BBUA-211 Managerial Accounting		4	
	BBUB-201 Management Concepts			4
	BBUQ-291, 292 Mathematics	4	4	
	BSEE-301, 302 Economics I, II		4	4
	ICSS-200 Survey of Computer Science			4
	*General Studies Electives-Lower Division	8	4	4
	‡Physical Education Elective	0	0	0
Second Year†	BBUQ-351, 352 Statistics I, II		4	4
	BBUB-401 Behavioral Science in Management			4
	BBUE-381 Money and Banking	4		
	BBUM-263 Marketing Principles	4		
	Business Electives		4	8
	*General Studies Electives-Lower Division	4	4	
	Science Electives	4	4	
	‡Physical Education Elective	0	0	0
Third Year		SR orF		WorS
	BBUB-434 Operations Management	4		
	BBUE-405, 406 Micro or Macroeconomics	4		
	BBUF-411 Financial Management			4
	Business Electives	4		8
	*General Studies Electives	5		5
Fourth Year		SRorF	WorS	SR
	BBUB-404 Administrative Policy			4
	BBUB-407 Environment of Business Activity		4	
	Business Electives	4	8	8
	*General Studies electives	10	5	5
	GGLC-402 Conference Techniques	4		

†Upon successful completion of the second year, the associate in applied science degree is awarded.
**See Pg. 98 for General Studies requirements.*
‡See Pg. 40 for Policy on Physical Education.

Two-year transfer program: Business Administration (For associate's degree graduates in business)

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

Year		Quarter Credit Hours: Fall	Winter	Spring
Third Year	BBUE-405, 406 Micro or Macro Economics			4
	BBUF-441 Financial Management			4
	BBUQ-410, 411 Quantitative Methods I, II	4	4	
	Business Electives	4	4	4
	*General Studies Electives-Upper Division	5	5	5
	Science Electives	4	4	
	‡Physical Education Elective	0	0	0
Fourth Year		SR orF	WorS	SR
	BBUB-404 Administrative Policy			4
	BBUB-407 Environment of Business Activity		4	
	BBUB-434 Operations Management	4		
	Business Electives	4	8	8
	*General Studies Electives-Upper Division	5	5	5
	GLLC-402 Conference Techniques	4		

‡See Pg. 40 for Policy on Physical Education.
**A minimum of six upper level general studies courses (30 quarter credit hours) must be taken at RIT.*
Note: A minimum of eight quarter credit hours of science must be earned. If science transfer credit is allowed, the student must take a comparable number of hours in either business or general studies. Transfer students with insufficient background in accounting, economics, management and/or marketing will be required to take the following courses in place of business electives: Financial Accounting: BBUA-210, 211; Economics: GSSE-301 and/or 302; Management BBUB-401; Marketing: BBUM-263.

Photographic Marketing Management major

Year		Quarter Credit Hours		
		Fall	Winter	Spring
First Year	PPHM-201, 202, 203 Basic Principles of Photography	4	4	4
	BBUB-201 Management Concepts	4		
	BBUQ-291, 292 Math	4	4	
	BBUA-210 Financial Accounting		4	
	BBUA-211 Managerial Accounting			4
	ICSS-200 Survey of Computer Science			4
	*General Studies (Lower Division)	4	4	4
	‡Physical Education Elective	0	0	0
Second Year †	BRER-211 Retail Organization/Management	4		
	BRER-212 Principles of Merchandising			4
	BRER-410 Retail Sales Promotion		4	
	BBUB-401 Behavioral Science in Management			4
	GSSE-301, 302 Economics I & II	4	4	
	BBUM-263 Marketing			4
	PPHM-320, 321 Mechanics of Hardware I & II	4	4	
	*General Studies (Lower Division)	4	4	4
	‡Physical Education Electives	0	0	0
Third Year	BBUQ-351, 352 Statistics I & II	4	4	
	BBUE-405 or 406 Micro/Macro Economics	4		
	BBUM-420 Consumer Behavior			4
	BBUE-381 Money & Banking		4	
	BBUF-441 Financial Management			4
	PPHM-310 Survey of Production Processing and Finishing		2	
	Professional Electives	4		4
	*General Studies (Upper Division)	5	5	5
Fourth Year	BBUB-434 Operations Management	4		
	BBUM-552 Advertising		4	
	BBUM-553Sales Management			4
	BBUB-407 Environment of Business Activity	4		
	BBUB-404 Administrative Policy			4
	Professional Electives	4	8	4
	*General Studies (Upper Division)	5	5	5

See Pg. 98 for General Studies requirements.
‡See Pg. 40 for Policy on Physical Education.
†Upon successful completion of second year, the associate of applied science degree is awarded.
Total of 196 quarter credit hours is required for the BS degree.
It is recommended that students seeking the baccalaureate degree spend the summer of their junior year in a work block-type program.
Professional electives may be selected from either the College of Business or School of Photographic Arts and Sciences, in consultation with advisor.
Refer to School of Photographic Arts and Sciences for descriptions of photography courses.

Food Administration, Tourist Industries Management Teaches Sophistication and Vital Efficiency

George T. Alley, Director

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

Objectives

It is the mission of the Department of Food Administration and Tourist Industries Management 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

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

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

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

Food Service

Administration

Hotel and

Tourist Industries

Management Option

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

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

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

Opportunities

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

Cooperative Work Experience

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

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

Students who possess an associate's degree or its equivalent in related fields from accredited institutions and are interested in continuing their education for the baccalaureate degree in food administration and tourist industries may enter with junior standing and complete the BS degree in two years.

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.

Hotel and Food Options

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

Marketing

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

Accounting & Finance

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

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

Hotel and Tourist Industries Management option

Year		Quarter Credit Hours: Fall	Winter	Spring
First Year	BFAM-215 Food Principles	5		
	SSEG-202 Contemporary Science		4	
	BFAM-210 Introduction to Food Management Tourist Industries	3		
	BFAM-220 Career Seminar	1		
	BBUQ-291 Mathematics		4	
	SBIG-210 Microbiology in Health and Disease	4		
	BBUB-201 Management Concepts		4	
	BFAD-213 Nutritional Principles			4
	BBUA-210 Financial Accounting			4
	ICSS-200 Survey of Computer Science			4
	*General Studies Electives-Lower Division	4	4	4
	‡Physical Education Elective	0	0	0
Second Year†	BFAM-321 Food & Beverage Merchandising	2		
	BBUB-401 Behavioral Science in Management	4		
	BBUQ-351, 352 Statistics I, II	4	4	
	BFAM-331, 332 Food Production Management I, II		5	5
	BSSE-301, 302 Economics I, II		4	4
	BBUM-263 Marketing Principles			4
	*General Studies Electives-Lower Division	4	4	4
	‡Physical Education Elective	0	0	0
Third Year		SRorF	WorS	SR
	BFAM-423 Management Systems for Lodging and Tourist Industry	4		
	BBUB-434 Operations Management	4		
	**Hotel/Business Elective	4		
	BBUF-441 Financial Management		4	
	GLLC-402 Conference Techniques		4	
	*General Studies Electives-Upper Division	5	10	
Fourth Year	BFAM-450 Marketing for Hotel & Tourist industries		4	
	BBUB-407 Environment of Business Activity	4		
	BFAM-554 Seminar in Tourist Industries		4	
	BFAM-511 Advanced Food Service Operations		4	
	BBUB-404 Administrative Policy			4
	**Hotel/Business Electives	8		8
	*General Studies Electives-Upper Division	5	5	5

*See Pg. 98 for General Studies requirements.
‡See Pg. 40 for Policy on Physical Education.
See Pg. 52 for Policy on Co-op requirements.
†Upon successful completion of the second year, the associate in applied science degree is awarded.

**** Food or Hotel Majors**

Tourist Industries Electives

BFAH-400 Tourist Enterprises
BFAH-401 Ski Resort Management
BFAH-402 Marina Management
BFAH-403 Golf Course Management
BFAH-404 Campground Management
BFAH-405 Theme Park Management
BFAH-406 Resorts, Clubs and Vacation Communities
BFAH-410 Tourist Consumption Analysis
BFAH-411 Problem Analysis & Decision-Making for the Tourist Industries
BFAH-412 Maintenance & Operation of Tourist Resort Properties

Food Service Administration

Year		Quarter Credit Hours Fall	Winter	Spring
First Year	BFAM-215 Food Principles	5		
	SSEG-202 Contemporary Science		4	
	BFAM-210 Introduction to Food Management/ Tourist Industries	3		
	BFAM-220 Career Seminar	1		
	BBUQ-291 Mathematics		4	
	SBIG-210 Microbiology in Health and Disease	4		
	BBUB-201 Management Concepts		4	
	BFAD-213 Nutritional Principles			4
	BBUA-210 Financial Accounting			4
	ICSS-200 Survey of Computer Science			4
	*General Studies Electives-Lower Division	4	4	4
	‡Physical Education Elective	0	0	0
Second Year†	BFAM-321 Food & Beverage Merchandising	2		
	BBUB-401 Behavioral Science in Management	4		
	BBUQ-351, 352 Statistics I, II	4	4	
	BFAM-331, 332 Food Production Management I, II		5	4
	GSSE-301, 302 Economics I, II		4	4
	BBUM-263 Marketing Principles			4
	*General Studies Electives-Lower Division	4	4	4
	‡Physical Education Elective	0	0	0
Third Year		SR/F	W/S	SR
	BFAM-415 Food Science I	4		
	BBUB-434 Operations Management	4		
	BBUF-441 Financial Management		4	
	BBUB-531 Labor Relations		4	
	GLLC-402 Conference Techniques		4	
	Food/Business Electives	4		
	* General Studies Electives-Upper Division	5	5	
Fourth Year	BBUB-407 Environment of Business Activity	4		
	BFAM-511 Advanced Food Service Operations		4	
	BBUB-404 Administrative Policy			4
	Food/Business Electives	8	8	8
	*General Studies Electives-Upper Division	5	5	10

*See *Pg. 98 for General Studies requirements.*
‡See Pg. 40 for Policy on Physical Education.
See Pg. 52 for Policy on Co-op requirements.
†Upon successful completion of the second year, the associate in applied science degree is awarded.

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

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

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

You may become a...

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

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

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

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

Programs
The Department of Food Administration and Tourist Industries 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.

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.

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.

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 Department of Food Administration must be completed and submitted to the department by March 1.

Two-year transfer program for coordinated dietetics

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

- Food and Nutrition Principles
- Microbiology
- General and Organic Chemistry
- Biochemistry
- Physiology
- Management Courses:
  - Mathematics, Accounting and Statistics
  - Economics
- TOTAL of 24 credit hours of General Studies (including Introduction to Sociology)

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

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

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

Year		Quarter Credit Hours: Fall	Winter	Spring
First Year	BFAM-215 Food Principles	5		
	SCHG-201 General Chemistry	3		
	SCHG-211 General Chemistry-Lab	1		
	SBIG-210 Microbiology in Health and Disease	3		
	SBIG-220 Human Microbiology/Disease-Lab	1		
	BBUQ-291 Mathematics		4	
	SCHG-202 Organic Chemistry		3	
	SCHG-212 Organic Chemistry-Lab		1	
	BBUB-201 Management Concepts		4	
	SCHG-203 Biochemistry			4
	BFAD-213 Nutritional Principles			4
	ICSS-200 Survey of Computer Science			4
	*General Studies-Lower Division	4	4	4
	‡Physical Education Elective	0	0	0
Second Year†	BBUA-210 Financial Accounting	4		
	BFAM-321 Food & Beverage Merch	2		
	BBUB-401 Behavioral Science		4	
	SCHG-204 Biochemistry	4		
	BBUQ-351, 352 Statistics I, II		4	4
	GSSE-301, 302 Economics I, II		4	4
	SBIO-305, 306 Anatomy & Physiology		4	4
	*General Studies-Lower Division			
	‡Physical Education Elective	0	0	0

*See Pg. 98 for General Studies requirements.
‡See Pg. 40 for Policy on Physical Education.
†Upon successful completion of the second year, the associate in applied science degree is awarded.

General Dietetics and Nutritional Care program (Third and Fourth Years)

Year		Quarter Credit Hours: Fall	Winter	Spring
Third Year	BFAM-415, 416 Food Science I, II		4	4
	BFAM-331, 332 Food Production Management I, II		5	4
	BBUF-441 Financial Management		4	
	*General Studies Electives-Upper Division		5	5
	BFAD-519 Educational Principles		4	
	Note: Normally dietetic majors will have their first Co-op work study period during the Fall Quarter	**		
		Su/Fall	W/Spr	Su
Fourth Year	BFAD-525, 526 Advanced Nutrition/Diet Therapy I, II	4	4	
	BBUB-407 Environment of Business Activity	4		
	BBUB-434 Operations Management	4		
	BFAM-511 Advanced Food Service operations		4	
	BFAD-550 Community Nutrition		4	
	Food/Business Electives			8
	*General Studies Electives-Upper Division	5	5	10

*See Pg. 98 for General Studies requirements.

Coordinated Dietetics option (Third and Fourth Years)

Year		Quarter Credit Hours: Fall	Winter	Spring
Third Year	BBUF-441 Financial Management	4		
	BBUB-407 Environment of Business Activity		4	
	†BFAD-314 Sanitation & Safety in Hospitals			4
	†BFAD-402 Dietetic Environment	4		
	†IJCG-704 Communication and Instructional Techniques—			4
	†BFAD-551 Management of Food Systems			4
	†BFAM-331, 332 Food Production Management I, II.		5	
	†BFAM-415, 416 Food Science I, II	4	4	
	*General Studies Electives-Upper Division	5	5	
Fourth Year	BFAD-550 Community Nutrition			4
	BFAD-560, 561 Dietetics I, II	8		
	BFAD-562, 563 Clinical Dietetics III, IV		8	
	BFAM-511 Advanced Food Service Operations			4
	Professional Elective		4	4
	*General Studies Electives-Upper Division	10	5	5

*See Pg. 98 for General Studies requirements.
†Professional courses in clinical facilities.
Electives may be chosen from the School of Business Administration or approved electives from other colleges of the Institute.

School of Retailing Offers Education in A Dynamic Field

The major objectives of the School of Retailing is to educate young men and women for retail business management competence in order that their education will help them to achieve middle and upper-middle management positions after some years of on-the-job experience, as well as to provide a base for beginning management positions.

To achieve this major objective, the student should have a basic understanding of the major functional areas of business-accounting, finance, personnel and marketing; depth of knowledge of the marketing process for the retail industry; a broad background in natural and social sciences and in the humanities; and understanding of the tools common to most management functions; and an awareness of the need for life-long learning.

The dynamic nature of retailing and retail institutions creates an ever expanding number of career opportunities. Retail organizations offer highly rewarding and challenging positions in five broad areas: merchandising, operations, finance, personnel, and sales promotion. Merchandising covers selection, buying and selling; operations covers the general operation of the company's physical plant as well as customer services; finance includes accounting, credit sales, collection, statistical and internal audit; personnel is responsible for selection, training, placing, advancement, and welfare of all employees; sales promotion is responsible for advertising display and publicity.

Program

The retailing program is designed to provide the student with a basic and comprehensive foundation of theory and practice in the management of retail institutions. In addition to the required core of retail and business subjects, the student may elect concentrations in the following areas:

Fashion Merchandising is a group of selected courses in history and trends of fashion; fashion apparel and accessories; buying, promotion and coordination of fashion merchandise. A wide range of employment opportunities as assistant buyers, buyers and fashion coordinators exists in the fashion merchandising field.

Interior Design is a well-developed sequence of courses covering topics of basic and advanced color and design principles; planning and creating home and commercial interiors; and historical design trends. Employment opportunities are in home and office furnishing design, display, store layout and design, and commercial contract design departments.

Management is the core retail program with elective courses in business administration providing strong academic preparation for a variety of managerial positions in store management.

The cooperative employment component of the program provides the needed balance between classroom and experience. Co-op plays an integral part in the total education of the retail student. See page 52 for details.

Two-year transfer program

Junior standing will be granted to qualified students with an associate's degree or equivalent in a related field from accredited institutions. The bachelor of science degree will be awarded in two years, which includes six academic quarters and two quarters of cooperative field education. The student's program is determined on the basis of his or her previous education and field interest.

Retailing Professional Electives (Each carries 4 Quarter Credit Hours)

BRER-511 Textiles (Basic)
BRER-521 Fashion (History)
BRER-524 Fashion (Accessories)
BRER-523 Fashion (Current)
BRER-531 Interior Design (Basic)
BRER-532 Interior Design I
BRER-533 Interior Design II
BRER-534 Interior Design (History)
BRER-535 Interior Design (Advanced)
BRER-545 Color and Design (Display)
BRER-554 Seminar in Retailing

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

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

Retailing major

		Quarter Credit Hours		
		Fall	Winter	Spring
First Year	BBUA-210 Financial Accounting	4		
	BBUB-201 Management Concepts	4		
	BBUQ-291 Math I		4	
	BRER-211 Retail Organization & Management	4		
	BRER-212 Principles of Merchandising			3
	GSSE-301, 302 Economics I, II		4	4
	*General Studies Electives	4	4	4
	Science Electives		4	4
	‡Physical Education Elective	0	0	0
Second Year†	BBUB-401 Behavioral Science in Management	4		
	BBUM-263 Marketing Principles		4	
	BBUM-552 Advertising			4
	BBUQ-351, 352Statistics I, II		4	4
	BRER-300 Retail Career Seminar	1		
	BRER-410 Retail Sales Promotion		4	
	ICSS-200 Survey of Computer Science	4		
	*General Studies Electives	4	4	4
	Retail Electives	4		4
	‡Physical Education Elective	0	0	0
		SR/F	w/s	SR
Third Year	BBUB-434 Operations Management		4	
	BBUF-441 Financial Management	4		
	BBUM-420 Consumer Behavior		4	
	BRER-415 Retail Seminar I		4	
	*General Studies Electives	10		
	Retail/Business Electives	4	4	
Fourth Year	BBUB-404 Administrative Policy		4	
	BBUB-407 Environment of Business Activity		4	
	BRER-416 Retail Seminar II		4	
	BRER-435 Advanced Merchandising		4	
	GLLC-402 Conference Techniques	4		
	*General Studies Electives	10		10
	Retail/Business Electives	4		8

**See Pg. 98 for General Studies requirements.*
‡See Pg. 40 for Policy on Physical Education.
†Upon successful completion of the second year, the associate in applied science degree is awarded.

The College of Continuing Education Helps Meet Varying Community Needs

What is the College of Continuing Education?

Robert A. Clark, Acting Dean

Continuing education has always been a part of the philosophy of Rochester Institute of Technology. Since its inception the Institute has been concerned with adult learners who wish to develop themselves personally or to enhance their occupational competencies.

For many people the College of Continuing Education (CCE) provides an alternative to full-time study inasmuch as personal commitments, work schedules or other obligations are accommodated through part-time study at night, on weekends or during the day. Working closely with the other eight colleges of the Institute, as well as with industry and the community, the College of Continuing Education develops convenient educational opportunities for continuing learners.

Class hours and course offerings are scheduled to meet the specific needs of employers, employees and non-working people alike. As a result, many people have been able to attain educational goals not otherwise available.

The college aims to provide higher educational experiences for all who desire them. Under the CCE Open Admission Policy, students are free to take any course or to pursue any degree for which they have sufficient background. Academic advisors are available throughout the year to answer questions regarding course or program choices.

For students who choose to follow a specific program of study, a variety of options is available in fields as diverse as management and photography, machine tool and general education.

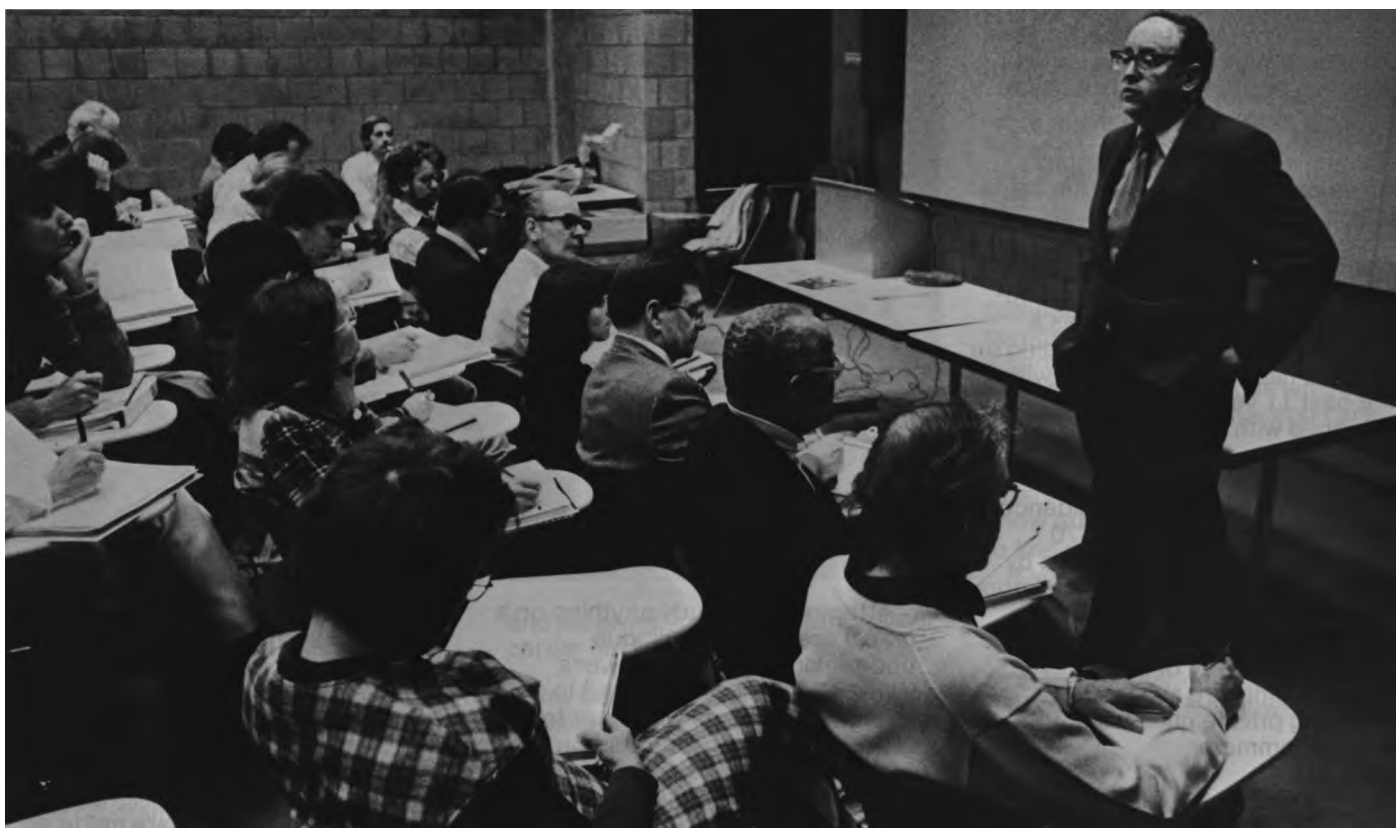
The college confers the diploma of the Institute in thirteen fields, as well as a certificate in management.

Twenty-one options lead to the associate in applied science, and the associate in arts degree is offered in general education.

Thirteen programs lead to the bachelor of science. Programs designed primarily for transfer students with associate degrees are offered, leading to the bachelor of technology degree in electrical or mechanical technology.

For graduate students the master of science degree is offered in applied and mathematical statistics.

In addition to credit courses, the college offers workshops, seminars, and short courses to meet specific needs of community groups, professional organizations, agencies, industries, business and government. Non-credit programs include offerings as diverse as career exploration seminars, workshops in professional development for secretaries, breakfast seminars for managers, and continuing education for health field personnel.



Another alternative offered through CCE is the RIT Summer Session. Along with the opportunity for RIT students to continue work in chosen academic programs, RIT's unique summer offerings also feature learning opportunities for students from other colleges and representatives from business and industry. Concentrated courses combining the resources of the entire Institute are offered in numerous subject areas and unusual formats.

There's much more to the College of Continuing Education. If you'd like information about courses, programs, Summer Session and special events, write or phone:

Rochester Institute of Technology
College of Continuing Education
One Lomb Memorial Drive
Rochester, New York 14623
(716) 475-2234

The Eisenhower College Campus Adds World Studies Orientation to RIT

On March 30, 1979, members of the boards of trustees of Eisenhower College and Rochester Institute of Technology resolved to have Eisenhower become the tenth college of RIT.

The new options which are to be made available to students by this association of a career oriented institute and a liberal arts college still are unfolding.

With its comparatively small campus in Seneca Falls, Eisenhower College offers students of RIT a life-style distinctly different from that available at the suburban Rochester campus. Chartered in 1965 and opened in 1968, it stands as the national memorial to former President Dwight David Eisenhower.

The College is situated on the west shore of Cayuga Lake, on the southeastern side of Seneca Falls. The community of approximately 9,000 persons is three and a half miles from the Montezuma National Wildlife Refuge and within an hour of Syracuse, Ithaca and Rochester.

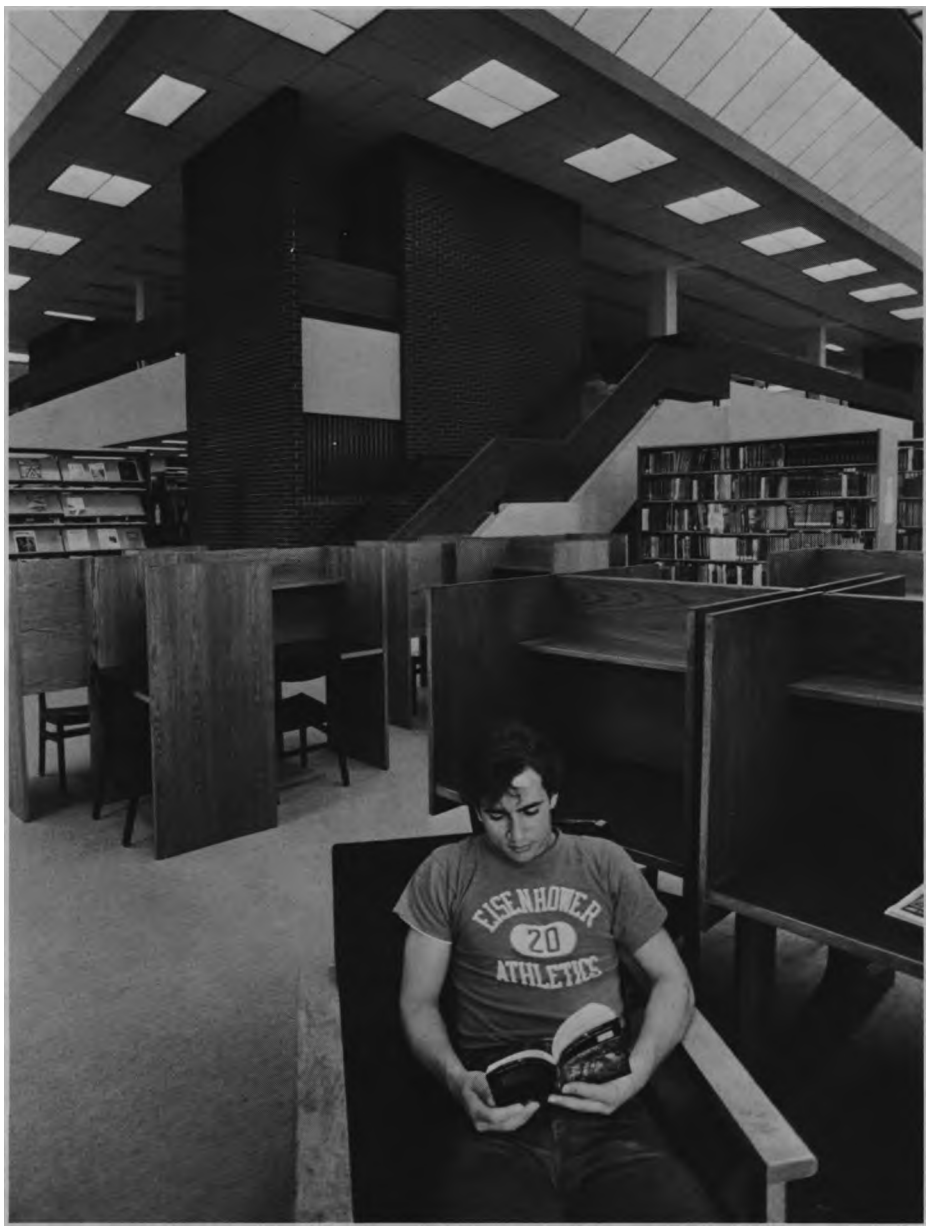
Facilities

Eisenhower's 286 acre campus includes 18 buildings, athletic fields, tennis courts, a par-three golf course, ponds, a memorial park, and shoreline property along Cayuga Lake. With the exception of a 140-year-old barn which serves as a student pub, every major building on campus has been completed within the past 11 years. The College is designed with foresight to provide ready access for handicapped persons.

Eisenhower's modern residence halls accommodate 70 to 170 students each, and are staffed by professional residence coordinators and student resident assistants. Nearly all students reside on campus. A variety of living arrangements are available, including private quarters or rooms with a roommate.

Programs

In addition to the numerous programs available through RIT, Eisenhower offers four-year programs structured on the foundation of a World Studies Core.



Attempting to study anything on a global scale is an ambitious undertaking, and Eisenhower's World Studies Core is suited to ambitious students who want to build their lives and careers on a foundation of world understanding.

While the subject matter studied is classic, we feel safe in calling this particular area "one-of-a-kind." It was carefully designed and is being constantly updated to present the most clear and complete overview possible.

Who Should Apply, and How?

Students wishing to consider study at the Eisenhower campus may request an application for admission through the RIT or Eisenhower College Admissions Offices.

Eisenhower employs a "rolling admission" plan, so decisions regarding acceptance are made as soon as the application for admission, supporting SAT or ACT scores, and appropriate transcripts are received. Candidates are notified as soon as decisions are made.

Career Decision Program

In RIT's Career Decision Program, a student who is not yet certain of his or her college major takes special courses for career exploration and, at the same time, gets intensive career counseling. The program's basic objective is to enable a student to make a sound career choice by the end of his or her first year of college.

The Eisenhower Campus provides an ideal setting for this kind of study. The small intimate atmosphere allows students the opportunity of exploring one or more specialized career fields, obtaining a year of college credit, and receiving individual professional career guidance.

Extra Curricular and Co-Curricular Activities

At Eisenhower you'll find not only an ample number of clubs, teams and projects to accommodate a full range of interests, but also a variety of creative people with interesting ideas who approach extracurricular life with the same intensity as they do their studies.

Student participation in campus affairs is extensive. The Student Senate handles an annual budget of more than $100,000 and oversees all co-curricular activities. A student judiciary serves as a peer review body for student disciplinary cases.

Eisenhower's location in upstate New York provides opportunities for outdoor activities in every season. Sailing on the Finger Lakes, hiking in state parks or the Montezuma Wildlife Refuge, and skiing at nearby slopes are popular pastimes for Eisenhower students. The College also sponsors numerous intercollegiate and intramural athletic activities for men and women.

If you have minimal athletic instincts, you can turn your attention to Eisenhower's co-curricular offerings. Campus media include: The General Star and The Paper (newspapers), Renaissance 20 (yearbook), Logos (literary magazine), and WIKE (radio).

There are also groups with close ties to academic disciplines such as the Anthropology Club, Political Science Club, and French and Spanish Clubs; and special interest clubs such as the Outing Club, Sailing Club, and Photography Club. And there are groups for performers, like the Eisenhower Student Players, the College Community Chorus, and the Chamber Music Ensemble.

These campus groups - and many more not listed here - seek new members each year, so be assured that if you want to participate, you can.

For many students, Eisenhower provides the first contact with a small college located in a small community. It's usually a pleasant surprise for those accustomed to much larger numbers to find themselves on a campus where people know each other and care about each other.

There's an easy-going intimacy at Eisenhower that helps you get to know others. As a result, you begin to know more about yourself.

If you are considering the Eisenhower alternative, we encourage you to contact either the RIT or Eisenhower Admission Office to ask any other questions you may have about the Eisenhower option.

Rochester Institute of Technology
Office of Admission
One Lomb Memorial Drive
Rochester, NY 14623
(716) 475-6631

Eisenhower College of RIT
Admissions Office
Seneca Falls, NY 13148
(315) 568-7411

College of Engineering's Programs Build Foundation for Specialization

Richard A. Kenyon, Dean

The College of Engineering program is strong in fundamentals

The programs offered by the College of Engineering are planned to prepare students to fit into present-day industrial and community life, and to lay a foundation for graduate work in specialized fields. This is accomplished by offering curricula which are strong in fundamentals, yet lead to specialization in the junior and senior years, and maintain a balance among humanistic-social subjects, the physical sciences, and professional courses.

Five-year programs
The college offers four five-year cooperative programs leading to the bachelor of science degree with majors in electrical, computer, industrial and mechanical engineering.

Resources
The Departments of Electrical, Industrial and Mechanical Engineering maintain extensive laboratory facilities in the Gleason Engineering Building to provide students with ample opportunities to work with up-to-date equipment in their respective fields. The laboratories are structured and outfitted to provide basic laboratory work as a part of the engineering curricula, to offer students the opportunity for independent laboratory projects, and to provide facilities for fundamental research by students and faculty. The program in computer engineering, offered jointly by the Department of Electrical Engineering and the School of Computer Science and Technology, utilizes the facilities of both departments and the RIT computer facility.

Dean Richard A. Kenyon

Need for Engineers Never Greater, Says Dean Kenyon

"Perhaps never in the history of society, certainly not in the history of this country, has there been a greater need for people trained in the engineering professions-those who have engineering skills plus awareness and concern for larger social problems," says Dr. Richard A. Kenyon, dean of the College of Engineering.

"Never has there been a greater opportunity for engineers and other technically trained people to work with experts of all other disciplines on the solution of complex, multifaceted, people-oriented problems. Indicative of the demand for new engineering talent is the continually increasing starting salary. For the 1979 graduate, the average starting salary will be in excess of $18,000 per year.

"The RIT College of Engineering is perhaps unique in New York State in that it provides integrated cooperative work experience for all its students. The graduate of RIT's five-year engineering program has not only a bachelor of science degree and the academic training it connotes, but also more than a year of engineering work experience in a real world setting. RIT's engineering programs prepare the graduate to earn a living and to live a life.

"Besides being well-prepared for immediate careers in engineering, an increasing number of RIT alumni enter the top graduate schools in the country for advanced study leading to careers in such diverse areas as research, teaching, management, medicine, law and public service.

"Although RIT is a large and growing technical multiversity, its engineering school, with approximately 1100 students, is sufficiently small and close knit to maintain a very intimate student-faculty relationship.

"RIT's engineering faculty is widely recognized for its involvement in research and professional activity, but its fundamental role is undergraduate teaching.

"Perhaps RIT's combination of theory with practice offered in the setting of a 150-year-old school on a brand new campus is just the place you have been seeking to pursue the next step in your career path."

Admission at a Glance:

College of Engineering Programs

General Information on RIT's admission requirements, procedures and services is included in detail on Pages 24-25 of this Bulletin.

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

The programs prepare students for employment in the modern industrial world. There are extensive laboratory and experimental facilities available for student use. The programs in mechanical, industrial, and electrical engineering are accredited by the Engineer's Council for Professional Development.

Electrical Engineering[1]—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[1]—This program, jointly sponsored by the Department of Electrical Engineering and the School of Computer Science and Technology, 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[1]—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[1] —Students devote the first two years to the study of mathematics, physics, chemistry, and mechanics. There are two options in upper years-applied mechanics, and thermal fluid sciences. Degree granted: BS-5 year.

Electrical Engineering AAS Transfer program—This is a specialized program that provides a clearly defined route to the bachelor of science degree in Electrical Engineering for holders of an AAS degree in electrical technology. Incoming students enroll in transfer adjustment courses the summer before entering as third-year students. Degree granted: BS-3 year.

Freshman Admission Requirements			Transfer Admission with junior standing	
	High School Req*		Two Year College Programs	Desirable minimum grade point average
Electrical Engineering	Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; Physics and Chemistry	Additional mathematics	Engineering Science (liberal arts with math/science option considered on individual basis), or Electrical Technology (A.A.S. Degree)	2.25 3.0
Computer Engineering	Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; Physics and Chemistry	additional mathematics	Engineering Science (liberal arts with math/science option considered on individual basis).	2.25
Industrial Engineering	Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; Physics and Chemistry	additional mathematics	Engineering Science (liberal arts with math/science option considered on individual basis).	2.25
Mechanical Engineering	Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; Physics and Chemistry	additional mathematics	Engineering Science (liberal arts with math/science option considered on individual basis).	2.25

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

[1] About 20 per cent of the program consists of electives in social sciences, literature, and humanities. A substantial number of professional and free electives are also available.

Cooperative Education plan

		Fall	Winter	Spring	Summer
1st and 2nd yrs.		RIT	RIT	RIT	Vacation
3rd, 4th yrs.	A	RIT	Work	RIT	Work
	B	Work	RIT	Work	RIT
5th yr.	A	RIT	Work	RIT	-
	B	Work	RIT	RIT	-

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.

Transfer programs
The College of Engineering at RIT has for many years admitted graduates from two-year engineering science and technology 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, graduates of the two-year engineering science programs are able to enter the regular third year program in any of RIT's four engineering programs.

For those students who have completed programs in electrical or electronics technology with a high scholastic average, there is a three-year AAS Transfer Program leading to a bachelor of science degree in electrical engineering. Qualified graduates of mechanical technology programs desirous of earning a bachelor of science degree in mechanical engineering take an individualized transfer program that best suits their particular background and meets their career objectives. Two year 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. An increasing number of graduates continue their education for the master of science or the doctor of philosophy degrees.

Entrance requirements (BS)
Applicants for the engineering programs must be high school graduates, and must have completed elementary and intermediate algebra, plane geometry, trigonometry, and both physics and chemistry while in high school. Advanced algebra, solid geometry, and calculus, while not required, are highly desirable. The applicant's proficiency in the required entrance subjects should be high since these provide a good index of his or her ability to cope with the more advanced courses in the science programs.

All applicants are required to take entrance examinations as described in the general section of this bulletin.

Graduation requirements
The minimum requirements for the bachelor of science degree in the College of Engineering are:

1. Satisfactory completion of the program with no failing grades.
2. A minimum number of quality points equal to at least twice the number of quarter hours required.

Prospective students should consult the individual program descriptions for additional information.

Accreditation
The programs of study leading to the bachelor of science degree in electrical engineering, industrial engineering and mechanical engineering are accredited by the Engineers' Council for Professional Development. The college is a member institution of the American Society for Engineering Education.

The program in Computer Engineering is "registered for professional purposes" with the State Education Department of the State of New York as a preparatory step to seeking ECPD accreditation. All graduating seniors are eligible to sit for the Intern Engineer portion of the New York State Professional Engineering Examination during their final quarter in school.

Part-time students
An increasing number of students desire to pursue their engineering degree on a part-time basis while maintaining full-time employment in industry. In response to the needs of such students, the College of Engineering has expanded its scheduling of classes in the upper-division of the Mechanical and Electrical Engineering programs so that these courses may be taken during the late afternoon and early evening as well as during the day. Students wishing to pursue part-time studies must qualify for matriculation as regular third year engineering students through normal admission procedures. As with full-time students, part-time students are required to complete the equivalent of five quarters of approved cooperative work experience. Arrangements are made for part-time students to utilize approved portions of their regular employment to satisfy the co-op requirements. Persons wishing further information on part-time studies in either Electrical or Mechanical Engineering should contact the relevant department head.

Graduate degrees
Programs leading to the master of science degrees are offered in both the electrical engineering and mechanical engineering departments. The programs may be pursued on a part-time or full-time basis since the majority of courses are offered in the late afternoon and early evening.

In addition, the College of Engineering offers a post-baccalaureate professional program leading to the master of engineering degree. The degree is without discipline designation, and study may be pursued in such areas as electrical engineering, industrial engineering, mechanical engineering, environmental studies, engineering management, and systems engineering. The program is unique in that it extends the undergraduate cooperative concept to the graduate level in an industrial internship for which academic credit is granted. Designed as a full-time program, the master of engineering degree may also be pursued on a part-time basis by engineers employed in local industry.

For further information on graduate programs in the College of Engineering, request the Graduate Bulletin or contact the director of Graduate Programs, College of Engineering.

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

RIT's Solar 'Energy House' was *built in cooperation with RIT's College of Engineering, Rochester Gas and Electric Corporation and the Rochester Home Builders Association.*

Diversity of Training Offered in 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 cooperative work/study program adds to 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.

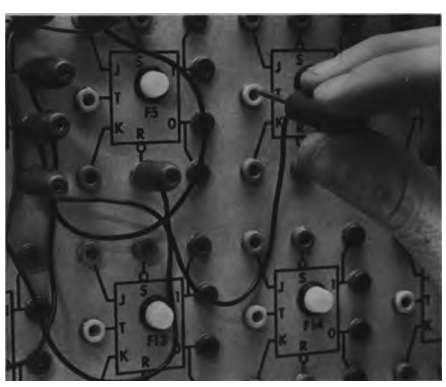
The first two years of the program are devoted to the mastery of those laws of mathematics and principles of science with an introduction to engineering fundamentals. After this basic groundwork has been covered, the third year begins the study of core electrical engineering subjects in circuit theory 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 socio-economic framework. For this reason, spread throughout the curriculum are general studies courses which permit students to increase their understanding of this decision framework and to improve their ability to communicate effectively.

Engineering Science transfer program

A powerful force in current engineering education is the emergence of the community college offering two-year programs in engineering science leading to the associate in science degree. In New York State these programs have resulted from the combined efforts of educators from both public and private institutions, and from both community colleges and major universities. Accordingly these programs represent and provide the general footing upon which engineering education must be based. The electrical engineering program at RIT is sufficiently related to these programs that transfer is possible and encouraged directly into the third year of the RIT curriculum, with a full two years’ credit granted to the holders of an accredited AS degree in engineering science. Transfer students should see page 40 for policy on physical education.

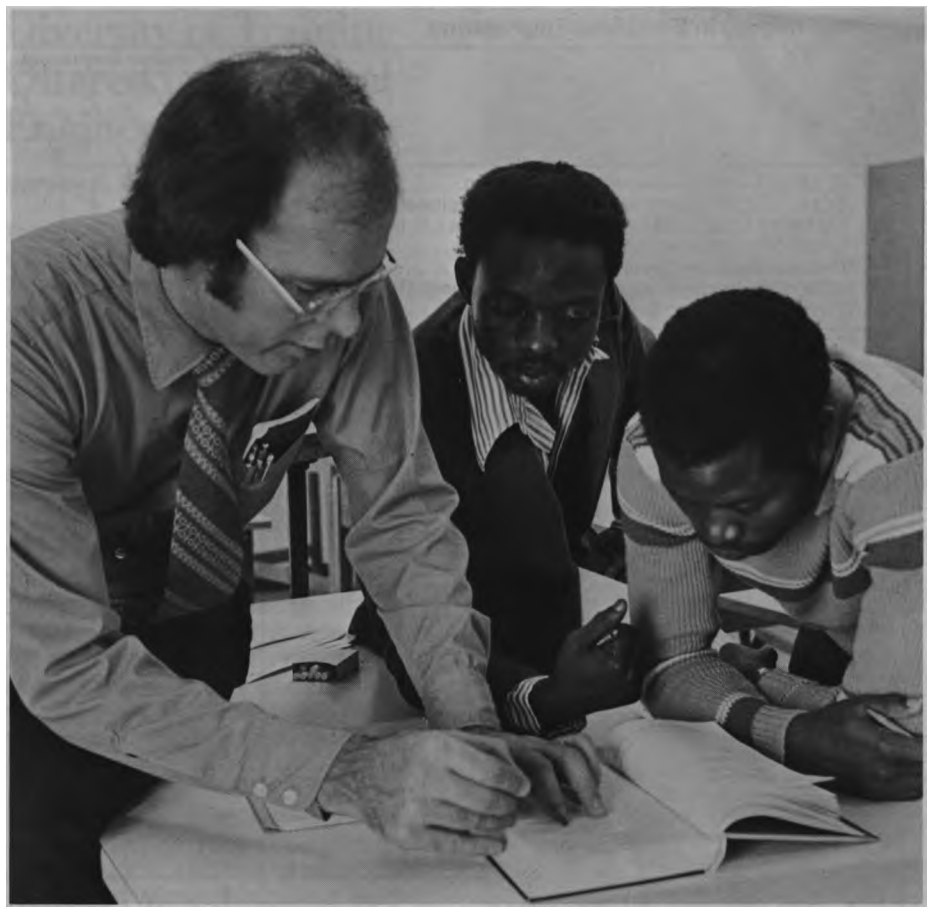


BS degree in Electrical Engineering

Year		Quarter Credit Hours: Fall	Winter	Spring
First Year	EEEE-201 Intro, to Electrical Engineering	4		
	SCHG-208, 209 General Chemistry for Engineers I, II	4		4
	SMAM-251, 252, 253 Engineering Calculus I, II, III	4	4	4
	SPSG-205, 206 General Physics I, II		4	4
	*General Studies-Lower Division	4	4	4
	ICSP-220 Fortran Programming for Engineers		4	
	‡Physical Education Elective	0	0	0
Second Year	EEEE-351 Circuit Analysis I			4
	EMEM-331, 332 Mechanics I, II	4		4
	SMAM-305 Calculus IV	4		
	SMAM-306 Elementary Differential Equations		4	
	SMAM-308 Engineering Mathematics			4
	SPSG-207 General Physics III	4		
	SPSP-314, 315 Introduction to Modern Physics I, II		4	4
	*General Studies-Lower Division	4	4	
	EEEE-340 Intro, to Electronic System		4	
	‡Physical Education Elective	0	0	0
		F/W		S/SR
Third Year	EEEE-352, 353 Circuit Analysis II, III	4		4
	EEEE-430 Linear Systems			4
	EEEE-441, 442 Electronics I, II	4		4
	SMAM-351 Probability and Statistics			4
	SMAM-420 Complex Variables	4		
	*General Studies-Lower Division	4		
Fourth Year	EEEE-531 Energy Conversion	4		
	EEEE-471, 472 Electric and Magnetic Fields I, II	4		4
	EMEM-431 Thermodynamics			4
	EEEE-643 Electronics III	4		
	EEEE-634 Intro, to Communications Systems	4		
	EEEE-613 Intro, to Automatic Controls			4
	*General Studies-Upper Division			5
Fifth Year	Professional Elective	4		4
	Professional Elective	4		4
	Free Elective	3-5		3-5
	*General Studies-Upper Division	5		5

*See Pg. 98 for General Studies requirements.
‡See Pg. 40 for Policy on Physical Education.

Professional Electives in Electrical Engineering	Quarter Credit Hours
EEEE-532 Electrical Machines	4
EEEE-535 Introduction to Power Electronics	4
EEEE-536 Motor Application and Control	4
EEEE-614 Design of Controls Systems	4
EEEE-621 Transmission Propagation and Waves	4
EEEE-645 Special Semiconductor Devices	4
EEEE-650 Introduction to Logic and Switching	4
EEEE-660 Interfacing Electronics and Logic	4
EEEE-665 Digital Computer Workshop	4
EEEE-666 Introduction to Microcomputers	4
EEEE-670 Introduction to Microelectronics	4
EEEE-671 Hybrid Microelectronics	4
EEEE-672 Optical Devices and Systems	4
EEEE-673 Applied Electrical Design	4
EEEE-674 Fiber Optics	4
EEEE-675 Analog/Hybrid Computation	4
EEEE-679 Active and Passive Filters	4
EEEE-687 Power Systems Analysis	4
EEEE-693 Digital Data Communications	4
EEEE-695 Introduction to Audio Engineering	4
EEEE-696 Communication Circuit Design	4



BS degree in Electrical Engineering
AAS Transfer Program

Year	This is a "typical" curriculum for a student, with an AAS degree, who transfers to RIT's Electrical Engineering Department with 1 year of engineering calculus	Quarter Credit Hours: Fall	Winter	Spring	Summer
†	EEEE-351 Circuit Analysis I				4
	*General Studies (L.D.)				4
	ICSP-220 Fortran Programming for Engineers				4
	SMAM-305 Calculus IV				4
Third Year	EEEE-352, 353 Circuit Analysis II, III	Co-op	4	Co-op	4
	EEEE-430 Linear Systems				4
	EEEE-441, 442 Electronics I, II		4		4
	SMAM-306 Differential Equations		4		
	SMAM-308 Engineering Mathematics				4
	SPSP-314 Modern Physics		4		
	‡Physical Education		0		
Fourth Year	EEEE-471, 472 Electromagnetic Fields I, II	Co-op	4	Co-op	4
	EEEE-531 Energy Conversion		4		
	Professional Elective		4		4
	*General Studies (L.D.)		4		
	*General Studies (U.D.)				5
	SMAM-351 Probability & Statistics				4
	‡Physical Education		0		
Fifth Year	Professional Elective	Co-op	4	4	
	EMEM-431 Thermodynamics			4	
	EMEM-331, 332 Mechanics I, II		4	4	
	*General Studies (U.D.)		5	5	
	SMAM-420 Complex Variables		4		
	‡Physical Education		0		

All AAS transfer students will be required to take a minimum of 115 quarter credit hours at RIT, minus applicable transfer credits.
AAS transfer students have Co-op during Fall and Spring quarters.
**See Pg. 98 for General Studies requirements.*
‡See Pg. 40 for Policy on Physical Education,
†Summer prior to third year

AAS Transfer Program

Dr. Roger E. Heintz, 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 cooperative work/study 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.

Computer Engineering

Roy S. Czernikowski, Program Coordinator

The computer engineering program is jointly offered by the Department of Electrical Engineering and the School of Computer Science and Technology. The program is designed to prepare the graduate to participate in each of the two areas normally associated with hardware aspects of computer engineering.

A study of the circuits and devices used in large scale digital systems and a grounding in the mathematical theories of their description permit the graduate to engage in the design and construction of these systems.

In addition, a comprehensive background in electrical engineering subjects, advanced programming techniques, and real-time computation techniques allows the graduate to work in the expanding area of the applications of digital computers, especially minicomputers and microprocessors, to the control of engineering systems.

The cooperative work/study program of the final three years enables the student to apply the principles and techniques of computer engineering to real industrial problems and thus complete the preparation for a challenging career in this expanding field.

Principal field of study

For students matriculated in the interdisciplinary Computer Engineering Program, the principal field of study is defined to be all courses taken in the College of Engineering and the School of Computer Science and Technology. Matriculated students not maintaining a 2.00 cumulative grade point average in their principal field of study are subject to academic probation or suspension according to Institute policy.

BS degree in Computer Engineering

Year		Quarter Credit Hours: Fall	Winter	Spring
First Year	**SMAM-251, 252, 253 Engineering Calculus I, II, III**	4	4	4
	SCHG-208, 209 General Chemistry for Engineers I, II	4		4
	SPSP-205, 206 General Physics I, II		4	4
	***General Studies-Lower Division**	4	4	
	ICSP-208 Introduction to Programming	4		
	ICSS-216 Program Design & Verification FORTRAN		4	
	ICSP-305 Assembly Language			4
	‡Physical Education Elective	**0**	**0**	**0**
Second Year	**SMAM-305 Calculus IV**	4		
	SMAM-306 Differential Equations		4	
	ICSS-430 Numerical Methods			4
	SPSP-207 General Physics III	**4**		
	SPSP-314 Modern Physics I		4	
	EEEE-351 Circuit Analysis I			4
	EMEM-331, 332 Mechanics I, II	**4**		4
	EEEE-340 Introduction to Electronic Systems		4	
	***General Studies-Lower Division**	4	4	4
	‡Physical Education Elective	**0**	**0**	**0**
Third Year		**F/W**		S/SR
	EEEE-441, 442 Electronics I, II	4		4
	EEEE-352, 353 Circuit Analysis II, III	**4**		4
	ICSS-320 Data Structure Analysis	**4**		
	***General Studies-Lower Division**	4		
	SMAM-351 Probability & Statistics I			4
	EEEE-430 Linear Systems			4
Fourth Year	**EEEE-643 Electronics III**	**4**		
	EEEE-613 Introduction to Automatic Control			4
	EEEE-531 Energy Conversion	4		
	ICSS-440 Operating Systems	**4**		
	***General Studies-Upper Division**	**5**		**5**
	ICSS-720 Computer Architecture			**4**
	EEEE-660 Interface Electronics & Logic			**4**
Fifth Year	**ICSS-545 Microprogramming**	**4**		
	***General Studies-Upper Division**			**5**
	EEEE-634 Introduction to Communication Systems	**4**		
	EEEE-693 Digital Data Communications			4
	Restricted Elective (*)	**4**		
	Math/Science Elective	**4**		4
	Professional Elective			4

(*) Either ICSS-755 Real Time Computation or EEEE-675 Analog/Hybrid Computation

**See Pg. 98 for General Studies requirements.*
‡See Pg. 40 for Policy on Physical Education.

Industrial Engineering Department Concerned With Systems Involving People, Machines And Materials

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.

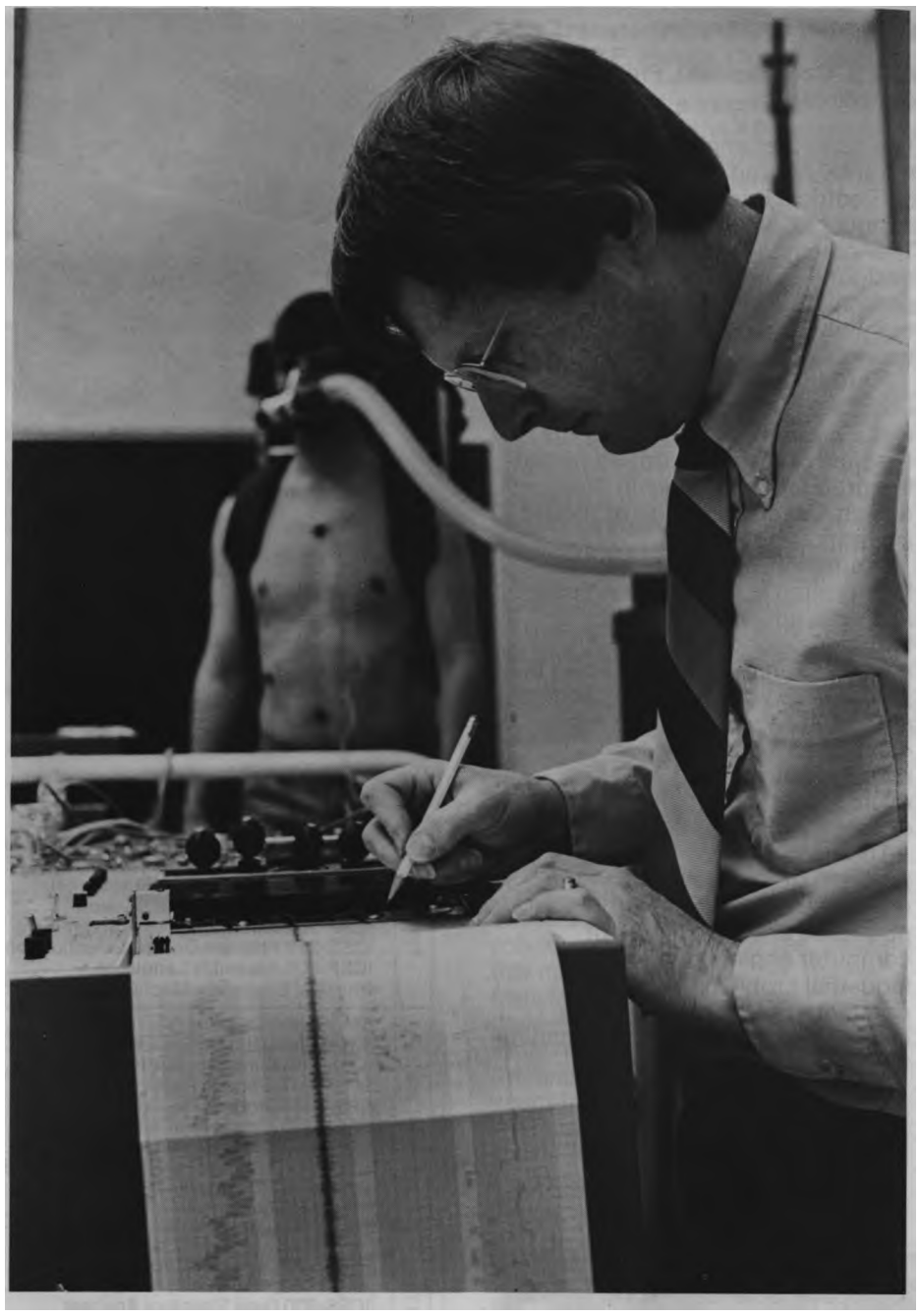
Specifically, industrial engineering is concerned with the design, improvement, and installation of integrated systems of people, materials, and equipment. It draws upon specialized knowledge and skill in the mathematical and physical sciences, together with the principles and methods of engineering analysis and design.

The industrial engineering curriculum covers the principal concepts of human performance, quantitative methods, computer programming and applications, management systems, and manufacturing processes. The curriculum emphasizes balance rather than specialization.

Careers

Some of the activities of industrial engineers include work measurement, operations research, applied statistics, human factors, plant layout, materials handling, production planning and control, quality control, manufacturing, and management consulting.

Balance rather than specialization has allowed our graduates to pursue varied career paths. Examples of this diversity, along with the role that an industrial engineer might function within, are reflected through the following partial listing of recent industrial engineering Co-op assignments.



1. Hospitals
   a. improve efficiency of a patient therapy department
   b. optimal patient scheduling for physicians
   c. establishment of a medical peer review system
   d. establishment of outpatient clinic staffing levels

2. Manufacturing industries
   a. product life studies
   b. layout of new and existing work areas
   c. design and implementation of an information system
   d. investigation of production processes involved in cleaning carbide dies
   e. economic investigation-new versus repaired breakdown analysis
   f. investigation of waiting lines in connection with a product line
   g. investigation of delivery service which involved scheduling, route modification, and material handling
   h. assisted in setting up a production control monitoring board
   i. computer programming relating to pricing policies, blending problems, and truck scheduling
   j. downtime studies of various operations using time study and work sampling
   k. development and computerization of a forecasting model

BS degree in Industrial Engineering

Year		Fall	Winter	Spring
		Quarter Credit Hours		
First Year	EIEI-201 Introduction to Industrial Engineering	4		
	EIEI-202 Computing for Industrial Engineers		4	
	SCHG-208, 209 General Chemistry for Engineers I, II	4		4
	SMAM-251, 252, 253 Engineering Calculus I, II, III	4	4	4
	SPSG-205, 206 General Physics I, II		4	4
	*General Studies-Lower Division	4	4	4
	‡Physical Education Elective	**0**	**0**	**0**
Second Year	EMEM-331 Mechanics I (Statics)	4		
	EMEM-332 Mechanics II (Dynamics)			4
	SMAM-305 Engineering Calculus IV	4		
	SMAM-306 Elementary Differential Equations		4	
	SMAM-308 Engineering Mathematics			4
	SPSG-207 General Physics III	4		
	EMEM-343 Materials Processing		4	
	EMEM-344 Materials Science			4
	Science Elective		4	
	*General Studies-Lower Division	4	4	4
	‡Physical Education Elective	**0**	**0**	**0**
Third Year		F/W		S/SR
	EIEI-420 Work Measurement & Analysis I	**4**		
	EIEI-520 Engineering Economy	**4**		
	EIEI-481 Management Theory & Practice	4		
	SMAM-351, 352, Introduction to Probability & Statistics —	4		4
	EIEI-415 Human Factors I			4
	EIEI-401 Introduction to Operations Research I			4
	EIEI-422 Systems & Facilities Planning			4
Fourth Year	EIEI-510, 511 Applied Statistics I, II	4		4
	EIEI-402 Introduction to Operations Research II	4		
	EIEI-503 Simulation			4
	EIEI-516 Human Factors II	4		
	**Professional Electives	4		4
	*General Studies-Upper Division			**5**
Fifth Year	EIEI-530 Engineering Design	4		
	EIEI-560 Project Design			4
	**Professional Elective	4		4
	*General Studies-Upper Division	**5**		**5**
	Free Elective	4		4

***At least one professional elective must be selected from the following courses: EMEM-431 Thermodynamics; EMEM-415 Fluid Mechanics I; EEEE-461, 462 Electrical Engineering I, II.*
**See Pg. 98 tor General Studies requirements.*
‡See Pg. 40 for Policy on Physical Education.

Mechanical Engineering Provides Comprehensive Training in a Spectrum of Professional Activity

Robert M. Desmond, 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 machine tools. The spectrum of professional activity for the mechanical engineering graduate runs from research through development and design to manufacturing and sales.

Transfer programs
Transfer programs for industrial engineering students are arranged on an individual basis. This allows a student to build an industrial engineering program which best takes into account his or her previous education and work experience. Students completing an AAS in engineering Science normally receive credit for the first two years and start their program at RIT with the third year class.

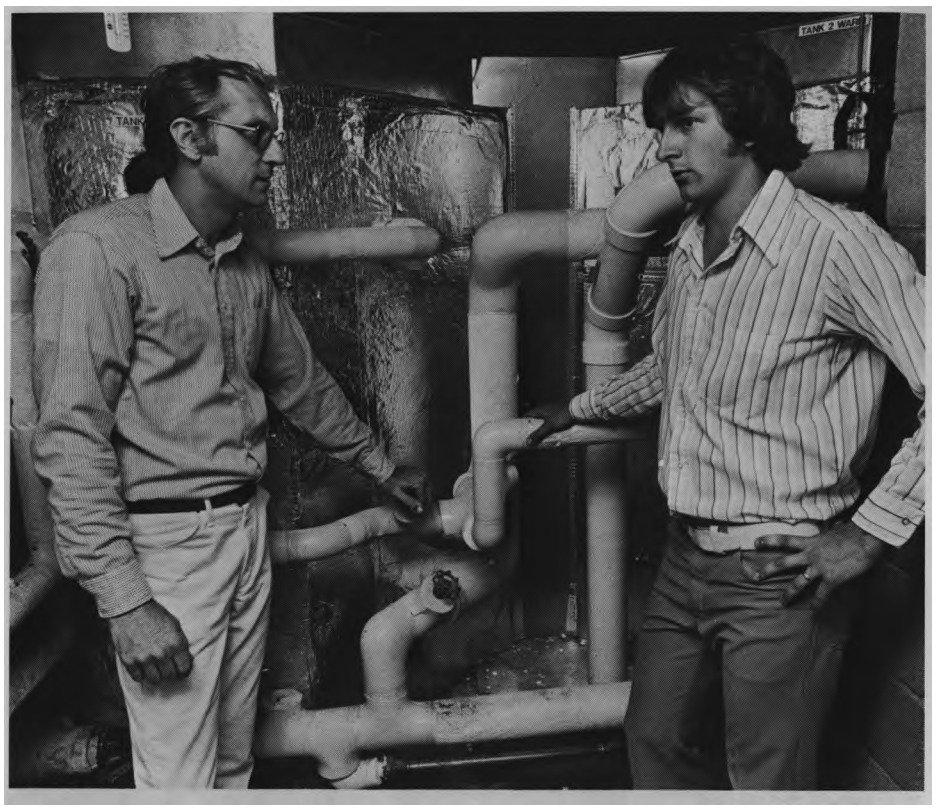
Further information
If you are interested in learning more about the opportunities within industrial engineering and/or the nature of the cooperative work assignments in industrial engineering, write to the department for further information.

Because of their comprehensive training and education in the areas of production and economics, mechanical engineers are often called upon to assume management positions.

The first two years of the undergraduate program are devoted to an intensive study of mathematics, physics, chemistry, and mechanics-the basic tools of the technologist-and to a thorough grounding in the humanities. The final three years of the program integrate the cooperative work experience with the professional subject matter of the mechanical engineering discipline.

In the fourth and fifth years, the mechanical engineering student selects one of two options for intensive study. These areas of concentration are in the two traditional branches of mechanical engineering; namely, applied mechanics and thermal fluid science. Both options offer a core of three courses and a number of additional electives.

Students may use a total of four professional and free electives to extend their educational experience in their options. They may also use courses from other options and graduate levels as professional and free electives. Such flexibility permits each individual to prepare for employment or graduate school in his or her specific area of interest.



Transfer programs

An increasing number of students choose to pursue their studies leading to the bachelor of science degree in mechanical engineering by first completing the two-year associate in applied science program at a community college or technical college, often within commuting distance of their homes. Many will anticipate transfer to an engineering college and will pursue the engineering science program which represents the equivalent of the first two years in the average four-year engineering program. Others, for various reasons, will elect to follow a mechanical technology program for the first two years.

The Mechanical Engineering Department at RIT has a long-standing tradition of admitting graduates from these two-year programs and very quickly integrating them into the BS program in engineering. 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 AAS 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 achievement should seriously consider transfer to a BS program in mechanical engineering as one alternative for continuing formal education. Because the basic philosophy underlying the technology programs and the engineering programs is 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 program of study that best meets his or her career goals, satisfies the basic accrediting requirements for the BS degree, provides a meaningful cooperative work experience, and permits the student to fulfill the degree requirements in a reasonable period of time.

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. 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. Application for admission into the program is normally made in the Winter Quarter of the second year. However, in exceptional cases, admission may be possible as late as the Spring Quarter of the third year. Students who are admitted into the program in their second year are expected to start their cooperative work experience in the Summer quarter of that year. 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.

The Mechanical Engineering Department is staffed to offer professional courses in the areas of thermal systems, applied mechanics, manufacturing, environmental science, systems analysis, and materials science. The laboratories of the department are equipped to provide extensive experimentation in these areas and students are encouraged to pursue independent research in addition to that required in their programs.

A transfer student who has completed the Winter Quarter at RIT and who 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 Admission Office.

BS degree in Mechanical Engineering

Year		Quarter Credit Hours Fall	Winter	Spring
First Year	SMAM-251, 252, 253 Calculus	4	4	4
	SCHG-208, 209 General Chemistry for Engineers	4		4
	EMEM-201 Intro. to Mechanical Engineering Graphics	4		
	SPSG-205, 206 General Physics I, II		4	4
	EMEM-343 Materials Processing		4	
	*General Studies-Lower Division	4	4	4
	‡Physical Education Elective	0	0	0
Second Year	EMEM-336 Statics	4		
	EMEM-337, 338 Strength of Materials I, II		4	4
	SPSG-207 General Physics III	4		
	SMAM-305 Calculus	4		
	SMAM-306 Differential Equations		4	
	EMEM-340 Engineering Communications		4	
	*General Studies-Lower Division		4	
	EEEE-461 Electrical Engineering I			4
	SMAM-308 Engineering Mathematics			4
	EMEM-344 Materials Science			4
	‡Physical Education Elective	0	0	0
Third Year		F/W		Sp/Su
	EMEM-413, 414 Thermodynamics I, II	4		4
	EEEE-462 Electrical Engineering II	4		
	EMEM-437 Introduction to Machine Design	4		
	*General Studies-Lower Division	4		
	EMEM-415 Fluid Mechanics I			4
	EMEM-439 Dynamics I			4
	EMEM-440 Numerical Modeling			4
Fourth Year	EMEM-514 Heat Transfer	4		
	EMEM-543 Dynamics II**	4		
	EMEM-516 Fluid Mechanics II	4		
	Science Elective	4		
	EMEM-501 Mechanical Engineering Laboratory			4
	EMEM-544 Physical Systems I			4
	Mechanical Engineering Option A or B			4
	*General Studies-Upper Division			5
Fifth Year		F/W		Sp
	Professional Electives	4		4
	*General Studies-Upper Division	5		5
	Mechanical Engineering Option A or B	4		4
	Free Electives	4		4

*See Pg. 98 for General Studies requirements.
‡See Pg. 40 for Policy on Physical Education.
**Successful completion of this course is required to enter Option A.

Mechanical Engineering options
(4 Credits each)

Option A: Applied Mechanics
Required Courses
- EMEM-632 Advanced Mechanical Systems Design
- EMEM-672 Selected Machine Elements
- EMEM-694 Stress Analysis

Electives:
- EMEM-664 Engineering Acoustic and Noise Control
- EMEM-670 Thermal Stresses
- EMEM-676 Kinematic Analysis of Mechanisms
- EMEM-679 Dynamics of Physical Systems II
- EMEM-685 Advanced Strength of Materials
- EMEM-689 Patent Law and Protection

Selected Graduate Level Courses

Option B: Thermal Fluid Science
Required Courses:
- EMEM-635 Industrial Heat Transfer
- EMEM-652 Fluid Mechanics of Turbomachinery
- EMEM-660 Refrigeration and Air Conditioning

Electives:
- EMEM-601 Alternate Energy Sources
- EMEM-650 Gas Dynamics
- EMEM-651 Viscous Flow
- EMEM-667 Introduction to Air Pollution
- EMEM-669 Introduction to Water Pollution
- EMEM-677 Modern Energy Conversion
- EMEM-680 Advanced Thermodynamics
- EMEM-690 Environment and the Engineer
- EMEM-695 Solid Waste Management
- EMEM-696 Nuclear Power

Selected Graduate Level Courses

Competence Is the Basis for Creativity

In College of Fine and Applied Arts

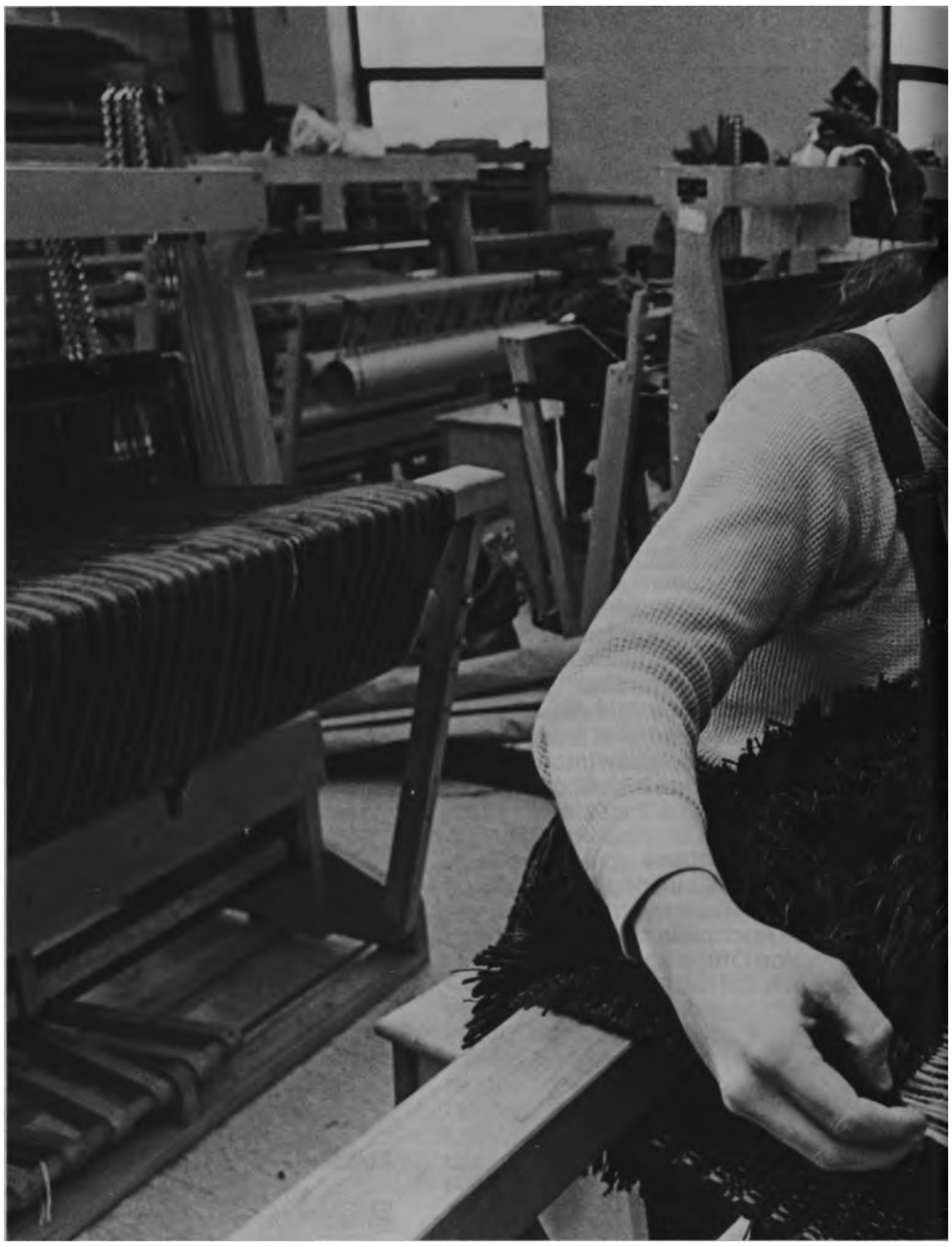
Robert H. Johnston, Dean

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 communication design, environmental design, painting, printmaking and medical illustration. In the School for American Craftsmen concentrations are given in ceramics and ceramic sculpture, glass, metalcrafts and jewelry, weaving and textile design, and woodworking and furniture design.

The studies in the two schools of the college express a common educational ideal: the conviction that technical competence provides the most satisfactory foundation for the expression of creative invention. However, the mastery of techniques is seen as a means, not an end; the end of education in the arts is the exercise of creative imagination.

Resources

The equipment and studios of the School of Art and Design are superior in every respect. A comprehensive art library of source material and an outstanding collection of slides are available for reference; and instructional films and other visual aids are utilized. Exhibitions, held in the Bevier Gallery, feature the work of contemporary painters, designers, and graphic artists, as well as work by faculty and students. Exhibition space in the Bevier Gallery extends the classroom into the public arena. In this gallery the focus is to bring attention to excellence in ideas, concepts, and aesthetic endeavors through the arts, crafts, and design expressions. Openings are planned for students to meet the artists. The Student Honors Show hangs through the summer and the opening of classes in September. Professional designers, photographers, and graphic arts personalities are invited to lecture and give demonstrations. Rochester industry and commerce often sponsor pilot programs which are carried on under faculty supervision.



An added resource is the community of Rochester itself, with its many opportunities for educational, cultural, and social enrichment. Exhibitions, programs in the performing arts, and lectures are available to provide extracurricular learning for the interested student.

The resources of the School for American Craftsmen available for the student are exceptional: excellent equipment and facilities and a unique and challenging program combining learning and doing.

The faculty in the College of Fine and Applied Arts are productive in the fields in which they teach, and the honors and prizes they have won are a reflection of the prestige they enjoy as artists and craftspeople. They have been broadly educated in Europe and the United States, and are well acquainted with

contemporary practice in their art or craft. While the teaching staff is composed of professional artists and craftspeople, able to practice their art or craft with distinction, they are, as well, interested and sympathetic teachers and counselors.

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

Accreditation
The programs of study offered in the College of Fine and Applied Arts are fully accredited: courses of study have been approved by the New York State Department of Education, the Middle States Association of Colleges and Secondary Schools, and the National Association of Schools of Art. The college is a charter member institution of the National Association of Schools of Art.

Plan of education
The programs in the College of Fine and Applied Arts are two and four years in length and lead to the associate in applied science and the bachelor of fine arts degrees. Students attend school for three quarters, each eleven weeks in length, during the school year. Advanced study at the graduate level is offered which leads to the master of fine arts and the master of science for teachers degrees. The former may be earned normally in two years, the latter in one. Both graduate degrees may be earned in programs carried during the regular and summer studies. Among the programs offered for the master of science in teaching 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.

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 Admission Office.

'We Have a Heck of A Faculty Here,' Says Dean Johnston

One of only four Ph.D. paleo-ceramists in the world, Dr. Robert Johnston, dean of the College of Fine and Applied Arts, thinks remaining active and visible in your professional area is a valuable asset as an educator.

"The faculty in this college are involved in their own work as well as in teaching," he comments. "All have gained regional recognition and some have achieved international reputations," he notes. He starts mentioning the names one by one, people like furniture design professor William Keyser whose work traveled throughout the U.S. in the Johnson & Johnson "Objects U.S.A." show; James Thomas whose sculpture was exhibited recently in two Paris shows; Hans Christensen whose silver pieces are owned by three European royal families; and Toby Thompson who designs for international industrial fairs.

"We have a heck of a faculty here," Johnson says. "They could be taken anywhere in the world and you'd have a superb school."

As a paleo-ceramist, Dr. Johnston stays active in his own field. After a day at the college he typically spends four hours a night in his lab at home. Paleo-ceramists use scientific and technical procedures to date and analyze ceramic and glass pieces taken from archeological "digs."

Through 1985, Dr. Johnston will be working summers as the ceramic expert on excavations of Old Carthage in Tunisia and in Jordan.

"At the Jordan site we are excavating the 'five cities of the plain,' one of which could be the Biblical Sodom," he says.

Dean Johnston made porcelain objects in his spare hours until a few years ago and is now learning to play the banjo using a method called "frailing" developed by Appalachian mountain people.

"I think I'll play at our gallery shows and save the college money," he jokes.

Johnston believes there is something uniquely advantageous for art students studying in the midst of an institute of technology.

"The beauty of this location is that the artist and the technically-oriented student are brought in close contact," he says. Interaction of students with business and the community-at-large is another factor that he thinks makes the RIT education different.

The college's design students, for instance, have worked with several Rochester corporations and social agencies on projects. A student-designed system to place informational kiosks in downtown Rochester is currently being implemented by the city.

Graphics for the dedication of the new city hall were designed by an Art and Design student. The Environmental Design department has been selected to compete in the Armco Project, a national competition involving "Design for Health Care." Painters and printmakers have exhibited in national and regional shows.

"Our students aren't surprised by the pressures on the outside once they graduate because they've worked with those pressures while they're here," he explains.

Students in the,college's School for American Craftsmen have their own mode of education. Their program combines an apprenticeship in one of five craft studios with a college academic program. Although Johnston

describes the college as “totally committed to employable skills,” a fine arts component attracts students who want to major in printmaking, painting, or medical illustration.

“A high appreciation and concern for mankind should be reflected in the arts,” comments Johnston in evaluating the philosophic link among the college’s programs.

In the College of Fine and Applied Arts the schools use their facilities to broaden and deepen the art interests of the students. Seminars, lectures, exhibitions, and films draw the students in the colleges together by providing stimulating experiences that serve to indicate that the arts have a common character as well as a divergence of aim and service. Purely social activities, as well as educational ones, also serve to unify the interests of the students.

Transfer program

The College of Fine and Applied Arts offers a summer transfer program for art majors. Successful completion of this program qualifies students for second year standing in the following options: communication design, environmental design, painting, printmaking or medical illustration.

Designed especially, though not exclusively, for graduates of community colleges, this transfer program is open to students with:

1. good academic standing at another college,
2. one or two years of college, with a heavy emphasis in studio art (minimum of 12 semester or 18 quarter credit hours).
3. presentation of an acceptable art portfolio demonstrating strength in one or more areas.

Photo courtesy of Wallace Library Archives

RIT students of yesteryear

Summer Session
The College of Fine and Applied Arts offers a program of summer study in both the School of Art and Design and the School for American Craftsmen that is arranged for designers, teachers, and craftspeople. Both basic and advanced workshops are given, as well as graduate courses. Those interested should write the director of the Summer Session for information.

Junior year abroad
The School for American Craftsmen, in cooperation with the Scandinavian Seminars, offers a junior year abroad in the field of the crafts. This permits certain well-qualified students to spend their third year of study in one of the Scandinavian countries, after which they return for a fourth year of study at RIT. Full credit for the year of satisfactory study overseas will be granted toward the BFA degree. Information on the junior year abroad program can be obtained by writing the dean, College of Fine and Applied Arts.

Policy regarding student work
The College of Fine and Applied Arts reserves the right to retain student work for educational use or exhibition for a period of time not to exceed one and one-half quarters beyond the year the object has been made. The college also reserves the right to select an example or examples for its permanent collection. In such cases, where work is selected for the permanent collection the material cost only will be paid by the college. It is an honor to have one's work in the permanent collection of the College of Fine and Applied Arts.

Attendance regulations
The programs of the college utilize the studios and shop experiences as an essential part of the educational program; therefore it is imperative that the student regularly attend all classes unless specifically excused for special projects or activities by the instructors. Failure to attend classes, and to complete assignments, will be taken into consideration in grading.

Professional approach
Educational programs in the College of Fine and Applied Arts are related to the kinds of art services which the society needs, and based on teaching projects which can be made realistic and meaningful to the student. The problems duplicate, as far as possible, those found in the working situation after graduation. The courses are full-time, instruction is largely on an individual basis, and full opportunity is given for personal development. Exhibitions, lectures, and field trips add breadth and variety to the formal programs of study.

A unique feature of the educational programs offered in the College of Fine and Applied Arts is its emphasis on the professional approach to the understanding and solution of problems. Instructional services provided by a professionally experienced and oriented faculty, plus the well-equipped shops and studios designed with the needs of professional artists or craftspeople in mind, further emphasize the practical character of the program of instruction.

. . . . . and a student in one of the Institute's current Environmental Design classes.

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.

1. The portfolio must contain examples of at least 10 pieces of the applicant's best work-35mm slides are preferred, displayed in an 8 1/2" x 11" vinyl slide protector page.

   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. Original examples of art work may be submitted in place of slides if brought by the applicant at the time of a personal interview, after formal application is made. Personal interviews are not required, however if you desire one, please contact Mr. Kener Bond, assistant dean, at (716) 475-2643 for an appointment.

3. Slides will be returned by the College of Fine and Applied Arts only when return postage is enclosed.

4. While every precaution will be taken to insure proper care and handling, the Institute assumes no responsibility for loss or damage to slides.

5. Identify slides by name and address.

6. Please send portfolio and all other application materials to:

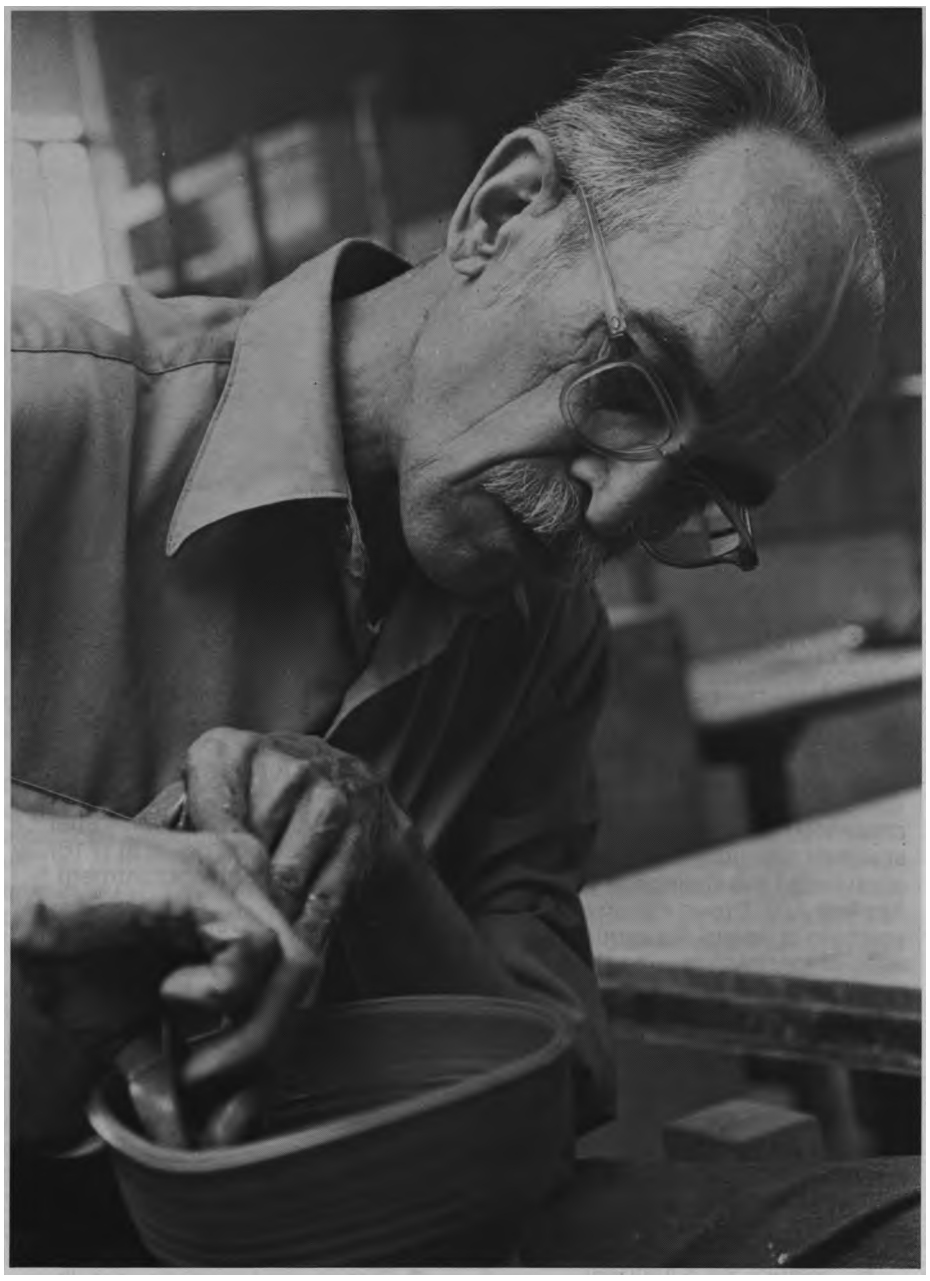
   Rochester Institute of Technology
   Office of Admission
   One Lomb Memorial Drive
   Rochester, New York 14623
   Telephone: (716) 475-6631

Admission at a Glance: College of Fine and Applied Arts

General Information on RIT's admission requirements, procedures and services is included in detail on Pages 24-25 of this Bulletin.

This college is composed of the School of Art and Design and the School for American Craftsmen.

Students are urged to develop the highest technical abilities as well as personal creative expression. The faculty includes many of the nation's most outstanding and creative artists and craftsmen. Students learn by working in the studios equipped with excellent facilities. Most graduates earn their living utilizing their RIT background.



Communication Design—Prepares students to convey and interchange thoughts, concepts, options, and information. Career fields include applied art, designing for industry, art agencies, government, social, or non-profit organizations. Graduates can serve as creative members of problem solving teams. Degrees granted: AAS-2 year; BFA-4 year.

Fine Arts—Students may concentrate in printmaking, painting or medical illustration and take other art electives. They prepare as professional artists and have exploratory potential for later careers in teaching. Medical illustrators enter research areas in hospitals and publishing and teaching institutions. Degrees granted: AAS-2 year; BFA-4 year.

Environmental Design—Prepares students to design effectively for social, industrial and environmental conditions. Interior and exterior space, and product design are relevant to the designer. Concern is given to future forecasting and emphasizes the humanistic and larger environments. Degrees granted: AAS-2 year; BFA-4 year.

Ceramics and Ceramic Sculpture—Graduates are self-employed as designer craftsmen, designers or technicians in industry, teachers, or administrators of craft programs. Professional competencies are developed in such areas as fabrication, chemistry and application of glazes, organization of ceramic shop for efficient production, ceramic raw materials, kiln types, fuels and construction. Degrees granted: AAS-2 year; BFA-4 year.

Glass—Graduates are self-employed designer craftsmen, designers or technicians in industry, teachers, or administrators of craft programs. Professional competencies are developed in organization and construction of the glass studio, functions and care of tools, analysis of glass as a material, glass fabrication, glass design, engraving, cold-working techniques, mixing of batch glass, color and fuming techniques. Degrees granted: AAS 2-year; BFA-4 year.

Metalcrafts and Jewelry—Graduates are self-employed designer craftsmen, designers or technicians in industry, teachers, or administrators of craft programs. Professional competencies are developed in use of equipment, metalcrafts, techniques and production in various metals, raising, forging, forming, planishing, enameling, design of jewelry, flatware, holloware. Degrees granted: AAS-2 year; BFA-4 year.

Weaving and Textile Design—Graduates are self-employed designer craftsmen, designers or technicians in industry, teachers, or administrators of craft programs. Professional competencies are developed in such areas as fabric design, analysis of equipment and problems, pattern drafting, analysis of fibers, use of eight to ten harness looms, techniques of weaving, design within price range and use. Degrees granted: AAS-2 year; BFA-4 year.

Woodworking and Furniture Design—Graduates are self-employed designer craftsmen, designers or technicians in industry, teachers, or administrators of craft programs. Professional competencies are developed in such areas as functions and care of woodworking tools, wood as a material, techniques of wood fabrication, design, layout, construction analysis, veneering and finishing, estimating and production. Degrees granted: AAS-2 year; BFA-4 year.

Freshman Admission Requirements			Transfer Admission with junior standing	
Program[1]	Required High School Subjects*	Desirable Elective Subjects	Two Year College Programs	Desirable minimum grade point average
Communication Design	1 year any mathematics; 1 year any science	Art courses: portfolio of original artwork required	Art or commercial art. Admission and class standing determined in part by evaluation of required portfolio. Where student lacks sufficient art credit, a summer transfer program is offered at RIT	2.0
Fine Arts -painting -printmaking -medical illustration	1 year any mathematics; 1 year any science; 2 years science for medical illustration	Art courses: portfolio of original artwork required, including examples of original drawings.	Art or commercial art. Admission and class standing determined in part by evaluation of required portfolio. Where student lacks sufficient art credit, a summer transfer program is offered at RIT. Space in medical illustration is limited and by special portfolio.	2.0
Environmental Design	1 year any mathematics; 1 year any science	Art courses; portfolio of original artwork required	Art or commercial art. Admission and class standing determined in part by evaluation of required portfolio. Where student lacks sufficient art credit, a summer transfer program is offered at RIT.	2.0
Ceramics and Ceramic Sculpture	1 year any mathematics; 1 year any science	Art or industrial courses; portfolio of original ceramics work required	Transfer as a junior is uncommon, as comparable programs are not generally available at other colleges. Space in this program at RIT is limited.	
Glass	1 year any mathematics; 1 year any science	Art or industrial courses; portfolio or original glass work required	Transfer as a junior is uncommon, as comparable programs are not generally available at other colleges. Space in this program at RIT is limited.	
Metalcrafts and Jewelry	1 year any mathematics; 1 year any science	Art or industrial courses; portfolio or original metals work required	Transfer as a junior is uncommon, as comparable programs are not generally available at other colleges. Space in this program at RIT is limited.	
Weaving and Textile Design	1 year any mathematics; 1 year any science	Art or industrial courses; portfolio or original textiles work required	Transfer as a junior is uncommon, as comparable programs are not generally available at other colleges. Space in this program at RIT is limited.	
Woodworking and Furniture Design	1 year any mathematics; 1 year any science	Art or industrial courses; portfolio or original wood work required	Transfer as a junior is uncommon, as comparable programs are not generally available at other colleges. Space in this program at RIT is limited.	

[1]About 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).*

School of Art and Design Encourages Imagination, Creative Ability, Competence

Peter Giopulos, Director

Philip Bornarth, Representative to Academic Council for Fine Arts

Robert Heischman, Representative to Academic Council for Foundation Studies

Craig McArt, Representative to Academic Council for Environmental Design

Fred Meyer, Representative to Academic Council for Graduate Studies

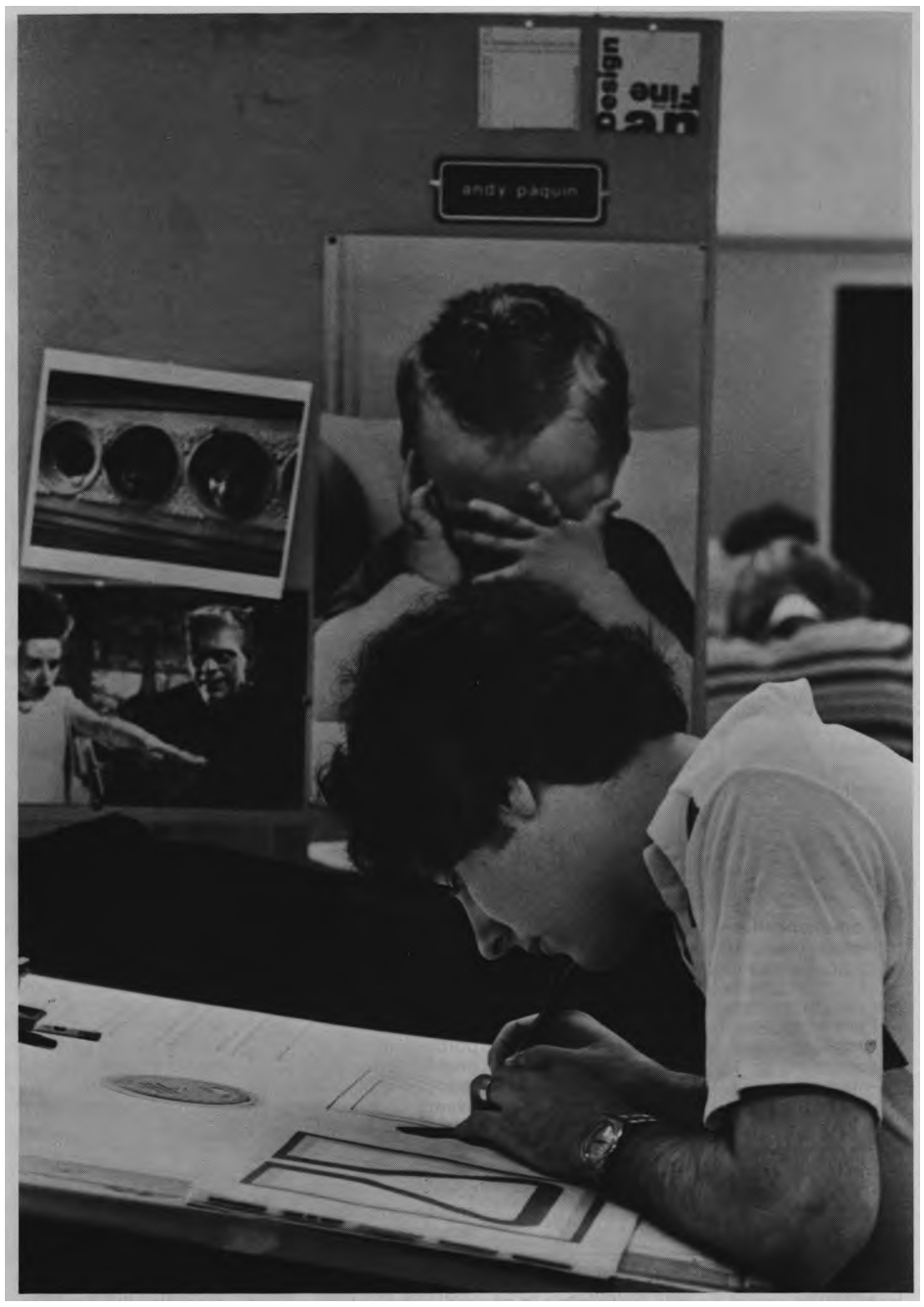
James VerHague, Representative to Academic Council for Communication Design

The objectives of the programs are to prepare students for a wide variety of positions in which art is related to commerce and industry. Students are prepared to accept major responsibility for the design and execution of projects in communication design, environmental design, painting, printmaking and medical illustration.

The educational objectives of the School of Art and Design are to encourage imagination, creative ability, and a sense of artistic discrimination; to develop the skills essential to professional competence; to relate the various arts and to assist students in finding the means to enjoy them; and to cooperate with the College of General Studies in helping students grow culturally and socially, and to inspire them to make their maximum contributions as creative artists and citizens.

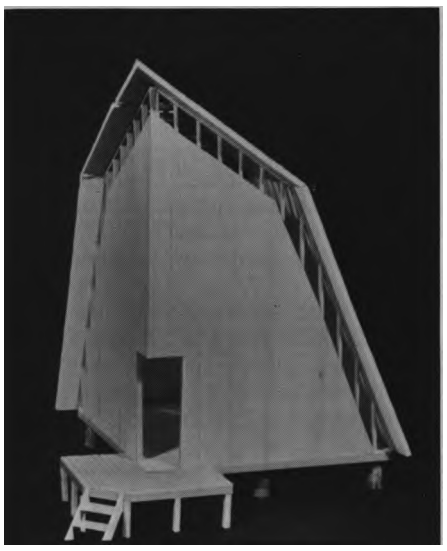
Programs

Major concentrations are offered in communication design, environmental design and the fine arts (painting, printmaking, medical illustration). Electives may be pursued, beginning in the second year, in painting, printmaking, design applications, communication design and the crafts. The first year forms the foundation preparation for the major concentration, with courses required in drawing and two- and three-dimensional design. The



communication designer is in the service of ideas and humanity. He or she has the abilities and competence needed for effectively planning, imparting and interchanging thoughts, concepts, opinions, and information. He or she is an inventive and creative member of the problem solving teams in the contemporary world of business, industry, agriculture, government, education, and religion. This designer utilizes typography, symbols or photography to create images for a client. The program in environmental design prepares students to design effectively for the social, industrial and environmental condition. The curriculum concerns itself with the preparation for future forecasting, with an emphasis upon the humanistic and larger environment. Interior and exterior space designed to serve people and product design is studied.

The fine arts serve the student who is interested in concentrated study in areas of painting, printmaking, or medical illustration, and electives of additional art choices. Students emerging from this program are prepared as professional artists and have exploratory potentialities for later careers in teaching. An option within fine arts exists with concentration in medical illustration for a few further



selected students, thus leading to work in health areas.

Medical illustration 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.

Course descriptions

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

Communication Design, Fine Arts, Environmental Design majors

Year		Quarter Credit Hours Fall	Winter	Spring
First Year	FADF-230, 231, 232 Two-Dimensional Design	3	3	3
	FADF-240, 241, 242 Three-Dimensional Design	3	3	3
	FADF-205, 206, 207 Creative Sources	2	2	2
	FADF-210, 211, 212 Drawing	4	4	4
	*General Studies-Lower Division	4	4	4
	‡Physical Education Elective	0	0	0
Second Year†	FSCF-225, 226, 227 Art and Civilization	3	3	3
	*General Studies-Lower Division	4	4	4
	‡Physical Education Elective	0	0	0
	** Electives (must have three studios each quarter-one which must be the core in which you are going to major)			
	***FADC-301. 302, 303 Communication Design	9	9	9
	***FADD-301, 302, 303 Environmental Design			
	***FADP-301, 302, 303 Advanced Drawing			
Third Year	FSCF-380 Contemporary Art (One quarter required; offered every quarter)	3		
	$Art History Electives (select two)		3	3
	*General Studies-Upper Division	5	5	5
	Major (one)			
	FADR-401, 402, 403 Printmaking			
	FADC-401, 402, 403 Communication Design			
	FADP-401, 402, 403 Drawing and Painting	6	6	6
	FADD-401,402,403 Environmental Design			
	**Electives (one per quarter)*	3	3	3
Fourth Year	*General Studies-Upper Division	5	5	5
	Major (one)			
	FADR-501, 502, 503 Printmaking			
	FADC-501, 502, 503 Communication Design			
	FADP-501, 502, 503 Drawing and Painting	9	9	9
	FADD-501, 502, 503 Environmental Design			
	**Electives (one per quarter)*	3	3	3

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

**See Pg. 98 for General Studies requirements.*

‡See Pg. 40 for Policy on Physical Education.

***Additional intercollege studio courses are available by recommendation of the academic advisor and Assistant Dean. Electives are registered on a space available basis and subject to change without prior notice. Consult the advisor when planning programs.*

****Core Electives—Introductory courses that are prerequisite to the respective third year major. FADC-301, 302, 303, required for entrance into Communication Design major: FADD-301, 302, 303 for Environmental Design major: FADP-301, 302, 303, for Printing and Painting major. However, all three Core Electives are available as elective choices.*

$Total of 18 qt. credits of Art History; Art and Civilization and Contemporary Art required.

Electives—
FADS-411, 412, 413 Sculpture
FADD-320 Graphic Visualization
FADD-411, 412, 413 Design Applications
PPRT-201, 202, 203 Typographical Composition
PPHG-207, 208, 209 Still Photography
PPHF-207, 208 Introduction to Filmmaking
PPHF-209 Introduction to TV
FADR-411,412, 413 Printmaking
FADP-411, 412, 413 Drawing and Painting
FADC-411, 412, 413 Communication Design
FADD-411, 412, 413 Design Applications
FSCC-251, 252, 253 Ceramics I
FSCM-251, 252, 253 Metalcrafts I
FSCT-251, 252, 253 Textiles I
FSCW-251, 252, 253 Woodworking I
FSCG-251, 252, 253 Glass
FADR-511, 512, 513 Printmaking
FADP-511, 512, 513 Painting
FADC-511, 512, 513 Communication Design
FADD-511, 512, 513 Design Applications

Art History Electives-
FSCF-300 History of Design
FSCF-310 History of Crafts
FSCF-320 History of Art Criticism
FSCF-325 American Art
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 6 drawings of natural forms required for admission)

Year		Quarter Credit Hours		
		Fall	Winter	Spring
First Year	FADF-230, 231, 232 Two-Dimensional Design	3	3	3
	FADF-240, 241, 242 Three-Dimensional Design	3	3	3
	FADF-205, 206, 207 Creative Sources	2	2	2
	FADF-210, 211, 212 Drawing	4	4	4
	*General Studies-Lower Division	4	4	4
	‡Physical Education Elective	0	0	0
Second Year [1]	FSCF-225, 226, 227 Art and Civilization	3	3	3
	*General Studies-Lower Division	4	4	4
	‡Physical Education Elective	0	0	0
	***FADP-301, 302 Advanced Drawing	3	3	
	***FADP-313 Medical Illustration			3
	SBIG-201, 202, 203 General Biology	4	4	4
	****Photography (A&D) for three quarters:			
	PPHG-207 Still Photography	3		
	PPHF-207 Introduction to Filmmaking		3	
	PPHF-209 Introduction to TV			3
Third Year	*General Studies-Upper Division	5	5	5
	FADP-421, 422, 423 Medical Illustration Applications	5	8	8
	Gross Anatomy (U of R)t	7		
	••Art Elective		3	3
Fourth Year	*General Studies-Upper Division	5	5	5
	FADP-531, 532, 533 Advanced Medical Illustration	6	6	6
	Select One:			
	FADE-511, 512, 513 Design Applications	3	3	3
	FADC-511, 512, 513 Communication Design	3	3	3
	**Art Elective	3	3	3

**See Pg. 98 for General Studies requirements.*
***Art Electives listed on previous page.*
****Core courses that are prerequisite to the third year.*
*****3 quarters of Still Photography may be substituted.*
†A tuition surcharge will be applied in this quarter.
‡See Pg. 40 for Policy on Physical Education.
[1]Upon successful completion of the second year, the associate in applied science (fine arts—painting) degree is awarded.

The School For American Craftsmen: One-of-a-Kind Education

Dr. Robert Johnston, Director

Gary Griffin, Representative to Academic Council for Crafts

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 General Studies in assisting students to develop personally and socially.

Student responsibilities
Students are responsible for the care and cleanliness of their shops and for the care and maintenance of the tools and machines with which they work. No student may use any machine until instruction in its proper use has been given, and responsibility for observing safety precautions is assumed by each student upon entering the school. Some unique supplies are provided for convenience and choice, but financial obligations must be met for successful completion of courses. Fees for kiln firings, supplies, and furnace use are student responsibilities.

Programs of study

The School for American Craftsmen offers a full-time program of study with opportunity for concentration in one of five craft fields: ceramics and ceramic sculpture, metalcrafts and jewelry, weaving and textile design, woodworking and furniture design, and glass. After satisfactory completion of two years of study the associate in applied science degree is granted. Those with the aptitude and interest for further study may continue for two additional years. After successful completion of the four-year program the bachelor of fine arts is awarded.

Course descriptions

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

Craft Majors

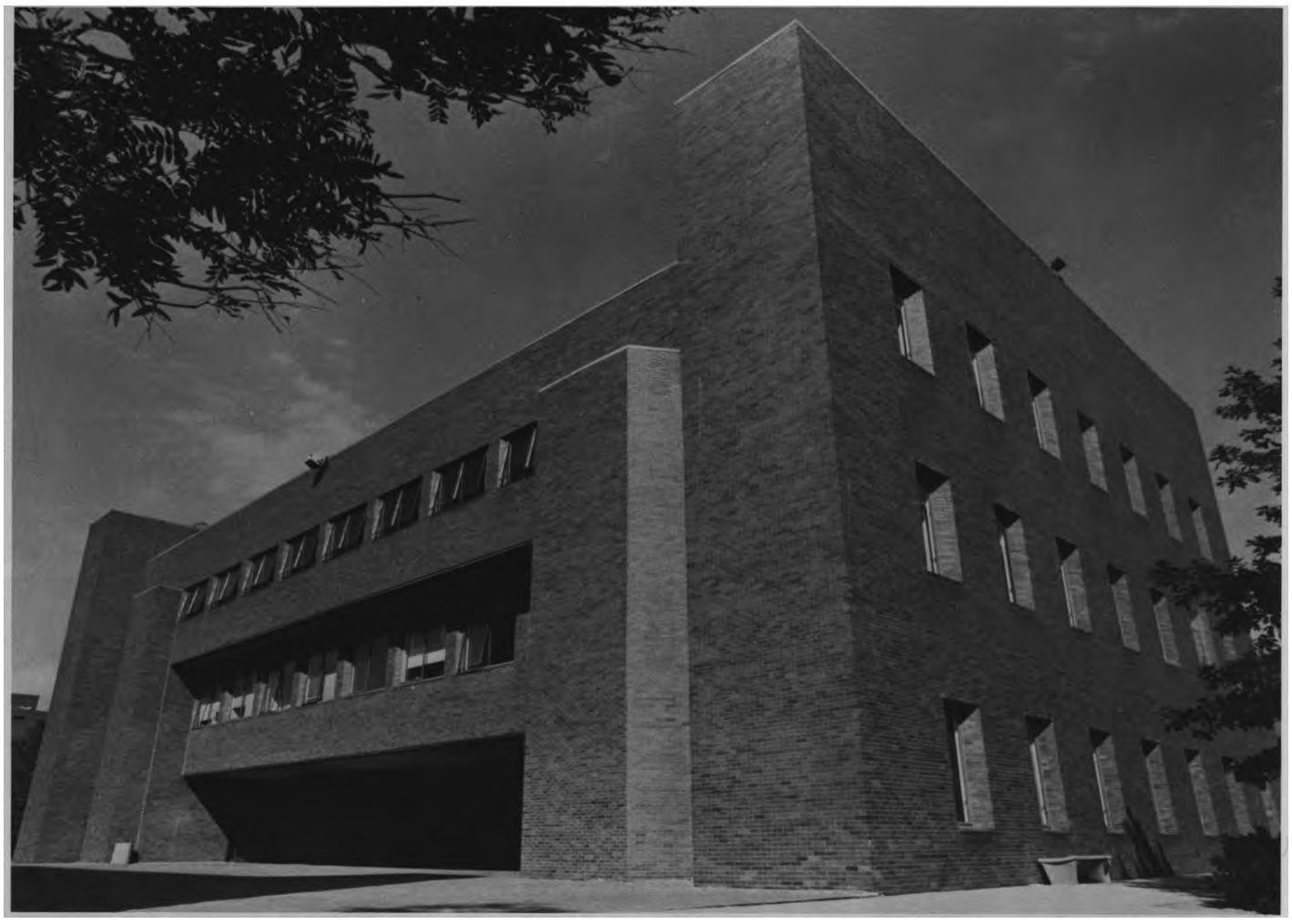
Year		Quarter Credit Hours Fall	Winter	Spring
First Year	FADF-201, 202, 203 Design	3	3	3
	FADF-205, 206, 207 Creative Sources	2	2	2
	FADF-261, 262, 263 Drawing	3	3	3
	*General Studies Electives-Lower Division	4	4	4
	Materials and Processes (one)			
	FSCC-200 Ceramics			
	FSCG-200 Glass			
	FSCM-200 Metalcrafts	5	5	5
	FSCT-200 Textiles			
	FSCW-200 Woodworking			
	‡Physical Education Elective	0	0	0
Second Year†	FSCF-225, 226, 227 Art and Civilization	3	3	3
	*General Studies Electives-Lower Division	4	4	4
	Materials and Processes (one)			
	FSCC-300 Ceramics			
	FSCG-300 Glass			
	FSCM-300 Metalcrafts	5	5	5
	FSCT-300 Textiles			
	FSCW-300 Woodworking			
	**Electives (one per quarter)*	3	3	3
	‡Physical Education Elective	0	0	0
Third Year	FSCF-380 Contemporary Art (one quarter required; offered every quarter)	3		
	@Art History Electives (select two)		3	3
	*General Studies Electives-Upper Division	5	5	5
	Materials and Processes (one)			
	FSCC-400 Ceramics			
	FSCG-400 Glass			
	FSCM-400 Metalcrafts	5	5	5
	FSCT-400 Textiles			
	FSCW-400 Woodworking			
	**Electives (one per quartet)*	3	3	3
Fourth Year	*General Studies Electives-Upper Division	5	5	5
	Techniques and Thesis (one)			
	FSCC-500 Ceramics			
	FSCG-500 Glass			
	FSCM-500 Metalcrafts	8	8	8
	FSCT-500 Textiles			
	FSCW-500 Woodworking			
	**Electives (one per quarter)*	3	3	3

†Upon satisfactory completion of the second year, the associate in applied science degree is granted.
**See Pg. 98 tor General Studies requirements.*
‡See Pg. 40 tor Policy on Physical Education.
"Additional intercollege studio courses are available by recommendation of the academic advisor and assistant dean. Electives are registered on a space available basis and are subject to change without prior notice. Consult the advisor when planning programs.
Craft students elect in a studio other than their major concentration.
@Total of 18 qt. credits of Art History; Art and Civilization and Contemporary Art required.

Electives-
FADD-411,412,413 Design Applications
FADP-411, 412, 413 Printmaking
FADC-411, 412, 413 Communication Design
FADP-411, 412, 413 Drawing and Painting
FADS-251 Sculpture
FSCC-251, 252, 253 Ceramics I
FSCM-251, 252, 253 Metalcrafts
FSCT-251, 252, 253 Textiles
FSCW-251, 252, 253 Woodworking
FSCG-251, 252, 253 Glass
PPHG-207, 208, 209 Still Photography
FADR-511, 512, 513 Printmaking
FADP-511, 512, 513 Drawing and Painting
FADC-511, 512, 513 Communication Design
FADD-511, 512, 513 Design Applications

Art History Electives-
FSCF-300 History of Design
FSCF-310 History of Crafts
FSCF-320 History of Art Criticism
FSCF-325 American Art
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

College of General Studies Gives Students Solid Look at Humanities, Social Sciences, Enhancing Understanding of Self, Society



Mary Sullivan, Dean

The College of General Studies provides each student with a program of liberal education which develops his or her potential as an intellectually aware and responsible human being. It is, therefore, the foundation for the student's entire educational experience. As part of that broader experience which may be called the student's general education, this program of liberal education is distinguishable from the student's professional education in that its purpose is to nurture not specifically professional knowledge or skill, but each student's capacities as a thinking, creating, and responsible person. Thereby enriched, RIT students will be all the better prepared for their professions and their lives, for they will be able to understand and interpret the problems, as well as the personal and social illuminations, found in the study of the many and varied fields of human endeavor.

The program of the College of General Studies, in which all RIT students participate, aims to accomplish the following goals with and on behalf of each RIT student:

-To develop the student's ability to think rationally, to read critically, to speak and to write cogently and clearly;

-To develop the student's ability to analyze issues, to question assumptions, to investigate problems, and to seek solutions;

-To develop the student's understanding of aesthetic values and their relevance to life;

-To expand the student's intellectual horizons by acquaintance with the western heritage;

-To develop the student's awareness of how the past invariably affects the present and the future;

-To promote the student's understanding of our society and how it interrelates with and is indebted to other cultures, thereby liberating the student from a narrow provincialism;

-To acquaint the student with the basic principles and dynamics of individual and group behavior in the many areas of human interaction:

-To develop the student's understanding of the nature of ethical values;
-To develop the student's awareness of the social, ecological, and ethical consequences of technology, and to foster a sense of responsibility to self and society;
-To develop the student's ability to bring together varied insights and methods of analysis for the purpose of better understanding complex human and social problems.

These goals are fostered throughout a student's education at RIT by the General Studies curriculum which offers each student the opportunity to acquire these abilities and understandings through courses in the humanities and social sciences. In addition to regular courses, a student may engage in independent study. These are planned by both student and instructor and provide an opportunity for the student to develop initiative and imagination in a flexible program of study.

Included in the college are degree programs in criminal justice and social work, which are described on the following pages. The close involvement of these programs with the humanistic studies of the other General Studies divisions is an example of what the college is endeavoring to do throughout its curriculum, that is, to demonstrate the interrelation of all fields of learning.

Plan of education

The courses of the College of General Studies are available to students registered in one of the colleges of the Institute.* The basic curriculum of the college requires the student to take 24 quarter credit hours of lower division core courses followed by 30 quarter credit hours of upper division electives. Because of particular needs or requirements, some exceptions to this basic curriculum may be found. The program outlines of each school or department list the general studies requirements by year of study.

During the first two years the student will take four-credit hour courses which will involve him or her in basic studies in language, literature, history, philosophy, the behavioral sciences, and critical approaches to art or science.

During the final two years the student will have the opportunity to deepen his or her knowledge in areas of particular interest. The student will elect six five-credit hour courses from a broad range of possibilities in three areas- Language and Literature, Science and Humanities, and Social Science.

It should be noted that all lower division courses carry four quarter hours of credit and all upper division courses carry five quarter hours of credit. Further, all courses in the lower division and upper division meet three scheduled class hours each week. The discrepancy between credit hours and class hours is offset by carefully planned and extensive out-of-class assignments and projects. The purpose of this plan is to provide the student with opportunities for extended responsibility beyond those normally found in a regular class situation.

The College of General Studies will enroll students who are not currently degree candidates. Individual programs will be developed for each student.

Diploma courses will not normally be counted toward the completion of a degree in social work or criminal justice, and cannot normally be used toward the completion of general studies requirements.

Curriculum

Language and Literature Area	Social Science Area:	Science and Humanities Area
Disciplines:	Disciplines:	Disciplines:
Language (prefix GLLC)	Anthropology (prefix GSSA)	Fine Arts (prefix GSHF)
Literature (prefix GLLL)	Economics (prefix GSSE)	History (prefix GSHH)
	Political Science (prefix GSSM)	Philosophy (prefix GSHP)
	Psychology (prefix GSSP)	Science (prefix GSHN)
	Sociology (prefix GSSS)	

Faculty

The faculty of the College of General Studies is selected from candidates with advanced study in the social sciences and humanities. These men and women are dedicated teachers who have chosen as their professional goals provision of rich and meaningful learning experiences for the student and continuing growth in their scholarly fields.

Lower division requirement

Students must have two courses from each of the above areas: Language and Literature, Social Science, Science and Humanities.

Students may not repeat a discipline within an area-even though the courses in a particular discipline are quite different; only one course in, for instance, literature may be taken to meet lower division requirements. Each quarter, students should contact their advisor for the choice of electives, which may be restricted to a given area: Language and Literature, Social Science, Science and Humanities.

Upper division requirement

Students may select any six courses at the upper division level.

Resources

The college is fortunate in having a wide variety of resources both within the Institute and in the community. At RIT the Bevier Gallery, Wallace Memorial Library, and an extensive record collection are supplemented by audiovisual material and visiting discussion leaders.

Community resources include the Rochester Public Library, and the libraries of several local companies. The RIT library will arrange interlibrary loans with state or company libraries upon request. Advantage is also taken of such other resources as the George Eastman House of Photography, the Rochester Museum of Arts and Sciences, the Memorial Art Gallery, Kilbourn Hall, and the Eastman Theatre.

Summer Session

Under the auspices of the Institute Summer Session, the College of General Studies, upon sufficient demand, offers a number of courses in Language and Literature, Science and Humanities, and Social Science. Information concerning courses to be offered can be obtained by contacting the director, Summer Session, or by requesting the Summer Session Bulletin from the College of Continuing Education or

RIT Office of Admission
One Lomb Memorial Drive
Rochester, NY 14623

**Degree programs in social work and criminal justice are available to students through the College of General Studies, and are described on later pages of this section.*

Admission at a Glance:

College of General Studies—

Criminal Justice, Social Work

General Information on RIT's admission requirements, procedures and services is included in detail on Pages 24-25 of this Bulletin.

Two programs leading to the BS degree are offered. They are criminal justice and social work.

Also, the college offers a wide variety of liberal arts electives for students enrolled in other RIT programs. The purpose is to help students develop an awareness of the humanistic world in which they live. Students, therefore, can complement their technological knowledge with courses in language, literature, social science, science, and humanities.

Social Work—Prepares students to assist individuals, groups and communities in the identification and solution of problems, with an awareness of social issues and services. A full-time, 20-week field instruction placement in a social work agency provides the student with an opportunity to relate academic learning to professional practice through relevant individual, group, family, and community experiences. Degree granted: BS-4 year.

Criminal Justice—The program is designed to prepare students for responsible positions in criminal justice and provide continuing education for those professionals already employed in a variety of criminal justice agencies. The generic nature of the curriculum provides individual career tailoring and offers unique opportunities for practical on-the-job learning experiences. Degree granted: BS-4 year.

	Freshman Admission Requirements		Transfer Admission with junior standing	
Program	Required High School Subjects*	Desirable Elective Subjects	Two-Year College Programs	Desirable minimum G.P.A.
Social Work	Elem. Algebra; Inter. Algebra; 1 year any science	Social sciences; humanities	Students holding an AA or AAS degree will be granted two (2) years of transfer credit. The transfer credit may be credited to courses anywhere in the four year sequence. This will enable the student to complete basic social work foundation courses.	2.0
Criminal Justice	Elem. Algebra; Inter. Algebra; 1 year any science	Social sciences; humanities, e.g. History, Government, Economics	Junior standing for the first two years is offered for an associate's degree in an appropriate major. Holders of liberal arts or other two-year degrees will be granted credit for the first two years except for required professional courses. All transfer students must demonstrate competency in professional courses required in the first and second years or must take these courses.	2.0

Baccalaureate Degree Program in Criminal Justice

John O. Ballard, Director

The criminal justice curriculum is designed to prepare students for entrance into many careers in the criminal justice system, and to provide continuing education for men and women already pursuing professional criminal justice careers. The program will also serve as a foundation for well qualified students who are interested in graduate study in criminal justice and a variety of related fields, for example: law, public administration, community services or sociology.

The curriculum provides the opportunity for professional elective courses in addition to those that are required. At the same time, students have the opportunity to select liberal education courses from among the regular general studies curricular offerings in the social sciences, science and humanities, and language and literature.

Through the required professional courses, the opportunity for a thorough understanding of the broad field of criminal justice will be provided for the student. Through the professional electives, the student will have the opportunity to begin specialization in a particular area within the criminal justice field. In both the professional courses and the general studies courses, students will be stimulated to develop their own skills. Through careful academic guidance, they will be encouraged to design a well-balanced program of study leading to professional competence as well as to breadth in personal development.

Field experience
In keeping with the long standing tradition of RIT, field experience provides criminal justice students the opportunity to witness and participate in the concrete situations of an ongoing criminal justice agency. As an integral part of the criminal justice curriculum, field experience was designed to allow students to experience, in an on-the-job setting, the realities of working within the criminal justice system. Students, during their junior or senior year at RIT, spend 22 weeks working in a variety of agencies in the criminal justice system.

John O. Ballard

The objectives of field experience are concerned with providing the student with an educational and practical work experience in the criminal justice field, as well as to demonstrate to those responsible for the administration of criminal justice the importance of career education and the advantages of joining in partnership with academic institutions for the furtherance of mutual goals.

Some of the traditional agencies that students might be exposed to during the field experience (internship) program, include: law enforcement (state and local); probation and parole; security; correctional institutions (state and local); division of youth programs; halfway houses; adult and juvenile counseling programs, public defenders' and district attorneys' offices.

Employment Opportunities
The Occupational Outlook Handbook for the period between 1978 and 1985, prepared by the Bureau of Labor Statistics, indicates a projected need for substantial numbers of new employees in the criminal justice system.

Examples of employment opportunities in criminal justice agencies include: police, courts, prisons, probation, parole, half-way houses, community treatment centers, jails, retail and industrial security, customs, narcotics control, drug treatment, data processing, youth service programs, counseling, crime control planning and research. In addition to the existing opportunities, there are new positions and criminal justice tasks constantly being created because criminal justice is a changing and expanding field.

Transfer Policy
Junior standing for the first two years is offered for an associate's degree in an appropriate major. Holders of liberal arts or other two-year degrees will be granted credit for the first two years except for required professional courses. All transfer students must demonstrate competency in professional courses required in the first and second years or must take these courses. Field experience (internship) for qualified transfer students is offered during their senior year.

Criminal Justice Faculty
The faculty of the Department of Criminal Justice is comprised of highly qualified individuals who possess advanced degrees in criminal justice or related areas, plus practical criminal justice experience. These men and women are dedicated teachers who have chosen, as their professional goals, continuing growth in their fields and provision of rich meaningful learning experiences for the student.

Among the full-time faculty there is represented expertise and experience in: law enforcement, institutional corrections, probation, parole, criminal law, civil law, security, and research.

The full-time faculty is supplemented by practitioners who are employed locally by criminal justice agencies, as well as instructors from the College of General Studies and College of Business and other colleges within the Institute.

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. Of the approximately 250 students currently enrolled, about 25 percent are women. Approximately 20 percent of the students are currently employed in some facet of the criminal justice system.

Principal field of study

For students matriculated in the Criminal Justice Program, the principal field of study includes all courses offered by the Criminal Justice Department and/or equivalent CCE courses. Also included as part of the principal field of study are the following General Studies courses: GSSS-210; GSSS-502; GSSP-210; GSSP-203; GSSP-503. Matriculated students not maintaining a 2.00 cumulative grade point average in their principal field of study are subject to academic probation or suspension according to Institute policy.

Professional Elective Options

The following list of professional electives is illustrative of those offered periodically within the Criminal Justice Department. These courses are grouped under only one general heading, even though many are appropriate for students with tangential career objectives.

A student is encouraged to select professional elective courses with the advice of his faculty advisor.

In some cases, a student may be permitted, with written approval from his faculty advisor, to take courses from other colleges within the Institute to fulfill professional elective requirements.

Professional Elective Options

Corrections

Behavior Modification in Criminal Justice
Legal Rights of the Offender
Correctional Administration
Counseling within the Criminal Justice System
Alternatives to Incarceration

Criminology

History of Organized Crime
Major Issues in Criminal Justice
White Collar Crime
Minority Groups & the Criminal Justice System
Crime & Violence
Social Control of Deviant Behavior
Law
Constitutional Law & Criminal Justice
Evidence
Court Administration
Comparative Criminal Law
Sentencing Process
Victimless Crime & the Law
Advanced Criminal Law

Law Enforcement

Administrative Concepts in Law Enforcement
Criminal Investigation
Civil Disobedience
Police-Community Relations

Security

Industrial Security
Physical Security

Criminal Justice Bachelor of Science Degree

Year		Quarter Credit Hours
First Year	GCJC-203 Criminology	4
	GCJC-201 Fundamentals of the Criminal Justice System ..	4
	GCJC-207 Corrections	4
	GCJC-204 Introduction to Public Administration	4
	GSSS-201 Fundamentals of Sociology	4
	GSSP-210 Introduction to Psychology	4
	*Five General Studies (Electives)-Lower Division	20
	Open Elective	4
	‡Physical Education Elective	0
Second Year	GCJC-301 Fundamental Concepts of Criminal Law	4
	GCJC-303 Law Enforcement in Society	4
	GCJC-304 The Judicial Process	4
	GCJC-309 Juvenile Justice	4
	Two Professional Electives	8
	GSSP-203 The Psychology of Childhood and Adolescence	5
	GSSP-503 The Abnormal Personality	5
	Two Science Electives (College of Science)[1]	8
	*Two General Studies (Electives)-Lower Division	8
	‡Physical Education Elective	0
Third and Fourth Year	GCJC-411 Issues in Corrections	4
	GCJC-401 Scientific Methodology	4
	GCJC-403, 404 Field Experience[2]	18
	*Two General Studies Electives-Upper Division	10
	GCJC-526 Issues in Law Enforcement	4
	GCJC-528 Etiology of Crime	4
	GCJC-514 Planning and Change in Criminal Justice	4
	Three Professional Electives[3]	12
	GSSS-502 Contemporary Social Problems	5
	*Four General Studies Electives-Upper Division	20
	Open Elective	4

*See *Pg. 98 for General Studies requirements. Students in criminal justice are required to take one additional lower division course, which may be chosen from any of the three General Studies areas listed.*

‡*See Pg. 40 for Policy on Physical Education*

[1] *Computer Science or math* courses *may be taken in place of the science electives.*

[2] *In-service students will be required to take two professional electives per quarter, for a total* of 16 *credit hours - this will* satisfy *the 18 hours of credit required for Field Experience.*

[3] *Professional electives are designed to allow the student to concentrate on a particular discipline(s) of criminal justice. Courses in other disciplines may be taken with permission.*

Social Work Program Offered in Response To Community Needs

Arnold J. Berman, Director

Since its inception in 1829, Rochester Institute of Technology has had a long tradition of community service. Its program in social work is a response to the needs of communities, and is viewed as a continuing step in RIT's community commitment.

It is conceived as a broad generic major to prepare baccalaureate-level social workers and is designed to respond to the trend in the profession toward a wider variety of social work practice roles. This trend has received wide support among social work employers, and the National Association of Social Workers and the Council on Social Work Education have officially supported the development of baccalaureate professional curricula. The bachelor of science degree program is the initial entry into the field of social work, and may also prepare students who wish to continue their professional education on the graduate level.

Accreditation
The bachelor of science degree program in social work is fully accredited by the Council on Social Work Education. The most recent reaccreditation occurred during the 1978-1979 academic year and extends through 1983-1984.

Career Opportunities
Because the curriculum leading to the BS in social work contains a variety of social science offerings, the student will be able to choose a broad spectrum of career goals in addition to the possibility of a variety of graduate programs related to the helping services.

Graduates of the RIT social work program are employed in agencies providing services to the following types of clientele: alcohol and drug abusers, delinquents, unwed mothers, those on probation and parole, those in family court situations, people with emotional problems, mentally retarded, deaf people, children and their families, and senior citizens.

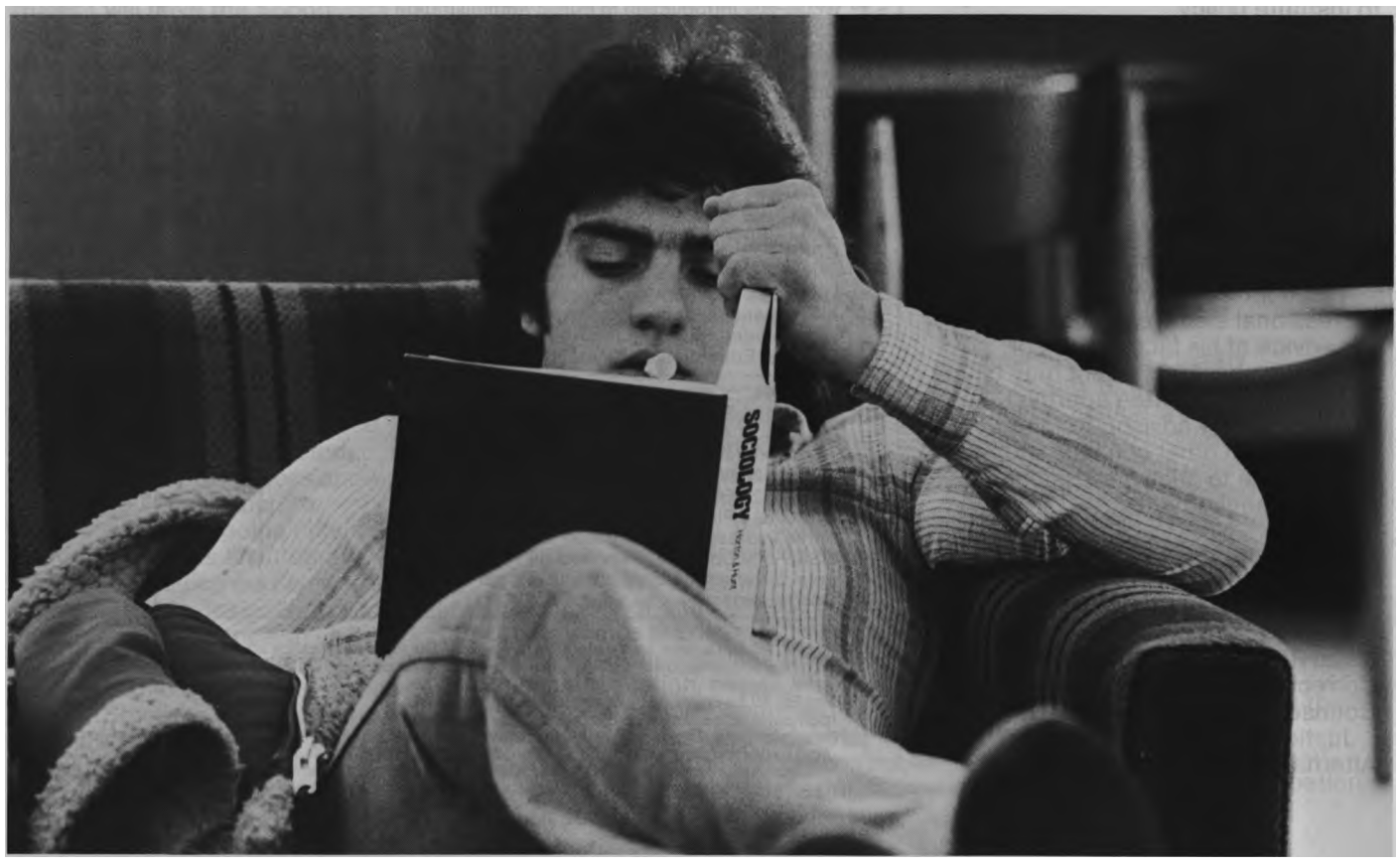
Employment is also available in agencies that provide such special services as community planning and intervention, metropolitan planning, rural social services, hospital work, corrections work, school social work, day care center work, legal services, and human service education.

Principal field of study
For students matriculated in the Social Work Program, the principal field of study is defined to be:
(1) required social work courses (including field placement);
(2) professional electives; and
(3) required service courses offered through the College of General Studies. Matriculated students not maintaining a 2.00 cumulative grade point average in their principal field of study are subject to academic probation or suspension according to Institute policy.

Curriculum
The curriculum leading to the baccalaureate degree in social work rests on the following general areas of content:

1. A continuum of social work and social welfare courses

This would include material on social welfare, sources of social conflict, the involvement of government in social welfare, voluntary social welfare services, decision making, economic factors affecting poverty, employment levels, guaranteed annual income, personal social services, and the democratic-humanitarian values of our society as these may emerge in social welfare practice.



In addition, content on the characteristics and attributes of social work as a profession will be closely examined. The varying roles of the social worker including his or her relationship to clients and agencies will be studied, as well as the various philosophical and ethical bases of action, the motivation required for effective delivery of service, career opportunities, organizational settings, group identification, and such issues as bureaucracy versus individualism.

Further, generic methods courses will be offered before and concurrently with field instruction. Emphasis will be placed on the development of Interventive skills and on the differential use of common principles in a diversity of situations requiring social work intervention.

Also, a senior seminar and project will give the student an opportunity to study a particular aspect of social welfare practice, to reflect on his or her social work study and experience, and to focus on future professional and humanitarian goals.

2. A broad spectrum of foundation courses in the social sciences and humanities

Through liberal education opportunities it is hoped to assist students in their intellectual, aesthetic, and social development, to stimulate their curiosity, and to sharpen their ability to engage in independent inquiry. Work in human behavior and the social environment is designed to help students become aware of alternative 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 be used to help students develop those techniques indispensable to good written and oral communication and pursue a vigorous intellectual independence.

3. Field observation, volunteer opportunities, and field instruction

A continuous range of learning opportunities is provided throughout the curriculum by required experiences or elected situations. Observation and volunteer work in a social, governmental, or educational institution is encouraged in the first and second years.

A unique feature of RIT's social work program is its 600 hours of full-time agency field instruction which usually occurs in the third year. Students must meet specific knowledge, attitudinal and skill criteria as set forth in the Field Placement Policy before advancing to a field placement (see the Social Work Department Student Handbook for a full statement of this policy).

Further "hands-on" opportunities for field experience may be available in the fourth year in connection with the Senior Seminar and Project course. The Independent Study option also may be used to extend experience in the field. All work in this area will be under the supervision of RIT faculty.

4. Professional electives

The social work program at RIT offers professional elective concentration in five areas: Social Work (Self Awareness, Gerontology, Advocacy, Rural Services, Women, Mental Health, Children and Families, Intervention, and other courses); Alcoholism and Drug Abuse; Deafness; Criminal Justice; and Management.

In addition to courses offered by the Social Work Department, professional electives that complement a student's unique career plans may also be selected from other RIT departments.

5. Open electives

Some academic credits are allotted to the pursuit of any other interests which students select.

Course Descriptions

For a description of course content and sequencing, please request the Course Description Catalog from the Admission Office.

Social Work

Year		Quarter Credit Hours
First Year	GSWS-210 Intro, to the Field of Social Work	4
	GSSP-210 Intro, to Psychology	4
	SBIG-210 Human Biology, SBIG-213 Human Reproduction	8
	GSSP-203 Psych, of Childhood & Adolescence	4
	GSWS-211 Social Work Field Study	2
	GSSS-210 Intro, to Sociology	4
	*Five General Studies Electives (Lower Division)	20
	One Professional Elective	4
	‡Physical Education	0
Second Year	GSWS-302 Social Welfare: History	4
	GSSE-210 Intro, to Economics	4
	GSHH-547 History of Social Discrimination or GSSM-514 Theories of Political Systems	5
	GLLC-431, 432 Spanish I, II or GSWS-310 Hispanic Culture for Social Workers and GSWS-311 Social Work From a Pan-Afrikan Perspective	8
	GSSE-503 Personal Finance or GSSP-515 Psych, of Human Adjustment	5
	GSWS-312 Research Methods	4
	GSWS-411 Methods of Social Work I & Lab	4
	Three Professional Electives	12
	*One General Studies Elective (Lower Division)	4
	‡Physical Education	0
Third Year	GSWS-421, 422 Field Instruction I, II[1]	10
	GSWS-412, 413 Methods of Social Work II, III	8
	One Professional Elective	4
	GLLC-402 Conference Techniques	4
	*Two General Studies Electives (Upper Division)	10
Fourth Year	GSWS-535 Seminar and Project	4
	GSWS-532 Social Welfare: Profession & Issues	4
	GSWS-533 Social Welfare: Organization & Systems	4
	Two Professional Electives	8
	Three Open Electives/Independent Study[2]	14
	*Four General Studies Electives (Upper Division)	20

See Pg. 98 for General Studies requirements.
‡See Pg. 40 tor Policy on Physical Education.
[1]Full-time field placement in social work agency.
[2]Independent Study may be academic or at a social agency.

Note: Transfer credit may be given, when appropriate, for any course with the exceptions of the Methods Sequence, Field Instruction, Organization and Systems, Profession and Issues, and Seminar and Project.

Graphic Arts and Photography Developing Specialized Studies for Specialized Fields

Lothar K. Engelmann, Dean

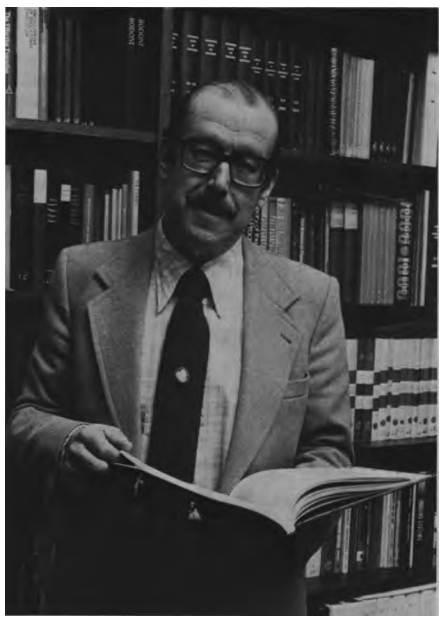
The College of Graphic Arts and Photography encompasses the School of Photographic Arts and Sciences, the School of Printing, and the Graphic Arts Research Center.

The School of Photographic Arts and Sciences was established in 1930 with a two-year course for the training of technicians for the photographic industry. It now offers undergraduate programs leading to a BS degree in photographic science and instrumentation, a BS degree in professional photography, and a BFA degree in photographic illustration. A program in photographic management and marketing-given jointly by the School of Photographic Arts and Sciences and the College of Business-leads to the BS degree. A program in biomedical photographic communications leading to AAS and BS degrees is also offered. Graduate programs lead to an MS degree in photographic science and instrumentation, and an MFA degree in photography. More than 900 students are enrolled from nearly every state and many foreign countries. The curriculum in photographic science and instrumentation is the only accredited program of its kind leading to the BS and MS degrees.

In 1937 the Institute absorbed the Empire State School of Printing with the object of establishing advanced technological education in printing and the graphic arts. The School of Printing offers programs leading to the bachelor of science degree in printing with 14 options for specialization. The BS program in newspaper production management provides graduates who can synthesize the new technologies into the newspaper technical departments and provide long-range management planning to this important segment of the printing industry. The newly-approved BS program in Printing Systems Management combines printing and industrial engineering, and prepares graduates for optimizing operating conditions in the complex printing establishment. It also offers programs leading to the MS degree in printing technology and printing education. Over 650 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 Graphic Arts Research Center, with its own full-time staff, conducts research in various fields of the graphic arts. It also conducts short, highly specialized courses for men and women engaged professionally in the graphic arts.

Technological Changes Can Only Widen The Photographer's Spectrum, Says Dean



Dr. Lothar K. Engelmann

Dr. Lothar K. Engelmann heads RIT's College of Graphic Arts and Photography, which includes the School of Printing, School of Photographic Arts and Sciences and the Graphic Arts Research Center.

He considers his position as dean of that college "a unique opportunity to combine my scientific and managerial background with my interests in the arts and humanities and with my hobbies, particularly photography." Programs offered by the college cover a broad spectrum, from sophisticated printing technology to fine arts photography.

Born in Germany, Dr. Engelmann earned a master's degree in chemistry and a doctorate in the natural sciences at the University of Frankfurt. His industry experience in the graphic arts began with a German photo manufacturing company and he eventually became head of its photo paper department.

After moving to the U.S., Dr. Engelmann, whose father was a printer, worked at a company specializing in chemicals for the tanning industry and obtained several patents in this field.

Returning to the photo industry, Dr. Engelmann went to Polaroid Corporation where he was involved in emulsion development for color film, and then to 3M Company where he worked in silver halide research and production control of photographic materials. He came to RIT as dean of the college in 1969.

What's in the future for education in photography and printing?

"As society becomes more visually oriented and technology changes, the role of the photographer will change too. To meet these changes, the photographer of the future must be able to function on several different levels: First, he or she must be thoroughly familiar with the technical aspects of photographic processes, materials, and hardware; second, he or she must have enough visual and aesthetic acumen to perform as a virtuoso; and third, he or she must have a general education which will prepare him or her to interact with other professionals and with society in general."

"To a greater or lesser degree, depending on the area of concentration, these three elements must be integrated into photographic education. In addition to maintaining this triple approach, the school will put more emphasis on the experiential as well as incorporating new technological developments into the curriculum." He concludes with the belief that future and inevitable technological changes can only widen the spectrum for the industry and the photographer.

Printing is continuing its evolvement from an industry based on crafts to one based on science and engineering and programs in the School of Printing are changing to keep pace with the new

technologies. According to Dr. Engelmann, there is and will be increased emphasis on courses in computer technology, electronics, chemistry and other sciences, as well as on management and leadership training.

"Our goal," says Dr. Engelmann, "is to teach the principles of sophisticated technical processes to potential managers. With a thorough understanding of the fundamentals involved, today's RIT graduate is well-prepared to adjust to future technological changes."

To insure that its educational programs will meet the immediate and future needs of the printing industry, the School of Printing works with an industry advisory committee whose 25 members represent leading printing, supply and equipment firms throughout the U.S. and Canada.

Enrollment in the School of Printing is expected to increase during the next five years.

Resources

The college is housed in a building that has been specifically designed for instruction in photography and printing. Its many specialized laboratories and wide range of equipment make it the most complete of any degree-granting institution in these fields.

The faculty has been carefully selected on the basis of their teaching effectiveness and ability to relate well with students. They are also individuals who are educationally qualified and have had extensive professional experience and training in the graphic arts industries.

The establishment of two distinguished professorships highlights this qualification of the college's teaching staff. The Melbert B. Cary, Jr., Professorship emphasizes the School of Printing's involvement in typography and design generally, while 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 directly, the Graphic Arts Research 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.

Herbert H. Johnson, Melbert B. Cary, Jr. Professor in Graphic Arts, gives a group of campus visitors a first-hand look at a few of the more than 4,000 volumes of rare books housed in the Cary Library which illustrate the past and present of fine printing.

Plan of education

The college seeks to prepare men and women to be professionally competent in their chosen area and to have an appreciation and understanding of our cultural heritage and democratic institutions. Although the primary concern of the college itself is with science and technology, and the occupational aspects of life, it requires of every student courses in communication, the humanities, and the social and natural sciences. These form an integrated program of liberal education in the College of General Studies and require from one-quarter to one-third of the student's time.

The college operates on the quarter plan, each quarter being 11 weeks in length. Many classes are available during the summer.

Most programs of the college include a senior thesis as a requirement for the bachelor's degree. This involves independent study and research on a subject chosen by the student and approved by his or her advisor. The thesis provides the student the opportunity to make a detailed study of a subject of particular interest. It often requires extensive reading, thus making the student more conversant with the literature and, where laboratory research is involved, the student acquires experience in the design of experiments, the conduct of

research, and the writing of technical reports. A number of these reports have been presented at 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, and they must also complete satisfactory thesis work.

Requirements for the MS degree in photographic science and instrumentation, 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 and printing systems management 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 program and have a minimum number of quality points equal to at least two times the number of quarter hours required.

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 the four-year programs.

Information on summer programs in either school can be obtained from the director of the Summer Session.

Graphic Arts Research Center

GARC serves the printing and graphic communications industry through research, continuing education, and the dissemination of information. It acts as an interface between RIT's academic programs and the commercial world of production and research. GARC's professional staff has been recruited from industry and research organizations. This experienced staff provides realistic counsel when lecturing or acting as undergraduate and graduate thesis advisors in the field of printing as well as in the field of photographic science. GARC's facilities are used in conjunction with lectures, seminars, and demonstrations for special students. GARC information is made available to students in such publications as ***Graphic Arts Literature Abstracts,*** and GARC reports of research efforts.

The Science and Technology section consists of fundamental research programs in color theory, color measurement and specification, paper technology, image evaluation, screenless lithography, study methods for gray balance determination, and photometic measurement of dot area.

The Physical Testing Laboratory which emphasizes color reproduction, conducts industry-supported programs for testing paper, ink, and other printing products. Its facilities also accommodate test runs for the Science and Technology section. And many of the continuing education programs (seminars in Web Offset Newspaper Training, Paper-Ink-Press, Compositions Systems, and Color Reproduction) use the lab facilities, including the four-unit perfecting web offset press.

The Information Services library houses an extensive international collection of literature relevant to the graphic arts. From its extensive holdings it offers the following services to both the educational and industrial communities.

Graphic Arts Literature Abstracts (GALA)—Formerly called ***Graphic Arts Index,*** GALA represents a new and expanded effort into current awareness and retrospective retrieval efforts within the graphic arts. GALA, published monthly on a subscription basis, offers subject categorized, fully indexed informative abstracts of the graphic arts literature as gleaned from the timely scanning of over 200 international publications, periodicals and conference proceedings.

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 24-25 of this Bulletin.

The School of Photographic Arts and Sciences, the School of Printing, and the Graphic Arts Research Center 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.

Photographic Science and Instrumentation[1]—Students learn of the application of physics, chemistry, and mathematics to photography; of the materials and processes of photography; of the application of photographic processes to science and technology. Course content is comparable to that of engineering programs-mathematics, physics, and chemistry of radiation-sensitive systems, optics and image formation. Degrees granted: AAS-2 year; BS-4 year.

Photographic Illustration[1]—Students use photography to solve visual communication problems leading to vocations in studio, mass media, and museum practices. Students develop innovative and individualized responses to visual problems, and are expected to become sensitive to contemporary graphic design. Degrees granted: AAS-2 year; BFA-4 year.

Professional Photography[1]—Students learn skills in business as well as photography to enable them to seek employment in fields of their choice. Demands a high degree of application of students' evolving abilities to obtain professional competence. Degrees granted: AAS-2 year; BS-4 year.

Photographic Processing and Finishing Management[1]-Students develop a thorough knowledge of photographic process, production techniques and procedures, and business, including aspects of promotion and selling in a competitive market. Degrees granted: AAS-2 year; BS-4 year.

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.

Printing[1]—Prepares students for careers in printing production management by developing an appreciation of aesthetic qualities of good printing and application of science and engineering in graphic arts. Theory and practice in management and communication skills are taught. Degrees granted: AAS-2 year; BS-4 year.

Newspaper Production Management—Prepares students for careers in technical management for the newspaper industry by developing appreciation of tactics and strategies for evaluating and controlling production problems. Incorporates engineering approaches to problem solving. Degree granted: BS-4 year

Printing Systems Management—Prepares students for career that emphasizes measurement and control techniques, problem solving and optimization of operating condition in the industrial technological environment in the printing industry. Degree granted: BS-4 year

Freshman Admission Requirements			Transfer Admission with junior standing	
Program	Required High School Subjects*	Desirable Elective Subjects	Two-Year College Programs	Desirable minimum grade point average
Photographic Science and Instrumentation	Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; Physics or Chemistry	Chemistry or Physics; Additional mathematics	Total of 80 quarter credits, including 20 quarter credits in calculus or higher mathematics, one year of college chemistry, one year of college physics, and 24 quarter credit hours in general studies. "C" grade in RIT Summer PPHS-200 and PPHS-210 or equivalent course, or experience-students in engineering science or liberal arts with math/science option usually meet these requirements.	2.2
Photographic Illustration	1 year any mathematics; 1 year any science	Art courses	Total of 93 quarter credits including 48 quarter credits in photography, 24 quarter credits in general studies. "C" grade in RIT Summer PPHG-200 and PPHG-210 may be substituted for 18 credit hours of the photography. Opportunities for transfer are limited.	2.2
Professional Photography	Elem. Algebra; Plane Geom. or Inter. Algebra 1 year any science	Physics or Chemistry; photography; additional mathematics	Total of 96 quarter credits including 24 credits in general studies, a college algebra course a college design course, and 48 quarter credits equivalent to RIT's PPHG-200, 202, 203; PPHP-301, 302, 303; and PPHP-311, 312, 313. Remaining credit may be any combination of drawing, design, or photography. Opportunities for transfer are limited.	2.2
Photographic Processing and Finishing Management	Elem. Algebra; Plane Geom. or Inter. Algebra; Chemistry or Physics	Additional mathematics and science	Because of a liberal selection of professional electives, transferring at the end of two years is readily accomplished for business majors. Others should contact program faculty for evaluation of credit.	2.2
Biomedical Photographic Communications	Elem. Algebra; Plane Geom. or Inter. Algebra; Trigonometry; Biology **	Chemistry; Physics	Associate's degree in biomedical photography or previous college work in audiovisual with strong emphasis in photography and biology.	2.2
Printing	Elem. Algebra; Plane Geom. or Inter. Algebra; 1 year any science	Printing courses or experience with school publication; chemistry; physics; interest in printing; additional mathematics	Associate's degree in graphic arts including a wide range of courses in general studies, a year of college mathematics, a year college science, and courses in business, management, data processing, and others. Others considered on an individual basis.	2.2
Newspaper Production Management	Elem. Algebra; Trigonometry, or Inter. Algebra; Physics or Chemistry		Associate's degree in graphic arts including a wide range of courses in general studies, a year of college mathematics, a year of any college science, and courses in business, management, data processing and others. Others considered on an individual basis.	2.2
Printing Systems Management	Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; Physics and Chemistry	Additional mathematics	Considered on an individual basis.	2.25

[1] About one-third of program consists of electives in social science, literature, and humanities. There are also many professional electives available.

*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.

School of Photographic Arts and Sciences Trains for Visual Problem Solving

Russell Kraus, Director

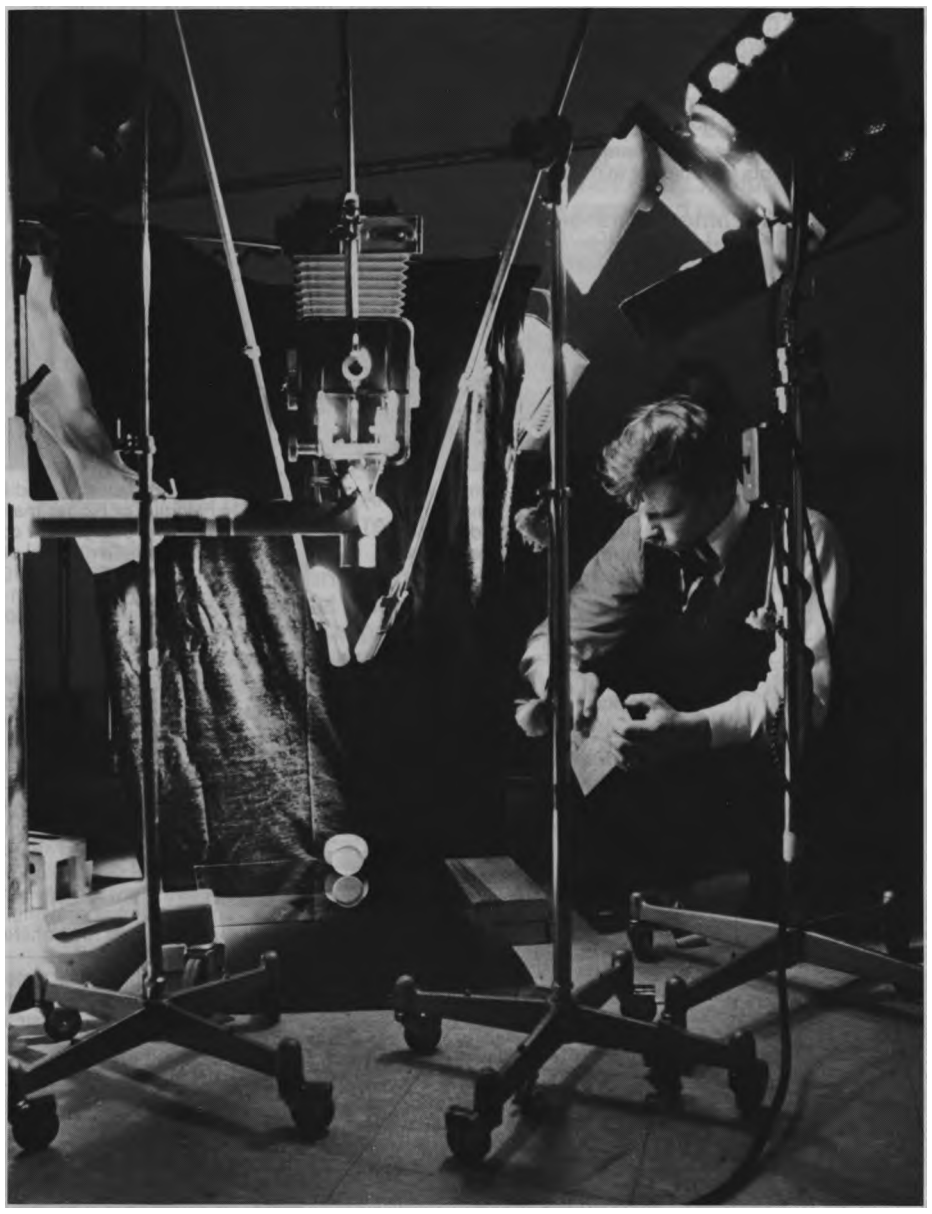
The program offerings of the School of Photographic Arts and Sciences are designed to prepare students for photographic career fields. The studies involve both technical and creative experiences for visual problem solving. Some chemicals and specialized equipment are supplied. Students are encouraged to purchase photographic equipment that will further their chosen careers. All first year BFA and BS students in professional photography are required to have their own hand-held small or medium format camera and a professional exposure meter. All upperclass professional photography students are required to have their own view camera and allied equipment.

Speakers and field trips broaden the student's viewpoint. Participation in the field trips and summer study courses in Europe are encouraged.

Faculty
The School of Photographic Arts and Sciences faculty represents a remarkable cross section of various photographic fields. Many faculty members possess not only formal degrees but recognition from professional societies in the form of honors and titles indicating professional excellence.

Programs of study
The School of Photographic Arts and Sciences offers an undergraduate (BS) in photographic science and instrumentation; an undergraduate (BFA) program in photographic illustration; an undergraduate (BS) program in professional photography; an undergraduate (BS) program in photographic processing and finishing management; an undergraduate (BS) program in biomedical photography/biomedical photographic communications.

Graduate programs
The School of Photographic Arts and Sciences offers two master's degree programs: MFA in photography and the MS in photographic science and instrumentation. These are described in the separate Graduate Bulletin, available through the Admission Office.



Summer Session
The School of Photographic Arts and Sciences offers a wide selection of photographic courses in the Summer Session. These range from beginning photography courses to those requiring a substantial photographic background. A special course is offered for high school and college art teachers desiring to build a background in basic photography. For detailed information write the director of Summer Sessions for a bulletin.

Memberships
The School of Photographic Arts and Sciences maintains memberships in a number of professional organizations: American Management Association, American Society of Training and Development, Association of Professional Color Laboratories, Master Photo Dealers and Finishers Association, National Microfilm Association, Professional Photographers of America, Society of Motion Picture and Television Engineers, Society of Photographic Scientists and Engineers, University Film Association.

Requirements for admission

All applicants for admission must meet the general requirements for admission to the Institute. The requirements for admission to the School of Photographic Arts and Sciences vary with the program.

All applicants, except those transferring from other colleges and universities, must take entrance examinations.

Photographic Science and Instrumentation
Applicants for admission to the undergraduate program in photographic science and instrumentation must have had three years of high school mathematics through trigonometry and either physics or chemistry. Their high school record should indicate a capacity to undertake a science program with a reasonable chance of success.

Photographic Illustration
Applicants for admission to photographic illustration must have had one year of mathematics and one year of science. Art courses are recommended.

Professional Photography
Applicants for professional photography should have had two years of high school mathematics, including either intermediate algebra or plane geometry, and one year of science.

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.

Photographic Processing and Finishing Management
Applicants for admission in this program should have had two years of high school mathematics, elementary and intermediate algebra, and chemistry. Additional science is recommended.

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

Transfer students
A transfer student is a student with acceptable transfer credits who has been accepted into a degree program. He or she may be classified as a first, second, third or fourth year student. Transfer students should be aware that because of credits carried with them to RIT, they may have a lighter than normal academic load. Normally a student may not carry more than two photographic lab courses.

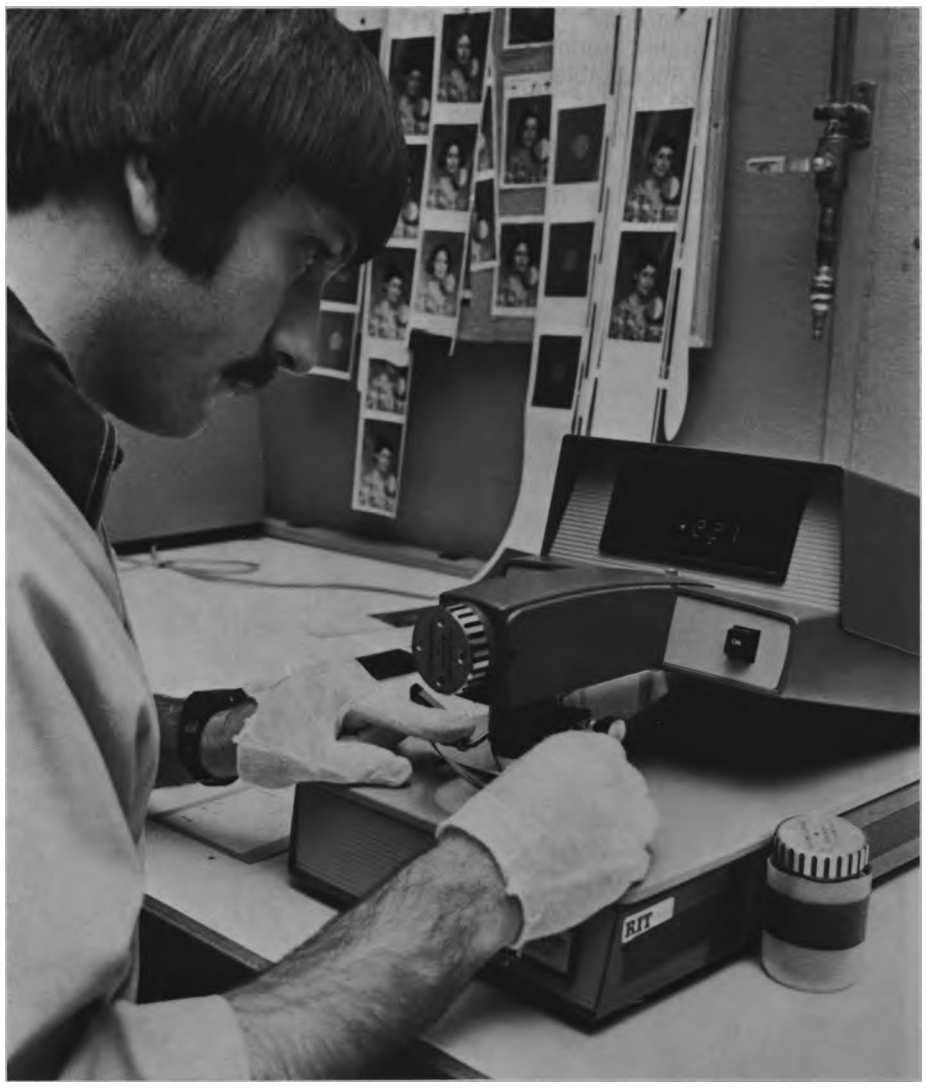
Transfer credit and transfer programs
Transfer credit will be given for applicable courses completed at accredited institutions with a grade of “C” (average) or better. It is not possible for photography students to transfer into the common first year (professional photography or photographic illustration) from photographic science or photographic processing finishing management or other programs at RIT, without incurring loss in time or added expense. Regular transfer procedures apply.

Credit for photography courses will not be accepted without a substantiating portfolio. This work will be reviewed by the appropriate faculty.

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

Summer transfer
A summer transfer student is one who meets the qualifications of the transfer conditions as outlined above.

There are transfer programs into the second or third year of most of the majors offered by the school. These are for students who have transfer credits in science, art, business, and/or photography. Students in the transfer stream may find it necessary to attend classes during one or more summers.



Requirements for admission to second year**

Photographic Science
A total of 39 quarter credits, including 12 acceptable quarter credits in general studies, acceptable courses in calculus (12 quarter credits) or higher mathematics, and general physics or chemistry of not less than one year in either, and three additional credits in photography or science, plus a "C" grade or higher in summer course *PPHS-200 (Fundamentals of Photographic Science) prior to admission to the second year.

Photographic Illustration
A total of 30 quarter credits, including 12 acceptable credits in general studies and six acceptable credits in studio courses in drawing and design, and 12 credits in photography or additional art courses, plus a "C" grade or better in summer course *PPHG-200 (Photography) and PPHG-210 (Materials and Processes of Photography).

Professional Photography
A total of 33 quarter credits, including 12 acceptable credits in general studies, an acceptable science course (nine quarter credits), and/or an acceptable design studio course (six quarter credits); plus 12 credits in photography, additional art courses, or science courses; and a "C" grade or better in summer course *PPHG-200 (Photography) and PPHG-210 (Materials and Processes of Photography).

Photographic Processing and Finishing Management
A total of 37 quarter credits, including 12 quarter credits in general studies, acceptable credits in college math (six quarter credits) and 16 quarter credits in a combination of business and management, plus three additional credits in photography or science.

Requirements for admission to third year

Photographic Science
A total of 80 quarter credits including 24 acceptable quarter credits in general studies, a minimum of 20 quarter credits in calculus or higher mathematics, and acceptable courses of not less than one year each in general chemistry and general physics, a computer programming course, plus a "C" grade or higher in summer course 'PPHS-200 and PPHS-210 (Fundamentals of Photographic Science I and II) prior to admission to the third year.

Photographic Illustration
A total of 93 quarter credits including 24 acceptable quarter credits in general studies. The remainder of 69 quarter credits must include a minimum of 12 quarter credits of studio courses in design and drawing, plus nine credits of History and Aesthetics of Photography, or their equivalents. (A candidate lacking some of these credits will be expected to make them up before graduation.) Forty-eight credit hours of photography are required. If there are insufficient photography studio courses the applicant will be required to take PPHG-200 and PPHG-210 during the summer.

Professional Photography
A total of 96 quarter credits including 24 acceptable quarter credits in general studies, nine credits in science or higher mathematics and six credits of design. Also 57 quarter credits in any combination of photography-related courses of which 48 credits must be equivalent to PPHG-201, 202, 203, PPHP-301, 302, 303, and PPHP-311,312 and 313.

**These are summer courses required by those persons who do not have a sufficient photographic background. Maximum of 24 student accepted.*
***There is a limit of approximately 100 students in each of the second years of photographic illustration and professional photography.*

Photographic Science and Instrumentation

Ronald Francis, Staff Chairman

Photographic science is concerned with the materials and processes of photography; photographic instrumentation with the application of photographic processes to science and technology. A primary objective of the photographic scientist is the improvement of existing materials and processes of photography and the development of new methods and materials. The instrumentation engineer is concerned with the planning of new applications of photography or the adaptation of existing methods to new or special requirements. Whereas chemists, physicists, and engineers of disciplines other than photography are employed in both of these activities, there is a need, on an increasing scale, for the specialist in photographic science and instrumentation.

A broad segment of American business is an employer of graduates of the Photographic Science and Instrumentation Division; for example, aerospace, business machines, information handling, microelectronics, scientific instruments, graphic arts, industrial chemicals, and photographic materials and equipment. Aside from industry, many graduates are employed by governmental agencies and laboratories. Graduates with an interest in marketing often move into positions as sales and technical representatives.

The Photographic Science and Instrumentation Division offers three programs leading to both undergraduate and graduate degrees: a four-year program resulting in a bachelor of science degree, a five-year program resulting in simultaneous awarding of the bachelor of science and master of science degrees, and an MS degree program for students holding a bachelor of science degree in science or engineering.

In addition, it is possible for students with satisfactory credits in mathematics, chemistry, and physics to transfer into either the four-year or five-year program at the beginning of the second or third year by taking a transfer program during the summer quarter preceding transfer.

In recognition of the division's belief that much degree-relevant learning in photographic science and instrumentation can take place outside the Institute's classrooms, all undergraduates are encouraged to acquire photoscience industrial experience during their program at RIT.

Ronald Francis

Four-year program
Bachelor of Science in Photographic Science and Instrumentation

The course content in this program is typical of science and engineering programs. The first two years contain fundamental courses in mathematics, chemistry, and physics. The student simultaneously applies these fundamentals to the study of photographic materials and instrumentation. The photographic science core program then continues with courses in radiometry, the structure of images, color and vision, and methods of engineering photographic systems. Third and fourth year students select elective courses in photographic science and instrumentation, engineering, science, mathematics, and graphic arts to broaden their base of knowledge. An undergraduate thesis is required.

Opportunities also exist to perform thesis work under the direction of selected scientists and engineers in other RIT colleges as well as from local industry as adjunct faculty.

Five-year program
Bachelor of Science and Master of Science in Photographic Science and Instrumentation

Course content during the first three years is similar to the bachelor of science program and provides the student with a background in mathematics, chemistry, physics, and basic photographic science and instrumentation. The fourth year is spent taking advanced elective courses in chemistry, physics, mathematics, engineering, and/or photographic science and instrumentation. The fifth year is devoted to graduate courses and a graduate thesis.

Admission into the five-year program is normally made at the end of the third year. Completed applications should be sent to the Admission Office.

Graduate program,
Master of Science in Photographic Science and Instrumentation

The graduate program is designed to prepare persons holding a bachelor of science degree in physics, chemistry, or engineering for positions in the field of photographic science and instrumentation. Applicants without acceptable understanding of photographic materials and processes are required to take a summer course before final admission to the graduate program. This full-time summer course, PPHG-700 (Principles of Photographic Science) begins in June and runs for ten weeks. Certain graduate courses are offered during the evening on a rotating basis for those desiring to obtain the master of science degree on a part-time basis. Information regarding which courses are offered in which years during the evening may be obtained from the division.

The graduate program is administered by the Council on Graduate Studies and is under the direction of the graduate coordinator (see Graduate Bulletin for particulars).

Photographic Science and Instrumentation

Recommended undergraduate electives

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-599 Independent Study
PPRT-591 Reproduction Photography
PPRT-592 Printing Plates
PPRT-593 Printing Presses
SCHA-311,312 Analytical Chemistry
SCHA-313 Introduction to Physical Chemistry
SCHO-431, 432, 433 Organic 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
SPSP-455 Optical Physics
Others to be selected in consultation with advisors and staff chairperson.

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 Variables and Signals
EEEE-734 Communication Techniques
EEEE-735 Digital Data Transmission
PPHS-751, 752, 753 Special Topics in Photographic Science
PPRM-702 Computers in Management
PPRT-702 Graphic Reproduction Theory
SCHA-711 Instrumental Analysis
SMAM-711, 712 Advanced Engineering Mathematics

Photographic Science and Instrumentation

Year		Quarter Credit Hours: Fall	Winter	Spring
First Year	PPHS-201, 202, 203 Photography for Scientists & Engineers	4	4	4
	SCHC-211, 212 General Chemistry	3	3	
	SCHG-205, 206, 207 Chemical Principles Lab	1	1	1
	SCHO-230 Intro, to Organic Chemistry			3
	SMAM-251, 252, 253 Calculus	4	4	4
	*General Studies Electives-Lower Division	4	4	4
	‡Physical Education Elective	0	0	0
Second Year†	PPHS-311 Advanced Sensitometry, Black-and-White Photographic Materials		4	
	PPHS-312 Applied Processing	4		
	PPHS-313 Color Systems			4
	SMAM-305 Calculus	4		
	SMAM-306 Differential Equations I		4	
	ICSP-205 Computer Techniques			3
	SPSP-311, 312, 313 University Physics	5	5	5
	*General Studies Electives-Lower Division	4	4	4
	‡Physical Education Elective	0	0	0
Third Year	PPHS-401 Radiometry	5		
	PPHS-402 Image Microstructure		5	
	PPHS-404 Introduction to Scientific Research			2
	PPHS-411 Statistical Inference	3		
	PPHS-412 Statistical Design of Experiments		3	
	PPHS-413 Statistics of Quality Control			3
	Professional Electives (selected from undergraduate elective list)		Varies	
	PPHS-421, 422, 423 Photographic Chemistry (5 year BS/MS program - may also be taken in 4th year)	4	4	4
	*General Studies Electives-Upper Division	5	5	5
Fourth Year BS program	PPHS-501, 502, 503 Research	2	4	4
	PPHS-521, 522, 523 Imaging Systems and Evaluation	4	2	2
	Professional Electives (selected from undergraduate elective list)	To bring undergraduate credit to 184		
	*General Studies Electives-Upper Division	5	5	5
Fourth Year BS/MS	*General Studies Electives-Upper Division	5	5	5
	PPHS-421, 422, 423 Photographic Chemistry (if not taken during 3rd year)	4	4	4
	PPHS-890 Research	2		
	Professional Electives (selected from undergraduate elective list)	To bring undergraduate quarter credits to 184		
Fifth Year BS/MS program	PPHS-711, 712, 713 Theory of the Photographic Process	3	3	3
	PPHS-731, 732, 733 Instrumental and Photographic Optics	3	3	3
	PPHS-741, 742, 743 Analysis and Evaluation of Imaging Systems	3	4	3
	PPHS-8fc.O Research and Thesis Guidance	9 minimum To bring graduate quarter credit to 45		
	Professional Electives (selected from graduate elective list)			

†Upon successful completion of the second year, the associate in applied science degree is awarded.
**See Pg. 98 for General Studies requirements.*
‡See Pg. 40 for Policy on Physical Education.

Others to be selected in consultation and with approval of graduate coordinator. Undergraduates with proper prerequisites may take graduate electives for undergraduate credit upon approval of advisors and staff chairperson.

Photographic Illustration

Illustration Photography
Film Making
Photojournalism
Photography as a Fine Art

C. James Gleason, Staff Chairman

The curriculum leading to a bachelor of fine arts degree in photographic illustration is planned to prepare the student for those areas of photography which require the solving of visual communication problems with a sound technical base. Students are encouraged to develop innovative and individualized responses to visual problems; they are expected to become sensitive to contemporary graphic design and to visual aspects of their society; they are asked to be perceptive and responsible citizens of an evolving society.

Career opportunities

The photo students who elect the BFA program may produce advertising photography for magazines, direct mail pieces, posters, billboards, and packages. They may produce editorial photography, magazine illustrations, picture essays, and book illustrations. They may illustrate brochures, annual reports, and other visual materials for business, government, and educational institutions. They may make educational, entertainment business films and TV commercials. They are qualified to function as artists using photography as a principal means of expression. They may become scholars, photohistorians, photojournalists, or museum curators.

Areas of concentration

The bachelor of fine arts program is subdivided into four major areas of concentration, each of which is varied enough to provide the student with a broad-based photographic education. Each is also flexible enough in approach to provide the student who so desires within the advisory system, to select those courses which provide for and best suit his or her particular needs.

The first year is common to photographic illustration and professional photography programs. After the first year, the student elects to continue in either photographic illustration or professional photography. This is based on educational background and availability of faculty and facility.

Major photographic electives

Film Making
Illustration Photography
Photojournalism
Photography as a Fine Art
(All BFA students must select one of these majors as a two-year involvement)

Bachelor of Fine Arts professional electives
PPHF-401, 402, 403 Film Making I
PPHF-407, 408, 409 History and Aesthetics of Film
PPHF-421, 422Scriptwriting
PPHL-421, 422, 423 Nature Photography
PPHL-521, 522, 523 Color Photo Workshop
PPHL-411,412, 413 Photojournalism I
PPHL-401, 402, 403 Photography as a Fine Art I
PPHL-431, 432, 433 Illustration Photography I
PPHL-437, 438, 439 Visual Communications Workshop
PPRT-591, 592, 593 Reproduction Photography, Offset Platemaking Offset Presswork
PPHL-599 Independent Study
Others to be selected in consultation with advisors and staff chairperson.

Bachelor of Fine Arts in Photographic Illustration

Year		Quarter Credit Hours Fall	Winter	Spring
First Year	FADF-221, 222, 223 Design	2	2	2
	PPHG-201, 202, 203 Photography	7	7	7
	PPHG-211, 212, 213 Materials and Processes of Photography	3	3	3
	*General Studies Electives-Lower Division	4	4	4
	‡Physical Education Elective	0	0	0
Second Year	FADF-321, 322, 323 Design	2	2	2
	*General Studies Electives-Lower Division	4	4	4
	PPHL-301, 302, 303 History and Aesthetics of Photography	3	3	3
	PPHL-311, 312, 313 B.F.A. Photography II	6	6	6
	‡Physical Education Elective	0	0	0
Third Year	FSCF-225, 226, 227 Art and Civilization	3	3	3
	*General Studies Electives-Upper Division	5	5	5
	Major Photo Elective	4	4	4
	BFA Professional Electives (Total of 12 credits)	4	4	4
Fourth Year	FSCF-325, 326 American Art	3	3	3
	FSCF-327 Contemporary Tendencies in Art			3
	*General Studies Electives-Upper Division	5	5	5
	Major Photo Elective	4	4	4
	BFA Professional Electives (Total of 12 credits)	4	4	4

‡Upon successful completion of the second year, the associate in applied science degree is awarded.
*See Pg. 98 for General Studies requirements.
‡See Pg. 40 for Policy on Physical Education.

Photography has long been a part of RIT. In this recollection from an earlier decade, courtesy of the Wallace Library Archives, Instructor John Elberfeld and two of his students examine a micrograph for photographing the internal structure of metals.

Professional Photography

Donald L. Bruening, Staff Chairman

The professional photography curriculum is a challenging and rewarding program which prepares the student for a career in the business of visual communication and related fields. The student learns from professionals, men and women who have come from the profession and who have established their marks in fields ranging from advertising illustration, through commercial, industrial photography, portraiture, color processing and special laboratory techniques, to research and sales. The student can specialize in any of these fields, or get a very broad background for future growth and specialization.

The first two years the student acquires a broad base of knowledge and skills, both in the aesthetic, art based aspects of image making and in the technical areas of photography which support creative efforts. In the third and fourth years each student plans, with the help of his or her advisor, an advanced program, selecting from a number of elective courses, based on the field of interest. These elective courses include offerings in: advertising photography, advanced color techniques and dye transfer, audiovisual, corporate publications, engineering and instrumentation, film making, illustration photography, industrial photography, photojournalism, portraiture, process control, reproduction techniques, and television production. A student can concentrate his or her efforts and achieve a high degree of competence in any of these areas. In the professional photography program, the student can also prepare for a career in photo-related areas such as that of studio management, technical representation, and similar professions.

Upperclass students with high grade point standings can “work with a master” on a one-to-one basis through independent studies. At the student’s initiative off-campus work-study may be arranged to give on-the-job experience. Profession related courses may be taken in RIT’s School of Art and Design or School of Printing. Emphasis is also placed on business skills and the realities of current and projected trends, both

within the profession, and in the socio-economic environment of which the graduate expects to become a part.

Broadly stated, this preparation involves studies and experiences in both technical and creative aspects of visual problem solving. The curriculum is planned to give students skills in business as well as photography, to qualify to seek employment in the field of their choice.

Science option electives (second year)

SMAM-201, 202, 203 College Algebra and Trigonometry
SCHG-281, 282, 283 General Chemistry
SSEG-201, 202, 203, 204 Contemporary Science
SBIG-201, 202, 203 General Biology
SPSG-211, 212, 213College Physics
And also the following may be considered if all necessary prerequisites have been met, and with approval of the staff chairperson.
SCHG-205, 206, 207 Chemical Principles
SCHC-211, 212, 213 General Chemistry

New Business Course Requirements

The new business courses required in the third year are: New Ventures Development, Small Business Management and Finance, and Small Business Marketing and Planning. These three courses (4 credit hours each) must be completed on the RIT campus. These courses are unique and not transferable.

Non-Photographic Electives

All students are required to complete 12 hours of non-

photographic electives prior to completing the Bachelor of Science degree. These elective courses may be taken from the offerings in:

1. The Communication Design Program, College of Fine and Applied Arts
2. College of Business
3. College of Engineering
4. Audiovisual Communications Program, Institute College
5. College of Science
6. School of Printing

There will be no seats specifically set aside in courses in these programs for photo students. A student must meet prerequisites for any course he desires to enter, or have permission from the instructor. This may mean that students must wait until registration days at the opening of each quarter to register for these courses. Courses from other areas of the Institute may be utilized after careful consultation with and approval from the student's advisor in writing. Students may transfer up to 4 quarter credit hours of non-photographic electives to RIT toward this 12 hour requirement.

Bachelor of Science professional electives

PPHF-401, 402, 403 Film Making I
PPHF-407, 408, 409 History and Aesthetics of Film
PPHF-421,422 Scriptwriting
PPHF-501, 502, 503 Film Making II
PPHF-507, 508, 509 Introduction to TV Production
PPHL-411, 412, 413 Photojournalism I
PPHL-511, 512, 513 Photojournalism II
PPHM-301, 302, 303 Machine Processing
PPHP-407 AV Preparation and Presentations
PPHP-408 Scientific and Technical Applications of Photography
PPHP-409 Corporate and Special Interest Publications
PPHP-421, 422, 423 Advertising Photography
PPHP-431 Forensic Photography
PPHP-441, 442, 443 Advanced Color Printing
PPHP-501, 502, 503 Industrial Photography Seminar
PPHP-521, 522, 523 Advanced Color Seminar
PPHP-541, 542, 543 Portrait Photography
PPHP-551, 552, 553 Special Topics
PPHP-599 Independent Study
PPRT-591, 592, 593 Reproduction Photography, Offset Platemaking, Offset Presswork

Others to be selected in consultation with advisor and staff chairperson.

Professional Photography

Year		Quarter Credit Hours Fall	Winter	Spring
First Year	FADF-221. 222. 223 Design	2	2	2
	PPHG-201, 202, 203 Photography	7	7	7
	PPHG-211, 212, 213 Materials and Processes of Photography	3	3	3
	*General Studies Electives-Lower Division	4	4	4
	‡Physical Education Elective	0	0	0
Second Year†	Science Option Elective	3	3	3
	*General Studies Electives	4	4	4
	PPHP-301, 302, 303 Photography II	6	6	6
	PPHP-311,312, 313 Basic Color	3	3	3
	‡Physical Education Elective	0	0	0
Third Year	CBUE-221 New Ventures Development	4		
	CBUE-222 Small Business Management and Finance		4	
	CBUE-223 Small Business Marketing and Planning			4
	*General Studies Electives-Upper Division	5	5	5
	Professional Electives (Elect 2 Selected from B.S. Elective List)	7-8	7-8	7-8
Fourth Year	Non-Photographic Electives	3-4	3-4	3-4
	*General Studies Electives-Upper Division	5	5	5
	Professional Electives (Elect 2 Selected from B.S. Elective List)	7-8	7-8	7-8

†Upon successful completion of the second year, the associate in applied science degree is awarded.
**See Pg. 98 for General Studies requirements.*
‡See Pg. 40 for Policy on Physical Education.

Film and Television Courses Accent Creative Media

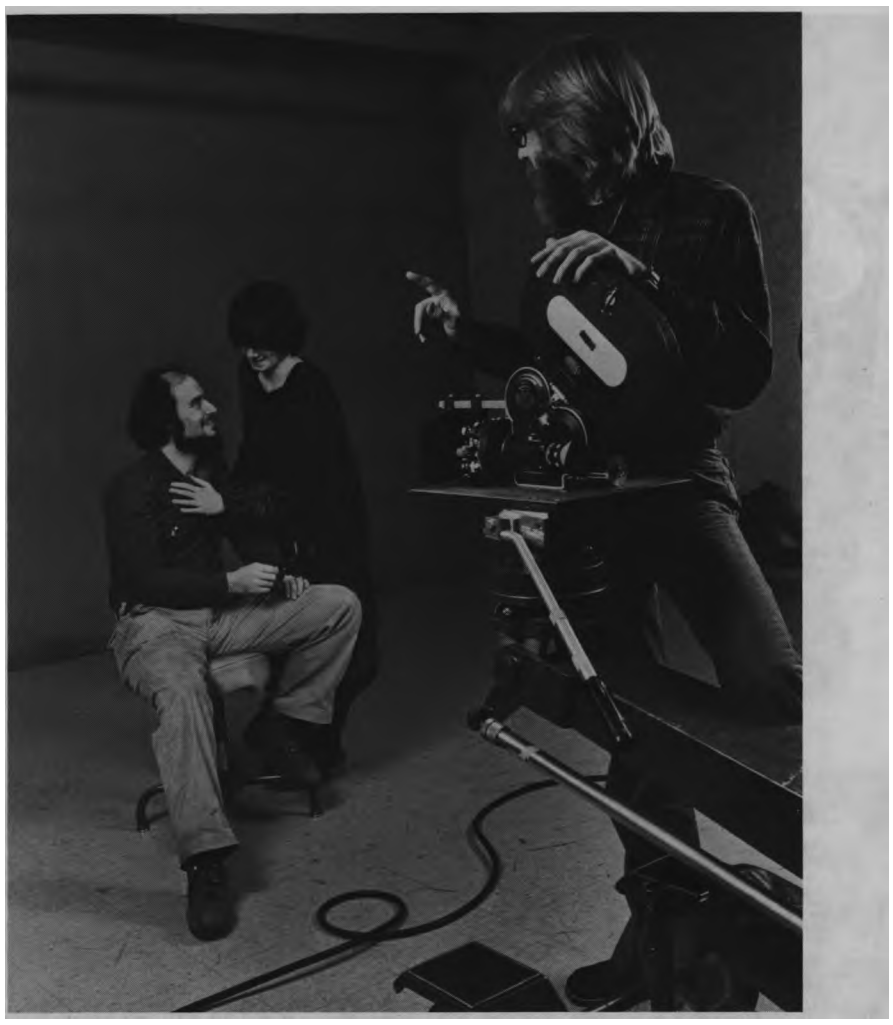
Richard Floberg, Coordinator

The courses in film and television are designed for students who recognize the motion picture medium as an expressive force uniquely important in today's world. They are intended to acquaint students with film and television as creative media and to develop the skills of production.

Offered to students in professional photography, photographic illustration or biomedical photographic communications, these courses are structured as lecture-laboratory courses, designed to develop individual skills in communicating with moving images and the aesthetic principles governing film as a form of art.

Other Institute students, with a basic knowledge of photography, may enroll if they are given permission by the course instructor. Students typically produce several short films or programs, working through all phases of production: scripting, preproduction planning, budgeting, shooting, sound editing and working with a laboratory.

Students combine their learning of visual and sound artistry through hands-on experience with camera and sound equipment. The film projects are often designed by the individual student; they receive individualized instruction as they bring forth purposeful expression in a wide variety of styles.



Film Making and Television

Courses	Quarter Credit Hours: Fall	Winter	Spring
PPHF-207, 208 Introduction to Film Making (Art and Design)	3	3	
PPHF-209 Basic Television Production (Art & Design)			3
PPHF-401 Introduction to Film Making and Conceptual Film Production	4		
Prerequisite: **Elective to all undergraduate 3rd and 4th year Photographic Illustration or Professional Photography students, and other students by special permission**			
PPHF-402 Introduction to Non-Fiction Film Production		4	
Prerequisite: **PPHF-401**			
PPHF-403 Introduction to Fiction and Dramatic Short Film Production			4
Prerequisite: **PPHF-402**			
PPHF-501 Visualization and Commercial Film Production ..	4		
Prerequisite: PPHF-403 or permission of instructor			
PPHF-502 Film Planning and Studio Operations		4	
Prerequisite: **PPHF-501**			
PPHF-503 Film Project with Synchronous Sound			4
Prerequisite: **PPHF-502**			
PPHF-407 Film History (Fiction Feature)	3		
Prerequisite: **Elective to ail RIT undergraduate and graduate students**			
PPHF-408 Film History (Documentary)		3	
Prerequisite: **None**			
PPHF-409 Film History (Experimental and Animation)			3
Prerequisite: **None**			
PPHF-421, Scriptwriting		3	3
Prerequisite: **None**			
PPHF-507, 508, 509 Introduction to Television Production .	4	4	4
Prerequisite: **Elective to all undergraduate 3rd and 4th year Photographic Illustration and Professional Photography students, and other students by special permission**			
PPHF-730 Seminar, Advanced Film Making	4	4	4
Prerequisite: **M.F.A. film majors, and other students by permission of instructor**			

Photo Management Program Trains Industry Managers

James E. McMillion. Jr., Coordinator

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.

Year		Quarter Credit Hours Fall	Winter	Spring
First Year	PPHS-201, 202, 203 Photo, for Scientists & Engineers	4	4	4
	SMAM-201, 202 College Algebra and Trig	3	3	
	BBUB-201 Management			4
	PPHP-311,312, 313 Basic Color	3	3	3
	PPHM-204 Orientation to Production Ph. Processing & Finishing			1
	*General Studies	4	4	4
	‡Physical Education Elective	0	0	0
Second Year†	PPHM-301, 302, 303 Production Processing & Finishing	4	4	4
	ITEE-310, 311,312 Electricity and Electronics	4	4	4
	GSSE-301, 302 Economics I and II	4	4	
	ICSS-200 Survey of Computer Science			4
	*General Studies	4	4	4
	‡Physical Education Elective	0	0	0
Third Year	PPHM-401, 402, 403 Photographic Process Control	4	4	4
	PPHM-410, 411, 412Training and Supervision	4	4	4
	PPRM-503, 504 Statistics of Quality Control		4	4
	BBUB-401 Behavioral Science	4		
	*General Studies	5	5	5
	Summer Internship			
Fourth Year	BBUA-210, 211 Accounting	4	4	
	EIEI-482 Production Control	4		
	BBUM-263 Marketing			4
	Professional Electives**	4	8	4
	PPHM-520 Operation, Care and Maintenance of Photofinishing Equipment			1
	PPHM-501, 502, 503 Senior Seminar	0	0	1
	*General Studies	5	5	5

**See Pg. 98 for General Studies requirements.*
‡See Pg. 40 for Policy on Physical Education.
***Professional electives must be chosen in consultation with the student's academic advisor,*
†Upon successful completion of second year, the associate of applied science degree is awarded. It is required that students seeking the baccalaureate degree spend a summer in an internship program.

Photographic Processing and Finishing Management

Professional electives
BBUA-331, 332 Accounting I, II (Cost)
BBUB-301 Business Law
BBUB-404 Management (Business Policy)
BBUF-281 Money and Banking
BBUF-441 Finance (Financial Management)
GLLC-402 Conference Techniques
GLLC-501 Effective Speaking
PPHM-511, 512, 513 Advanced Machine Processing
PPHM-599 Independent Study
PPHP-411, 412, 413 Sensitometry
PPHP-441, 442, 443 Advanced Color Printing
SCHG-205, 206, 207 Chemical Principles
Others to be selected in consultation with advisors.

Biomedical Photographic Communications

Nile R. Root, Coordinator

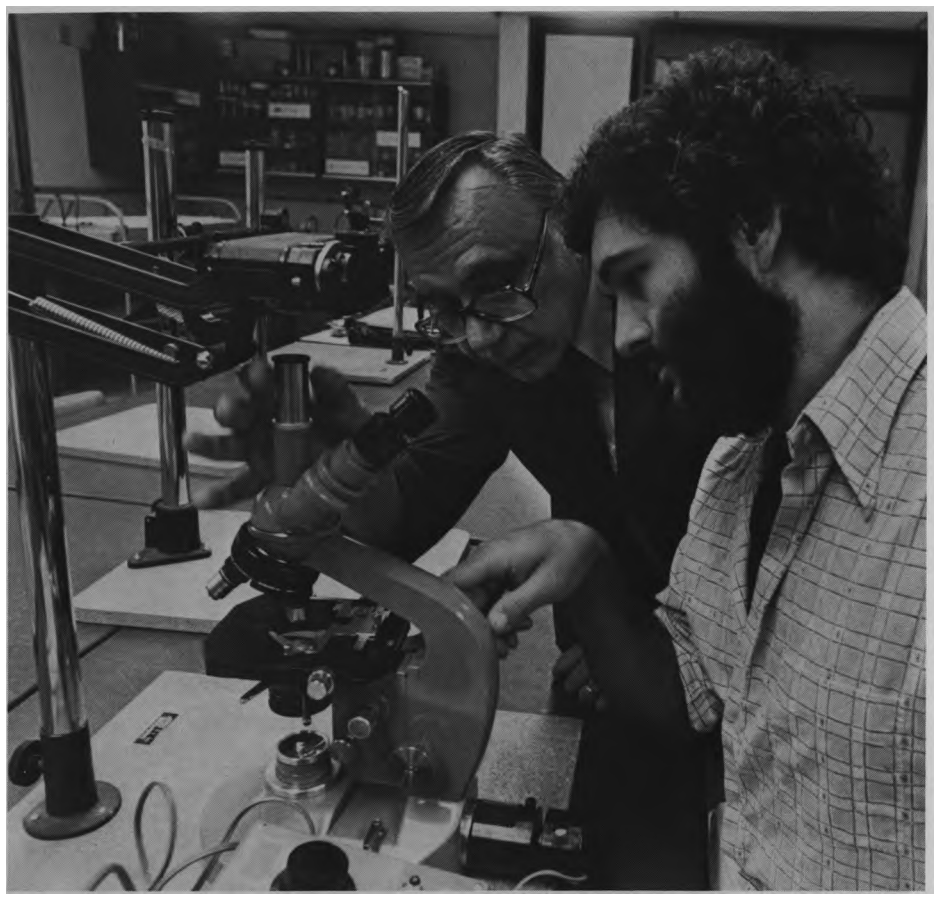
The biomedical photographic communications program is designed to prepare the student for a career in media production within the scientific community. The biomedical photographer can be part of the allied health teams in hospitals, medical and dental research centers or in other health institutions.

The first year courses introduce basic theories and principles as well as practical experience with photographic equipment and photographic processing. The courses are integrated to prepare the student for a summer internship in a medical or scientific facility. The completion of the summer internship is required for the associate's degree in biomedical photography.

The second year rounds out the prerequisites for a beginning career in biomedical photography. Courses include photomacrography, photomicrography, and other specific studies required for this career. The junior and senior years' curricula include electives in film making, television and advanced color printing, which can be selected in consultation with the advisor.

Transfer candidates must have an evaluation prior to admission. A personal interview may be required of the candidate for this program. The student may be required to attend summer courses to satisfy prerequisite courses.

The Biological Photographic Association, the certifying and registering professional organization in the biomedical photography field, has cooperated in the preparation of criteria and in program development. Thus the RIT program can provide the educational background which will form the basis for qualifying to become a Registered Biological Photographer (RBP), after the student enters into his or her profession full time.



Biomedical Photographic Communications

Year		Quarter Credit Hours Fall	Winter	Spring
First Year	PPHB-201, 202, 203 Biomedical Photography I	6	6	6
	PPHG-211, 212, 213 Materials and Processes of Photography	3	3	3
	PPHB-211 Survey of Biomedical Photography	1		
	SBIG-201, 202, 203 General Biology	4	4	4
	*General Studies Elective-Lower Division	4	4	4
	‡Physical Education Elective	0	0	0
	Summer (4th Quarter) Internship for 10 weeks in a medical setting.			
Second Year†	PPHB-301, 302, 303 Biomedical Photography II	5	5	5
	PPHP-311, 312. 313 Basic Color	3	3	3
	PPHB-331, 332, 333 Preparation of Biomedical Visuals	3	3	3
	*General Studies Electives-Lower Division	4	4	4
	‡Physical Education Elective	0	0	0
Third Year	PPHB-413 Biomedical AV Design and Production	4		
	PPHB-401, 402 Advanced Photography in Biomedical Communications		4	4
	**Professional Electives	4	4	4
	Science Electives (Advanced Courses in Biology)	4	4	4
	*General Studies-Upper Division	5	5	5
	Summer Internship (Optional)			
Fourth Year	PPHB-501, 502, 503 Senior Thesis Project	4	4	4
	*General Studies-Upper Division	5	5	5
	Business Electives	4	4	4
	**Professional Electives	4	4	4

†Associate's degree awarded upon successful completion of second year.

***Possible recommended professional electives:*

PPHF-401, 402, 403 Film Making I

PPRT-591, 592, 593 Reproduction Photography, Offset Plate Making, Offset Presswork.

Electives will be made with the coordinator's permission.

Other electives with advisor's consultation.

**See Pg. 98 for General Studies requirements.*

‡See Pg. 40 for Policy on Physical Education.

Technology, Management, Aesthetics

Emphasized in the School of Printing

Mark F. Guldin, Director

The School of Printing at Rochester Institute of Technology is one of the relatively few educational institutions in the United States that offers major degree programs in printing. It is the largest degree-granting school in its field in the country, and enjoys a position of leadership because of its extensive laboratory facilities, its up-to-date programs of study, and its competent faculty.

The primary objective of the School of Printing is to prepare students-both men and women-for successful careers in the printing, publishing and allied industries. While students get considerable hands-on experience with the latest equipment in many technological areas, the emphasis is on learning "why" rather than "how-to." Printing school graduates have successful careers in management at all levels in the graphic arts industry, in selling, in supervision, in design, and in research among others.

These occupational objectives involve certain educational objectives. These are to help the student to develop the following: a broad understanding of the procedures involved in the major important processes; an. appreciation of the aesthetic qualities of good printing; an understanding of the applications of science and engineering in the graphic arts; a knowledge of theory and practice in the various aspects of management; skills in communication, and an understanding of the student's professional and general environment as a means of developing personally as a well-rounded individual and a responsible citizen.

Career opportunities

The graduate with a BS degree in printing has available a variety of career choices. The printing industry is one of the country's largest, employing not only persons skilled in its own special technologies but also chemists, physicists, engineers, accountants, printing educators, marketing specialists, designers, artists, photographers, copy editors, computer specialists, production and traffic managers, and the closely-related packaging specialist. RIT has all of these programs within its 10 colleges-men and women in the School of Printing have this unique opportunity to elect courses that give them a breadth in preparation for a career of their own choosing in this growing field.

Special requirements for admission
General 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, which may be shown by success in high school printing courses, by extracurricular activities in connection with a school newspaper or yearbook, by employment in a printing establishment, or by gaining an idea of the activities and opportunities in the field through investigation or personal associations. While high school graduation is stated as a basic requirement for admission, with intermediate algebra or plane geometry and one year of science as specific prerequisites, preference is given to applicants who have had some additional work in mathematics, physics, or chemistry.

Scholarships and financial aids
Scholarships available to students in the School of Printing number approximately 55, and range in value from $100 to full tuition. Some of these awards may be continued beyond one year depending upon the records made.

Competitive scholarships are offered through the National Scholarship Trust Fund of the Education Council of the Graphic Arts industry. Anyone interested in applying for one of these scholarships should do so early in the senior year in high school, since the application must be filed in advance of the date set for competitive examinations. If information is not available in the local high school, the candidate should write to:

Education Council of the
Graphics Arts Industry
4615 Forbes Avenue
Pittsburgh, Pa. 15213

For information regarding scholarships administered by the Institute, write to the Financial Aid Office.

Programs of study
The School of Printing offers a four-year course of study that leads to the bachelor of science degree in printing. The degree of associate in applied science is offered upon successful completion of the first two years. Continuation beyond the second year depends upon the satisfactory completion of the first two years and a grade point average of at least 2.0.

The four-year program prepares graduates for a wide variety of technical and management positions in the printing and related industries. Among these are positions in administration and general management, production management, production and quality control, sales and sales management, estimating, cost and financial control, process and plant development, graphic design, newspaper production management and graphic arts research. A variety of positions in commercial printing, packaging, and service industries are available to graduates, as are positions in the book, newspaper, and magazine publishing industries.

The cooperative plan of education is available in the School of Printing for those choosing this option.

The two-year portion of the program is for those who wish to enter employment after two years of college study. Graduates of this program obtain employment as an assistant in such classifications as estimating, production control, specification writing, purchasing, copy preparation, typography and layout, and sales.

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 printing program includes a group, or core, of basic required courses that is indicated in the program outline on page 126. Students have the opportunity to expand their own areas of interest by selecting course combinations, or developing individual program sequences from approved elective courses.

Two-year programs for college graduates
Many college graduates with baccalaureate degrees may complete the professional requirements for the bachelor of science degree in printing in two years of concentrated study. This is because they have already satisfied many requirements in general studies, mathematics, and science elsewhere. Upon admission, such students are usually given the equivalent of two years of credit.

Those who have taken courses which parallel those required in their chosen majors in the School of Printing normally are given additional transfer credit, if grades are “C” or better.

Cooperative program
The cooperative program in printing is a flexible and voluntary program which will be available to printing students who have successfully completed the first two years of the required printing program and to qualified printing transfer students accepted at the junior-year level. The intent of the cooperative program in printing is to afford students the opportunity of enlarging and improving their college education by combining formal, classroom learning with practical work experiences. Printing students following the cooperative program will have a wide variety of graphic arts work experiences available to them. This cooperative program in printing will require up to five years for completing BS degree requirements.

Graduate program
The School of Printing also offers a graduate program leading to the master of science degree, described in the separate Graduate Bulletin. Information concerning this program is available from the Admission Office.

Organization
For purposes of program administration, planning, supervision, and student counseling, the School of Printing is organized into four divisions: Design-Composition, Photography-Plate-Press, Management, and Graduate.

While each student is expected to use initiative in selecting elective courses, each division administers program sequences which may be developed from professional elective courses.

Design-Composition Division

Archibald D. Provan, Staff Chairman

It is necessary for most people in the graphic arts to have an appreciation for good design and typography because much of their time will be spent evaluating the printed word from the standpoint of design and production. Many printing firms have organized their own design and composition facilities in order to offer a complete service to their customers and, in turn, have a need for employing well-qualified people in these areas. In addition, the needs of inplant, and corporate advertising departments for educated people in the creative fields and for printing buyers are extensive. For these reasons, the Design-Composition Division not only offers introductory creative courses for those students who will pursue other areas of endeavor, but also offers sequences in the design field in which the student may specialize. These sequences include:

Book design and book production
A sequence designed to prepare students to fill a variety of positions in the book publishing and book manufacturing industries. Although particularly oriented for those interested in book design, this flexible program can be altered to fit the specific needs of others interested in the wide range of opportunities the publishing industry has to offer.

Design and typography
A program for those students with a basic interest in the aesthetics of printing. The student is given a broad range of courses, calligraphy to typography, design to copy preparation, which are important for entering the field of design, typography, or any of the other creative fields of the printing industry.

Composing room procedures
A sequence giving printing students an overview of typesetting techniques and the handling of materials as they are related to layout and design. The diversity and challenges in this field are reflected through a series of courses ranging from electronics in computerized typesetting through estimating and other management areas related to the composing room.

Photography-Plate-Press Division

Edward A. Brabant, Staff Chairman

The production segment of the industry is the core area of most printing facilities. Every manager in the industry from design through sales and from personnel through finance must have a firm grasp of this core area if their decisions are to be valuable ones. This is the “home area” for the production manager in plants producing books, newspapers, forms or commercial printing. For these reasons, the Photography-Plate-Press Division offers courses in all the major printing processes, encompassing operations and materials in camerawork, stripping, platemaking, presswork, inks, substrates and finishing.

This division administers sequences in various production areas such as:

Lithographic technology
This program gives the student an in-depth knowledge of lithographic management. The student is prepared for positions such as technical service representative, production scheduling, quality control analysis, and technical sales.

Packaging printing
This sequence, offered in conjunction with the Department of Packaging Science, emphasizes the problems encountered in printing on many different kinds of materials, and in packaging many different kinds of products. This program prepares students for positions in production and sales with the packaging printer, an expanding segment of the graphic arts.

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

Flexographic Technology
A sequence for students who wish to enter the flexography industry with a background designed to be particularly helpful for their careers. This allows the student to use elective credits to emphasize appropriate technical course work and take advantage of many management electives.

Management Division

Walter A. Campbell, Staff Chairman

To facilitate a high level decision-making process, it is necessary for most management personnel in the graphic arts to have a clear understanding of the interrelationships that exist among the marketing, financial, personnel, and production segments of the industry. To this end, the Management Division offers course work in these various areas. In collaboration with the other divisions, the Management Division provides the “topping" for shaping future managers in the graphic arts. In collaboration with the other divisions, the seven full-time faculty members and two part-time specialists in this division, all of whom have significant work experience in the printing industry, offer sequences of courses in the following areas:

Estimating
Estimating is at the very heart of the successful economic well-being of the printing industry. Accurate job costing and analysis can mean the difference between success and failure for any printing concern. This sequence prepares students for positions found in every segment of the industry from commercial printing through packaging and specialized forms manufacturing.

Computer applications
Computers are of increasing importance to the printer as they can perform the usual business data processing tasks as well as the more involved specialized applications in typesetting and optical character reading devices. This sequence is designed to provide the student with a basic understanding of computers and of their potential in production management.

Newspaper production management
A program for students who wish to specialize in newspaper management. This sequence emphasizes production, labor, finance, and marketing in relation to the newspaper industry. New technological changes in the industry are emphasized.

Financial management
This sequence utilizes courses in both the School of Printing and the College of Business. Students prepare themselves for the financial aspects of managing a graphic arts business.

Personnel management
This sequence introduces the student to basic concepts of personnel management from a behavioral science standpoint. Drawing heavily on courses in the College of General Studies, the sequence prepares persons for positions in personnel management, labor relations, and other positions where the ability to work closely with individuals is of prime importance.

Production management
Students in this sequence are prepared to enter all phases of printing dealing with production problems in the commercial printing industry as well as in the newspaper, book, and magazine publishing industries. Management positions evolving from this sequence are that of scheduler, assistant production manager, and production manager.

Sales-marketing
This program prepares students for positions in printing sales and marketing, printing equipment sales, and typographic sales as well as positions as technical representatives for graphic arts supply firms. Students are also prepared for sales positions in allied industries such as ink, paper, and packaging, and for positions as printing buyers and brokers.

Electives

The following electives supplement required courses. Each student elects courses to suit his or her individual interests and objectives, and to meet the credit requirements of the printing program. Selection is subject to prerequisite requirements and availability of courses.

General Studies electives

In general, the program requires that the student take one course per quarter from this area which includes subjects such as economics, psychology, language communications, literature and fine arts appreciation. See page 98 for more specific details regarding distribution requirements.

Math/Science electives

Each student must take nine credits of college mathematics as recommended by the School of Printing.

The second-year science sequence must be Chemistry, SCHG-281, 282, 283, or Physics, SPSP-214, 215, 216, or Chemical Principles, SCHG-205, 206, 207. The third-year science sequence can be chemistry or physics, advanced chemistry, advanced physics, contemporary science; calculus, computers, or photography for Scientists and Engineers, PPHS-201, 202, 203.

Professional electives

These are usually selected from the printing management and technology electives listed below but may also include courses from the Colleges of Business or Engineering or other colleges in the Institute for which the subject matter is approved as being relevant to the student's individual needs.

Course descriptions

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

Printing electives

Printing Management

PPRM-402 Estimating II (Cr-4)
PPRM-404 Printing Production Management II (Cr-4)
PPRM-502 Financial Controls II (Cr-4)
PPRM-504 Statistics of Quality Control 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 the Graphic Arts (Cr-4)
PPRM-518 Purchasing in the Graphic Arts (Cr-3)
PPRM-599 Independent Study (Cr-Arranged)

Printing Technology

PPRT-213 Principles of Copy Preparation (Cr-3)
PPRT-301 Typography II (Cr-4)
PPRT-303 Layout and Printing Design (Cr-4)
PPRT-304 Advanced Relief Press (Cr-4)
PPRT-306 Tone Reproduction Photography (Cr-3)
PPRT-307 Lithographic Plates (Cr-3)
PPRT-308 Lithographic Press Problems (Cr-4)
PPRT-309 Advanced Screen Printing (Cr-3)
PPRT-310 Relief and Gravure Platemaking (Cr-3)
PPRT-312 Stripping (Cr-3)
PPRT-313 Copy Preparation (Cr-4)
PPRT-314 Flexography (Cr-4)
PPRT-315 Ink and Color (Cr-4)
PPRT-316 Production for Book Publishing (Cr-3)
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-401 Typographic Workshop (Cr-4)
PPRT-403 Layout and Printing Design (Cr-4)
PPRT-406 Color Separation Photography (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.

Printing

Year		Quarter Credit Hours Fall	Winter	Spring
First Year	PPRT-201 Typography I	3		
	PPRT-202 Composition Technology	3		
	PPRT-203 Layout and Printing Design	3		
	PPRT-204 Relief Press		3	
	PPRT-205 Gravure Printing		3	
	PPRT-206 Reproduction Photography		3	
	PPRT-207 Printing Plates			3
	PPRT-208 Lithographic Press			3
	PPRT-209 Screen Printing			3
	Mathematics Option	3	3	3
	*General Studies Electives-Lower Division	4	4	4
	‡Physical Education Elective	0	0	0
Second Year †	PPRT-302 Composition Systems	3		
	PPRT-311 Imposition and Finishing		3	
	PPRT-402 Applications of Electronics to Graphic Arts			3
	PPRM-201 Introduction to Technical Writing	3		
	PPRM-302 Personnel Relations		3	
	PPRM-210 Financial Controls		3	
	**Science Option	4	4	4
	Professional Electives			3
	*General Studies Electives-Lower Division	4	4	4
	‡Physical Education Elective	0	0	0
Third Year	PPRT-410 Introduction to Paper	3		
	PPRM-301 Applications of Computers to Graphic Arts			3
	PPRM-401 Estimating I		4	
	PPRM-403 Printing Production Management I	3		
	**Science Option	4	4	4
	Professional Electives		4	4
	*General Studies Electives-Upper Division	5	5	5
Fourth Year	PPRM-503 Statistics of Quality Control		4	
	PPRM-590 Senior Seminar	2		
	Professional Electives	10	9	10
	*General Studies Electives-Upper Division	5	5	5

**See Pg. 98 for General Studies requirements.*
***Approved three-quarter sequences are listed under Science Electives.*
†Upon completion of the second year, the associate in applied science degree is awarded.
‡See Pg. 40 for Policy on Physical Education.

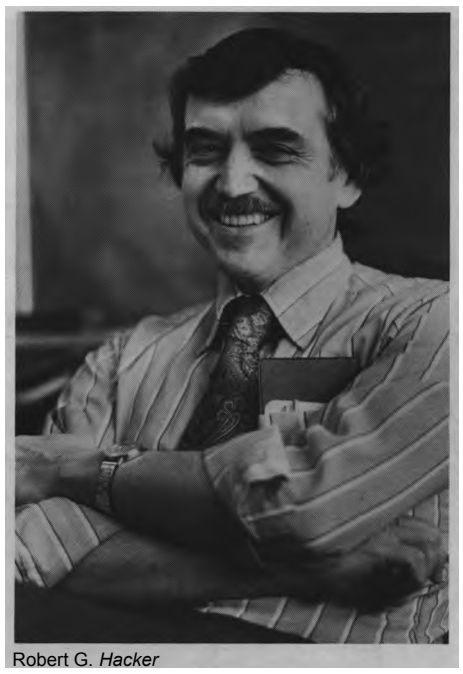
Newspaper Production Management

Robert G. Hacker, Coordinator

The printing and publishing industries are undergoing dynamic changes in technology. Within the newspaper field these changes are particularly drastic, completely altering how things are accomplished. Coupled with this are the advances in technology and market penetration of related information-handling industries resulting in increasingly strong competition for newspapers in the areas of reader interest and advertising appeal. These advances have made it imperative for newspapers to alter not only the way in which a newspaper is printed and distributed but the very method by which the information is prepared and processed-perhaps even what shall be produced. The earlier distinctions between editorial, advertising and production blur as production becomes increasingly a function of advertising and editorial preparation, a direction enveloping previously distinct business functions as well. These trends will result in the integration of these departments into a single entity utilizing a computer system to handle, transmit, and process information and control the production and delivery of the resultant product.

This new approach requires new abilities and expertise of the people who would steer this changing industry. Graduates of the newspaper production management program will have to compete with the existing pools of talent and expertise as the functions of production merge with those of other departments.

They must be prepared in both the new technology and in the ability to steer existing manpower and management systems through potentially stormy change to a goal of a useful and profitable position in the marketplace. The revolutionary changes in this field, themselves, point to the need for a “new person” to deal with the technological and managerial problems of such change. This program is intended to fulfill the developing industry need for such people.



Robert G. *Hacker*

Career opportunities

The graduate with a BS degree in newspaper production management has numerous career choices within the newspaper industry. Many young people find entry positions as production assistants, assistant production managers, assistant business managers and computer specialists. These can lead to positions of production director, director of data processing, operations director, business manager and publisher. All these positions present a distinct challenge in an industry undergoing vast technological change.

Requirements for admission

General requirements for admission are given in the general information section of this bulletin. In addition it is highly desirable that an applicant have a deep interest in newspaper management which can be shown by success in working on a school newspaper, working for a daily or weekly newspaper or by a general interest in the mass media.

High school graduation is a requirement for admission along with course work in elementary algebra, trigonometry, intermediate algebra, physics or chemistry. Preference is given to those applicants who have had additional work in mathematics, physics or chemistry.

Scholarships and financial aid

In addition to the scholarships generally available to School of Printing students, there are a number of scholarships available for students enrolled in the newspaper production management program. Additional scholarships are available through the National Scholarship Trust Fund of the Educational Council of the Graphic Arts Industry. If information is not available in the local high school, the candidate should write to:

Education Council of the
Graphic Arts Industry
4615 Forbes Avenue
Pittsburgh, PA 15213

For information regarding scholarships administered by the Institute, write to the Financial Aid Office.

Program of study

The School of Printing offers a four-year course of study leading to a bachelor of science degree in newspaper production management. Employing about 383,000 people, the newspaper industry continues to be the third largest employing segment of the total manufacturing industry in the country. With 8,200 establishments producing over 1,700 dailies and 7,400 weklies, the four-year program in production management prepares graduates for entry level positions in these establishments.

The ***U.S. Industrial Outlook*** says of the newspaper industry, “The continuing development and implementation of new technologies, successful research efforts and educational programs will support a growth rate ranging between 7 and 8 per cent per year to the mid-1980’s.

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

The cooperative plan of education is available in the School of Printing for those 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.

Cooperative program
The cooperative program in newspaper production management is a flexible and voluntary program available to students who have successfully completed the first two years of the required newspaper production management program, and to transfer students accepted at the junior level. A wide variety of work experiences are available in the newspaper industry where students' practical work experiences can build upon the formal classroom learning. This cooperative program can require up to five years for completing the BS requirements.

Organization
The BS program in newspaper management is organized under the management division of the School of Printing. This division offers many courses in the marketing, financial, personnel, and production segments of the industry and are available to the newspaper production management students.

Electives
The following electives supplement required courses. Each student elects courses to suit his or her individual interests and objectives, and to meet the credit requirements of the printing program. Selection is subject to prerequisite requirements and availability of courses.

General Studies electives
In general, the program requires that the student take one course per quarter from this area which includes subjects such as economics, psychology, language communications, literature and fine arts appreciation. See page 98 for more specific details regarding distribution requirements.

Math/Science electives
For students with a strong mathematics background, math courses other than SMAM-201, 202, 203 may be taken. Prerequisites for this program are high school algebra and trigonometry. Math choices could be SMAM-204 Modern Algebra, SMAM-214, 215 Introduction to Calculus, SMAM-216, 217, Introduction to Math of Business and Finance, SMAM-309 Statistics.

The second year science sequence must be Chemistry SCHG-281, 282, 283. The third year recommended science sequence is ICSS-200, ICSP-305, ICSS-575.

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

Recommended professional electives
PPRM-516 Marketing in the Graphic Arts
ICSP-215 Programming Language-Fortran
ICSP-310 Programming Systems Design
PPRT-323 Newspaper Color
PPRT-324 Newspaper Composition
PPRM-702 Computer in Management

Newsaper Production Management

Year		Quarter Credit Hours		
		Fall	Winter	Spring
First Year	PPRM-302 Personnel Relations			3
	PPRM-310 Industrial Organization and Management			3
	PPRT-202 Composition Technology	3		
	PPRT-206 Reproduction Photography	3		
	PPRT-207 Printing Plates		3	
	PPRT-208 Lithographic Press		3	
	PPRT-302 Composition Systems		3	
	PPRT-319 Newspaper Design			3
	EENG-201 Introduction to Engineering	4		
	Mathematics Option	3	3	3
	*General Studies Elective-Lower Division	4	4	4
	‡Physical Education Elective	0	0	0
Second Year	PPRM-201 Introduction to Technical Writing			3
	PPRT-210 Newspaper Presses		3	
	PPRM-301 Applications of Computers in Graphic Arts	3		
	PPRT-320 Newspaper Production I		3	
	PPRT-402 Applications of Electronics		3	
	PPRT-322 Circulation and Mailroom			3
	EIEI-420 Work Measurement & Analysis	4		
	Professional Electives			3
	**Science Option	4	4	4
	*General Studies Elective-Lower Division	4	4	4
	‡Physical Education Elective	0	0	0
Third Year	PPRM-210 Financial Controls I	3		
	PPRM-514 Newspaper Management		4	
	PPRT-330 Newspaper Production II			3
	PPRM-518 Purchasing in the Graphic Arts	3		
	EIEI-422 Systems and Facilities Planning			4
	Professional Electives		3	
	**Science Option	4	4	4
	*General Studies-Upper Division	5	5	5
Fourth Year	PPRM-503 Statistics of Quality Control	4		
	PPRM-509 Economics of Production Management			4
	PPRM-511 Labor Relations in Graphic Arts		4	
	PPRM-515 Legal Problems in Publishing			4
	Approved Professional Electives	6	8	4
	*General Studies-Upper Division	5	5	5

**See Pg. 98 for General Studies requirements.*
***Approved three quarter sequences are listed under Science electives.*
‡See Pg. 40 for Policy on Physical Education.

Printing Systems Management

Walter G. Campbell, Coordinator

There is a need in the printing industry for people who have a competency in both printing and industrial engineering.

The main focus for such people is on printing processes so that operating conditions in printing plants and allied industries can be optimized. 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 development in the printing industry. Working with computers, methods analysis, electronics, mechanics, and many different kinds of people are everyday occurrences. The program in Printing Systems Management integrates coursework in printing technology, printing management, industrial engineering, math/science, and general education to prepare people for the printing industry, who are excellent problem solvers when analyzing printing plant operations.

Career opportunities
The graduate with a BS degree in Printing Systems Management has many career choices within the printing industry. Many find beginning positions as production assistants, assistant production managers, assistant plant engineers, computer engineering specialists, and systems analysts. These can lead to positions of production manager, director of computer technology, plant engineer, and operations manager.

Requirements for admission
General requirements for admission are given in the general information section of this bulletin. In addition, it is highly desirable that the applicant have a great interest in both printing and industrial engineering which can be shown by success in working on a school newspaper or yearbook, by working summers in a printing plant or by general interest in graphic communications and engineering. High school graduation is a requirement along with coursework in elementary algebra, plane geometry, intermediate algebra,

trigonometry, physics and chemistry. Preference is given to those who have had additional work in mathematics, physics and chemistry.

Scholarships and financial aid
There are a number of scholarships in the School of Printing which range in value from $100 to full tuition. Some of these may be continued beyond one year depending upon how well the student has performed.

Competitive scholarships are offered through the National Scholarship Trust Fund of the Education Council of the Graphic Arts industry. Anyone interested in applying for one of these scholarships should do so early in the senior year in high school, since the application must be filed in advance of the date set for competitive examinations. If information is not available in the local high school, the candidate should write to:

Education Council of the
Graphic Arts Industry
4615 Forbes Avenue
Pittsburgh, Pa. 15213

For information regarding scholarships administered by the Institute, write to or contact the Financial Aid Office, 475-2186.

Program of study
The School of Printing offers a four-year course of study leading to a bachelor of science degree in printing systems management. The program includes a total of 196 quarter credits. Of these there are 35 in printing technology, 29 in printing management, 40 in industrial engineering, 32 in math/science, 54 in general studies and six electives.

Employing about 1.1 million people, the commercial printing industry has about 40,000 plants. Although many of these plants are quite small, nearly 8,000 of them would be sufficient size to require the services of a graduate of the printing systems management program, and many of these firms have stressed the need for people educated in both printing and industrial engineering.

The *U.S. Industrial Outlook* says that, “The stability and growth that has existed in the commercial printing industry for more than a decade is expected to continue into the 1980’s”. This program is designed to complement the industry’s growth by stressing management, engineering, the sciences, along with computer and printing technology.

Graduates of two-year colleges are encouraged to transfer into the four-year program. Qualified transfer students find that many of their two-year college credits are applicable toward the four-year degree.

Cooperative program
The cooperative program in printing systems management is a flexible and voluntary program available to students who have successfully completed the first two years of the required printing systems management program, and to qualified transfer students accepted at the junior level. A wide variety of work experiences is available in the printing industry where students’ practical work experiences can build upon the formal classroom learning. This cooperative program can require up to five years for completing the BS requirements.

Organization
The BS program in printing systems management is organized under the management division of the School of Printing. This division offers many courses in the marketing, financial, personnel, and production segments of the industry and are available to the printing systems management students.

Electives
Students may elect professional courses in printing or industrial engineering to complete their two-elective course requirement.

General Studies electives
In general, the program requires that the student take one course per quarter from this area which includes subjects such as economics, psychology, language communications, literature and fine arts appreciation. See page 98 for more specific details regarding distribution requirements.

Principal field of study
For students matriculated in the Printing Systems Management Program, the principal field of study consists of all course work in the School of Printing and the Department of Industrial Engineering. Matriculated students not maintaining a 2.0 cumulative grade point average in their principal field of study are subject to academic probation or suspension according to Institute policy.

Printing Systems Management

Year		Quarter Credit Hours: Fall	Winter	Spring
First Year	PPRT-201 Typography I	3		
	PPRT-213 Principles of Copy Preparation	3		
	PPRM-210 Financial Controls I	3		
	SMAM-251 Engineering Calculus I	4		
	PPRT-204, 205, or 209 Relief, Gravure, or Screen Printing		3	
	PPRT-206 Reproduction Photography		3	
	PPRM-301 Appl. of Computers to the Graphic Arts		3	
	SMAM-252 Engineering Calculus II		4	
	PPRT-207 Printing Plates			3
	PPRT-208 Lithographic Press			3
	PPRM-403 Printing Production Management I			3
	SMAM-253 Engineering Calculus III			4
	*General Studies Electives-Lower Division	4	4	4
	‡Physical Education Elective	0	0	0
Second Year	PPRT-302 Composition Systems	3		
	EENG-201 Introduction to Engineering (Drafting)	4		
	SMAM-351 Introduction to Probability & Statistics	4		
	SMAM-305 Engineering Calculus IV	4		
	PPRM-201 Introduction to Technical Writing		3	
	SPSP-205 General Physics (Mechanics)		4	
	SMAM-352 Introduction to Probability & Statistics		4	
	PPRT-511 Imposition and Finishing			3
	SPSP-206 General Physics (Heat)			4
	EENG-202 Introduction to Engineering (Fortran)			4
	*General Studies Electives-Lower Division		4	4
	‡Physical Education Elective	0	0	0
Third Year	PPRT-315 Ink and Color	4		
	EI EI -422 Systems and Facilities Planning	4		
	EIEI-420 Work Measurement and Analysis I	4		
	PPRM-401 Estimating I		4	
	EIEI-415 Human Factors I		4	
	EIEI-511 Applied Statistics II		4	
	PPRM-511 Labor Relations			4
	PPRT-308 Lithographic Press Problems			4
	EIEI-401 Operations Research I			4
	*General Studies Electives-Upper Division	4	5	5
Fourth Year	PPRT-406 Color Separation Photography	3		
	EIEI-503 Simulation	4		
	EIEI-550 Safety Engineering	4		
	PPRM-590 Senior Seminar	2		
	PPRT-500 Quality Control		3	
	EIEI-482 Production Control I		4	
	Professional Elective		3	
	PPRM-502 Financial Controls II			4
	Professional Elective			3
	*General Studies Electives-Upper Division	5	5	10

**See Pg. 98 for General Studies requirements.*
‡See Pg. 40 for Policy on Physical Education.

Institute College Provides Students With Tailor-Made Programs of Study

Roy I. Satre, Jr., Dean

Organized in 1973, Institute College is the ninth of 10 colleges within the administrative framework of Rochester Institute of Technology. It incorporates the School of Engineering Technology, the School of Computer Science and Technology, the Department of Packaging Science, the Center for Community/Junior College Relations and the Department of Instructional Technology.

In 1968, the Center for Community College Faculty Development was formed, its primary function being the training of faculty for two-year college career programs. In 1970, a new School of Applied Science (now called the School of Engineering Technology) evolved from the Center, offering upper-division baccalaureate programs to graduates of civil, electrical and mechanical engineering technology curricula from the two-year colleges.

In 1972, the name of the Center was changed to Center for Community/Junior College Relations. This Center now incorporates Faculty Development and Community/Junior College Articulation. Major emphasis is on closer relationships with two-year colleges as they relate to upper-division transfer to RIT.

Both the School of Engineering Technology and the Center for Community/Junior College Relations have expanded rapidly to include additional curricula designed to meet their original objectives. At the same time, they have established close relationships with many two-year colleges. By so doing, they can build upon the curricula of the associate's degree granting institutions and supply faculty in those areas of technical and professional education where a demonstrated need exists.

Also in 1972, the Department of Packaging Science was established to offer courses leading to the bachelor of science degree in packaging science. This department became functional in September 1973.

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

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

The Department of Instructional Technology was established in June of 1974 to offer both upper-division work in audiovisual communications and graduate programs in instructional technology. The audiovisual curriculum serves graduates of the two-year colleges and upon completion of an additional two years leads to the bachelor of science degree.

Resources

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

Institute College utilizes some of the finest facilities and equipment available. The new packaging science laboratories, the computer science facilities and equipment, and the new instructional technology laboratory have all seen additional equipment installed. The School of Engineering Technology's sharing of facilities with the College

of Engineering allows the use of the most modern and sophisticated equipment in the engineering technology curricula. The added availability of remote terminals feeding into the Sigma 9 computer (and others) gives the student a maximum opportunity to utilize computers in his or her curriculum.

Memberships
Institute College holds institutional membership in the American Association of Community and Junior Colleges, and the New York State Association of Junior Colleges.

Acceptance of the associate's degree
The School of Engineering Technology and the Department of Instructional Technology (Audio-visual 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 in three years of additional study in the cooperative education program.

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

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

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

Program planning
Each student in Institute College 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.

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

'We Have Few

Educational

Inhibitions,' Says

Dean Roy Satre

Dean Roy I. Satre

"This is the most invigorating environment I've ever experienced in higher education," says Dr. Roy I. Satre, dean of Institute College.

Institute College, begun in 1972, is the newest college on the Henrietta campus and one its dean calls the “growingest." Originally designed to provide an administrative structure for RIT’s Center for Community/Junior College Relations and the School of Engineering Technology, the College has since added the School of Computer Science and Technology, the Department of Packaging Science, and the Department of Instructional Technology.

“We’ve more than doubled our enrollment and budget in the last five years,” states Satre, who thinks Institute College’s lack of tradition is one of its strong points.

“If someone-a faculty member, administrator, or student-has a good idea it’s much more likely to be aired here at RIT than in many other educational institutions,” he says.

Satre was the first dean of Niagara County Community College and the founding president of the Community College of the Finger Lakes prior to joining RIT. Educated as a botanist and bio-ecologist before the term ecology was popularized, he taught college courses in conservation for several years.

Satre rates the Institute College faculty highly and believes the college’s system of advisory committees from industry also help keep the programs current and industry-oriented.

“I think we attract a good faculty because we have few educational inhibitions and tabus at RIT; faculty members appreciate not having to go through endless red tape in order to try a creative idea,” concludes the dean.

Admission at a Glance: Institute College Programs

General Information on RIT's admission requirements, procedures and services is included in detail on Pages 24-25 of this Bulletin.

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

Programs offered by this college further reflect RIT's concern to provide students with relevant, career-oriented programs that lead to rewarding employment.

The Institute College prepares its students for a world of rapidly expanding technological applications.

Applied Software Science: Designed to prepare students to enter employment as applied software specialists, applications programmers, or research programmers. Degrees granted. AAS-2 year; BS-4-5 year.

Computer Science: General computer science, prepares graduates to enter employment as research programmers or enter graduate schools for specialized training. Degrees granted: AAS-2 year; BS-4-5 year.

Computer Systems: Oriented to prepare management, systems analysts, information systems designers, and business applications programmers. Systems application area is selected from the other RIT programs. Degrees granted: AAS-2 year; B. Tech.-4-5 year.

Systems Software Science: To prepare systems programmers or systems software specialists. Any relevant curriculum at RIT may be chosen as minor study. Degrees granted AAS-2 year; B. Tech.-4-5 year.

Computer Engineering: A program jointly offered with the Department of Electrical Engineering. Oriented to prepare students in hardware design, interface, and process control. Degree granted: BS-5 year.

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

Civil Engineering Technology: This program offers two options-environmental controls, and construction. The environmental option places emphasis on water and wastewater treatment. The construction option is oriented toward the building industry. Degree granted: B. Tech.-3 year woth Co-op*

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

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

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

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

Upper Division only.

Freshman Admission Requirements — Transfer Admission with junior standing

Program †	Required High School Subjects*	Desirable Elective Subjects	Two-Year College Programs	Desirable minimum grade point average
Computer Systems **Systems Software Science**	Elem. Algebra; Inter. Algebra		Data processing, business, or equivalent computer technology	2.25
Applied Software Science **Computer Science**	Elem. Algebra; Inter. Algebra; Trigonometry Plane Geometry Physics or Chemistry	Additional mathematics and science	Computer Science, engineering, mathematics and science.	2.3
Packaging Science	Elem. Algebra; Inter. Algebra 1 year any science Additionally for the Technical option; Plane Geometry; Trigonometry	Additional mathematics, science, printing, and art	Packaging Science or equivalent	2.0
Civil Engineering Technology	First two years available at many two-year colleges.		Civil construction technology, or equivalent.	2.0
Electrical Engineering Technology	First two years available at many two-year colleges and RIT's College of Continuing Education.		Electrical technology, electronics, technology, or equivalent.	2.0
Mechanical Engineering Technology	First two years available at many two-year colleges and RIT's College of Continuing Education.		Mechanical technology, drafting and design, industrial technology, or equivalent.	2.0
Manufacturing Technology	First two years available at some two-year colleges and RIT's College of Continuing Education		Completion of appropriate associate's degree in manufacturing technology, mechanical technology, or equivalent.	2.0
Audiovisual Communications	First two years available at some two-year colleges.		Audiovisual technology, television production, communications electronics, or comparable programs.	2.0

†All options include electives in social science, literature and humanities.
**Four years of English are required in all programs, except where state requirements differ.*

Audiovisual Communications Program

Clinton Wallington, Chairman

Bachelor of Science in Audiovisual Communications

With little fanfare, the use of audiovisual materials for training, for public relations, and for presentations has grown markedly. The unusual-slide/tape training packages, multi-image presentations, audio and video cassettes-is now the commonplace. The field which we label “audiovisual communications” is so broad and diversified that it carries different meanings for each of us. But behind the scenes is a core of professional audiovisual specialists who translate ideas into media. While the growth of the field brings a need for specialists in particular medium such as photography, television, or filmmaking, there is a demand for the audiovisual generalist who can work in a variety of media and manage the production process from client need to finished product.

But increasingly, the demand has this general audiovisual specialist who can perform a large variety of tasks and has the skills and knowledge to analyze and solve problems in a wide range of communications settings. While programs of study exist at the two-year college level (associate’s degree) and at the graduate school level (usually in schools of education), there was a major gap at the four-year college level (bachelor’s degree). To earn a bachelor’s degree, the graduate from a two-year college had to transfer into a program that was not in audiovisual communications.

Now RIT’s Audiovisual Communications program in the Department of Instructional Technology is specifically designed to fill this need. It is an upper division transfer program leading to a bachelor of science degree after two years of study. For the first time graduates of two-year colleges can transfer into a four-year college without changing their major field.

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

Objectives

The primary objectives of the BS program in audiovisual communications are to prepare fully qualified individuals for professional employment as audiovisual communications specialists. This rapidly growing field is concerned with effectively and efficiently transmitting information by using systematically designed audiovisual materials. The bachelor of science program is concerned with training professionals in the rigorous process of designing and producing these materials. An advisory committee from industry, potential employers, and educational institutions helps to make the curriculum up-to-date and relevant.

Curriculum

The curriculum concentrates on three major areas: audiovisual program design, audiovisual management, and production skills. The major emphasis is on acquiring technical competence, a mastery of skills and techniques. Course assignments are made to permit hands-on experience in designing, producing and evaluating audiovisual products in specific training situations. By requiring core courses in each of the three areas, and permitting electives from a wide range of courses, a high degree of individualization is accomplished. Course requirements may be adjusted to meet individual needs through student/faculty advisement conferences.

Admission requirements

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

Graduates from other programs in two-year colleges will be considered but may be required to take courses to make up any deficiencies in audiovisual production skills.

Graduation requirements

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

Audiovisual Management electives
ICAV-460 Selection, Storage and Dissemination of Media Resources
ICAV-461 Visual Information Resources
ICAV-502 Practicum in Audiovisual Management
ICAV-560 Media Facilities Design
Other electives may be taken in the College of Business and the College of Continuing Education with the approval of the appropriate department and the student's academic advisor.

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

Audiovisual Production electives
ICAV-485 Electronics in AV
ICAV-490 Audio Techniques
ICAV-503 Practicum in Production
ICAV-570 Survey of AV Hardware
ICAV-580 Producing Multimedia Presentations
Other electives may be taken in the College of Continuing Education, the School of Engineering Technology, and the School of Photographic Arts and Sciences, with permission of the appropriate department and the student's academic advisor.

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

Audiovisual Communications, BS degree

General Education, required	Quarter hours
*General Studies-Upper Division	25
GLLC-402 Conference Techniques	4
SSEG-201, 202, 203 Contemporary Science	12
Elective	4
	Total 45
Free Electives	**5**
Audiovisual Communications, required courses	
ICAV-440 Audiovisual Program Design I	4
ICAV-450 Audiovisual Program Design II	4
ICAV-550 Management of Audiovisual Program	4
Audiovisual Management Elective	4
Audiovisual Production Electives	8
ICAV-401 Message Design	4
ICAV-510 Writing for Audiovisual Programs	4
ICAV-405 Audiovisual Seminar	2
ICAV-595, 596 Senior Project	4
	38
Audiovisual electives	**8**
‡Physical Education electives (as required)	**0**
Total credit for BS (plus associate's degree)	**96**

See Pg. 98 for General Studies requirements.
‡See Pg. 40 for Policy on Physical Education.

School of Computer

Science, Technology

Both Theoretical

And Practical

Richard T. Cheng, Director

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

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

Programs

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

1. Computer science (BS) degree program with options in computer science and applied software science

2. Computer technology (B. Tech) degree program with options in computer systems and system software science

3. A computer engineering (BS) program jointly offered with the Department of Electrical Engineering. (For details see the College of Engineering section.)

Students entering as freshmen may change options during the first three years of study without losing credit for courses they have taken (except computer engineering). Transfer students will have one year to change options without losing credits. The only concern is mathematics requirements and professional or free electives, which differ between the various options. Students in all computer science and technology programs are required to obtain one year (four quarters) of Co-op work experience before graduation.

Computer Science program

Richard T. Cheng, Acting staff chairperson

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

The computer science option is designed for students who are not sure which speciality will be pursued and for those who wish to enter graduate studies immediately following graduation. The applied

software science option is designed for students who wish to work as scientific applications specialists upon graduation. However, the applied software science option also fully prepares its students for graduate studies.

Computer Science option
Guy Johnson, Coordinator

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

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

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

Computer Science option, BS degree

Year		Quarter Credit Hours: Fall	Winter	Spring
First Year	ICSS-202 Introduction to Computer Science	4		
	ICSP-208 Introduction to Programming	4		
	ICSP-210 Program Design & Validation		4	
	ICSP-305 Assembly Language Programming			4
	SMAM-251, 252, 253 Calculus	4	4	4
	SPSP-205, 206 Physics & Lab		4	4
	*General Studies Elective (Lower Division)	4	4	4
	‡Physical Education Elective	0	0	0
Second Year †	ICSS-315 Digital Computer Organization	4		
	ICSS-320 Data Structure Analysis		4	
	SMAM-305 Calculus	4		
	Math Elective		4	
	Computer Science Elective		4	4
	ICSS-340 Finite State Machine & Automata			4
	Science Elective	4		4
	*General Studies Elective (Lower Division)	4	4	4
	‡Physical Education Elective	0	0	0
Upper Division Years	ICSS-400 Logical Design	4		
	ICSS-440 Operating Systems	4		
	ICSS-480 Formal Languages	4		
	ICSS-525 Assemblers, Interpreters & Compilers	4		
	ICSS-545 Microprogramming	4		
	ICSS-550 Review of Computer Science	4		
	ICSS-575 Minicomputer Systems and Applications	4		
	SMAM-511, 512 Numerical Analysis or Math Elective	8		
	Computer Science Elective	20		
	Math/Science Electives	8		
	*General Studies Elective (Upper Division)	30		
	Free Electives	8		
	Co-op (4 quarters)			

*See *Pg. 98 for General Studies requirements.*
‡See Pg. 40 for Policy on Physical Education.
†Upon completion of the second year, the associate in applied science degree is awarded.

Applied Software Science option
Rodger Baker, Coordinator

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

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

Computer Technology program
Wiley R. McKinzie, Staff Chairperson

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

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

Finally, six quarters of physical education and four quarters of Co-op work experience are required. Two options are currently offered: computer systems and systems software science.

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

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

Applied Software Science option, BS degree

Year		Quarter Credit Hours: Fall	Winter	Spring
First Year	ICSS-202 Introduction to Computer Science	4		
	ICSP-208 Introduction to Programming	4		
	ICSP-210 Program Design and Validation		4	
	ICSP-305 Assembly Language Programming			4
	SMAM-251, 252, 253 Calculus	4	4	4
	Physics Elective		4	4
	*General Studies Electives (Lower Division)	4	4	4
	‡Physical education Elective	0	0	0
Second Year†	ICSS-315 Digital Computer Organization	4		
	ICSS-320 Data Structure Analysis		4	
	ICSP-215 Programming Language - FORTRAN			4
	SMAM-305 Calculus	4		
	SMAM-306 Differential Equations		4	
	Computer Science Elective			8
	Math-Science Elective and SMAM-351 Probability and Statistics	4	4	
	*General Studies Elective (Lower Division)	4	4	4
	‡Physical Education Elective	0	0	0
Upper Division Years	ICSS-430 Numerical Methods		4	
	ICSS-440 Operating Systems		4	
	ICSS-575 Minicomputer Systems Applications		4	
	ICSS-545 Microprogramming		4	
	ICSS-550 Review of Computer Science		4	
	Computer Science Electives		28	
	Math or Science Electives		12	
	*General Studies (Upper Division)		30	
	Free Electives		8	
	Co-op (4 quarters)			

See Pg. 98 for General Studies requirements.
‡See Pg. 40 for Policy on Physical Education.
†Upon completion of the second year, the associate in applied science degree is awarded.

Computer Systems option
Wiley R. McKinzie, Coordinator

This program is designed to provide students with a broad background in computing with an emphasis on data processing applications. Graduates from this program are qualified to enter positions such as information systems designer and business applications programmer with ultimate career goals of management systems analyst or lead applications programmer. These positions not only require a strong computing background, but also a sound foundation in analytical and business skills. A student may choose an area of concentration in supportive disciplines such as business, mathematics, engineering, or other relevant curriculum at RIT, for professional electives. The computer systems curriculum is designed to facilitate transfer for graduates of two-year degree programs in data processing or business.

Computer Systems option, B. Tech degree

Year		Quarter Credit Hours: Fall	Winter	Spring
First Year	ICSS-202 Introduction to Computer Science	4		
	ICSP-208 Introduction to Programming	4		
	ICSP-210 Program Design & Validation		4	
	ICSP-305 Assembly Language Programming			4
	SMAM-204 Modern Algebra	4		
	SMAM-214 Introductory Calculus I		3	
	SMAM-309 Statistics			4
	*General Studies Electives (Lower Division)	4	8	8
	‡Physical Education Electives	0	0	0
Second Year†	ICSP-301 COBOL Programming	4		
	ICSS-310 Information Systems Design	4		
	ICSS-311 Information Systems Analysis		4	
	ICSS-320 Data Structure Analysis		4	
	ICSS-321 Sorting & Searching Techniques			4
	Computer Science Electives			4
	Professional Electives	4	4	4
	*General Studies Electives (Lower Division)	4	4	4
	‡Physical Education Electives	0	0	0
Upper Division Years	ICSP-304 Advanced COBOL		4	
	ICSS-525 Assemblers, Interpreters & Compilers		4	
	ICSS-420 Data Communications Systems		4	
	ICSS-450 Computing Management		4	
	ICSS-550 Review of Computer Science		4	
	Computer Science Electives		32	
	Professional Electives		32	
	*General Studies Electives (Upper Division)		15	
	Co-op (4 quarters)			

**See Pg. 98 for General Studies requirements.*
‡See Pg. 40 for Policy on Physical Education.
†Upon completion of the second year, the associate in applied science degree is awarded.

Systems Software Science option
Wiley R. McKinzie, Coordinator

This program is designed to provide students with a broad background in computer systems software and competence in systems software programming. Systems software is a system of programs which extends the power and flexibility of the computer to make it a more viable problem solving tool for the applications programming areas such as data process and scientific computing. Systems software programming is concerned with the design, implementation, modification, and maintenance of systems software (e.g., compilers, operating systems, system utilities etc.). Therefore, students are required to obtain a firm understanding of computer systems software and computer systems hardware concepts. Students will develop a high degree of competence in assembly language programming which is the media for system software programming. Graduates are prepared to enter employment as systems programmers or systems software specialists. Any relevant curriculum at RIT may be chosen for professional electives.

Systems Software Science option, B. Tech degree

Year		Quarter Credit Hours: Fall	Winter	Spring
First Year	ICSS-202 Introduction to Computer Science	4		
	ICSP-208 Introduction to Programming	4		
	ICSP-210 Program Design and Validation		4	
	ICSP-305 Assembly Language Programming			4
	SMAM-204 Modern Algebra	4		
	SMAM-214 Introductory Calculus		3	
	SMAM-309 Statistics			4
	*General Studies Electives (Lower Division)	4	8	8
	‡Physical Education Electives	0	0	0
Second Year†	ICSS-315 Digital Computer Organization	4		
	ICSS-320 Data Structure Analysis	4		
	ICSP-306 Advanced Assembly Language		4	
	ICSS-321 Sorting & Searching Techniques			4
	Computer Science Electives		4	4
	Professional Electives	4	4	4
	*General Studies Electives (Lower Division)	4	4	4
	‡Physical Education Electives	0	0	0
Upper Division Years	ICSS-440 Operating Systems		4	
	ICSS-525 Assemblers, Interpreters & Compilers		4	
	ICSS-545 Microprogramming		4	
	ICSS-575 Minicomputer Systems & Applications		4	
	ICSS-580 Systems Programming		4	
	ICSS-585 Systems Programming Laboratory		4	
	ICSS-550 Review of Computer Science		4	
	Computer Science Electives		24	
	Professional Electives		32	
	*General Studies Electives (Upper Division)		15	
	Co-op (4 quarters)			

**See Pg. 98 for General Studies requirements.*
‡See Pg. 40 for Policy on Physical Education.
†Upon completion of the second year, the associate in applied science degree is awarded.

Engineering Technology... N on-Traditional Programs Lead to Traditional Careers

James D. Forman, Director

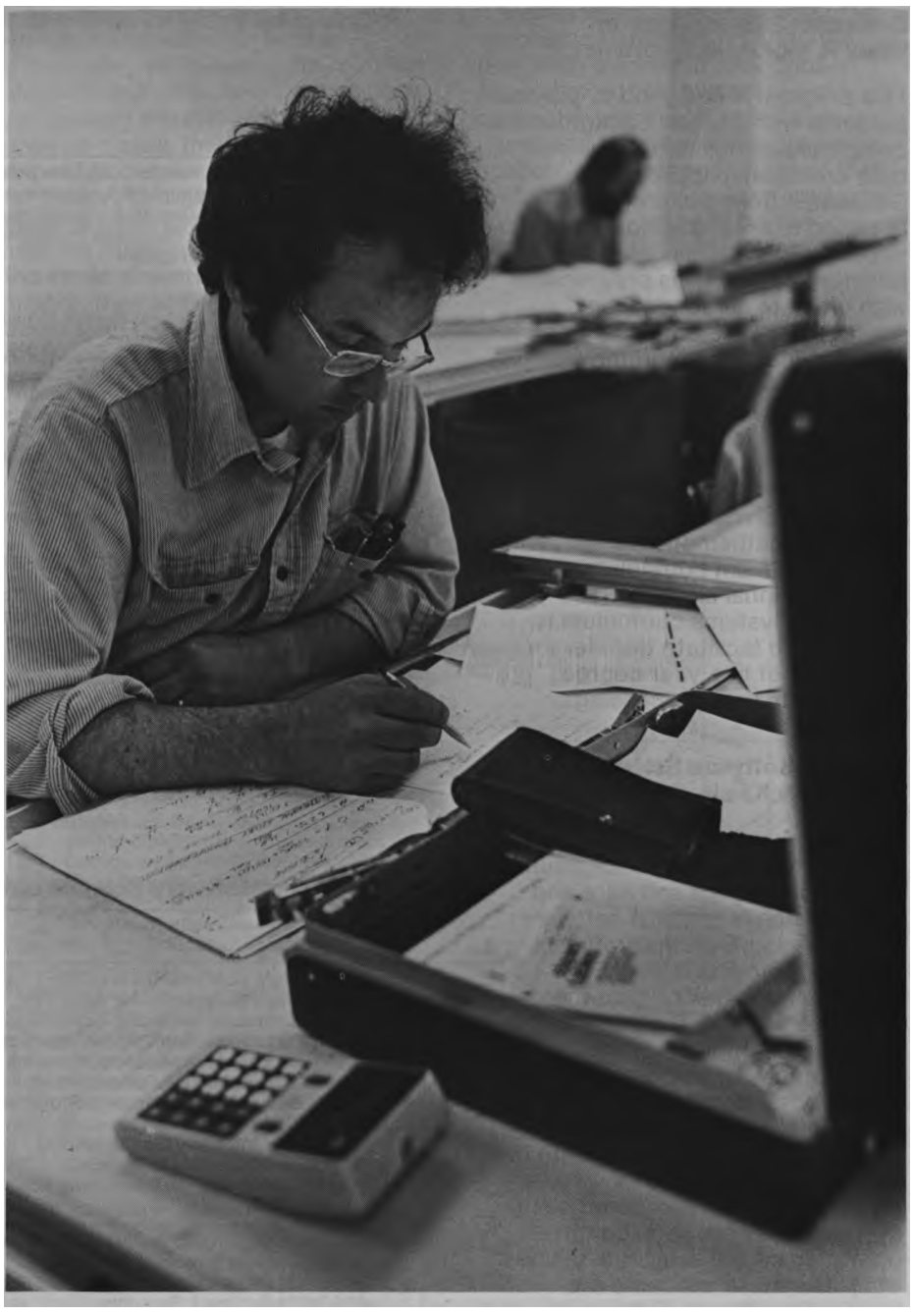
Engineering technology is a relatively new field in higher education, and RIT was a pioneer in the development of such programs. Originally conceived as associate's degree level educational programs, engineering technology curricula were designed to prepare people to work with engineers and scientists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

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

The School of Engineering Technology upper-division programs are designed specifically to accept graduates of associate's degree programs in similar engineering technology fields, and provide a continuation of study in the student's area of specialization. Each program area consists of a carefully integrated program heavily involved in professional studies, coupled with liberal education, mathematics, and on-the-job experience.

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

The graduate-an engineering technologist-is a distinct type of professional whose main concern and interest is with existing operation, maintenance, and management of products and processes. As such, the graduate qualifies for positions to fulfill a role within the broad engineering



requirements of business, industry and government. At the present time, the New York State Board for Engineering and Land Surveying requires the B. Tech graduate to achieve additional experience prior to becoming eligible for the New York State Professional Engineer examination. Requirements differ in other states.

Cooperative work plan

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

The Co-op 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 help defray a major

portion of one's educational expenses.

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

Admission requirements

The School of Engineering Technology accepts only transfer students. Admission to the bachelor of technology degree programs in the School of Engineering technology is open to persons holding an associate's degree in air conditioning technology, civil or construction technology, electrical technology, manufacturing technology, mechanical technology, a comparable associate's degree program, or an acceptable equivalent.

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

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

Program requirements

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

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

Unless suitable physical education credit is transferred, students are also required to complete up to three physical education electives with passing grades (see policy statement on page 40).

Graduation requirements

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

Accreditation

The program of study leading to the bachelor of technology degree in civil engineering technology, (environmental option), electrical engineering technology, and mechanical engineering technology, are all ECPD (Engineer's Council for Professional Development) accredited engineering technology programs. The School of Engineering Technology is a member institution of the American Society for Engineering Education.

Environmental option cooperative education schedule

Year		Fall	Winter	Spring	Summer
3	I	RIT	Work	RIT	Work
	II	Work	RIT	Work	RIT
4	I	Work	RIT	Work	RIT
	II	RIT	Work	RIT	Work
5	I	RIT	Work	RIT	-
	II	Work	RIT	RIT	-

Students following the Environmental Option will observe the schedule of cooperative education shown above. All students, whether Block I or II, have the opportunity for one summer of employment, and one 6-month long employment session.

Civil Engineering Technology, B. Tech degree—Environmental option

		Quarter Credit Hours Fall Winter	Quarter Credit Hours Spring Summer
1,2 Completion of an appropriate associate's degree at a two-year college			
Third Year	ITEC-420 Hydraulics	4	
	ITEC-428 Report Writing	2	
	SCHG-271 Chemistry of Water I	3	
	SMAT-421 Solution of Engineering Problems I	4	
	***SMAT-420 Introduction to Solutions of Engineering Problems	(4)	
	*General Studies Elective (Lower Division)	4	
	‡Physical Education Elective	0	
	ITEM-404 Applied Mechanics of Materials		3
	SCHG-272 Chemistry of Water II		3
	SBIG-440 Environmental Microbiology		4
	SMAT-422 Solution of Engineering Problems II		4
	***SMAT-421 Solution of Engineering Problems I		(4)
	*General Studies Elective (Lower Division)		4
	‡Physical Education Elective		0
Fourth Year	ITEC-432 Water Transport Systems	3	
	ITEC-434 Environmental Pollution	3	
	ITEC-438 Principles of Treatment of Water and Sewage	4	
	ICSP-205 Computer Techniques	3	
	ITEE-414 Basic Electrical Principles	4	
	***SMAT-422 Solution of Engineering Problems II	(4)	
	‡Physical Education Elective	0	
	ITEC-510 Design of Water Treatment Facilities		3
	ITEC-513 Computer Techniques in Civil Engineering		1
	ITEC-514 Land Planning		2
	ITEC-516 Structural Analysis & Design I (Concrete)		4
	Technical Elective		3
	*General Studies Elective (Upper Division)		5
Fifth Year	ITEC-520 Design of Wastewater Treatment Facilities	4	
	ITEC-527 Soil Mechanics and Foundations	4	
	Technical Elective	4	
	***ITEE-414 Basic Electrical Principles	(4)	
	General Studies Elective (Upper Division)	5	
	••ITEC-544 Contracts and Specifications		3
	**ITEC-546 Professional Principles & Practices		1
	Technical Elective		4
	Free Elective		4
	*General Studies Elective (Upper Division)		5

****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 Solution of Engineering Problems 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. 98 for General Studies requirements.*

‡See Pg. 40 for Policy on Physical Education.

Civil Engineering Technology, upper-division baccalaureate program

Russell L. Vesper, Staff Chairman

The civil engineering profession requires the services of many individuals with a wide range of backgrounds and interests-technicians, technologists, and engineers.

The technologist translates the innovative concepts of the engineer into functioning systems and structures, using the language of codes, working drawings, specifications, and construction.

All students enter this program at the third-year level, having already received an associate's degree in civil or construction technology or an acceptable equivalent.

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 path of studies should find wide-ranging employment opportunities.

Cooperative education plan

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

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

Technical electives

ITEC-549 Environmental Engineering Project..... 4 credits
ITEC-550 Construction Practices ..... 4 credits
ITEC-552 Structural Analysis & Design II (structural steel)..... 4 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.

**Refer to College of Continuing Education Course Catalog.*

Construction option cooperative education schedule

Year	Fall	Winter	Spring	Summer
3	**Work**	**RIT**	**RIT**	**Work**
4	**Work**	**RIT**	**RIT**	**Work**
5	**Work**	**RIT**	**RIT**	

Civil Engineering Technology, B. Tech degree—Construction Option

		Quarter Credit Hours		
			Fall Winter	Spring Summer
1,2	Completion of an appropriate associate's degree at a two-year college			
Third Year	ITEC-420 Hydraulics	4		
	ITEC-428 Report Writing	2		
	SCHG -271 Chemistry of Water I	3		
	SMAT-421 Solution of Engineering Problems I	4		
	‡‡SMAT-420 Introduction to Solutions of Engineering Problems	(4)		
	*General Studies Elective (Lower Division)	4		
	‡Physical Education Elective	0		
	**ITEC-460 Construction Equipment			3
	ITEM-404 Applied Mechanics of Materials			3
	BBUB-245 Business Management			4
	SMAT-422 Solution of Engineering Problems II			4
	‡‡SMAT-421 Solution of Engineering Problems I			(4)
	*General Studies Elective (Lower Division)			4
	‡Physical Education Elective			0
Fourth Year	***ITEC-470 Timber Design & Construction	3		
	**ITEC-422 Elements of Building Construction	4		
	ICSP-205ComputerTechniques	3		
	ITEE-414 Basic Electrical Principles	4		
	‡‡SMAT-422 Solution of Engineering Problems II	(4)		
	ITEM-436 Engineering Economics	4		
	‡Physical Education Elective	0		
	ITEC-513 ComputerTechniques in Civil Engineering			1
	ITEC-516 Structural Analysis & Design I (Concrete)			4
	**ITEC-500 Labor Relations			3
	Technical Elective			4
	*General Studies Elective (Upper Division)			5
Fifth Year	***ITEC-508 Cost Estimates	3		
	ITEC-527 Soil Mechanics and Foundations	4		
	***ITEC-444 Mechanical Equipment for Buildings	3		
	Technical Elective	3		
	‡‡ITEE-414 Basic Electrical Principles	(4)		
	*General Studies Elective (Upper Division)	5		
	**ITEC-544 Contracts & Specifications			3
	**ITEC-546 Professional Principles & Practices			1
	**ITEC-450 Construction Management			4
	Free Elective			4
	*General Studies Elective (Upper Division)			5

‡‡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 Solution of Engineering Problems, 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*
****Offered in Winter Quarter only*
**See Pg. 98 for General Studies requirements.*
‡See Pg. 40 for Policy on Physical Education.

Electrical Engineering Technology, upper-division baccalaureate program

John F. Adams, Staff Chairman

The bachelor of technology degree in electrical engineering technology is an ECPD accredited engineering technology program. This relatively new professional program is designed to meet the growing needs for technologists in a technologically oriented society.

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

The bachelor of technology program in electrical engineering technology offered at Rochester Institute of Technology is an upper-division program. The upper-division feature of the program provides a viable transfer option to those students who have completed their associate's degree and desire to continue their education in technology. All students enter the program at the third year or junior level as transfers from existing two-year associate's degree electrical technology programs.

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

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

For students who wish to concentrate their electives in the computer area, a sequence of courses is shown which provides a strong program in this area. This sequence includes recommended course offerings from the School of Computer Science and Technology.

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.

Technical electives
(each carries 4 quarter credit hours)

ITEE-521 Electromagnetic Fields and Antennas
ITEE-524 Microwave Systems
ITEE-526 Semi-Conductor Physics
ITEE-534 Communications Systems I
ITEE-535 Communications Systems II
ITEE-536 Control Systems II
ITEE-538 Digital Computer Design I
ITEE-539 Digital Computer Design II
ITEE-542 Microprocessors
ITEE-543 Minicomputers, Controllers, and Peripherals
ITEE-544 I.C. Theory and Applications
ITEE-545 Applications of Linear I.C.'s
ITEE-546 Industrial Electronics
ITEE-548 D.C. and A.C. Machine Design
ITEE-550 Power Systems I
ITEE-551 Protective Relaying
ITEE-552 Power Systems II
ITEE-554 Electronic Optic Devices
ITEE-556 Transmission Lines and Filters
ITEE-580 Senior Project
ITEM-425 Statistical Quality Control
ITEM-550 Topics in Machine Design for Electrical Majors

Electrical Engineering Technology cooperative education plan

Year		Fall	Winter	Spring	Summer
3 and 4	A	RIT	Work	RIT	Work
	B	Work	RIT	Work	RIT
5	A	RIT	Work	RIT	
	B	Work	RIT	RIT	

Electrical Engineering Technology, B. Tech. degree

		Quarter Credit Hours		
		Fall Winter	Spring Summer	
1,2	Completion of an appropriate associate's degree at a two-year college			
Third Year	ITEE-401 Circuit Theory I	4		
	ITEE-424 Logic & Digital Devices	4		
	**SMAT-420 Introduction to Solution of Engineering Problems	4		
	SMAT-421 Solution of Engineering Problems I	4		
	*General Studies Electives (Lower Division)	4		
	‡Physical Education Elective	0		
	ITEE-402 Circuit Theory II			4
	ITEE-428 Linear Amplifier Design			4
	**SMAT-421 Solution of Engineering Problems I	4		
	SMAT-422 Solution of Engineering Problems II			4
	ICSP-302 Computer Applications in Engineering Problems I			1
	*General Studies Elective (Lower Division)			4
	‡Physical Education Elective			0
Fourth Year	**SMAT-422 Solution of Engineering Problems II	4		
	ITEE-404 Control Systems I	4		
	ITEM-408 Statics and Strength of Materials	4		
	ITEE-532 Power Amplifier Design	4		
	*General Studies Elective (Upper Division)	5		
	‡Physical Education Elective	0		
	ITEE-520 Electrostatic and Magnetic Fields			4
	ITEM-411 Engineering Materials I			4
	ITEE-540 Pulse Circuits			4
	†ITEE-538 Computer Design I			4
	*General Studies Elective (Upper Division)			5
Fifth Year	Technical Specialization Option (Communications, Power Systems, Digital Design)	4		
	Technical Electives	8		
	Free Elective	3-5		
	ITEM-436 Engineering Economics			4
	Technical Electives			8
	*General Studies Electives (Upper Division)			5

***Entering students will take SMAT-420 or SMAT-421 depending on their evaluation of their mathematical background. Those students assigned to SMAT-420 will be taking a 3 course sequence in Solution of Engineering Problems and will, therefore, defer taking one fourth year General Studies Elective until their fifth year, thus reducing the elective choices by one course.*
†Students desiring the computer design elective sequence are advised to take ITEE-538 in their fourth year and defer their General Studies until the fifth year.
**See Pg. 98 for General Studies requirements.*
‡See Pg. 40 for Policy on Physical Education.

Elective Sequence-Computer Design Specialization

4th Year	
Spring/Summer	**ITEE-538 Computer Design I**
5th Year	
Fall/Winter	**ITEE-539 Computer Design II**
	ICSP-215 Fortran
Spring	**ICSP-205 Assembly Language Programming**
	ITEE-542 Imcroprocessors
	ITEE-543 Minicomputers, Controllers and Peripherals

Mechanical Engineering Technology, upper division baccalaureate program

This program is designed for students with an associate's degree in Mechanical Engineering Technology or the equivalent of 90 quarter credit hours (60 semester hours) of appropriate college level work. Students having the AAS degree in such fields as air conditioning technology follow a course sequence adapted to their backgrounds.

The program in Mechanical Engineering Technology is an ECPD accredited engineering technology program, and is operated on the co-operative work-study plan.

In the early quarters, the student expands his skills in the fundamental area of mechanics, mathematics, and materials technology. In the senior quarters, he selects technical electives in his area of interest, concentrating on machine designor manufacturing. A substantial measure of laboratory work is required including the preparation of quality reports. Thus, technical and communication skills are enhanced to benefit the student's co-op work experience as well as his future professional performance.

Graduates of this program are prepared to occupy professional positions in mechanical design, engineering testing, field service engineering, technical sales, and plant operations.

Mechanical electives

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

Technical electives—energy specialization

ITEC-434 Environmental Pollution
ITEC-544 Contracts and Specifications
ITEM-541 Alternative Energy Applications
ITEM-500 System Design Project I
ITEM-501 System Design Project II

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

Courses are scheduled with the work-study program in mind. Entering students are divided into two sections (A or B), with work and academic addignments alternating as shown in the table.

Mechanical engineering technology cooperative education plan

Year		Fall	Winter	Spring	Summer
3 and 4	A	RIT	Work	RIT	Work
	B	Work	RIT	Work	RIT
5	A	RIT	Work	RIT	□
	B	Work	RIT	RIT	□

Mechanical Engineering Technology, B. Tech degree

		Quarter Credit Hours	
		Fall Winter	Spring Summer
1,2	Completion of an appropriate associate's degree at a two-year college		
Third Year	ITEM-407 Mechanical Engineering Technology Laboratory	4	
	ICSP-205ComputerTechniques	3	
	**SMAT-420 Introduction to Solution of Engineering Problems	4	
	**SMAT-421 Solution to Engineering Problems I	4	
	ITEM-404 Applied Mechanics of Materials	3	
	ITEM-414 Materials Technology I	3	
	‡Physical Education Elective	0	
	**SMAT-421 Solution to Engineering Problems II		4
	**SMAT-422 Solution of Engineering Problems II		4
	ITEM-405 Applied Dynamics		4
	ITEM-415 Materials Technology II		4
	*General Studies Elective (Lower Division)		4
	‡Physical Education Elective		0
Fourth Year	Technical Elective	4	
	**SMAT-422 Solution of Engineering Problems II	4	
	ITEM-441 Thermodynamics and Heat Transfer	4	
	ITEE-411 Electrical Principles for Design I	4	
	*General Studies Elective (Lower Division)	4	
	‡Physical Education Elective	0	
	ITEM-461 Mechanics of Fluids		3
	ITEM-506 Machine Design		4
	ITEE-412 Electrical Principles for Design II		4
	*General Studies Elective (Upper Division)		5
Fifth Year	ITEM-465 Thermofluid Laboratory	2	
	ITEM-437 Cost and Value Analysis	3	
	Technical Electives	8	
	*General Studies (Upper Division)	5	
	ITEM-521 Logic Control Systems		4
	Technical Elective		4
	Free Elective		3-5
	*General Studies (Upper Division)	5	

***Entering students will take SMAT-420 or 421 depending on an evaluation of their mathematics background. Those students assigned to SMAT-420 will be taking a 3 course sequence in Solutions of Engineering Problems and will substitute this course for a technical elective in the fourth year.*
**See Pg. 98 for General Studies requirements.*
‡See Pg. 40 for Policy on Physical Education.

Manufacturing Technology, upper-division baccalaureate program

Background

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

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

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

Objectives of the program

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

Curriculum

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

Admission requirements

The B.Tech program admits students holding an associate's degree in manufacturing technology or mechanical technology, or the equivalent. Interested persons not holding the associate's degree are advised to contact the program coordinator to discuss admission.

Manufacturing Technology electives

ITEM-425 Statistical Quality Control
ITEM-431 Production Management
ITEM-480 Methods Analysis
ITEM-490 Production Planning
ITEM-491 Material Control
ITEM-514 Special Topics in Material Forming
ITEM-515 Manufacturing Technology
ITEM-599 Independent Study

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

Manufacturing Technology cooperative education plan

Year		Fall	Winter	Spring	Summer
3 and 4	*A*	RIT	Work	RIT	Work
	B	Work	RIT	Work	RIT
5	A	RIT	Work	RIT	
	B	Work	RIT	RIT	

Manufacturing Technology, B. Tech Degree

		Quarter Credit Hours			
		Fall	Winter	Spring	Summer
1,2	Completion of appropriate Associate's degree or equivalent				
Third Year	**SMAT-420 Introduction to Solution of Engineering Problems	(4)			
	**SMAT-421 Solution of Engineering Problems I	4			
	ICSP-205ComputerTechniques	3			
	ITEM-436 Engineering Economics	4			
	ITEM-492 Plant Layout	4			
	‡Physical Education	0			
	**SMAT-421 Solution of Engineering Problems I				(4)
	**SMAT-422 Solution of Engineering Problems II				4
	ITEM-506 Machine Design				4
	ITEM-471 Numerical Control II				4
	*General Studies Elective (lower division)				4
	‡Physical Education				0
Fourth Year	Probability and Statistics	4			
	Technical Elective	4			
	ITEE-411 Electrical Principles I	4			
	*General Studies Elective (lower division)	4			
	‡Physical Education	0			
	ITEE-412 Electrical Principles II				4
	ITEM-426 Quality Assurance				4
	ITEM-472 Tool Engineering				4
	*General Studies Elective (upper division)				5
Fifth Year	ITEM-437 Cost & Value Analysis	3			
	ITEM-510 Process Design I	4			
	Technical Elective	4			
	*General Studies Elective (upper division)	5			
	ITEM-511 Process Design II				4
	Technical Elective				4
	Free Elective				3-5
	*General Studies Elective (upper division)				5

***Entering students will take SMAT-420 or 421 depending on an evaluation of their mathematics background. Those assigned to SMAT-420 will substitute this course for a fourth year technical elective.*
**See Pg. 98 for General Studies requirements.*
‡See Pg. 40 for Policy on Physical Education.

Packaging Science Program Utilizes RIT Strengths In New Careers

Harold J. Raphael, Director

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

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

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

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

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

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

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

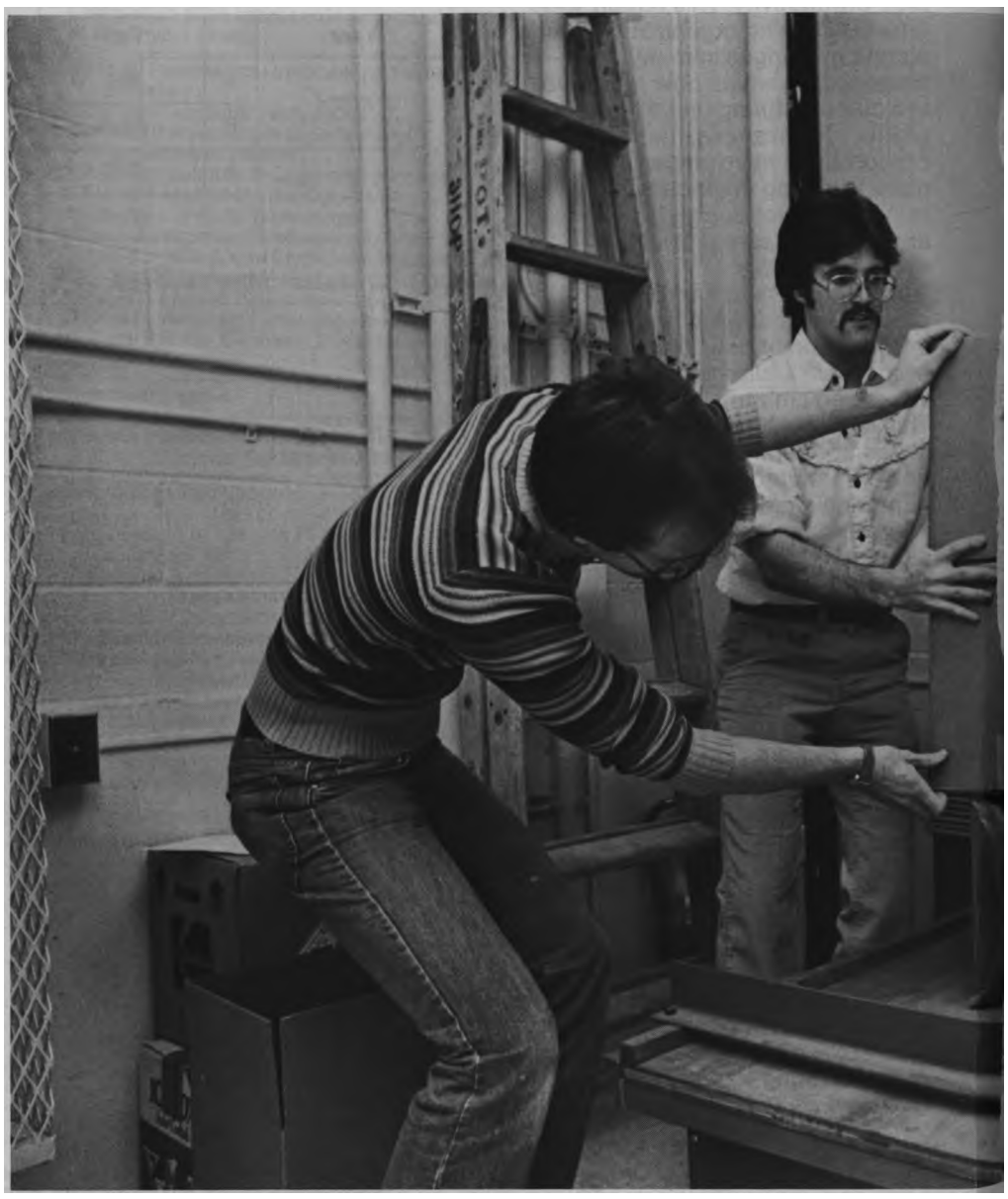
Characteristics of the program

The program has these characteristics:

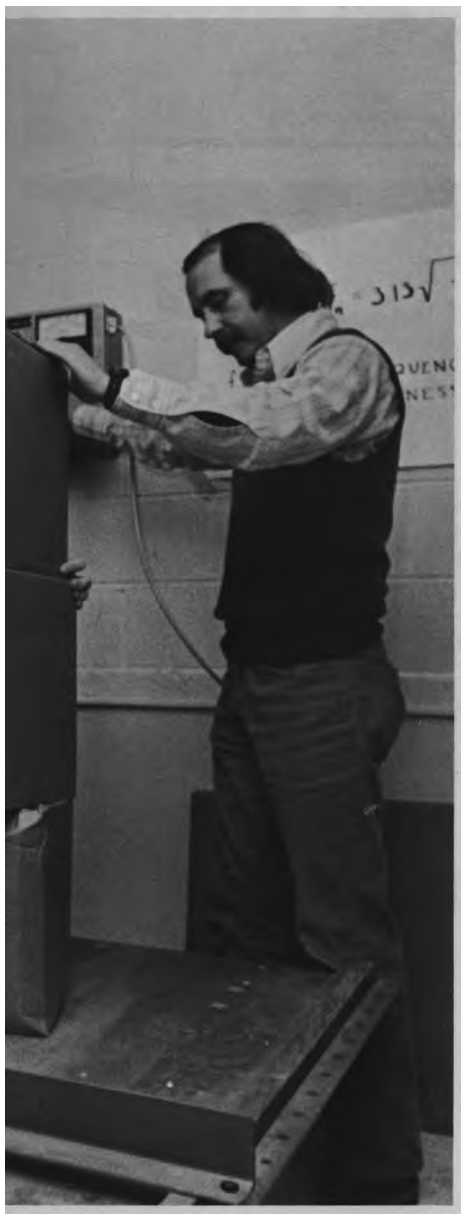
1. It is career oriented-the graduate is ready to enter directly into a position of responsibility.
2. It is interdisciplinary-the student becomes familiar with the many facets of packaging through courses in several RIT colleges.
3. It is flexible-the program offers three options: management, design,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

Admission requirements

The four-year BS degree program considers for admission high school graduates who meet the following requirements: English, 4 years; mathematics, elementary algebra and either plane geometry or intermediate algebra; science, 1 year. Candidates are evaluated in relation to career objectives, designated option, and other indications of potential success in the program. A portfolio is required of those students electing the design option.



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



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

BS degree in Packaging Science—Design option

Year		Quarter Credit Hours: Fall	Winter	Spring
First Year	IPKG-201 Principles of Packaging	4		
	FADF-230, 231, 232 Design 2-D	3	3	3
	FADF-240, 241, 242 Design 3-D	3	3	3
	SMAM-201 Algebra	3		
	*General Studies		4	8
	SSEG-201 Biology		4	
	SSEG-202 Chemistry			4
	‡Physical Education	0	0	0
Second Year	IPKG-311 Packaging Materials I	3		
	IPKG-312 Packaging Materials II		3	
	IPKG-315 Container Systems			4
	FADC-301, 302, 303 Introduction to Communication Design	3	3	3
	FADD-301, 302, 303 Environmental Design	3	3	3
	FADF-261, 262, 263 Drawing	3	3	3
	*General Studies	4	4	4
	‡Physical Education	0	0	0
Third Year	IPKG-310 Methods of Evaluation	2		
	IPKG-401 The Packaging Industry			1
	IPKG-431 Packaging Production Systems	4		
	IPKG-432 Packaging for Distribution		4	
	IPKG-433 Packaging for Marketing			4
	Packaging Design I, II, III	5	5	5
	SSEG-203 Physics	4		
	BBUM-263 Marketing Principles		4	
	*General Studies			5
	Free Elective		3	
Fourth Year	Packaging Design IV, V, VI	4	4	4
	PPRM-201 Introduction to Technical Writing		3	
	PPRT-200 Introduction to Printing		3	
	PPRT-206 Reproduction Photography			3
	*General Studies	5	5	5
	Free Elective	8		3

**See Pg. 98 for General Studies requirements.*
‡See Pg. 40 for Policy on Physical Education.

Packaging: Room For Talented People In Expanding Field

Packaging: A Career for the Future

Maybe you don't remember a time before milk cartons, pre-packaged meats, butter tubs, tape cassettes, film cartridges, and reclosable bottles, But, we haven't always had the products we use packaged this way.

Milk, for instance, used to come in glass bottles, and years before that it was ladled into tin milk containers from a large milk can.

Probably ninety percent of the things you buy come in some sort of protective package. Have you ever stopped to think how each package was designed and produced?

Actually, packaging isn't applied just to the consumer items that are found in retail stores. It is applied to military supplies, industrial products both large and small, and to products which are shipped around the world.

Diesel engines and automobiles, as well as aspirin, sulphuric acid, and hospital supplies all have to be packaged under certain conditions.

But let's get back to what the packaging professional must do to develop a typical package for consumer products. For those talented in art, there is a continuing need for package designers. These are the people who create the "pow" colors, supergraphics, and unusual package features of many contemporary packages. They are also the people who have developed features such as child-proof medicine caps and convenient zip-openings. Frequently, designers work with advertising and marketing specialists.

For those people who lean toward science and mathematics, the technology of packaging may be most interesting. Packaging engineers scientifically test packages for durability, strength, and other important qualities. Trips to the moon would never have been possible without the technological know-how that helped design compact, protective packaging for instruments, food and other items. Development of mass-production machines and special printing techniques also fall into the realm of packaging professionals.

Because packaging is an expanding industry, it has plenty of room for people with a business background. Management, purchasing, selling, and marketing are just some of the ways people with a management degree in packaging can function.

Today, and in the future, the challenge of our highly industrialized nation to produce effective, economical, and environmentally sound packages will require well-trained men and women.

BS degree in Packaging Science—Management option

Year		Quarter Credit Hours: Fall	Winter	Spring
First Year	IPKG-201 Principles of Packaging	4		
	SMAM-201, 202, 203 Algebra, Trigonometry, Analytical Geometry	3	3	3
	*General Studies	4	4	4
	SSEG-203 Physics			4
	GSSE-301 Economics I	4		
	GSSE-302 Economics II		4	
	BBUA-210 Financial Accounting		4	
	BBUA-211 Managerial Accounting			4
	‡Physical Education	0	0	0
Second Year	IPKG-310 Methods of Evaluation	2		
	IPKG-311 Packaging Materials I	3		
	IPKG-312 Packaging Materials II		3	
	IPKG-315 Container Systems			4
	*General Studies	4	4	4
	SCHG-201 General Chemistry &SCHG-211 Laboratory	4		
	SCHG-202 Organic Chemistry & SCHG-212 Laboratory		4	
	BBUM-263 Marketing Principles	4		
	BBUB-201 Management Concepts		4	
	BBUB-401 Behavioral Science			4
	Business Elective			4
	‡Physical Education	0	0	0
Third Year	IPKG-431 Packaging Production Systems	4		
	IPKG-432 Packaging for Distribution		4	
	IPKG-433 Packaging for Marketing			4
	IPKG-401 The Packaging Industry			1
	*General Studies	5	5	5
	PPRT-200 Introduction to Printing		3	
	PPRT-203 Layout and Printing Design			3
	Business Elective		4	
	ICSS-200 Survey of Computer Science	4		
	Free Elective	3		4
Fourth Year	IPKG-520 Packaging Management	4		
	IPKG-524 Packaging Economics		3	
	IPKG-530 Packaging and the Environment			4
	*General Studies	5	5	5
	ITEM-301 Engineering Graphics		3	
	ITEM-425 Statistical Quality Control			4
	PPRM-201 Introduction to Technical Writing		3	
	Free Electives	5		5

*See *Pg. 98 for General Studies requirements.*
‡See Pg. 40 for Policy on Physical Education.

BS degree in Packaging Science—Technical option

Year		Quarter Credit Hours: Fall	Winter	Spring
First Year	IPKG-201 Principles of Packaging	4		
	*General Studies	4	4	4
	SMAM-204 Modern Algebra	4		
	SMAM-214, 215 Introduction to Calculus		3	3
	SCHG-208, 209 College Chemistry	4		4
	PPRT-200 Introduction to Printing		3	
	ICSP-205 Computer Techniques			3
	BBUB-201 Management Concepts		4	
	‡Physical Education	0	0	0
Second Year	IPKG-310 Methods of Evaluation	2		
	IPKG-311 Packaging Materials I	3		
	IPKG-312 Packaging Materials II		3	
	IPKG-315 Container Systems			4
	*General Studies	4	4	4
	SCHO-231, 232 Organic Chemistry	4	4	
	ITEM-425 Statistical Quality Control			4
	ITEM-301 Engineering Graphics		3	
	BBUM-263 Marketing Principles			4
	PPRT-203 Layout and Printing Design	3		
	‡Physical Education	0	0	0
Third Year	IPKG-401 The Packaging Industry			1
	IPKG-431 Packaging Production Systems	4		
	IPKG-432 Packaging for Distribution		4	
	IPKG-433 Packaging for Marketing			4
	*General Studies	5	5	5
	SPSP-211, 212, 213College Physics	4	4	4
	PPRM-201 Introduction to Technical Writing			3
	Free Electives	4	4	
Fourth Year	IPKG-520 Packaging Management	4		
	IPKG-524 Packaging Economics		3	
	IPKG-530 Packaging and the Environment			4
	*General Studies	5	5	5
	Free Electives	8	8	4

See Pg. 98 for General Studies requirements.
‡See Pg. 40 for Policy on Physical Education.

National Technical Institute for the Deaf Prepares Many for Meaningful Careers

William E. Castle, Dean and Director

The National Technical Institute for the Deaf was created to provide deaf students with the technological 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 1979-80 enrollment will be approximately 1,000.

Relationship of NTID to RIT

While NTID is a national institution, it also is an integral part of RIT as one of its 10 colleges, and is governed by the RIT Board of Trustees. It is the first large-scale effort to educate deaf students on a college campus planned primarily for hearing students.

The fact that NTID is located on a regular college campus is seen as an important factor in the development of personal, social and communication competence of deaf students. Educational opportunities are available for deaf students through programs that lead to certificates, diplomas and associate's degrees. Many deaf students take RIT courses or are cross-registered full-time or part-time into the associate's, baccalaureate and master's degree programs of RIT.

Cross registration

Qualified deaf students may take selected courses or enroll in programs offered by other RIT colleges. 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 RIT college, NTID students discuss the possibility with their counselor, academic advisor and a member of the educational support team assigned to the college of their choice. The final decision as to whether the student is admitted is left to the college in which the student seeks enrollment.

Benefits of interaction

The varied educational opportunities enable the deaf and hearing to learn together. The interaction of hearing and deaf extends to housing, sports and other social and community activities. Residence halls are available for single students with on-campus apartments and townhouses for married students. There is a full intercollegiate sports schedule as well as intramural and recreational programs. Fraternities and sororities are active on campus along with professional and honorary societies, special interest clubs and service organizations.

The entire educational program for NTID students is designed to help deaf students develop the technical, personal/social, and communication skills necessary to compete in the hearing world of work.

Facilities and services

A new three-building complex is the site of the National Technical Institute for the Deaf. It is built on the campus of Rochester Institute of Technology. Deaf and hearing students share facilities on campus.

The largest structure is an academic building. In it are classrooms, laboratories and shops, administrative offices, faculty and staff offices, a research and training center, a theatre, a speech and hearing center and a student development area.

The residence hall contains dormitory rooms, baggage and storage areas, project areas, study areas and conference rooms.

The dining hall/commons building has a dining room and all the other facilities needed to provide food service.

All the buildings were designed for convenience and educational values to students. The new complex enables NTID to make the classroom and housing area an environment that provides a combined living/learning experience.

Educational philosophy

The major objective of NTID is to provide qualified deaf students with technical education in science, business, engineering and applied arts which will lead to well-paying and satisfying jobs.

Special support services at NTID are intended to help deaf students achieve personal, social and cultural growth.

NTID also strives to learn as much as possible about methods of teaching the deaf. It is exploring new educational technologies which may help all deaf persons. Special training programs are designed to develop skilled instructors and other professionals to work with the deaf and to give NTID employees the opportunity to learn all methods of communication.

Summer Vestibule program

The Summer Vestibule program is a series of educational experiences designed to prepare deaf students for further postsecondary training; to determine 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. Concurrently, the faculty has the opportunity to evaluate the students' abilities and interests and to offer counsel and planning for the Fall Quarter.

The counseling staff helps students to more fully understand their abilities, interests, and achievement levels through the interpretation and discussion of test data, background experiences, and work values. Aptitudes and interests are then related to available academic programs and possible occupations. This gives students the opportunity to select a program and career which best suits their individualized needs. The staff is also available for assisting students to make satisfactory adjustments to college life and develop interpersonal relationship skills. The students are also guided through a series of specially designed living

arrangements and self-governance experiences. This program has proven invaluable in preparing students to participate in the collegiate environment.

Special support services
Special support services are provided to the NTID student. Interpreter services are available where required for any class in which one or more deaf students are in attendance. In many classes for baccalaureate programs, hearing students-on a voluntary basis-take notes on special notetaking pads and give copies of them to NTID students.

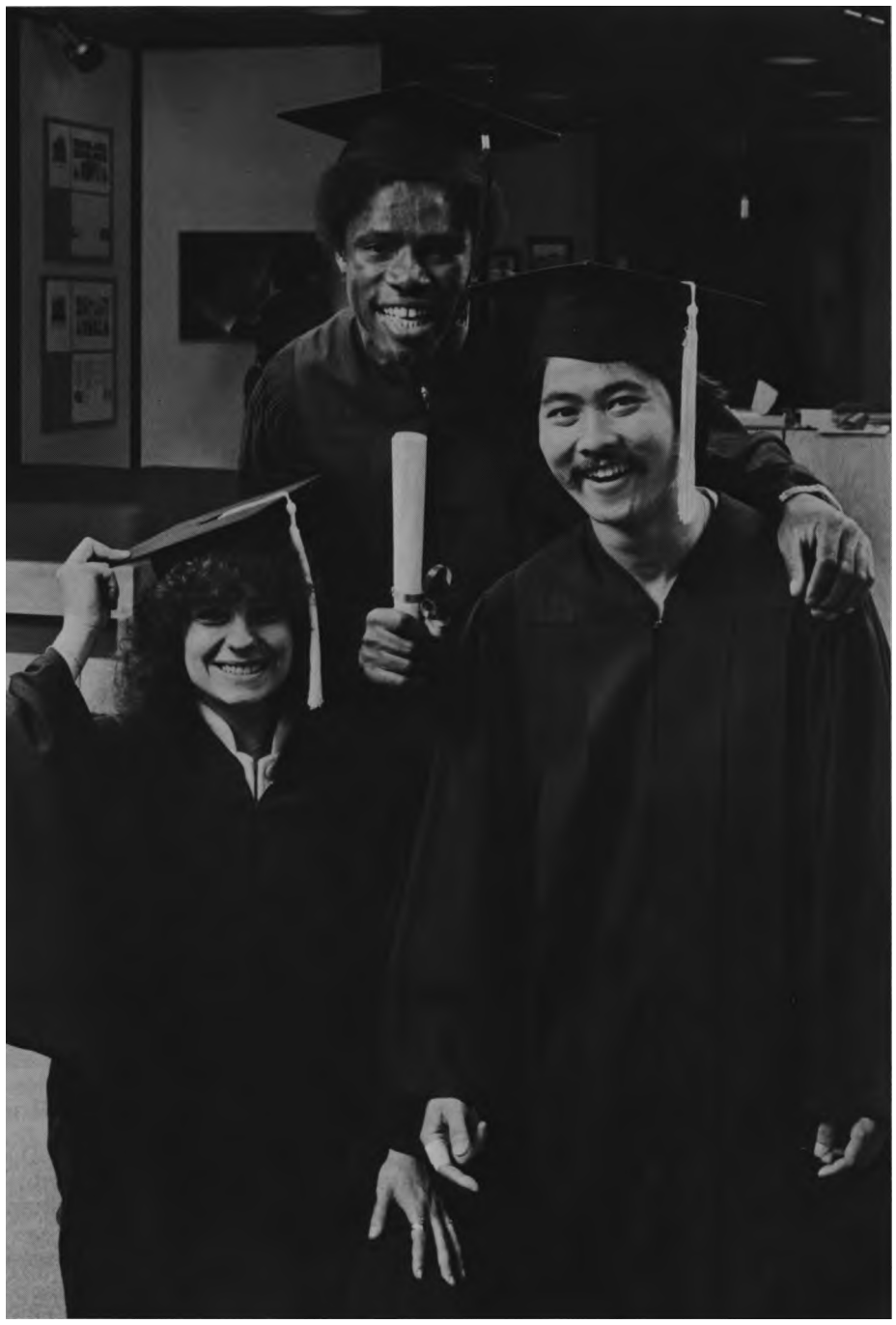
In addition, counseling and speech and hearing services are conducted on an individual basis for each NTID student. Services to assist in career development and social and cultural development are an important part of the total NTID program. All special support services are geared toward helping the deaf student gain the maximum benefit from his or her educational experiences at NTID-experiences that will lead to meaningful employment.

Complementary education
Experiences set up to enrich and increase students' educational opportunities are provided. Complementary education supports academic classes and provides personal development skills. There is no credit for these experiences but they will enable students to become successful professionals in their chosen careers by making them more rounded individuals.

Such activities as athletics, the student newspaper, student government and clubs are not only fun, but give many deaf students the opportunity to become leaders.

In addition to intramural athletics, deaf students may also be members of RIT varsity teams in intercollegiate competition. Deaf athletes have helped RIT to winning seasons in hockey, track and swimming. There are many NTID students with an interest in all sports.

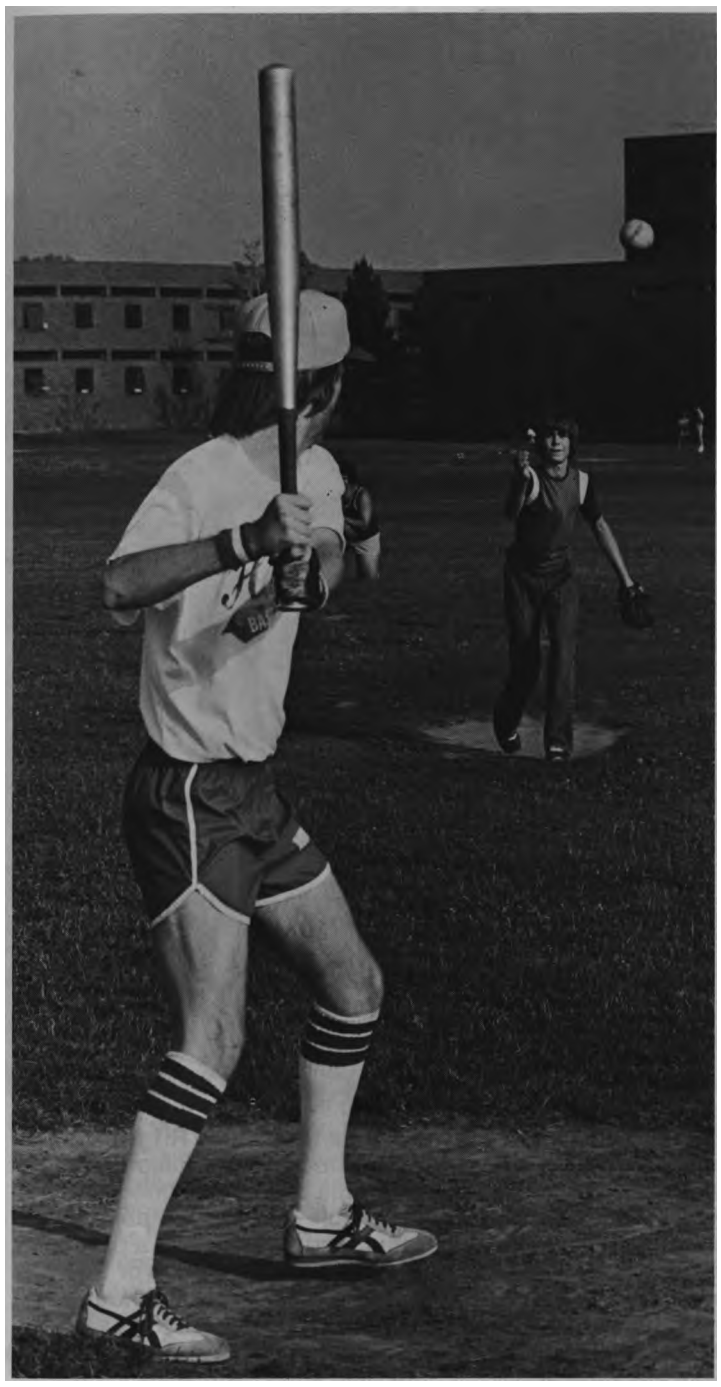
Placement/employment
NTID has a highly individualized job placement program for all deaf students. Employers are not pressured to hire the deaf-an NTID graduate has good, solid technical skills which will be an asset to any employer.



In addition, NTID job development personnel pave the way for future placements by acquainting prospective employers with deafness and the technical capabilities of NTID grads. This is done through a variety of personal interactions with company representatives. One type of interaction is NTID regional employment seminars which have thus far been conducted in Philadelphia, Chicago, St. Louis, Denver, Houston, Dallas, New York City, Los Angeles and San Francisco.

NTID's co-op program is responsible for opening up some full-time positions. Employers find most deaf students to be highly motivated and conscientious workers.

Placement does not end when a deaf graduate is employed. Follow-up work with employers and graduates enables NTID to constantly monitor and update each educational program; this assists placement specialists as they prepare to help new graduates find a place in business and industry nationwide.



NTID students annually elect a member to the RIT Policy Council. There a student has the chance to help make decisions that will affect the future of all students. Additionally the deaf students have organized the NTID Student Congress as a subsidiary to the RIT Student Association.

Admission
Admission to NTID is based on each student's potential to finish a program of study which will give him or her the skills to get a good job.

The NTID programs are designed for students who have finished the educational program in their home community which meets their learning needs, in the opinion of school authorities, counselors and others who know the students. Generally, it is expected that students now enrolled in public or private secondary school programs serving the deaf will take advantage of the possibilities for education and training that these programs may have for them.

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 the separate NTID Bulletin, available from NTID.

College of Science Stresses Training For Where the Real World Jobs Are Found

John D. Paliouras, Dean

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 obtain 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 industrial 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 an important to a science education as many of the lecture-type courses students are required to take as part of their major programs.

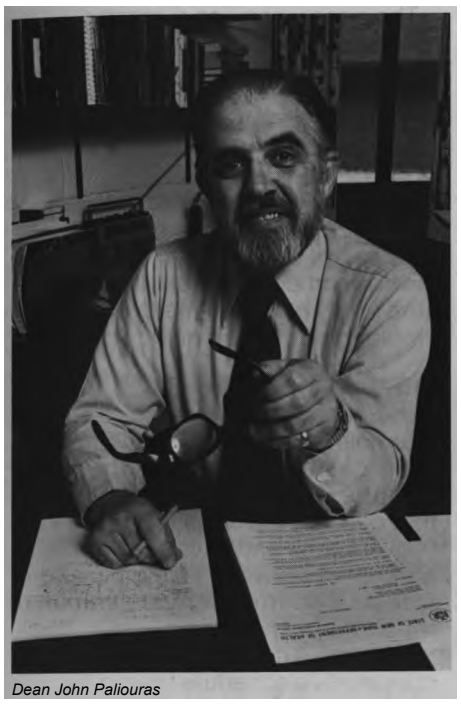
The College of Science is an ideal size to provide quality undergraduate education. It has 60 faculty members in the sciences and mathematics, most of whom hold the Ph.D. degree. This size provides faculty with a variety of expertise in sciences and mathematics, so a student can find a faculty member with whom to interact regarding a particular interest.

When the college moved into the new science building in 1968, it was very fortunate that RIT received about a million dollars in federal funds to permit the purchase of a wide variety of scientific instrumentation. We are as well-equipped as some universities which stress graduate education, but in our case this equipment is used by the undergraduates.

Our faculty realizes its responsibility to maintain up-to-date curricula so that our graduates will fit into the current needs of industry as well as meet the requirements of graduate schools. This challenge includes not only modern trends in science, but such things as the use of computers and sophisticated, modern lab equipment.

Many high school students don't know which of the sciences they wish to major in. We encourage such students to come to RIT as undelcared science majors. Programs can be designed which will enable them to postpone a definite commitment to a particular major in science for one or sometimes two years without any loss of time toward a degree. This option has been attractive to quite a few high school students.

The best way to evaluate college programs is the success of the graduates. Our graduates have been very successful in both industry and graduate schools. We have found, for example, that they are doing exceedingly well in passing Ph.D. qualifying exams early in their graduate programs. In terms of industrial success, employers report that our graduates not only have good training for industry, but because of their work experience, immediately fit into the industrial way of life with a high degree of initiative and seriousness of purpose.



Dean John Paliouras

New Dean Believes Teaching a 'Must' For Administrator

Now in his 15th year with RIT's College of Science, Dr. John D. Paliouras spent six years as associate dean of the college, before becoming dean in 1979.

A teacher, author and a mathematician by training, Dr. Paliouras insists on "keeping in touch with the student and the classroom" even though his administrative duties do not allow him to teach "as much as I would like to," as he puts it.

"Teaching is the central activity of our institution; everything else is there to support that activity. To put the same idea in different terms, students and their future are by far the number one concern for all of us; they are the reason for our existence as an educational institution."

During the 17 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 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, mathematics, and physics, the college has developed one associate's degree program in chemical technology, four bachelor's degree programs in biomedical computing, computational mathematics, medical technology, nuclear medicine technology, and two master's programs in chemistry and clinical chemistry.

In an effort to increase the diversity of its programs and hence enhance the educational alternatives for its students, the College of Science has entered into an interinstitutional dual degree program with the Massachusetts College of Pharmacy allowing students to pursue studies in biology/pharmacy or chemistry/pharmacy.

The programs

The College of Science has undergraduate programs in biology, chemistry, mathematics, computational mathematics, physics, chemical technology, medical technology, nuclear medicine technology, pharmacy, biomedical computing, and pre-medicine and dentistry.

Choice of majors

A student may enroll in the College of Science as a science major without designating a specific major. In consultation with an advisor, a program will be designed to meet the student's individual needs and goals. The program can be flexible and cover a number of introductory college level courses in science.

Prior to the end of the first year, the student should decide upon a specific major and may then enroll as a candidate for a degree in one of the departments: biology, chemistry, mathematics, physics, or School of Health Related Professions.

Declared major

The student who has definitely decided upon a specific major field will indicate a choice when applying, and may therefore be enrolled as a candidate for a degree in that department upon admittance by the Institute. A program will be designed to prepare the student for competency in his or her chosen profession.

The programs in the College of Science are sufficiently flexible to allow the student to obtain an in-depth background in a discipline other than the chosen major. A wide selection of elective courses in such areas as business, chemistry, photography, computer science, physics, mathematics, and biology, makes it possible to take a series of courses which could result in an elective concentration (i.e., minor) in an area related to but not required for the major.

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

Each of the departments has majors programs operating on a five-year cooperative work/study plan, and the Chemistry Department has a three-year cooperative program in chemical technology and a program leading to the master of science degree.

Graduates of the five-year programs in the College of Science receive a bachelor of science degree. These graduates qualify for professional work in processing and laboratory operations, research and experimental work, or supervision of technical projects, as well as for graduate education leading to the master of science or doctor of philosophy degrees.

The transfer plan

Students with associate's degrees in a comparable program from other educational institutions normally can expect to transfer at the junior year level. Transfer credit is granted for those studies which parallel Institute courses in the curriculum for which admission is sought.

Transfer students applying for a program at RIT, similar to their previous college study, are expected to present an

Science major

Year		Quarter Credit Hours		
		Fall	Winter	Spring
First Year	**SBIG-201, 202, 203 General Biology	4	4	4
	** SCHC-211, 212 General Chemistry	3	3	
	SCHO-230 Intro, to Organic Chemistry			3
	SCHA-261, 262, 263 Chemical Analysis	3	3	3
	SMAM-251, 252, 253 Calculus	4	4	4
	**SPSP-311, 312 University Physics		5	5
	*General Studies Elective	4	4	4
	‡Physical Education	0	0	0

**See Pg. 98 for General Studies requirements.*
‡See Pg. 40 for Policy on Physical Education.
***Any two of these three in a given quarter.*

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 Admission 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, and physics programs attend classes at the Institute during the fall, winter, and spring for the first and second year.

At the beginning of their third year, employment arrangements are made for students in the five-year cooperative programs. Students are assigned to A and B Sections for the last three years of attendance. Students in Section A attend classes during the Fall Quarter while those in section B work on their cooperative jobs. The two sections interchange at the beginning of the Winter Quarter, when students in Section B attend classes and those in Section A work in industry. This interchange of the work/study periods continues throughout the remainder of the third, fourth and fifth years. The work/study periods continue throughout the remainder of the third, fourth and fifth years. The work/study section to which the student is assigned is designated by the coordinator of employment.

Cooperative schedule for Chemical technology

		Fall	Winter	Spring	Summer
1st year	A	RIT	RIT	Work	RIT
	B	RIT	Work	RIT	Work
2nd year	A	Work	RIT	Work	RIT
	B	RIT	Work	RIT	Work
3rd year	A	Work	RIT	Work	
	B	RIT	Work	RIT	

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

		Fall	Winter	Spring	Summer
1 st and 2nd yrs. RIT		RIT	RIT	RIT	Vacation
3rd, 4th yrs.	A	RIT	Work	RIT	Work
	B	Work	RIT	Work	RIT
5th yr.	A	RIT	Work	RIT	
	B	Work	RIT	RIT	

Cooperative schedule for five-year chemistry program

		Fall	Winter	Spring	Summer
1st year		RIT	RIT	RIT	Vacation
2nd, 3rd	A	RIT	Work	RIT	Work
4th yrs.	B	Work	RIT	Work	RIT
5th year	A	RIT	Work	RIT	
	B	Work	RIT	RIT	

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 diagram (left) illustrates the cooperative schedule for the chemical technology program.

Admission at a Glance: College of Science Programs

General Information on RIT's admission requirements, procedures and services is included in detail on Pages 24-25 of this Bulletin.

Undergraduate programs are offered in the areas listed below.

The programs offered are flexible enough so that students can take courses to meet their individual needs and, at the same time, obtain a quality career-oriented education. Students can take electives in such courses as computer science, photography, or business.

The Co-op plan of this college is ideal for students eager to increase their chances for employment after graduation.

Biology- Prepares students for graduate study in biological disciplines and medical arts. Also for occupations in medical research labs, food and agriculturally related industries, pharmaceuticals and environmental organizations. Degrees granted: AS-2 year; BS-5 year.

Biology/ or Chemistry/Pharmacy-A five-year inter-institutional dual degree program in affiliation with the Massachusetts College of Pharmacy. Prepares students with a thorough education in either biology or chemistry and pharmacy. Graduate pharmacists can choose from a variety of career areas including community, clinical, sales, teaching or marketing. The program also is excellent preparation for entrance to graduate programs in pharmacology, dentistry and medicine. Degrees granted: AS-2 year; Dual BS-5 years.

Biomedical Computing-Graduates are prepared to assume positions on the staffs of medical and/or industrial laboratories or hospital computer departments, or to work with physicians and other health professionals in a clinical environment and on medical research projects. Degree granted: BS- 5 year.

Chemistry-Graduates qualify for higher level positions in several fields of chemistry including professional industrial work in processing and laboratory operational research and experimental work, supervision of technical projects, managerial positions and graduate study. Degree granted: AS-3 year; BS-5 year.

Chemical Technology-A three-year Co-op curriculum that leads to direct industrial employment. Emphasis is on the qualitative and quantitative analysis skills and knowledge to perform industrial laboratory tasks. Degree granted: AAS.

Mathematics, Computational Mathematics-Graduates qualify for positions in industry and business as well as graduate study. A combination of mathematics courses and electives in computer science enhances employment opportunities. Degrees granted: AS-2 year; BS-5 year.

Medical Technology-Prepares students for employment in hospital, industrial-medical, or research laboratories. Students spend three years at RIT and last year in an approved hospital internship. Degree granted: BS-4 year.

Nuclear Medicine Technology-Graduates assist physicians in procedures that require use of radioactive materials. Graduates prepare radioactive dosage, collect and prepare specimens, verify patient records, carry out laboratory studies, and present results for interpretation by physicians. Three years are spent at RIT and last year in an approved hospital internship. Degree granted: BS-4 year.

Physics-Graduates find employment opportunities with industrial, academic and government agencies, or pursue graduate study in such areas as biophysics, atmospheric science, applied science or industrial business administration. Degree granted: AS-2 year; BS-5 year.

Pre-Medicine, Dentistry, Etc.-Students interested in pursuing a career in medicine, dentistry, optometric, osteopathic medicine, veterinary science or podiatry, major in any College of Science or Institute program; no formal program exists specifically for preparation for these careers. The faculty Pre-professional Advisory Committee counsels and assists RIT students in making application to these professional schools. Degrees are awarded in the programs chosen by the students.

Freshman Admission Requirements			Transfer Admission with junior standing	
			Two-Year College Programs	Desirable minimum grade point average
Biology, Biology/ Pharmacy	Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; Biology	Physics or Chemistry; additional mathematics, C.E.E.B. Biology Achievement Test	Liberal arts major with a math/biology option or equivalent. Changes from other science major or engineering science can be arranged.	2.0
Biomedical Computing	Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; Biology	Physics or Chemistry; Additional Mathematics	Liberal arts major in science, mathematics, computer technology or engineering. Changes from other allied health majors can be arranged	2.0
Chemistry, Chemistry/ Pharmacy	Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; Chemistry	Physics; C.E.E.B. Chemistry Achievement Test	Liberal arts major with a math/chemistry option or equivalent. Changes from other science majors or engineering science can be arranged.	2.0
Chemical Technology	Elem. Algebra; 1 year any science	Additional mathematics and science	Program terminal at AAS degree-no junior year courses.	
Mathematics, Computational Mathematics	Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; Chemistry or Physics	Physics or Chemistry; additional mathematics	Liberal arts major with a math/science option. Changes from engineering science or other math-oriented programs can be arranged.	2.0
Medical Technology	Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; Biology	Physics or Chemistry	Medical laboratory technology or equivalent program.	2.5
Nuclear Medicine Technology	Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; 2 years lab science	Additional mathematics and science	Biology or medical technology or equivalent program.	2.0
Physics	Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; Chemistry or Physics	Physics or Chemistry; additional mathematics; C.E.E.B. Physics Achievement Test	Liberal arts major with a math/physics option or equivalent. Changes from other science majors or engineering science can be arranged.	2.0

[1]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.

Demand Increasing For Science Careers

The demand for scientists, technologists, and well-trained technicians continues to increase.

You can take advantage of the outstanding job prospects in science with a bachelor's degree or less.

In chemistry, biology, mathematics and physics, a person with a bachelor's degree can work at the research assistant level; in marketing, sales and service of scientific products; or in high school teaching.

The public's growing concern with ecology, energy, health and other social needs insures jobs for the scientists and technologists who have the know-how to combat the problems.

In industry and in government (the two major employers), the disciplines that apply scientific and technical knowledge to the solution of practical problems are more promising than purely theoretical studies.

Interdisciplinary areas such as biomedicine, environmental chemistry and geophysics offer good career opportunities.

In this age of the computer, mathematicians are increasingly important in a number of fields.

The allied health professions make up another mushrooming area. Two programs currently offered in the College of Science at RIT-medical technology and nuclear medicine technology (which involves the clinical use of radioactive materials)-requires three years of classroom study and a fourth year of clinical training in a hospital. After that a student can take a certifying examination. The biomedical computing program combines a knowledge of computer science and health science. The curriculum requires two years of classroom study followed by three years of alternating classroom and co-op work experience in a health setting.

Science technicians don't always need four-year degrees. The chemical technology curriculum at RIT is an associate in applied science program which trains chemical technicians to perform experiments, record data and results, and communicate them to project directors. The three-year program combines work with study-the student alternates quarters in the classroom with quarters in a job.

If you attend a college with such a cooperative work-study arrangement, you can gain practical on-the-job experience, decide whether it's what you want to do with the rest of your life, and make money to pay a good chunk of your college expenses.

Cooperative education, which is an important part of RIT's baccalaureate programs in biology, chemistry, mathematics and physics, brings the cost of a private college education in line with that at a public university.

Science graduates with cooperative education experience also will find their starting salaries in their post-college jobs higher than people their age without experience. A number of RIT's College of Science graduates earned upwards of $14,000 each in their first year of full-time employment.

A science background can provide a good starting point for advanced study in other areas such as law, medicine, dentistry, optometry, pharmacy, engineering, and business, as well as in the traditional science disciplines. The Ph.D. in one of the sciences will most likely work in research and development in the laboratory or in university teaching.

Biology Program Prepares Students For Employment Or Graduate Study

Paul A. Haefner, Jr., Head

The Department of Biology offers programs leading to the AS and BS degrees in Biology.

The program of the Department of Biology prepares students for the pursuit of graduate degrees in a variety of biological disciplines as well as the medical arts. Students terminating their education at the BS level find rewarding positions in occupations related to the life sciences, including biomedical research laboratories, food and agriculturally related industries, the pharmaceutical industry and environmental organizations.

Requirements for the AS degree in Biology

The student must meet the minimum graduation requirements of the Institute as described on page 29 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 29 in this Bulletin. In addition, the student must complete a minimum of 60 quarter credit hours in biology. A required core of courses comprises 44 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, and Communication Skills for the Biological Sciences). The remaining 16 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 General Studies may be found on page 98. The policy on Physical Education is described on page 40.

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 pharmacology, toxicology, and animal surgery, leads to employment in laboratories engaged in pure and applied biological research or in clinical and medical research.

4. Microbiology. This is similar to the biological research program, but emphasizes microbiological aspects that lead to careers in clinical laboratories, in food and drug quality control and in wastewater and sewage treatment facilities.

5. Instrumentation. A variety of courses in biological instrumentation and techniques, including electron microscopy, support a career in biological technology, an area of expertise in demand by biological, clinical and medical laboratories.

6. Environmental Science. This track prepares the student for careers in ecological research and management in areas such as conservation, field biology and environmental toxicology. Students may pursue terrestrial, freshwater and marine science options.

7. Pharmacy. An inter-institutional program between RIT and the Massachusetts College of Pharmacy educates the student for the practice of pharmacy. Three years are spent at RIT as a biology major, the final two years are in residence at MCP. Baccalaureate degrees are awarded from both institutions.

Biology

Year		Fall	Winter	Spring
		Quarter Credit Hours		
First Year	**SBIG-201, 202, 203 General Biology	3	3	3
	SBIG-205, 206, 207 General Biology Laboratory	1	1	1
	SBIG-204 Communication Skills, Bio Science		1	
	SCHG-215, 216, 217 General Analytical Chemistry	3	3	3
	SCHG-225, 226, 227 General Analytical Chemistry Lab	1	1	2
	SMAM-204, 214, 215 College Algebra, Intro to Calculus ...	4	3	3
	or			
	SMAM-251, 252, 253 Calculus	(4)	(4)	(4)
	*General Studies Electives-Lower Division	4	4	4
	‡Physical Education Elective	0	0	0
Second Year AS Degree	SBID-340 General Ecology	4		
	SBIO-304 Botany or SBIO-305 Physiology & Anatomy		4	
	SBIO-303 Comparative Anatomy or SBIO-306, Physiology			
	and Anatomy			4
	SCHO-231, 232, 233 Organic Chemistry	4	4	4
	or			
	SCHO-431, 432, 433 Organic Chemistry	(2)	(2)	(2)
	SCHO-435, 436, 437 Organic Chemistry Lab	(2)	(2)	(2)
	SPSP-211, 212, 213 College Physics	3	3	3
	SPSP-271, 272, 273 College Physics Lab	1	1	1
	*General Studies Electives-Lower Division	4	4	4
	‡Physical Education Elective	0	0	0
Third and Fourth Year		F or W		S orSR
	SBIC-404 Introductory Microbiology	5		
	SBIT-432 Biological Laboratory Techniques	4		
	SBID-421 Genetics			4
	*General Studies Elective	10		10
	Biology Elective	4		8
	Institute-wide Elective	4		8
Fifth Year BS Degree		F or W		S
	SBIB-550 Biology Seminar (WorS)	2		2
	Biology Electives	4		4
	Institute-wide Electives	4		4
	*General Studies Electives	5		5

See Pg. 98 for General Studies requirements.
‡See Pg. 40 for Policy on Physical Education.
***A minimum of 60 quarter credit hours of biology is required for the BS degree. The required core of courses (SBIG-201, 202, 203, 205, 206, 207; SBIB-550; SBIC-404; SBID-240, 421; SBIO-304; SBIT-432; one quarter course in anatomy; one quarter course in physiology; SBIG-204) comprise 44 hours. The remaining 16 hours is selected from biology electives. Other requirements include a minimum of six courses in chemistry (SCHG-215,216,217; SCHO-231, 232, 233), three in physics (SPSP-211, 212, 213 or SPSP-211, 212, 213 or SPSP-311,312, 313) and three in mathematics including at least two in calculus.*

Pharmacy/Biology, Chemistry Double Program Prepares Pharmacists

Edward B. Stockham, Program Director

RIT has joined forces with the largest and second oldest college of pharmacy in the country, Massachusetts College of Pharmacy, to offer a double degree program in pharmacy. Graduates of the five-year program earn a bachelor of science degree in pharmacy from Massachusetts College of Pharmacy and bachelor of science degree in either biology or chemistry from RIT.

Pharmacists work in community or chain store pharmacies, hospitals or other health care institutions, in sales or product development for the pharmaceutical industry, and for cosmetic firms, government agencies, insurance companies, and social service agencies. Pharmacists must have a comprehensive knowledge of drugs, including their compositions, chemical and physical properties, and pharmacological activities in the patient, and must be familiar with tests for drug purity and strength. They also serve as a prime source of drug and health information for patients and other health professionals. Additionally, in many health care settings pharmacists are becoming more involved with the clinical use of drugs and drug therapy.

RIT's program is designed to give students a thorough background in the basic sciences as well as exposure to general studies; professional training in pharmacy; and clinical experience in pharmacy in a health care setting. Students in the program spend three years at RIT (specializing in either biology or chemistry). Their fourth and fifth years are spent studying pharmacy at the Massachusetts College of Pharmacy in Boston. A summer internship concludes the program. Graduates of this inter-institutional program receive a BS degree in Pharmacy from the Massachusetts College of Pharmacy and a BS degree in their area of specialization (biology or chemistry) from RIT.

Admission to the Massachusetts College of Pharmacy phase

Admission to Massachusetts College of Pharmacy is open to a minimum of 10 RIT pharmacy students who apply for admission during their third year of study at RIT through Massachusetts College of Pharmacy's normal transfer-student admission process. Students must posses a cumulative grade point average of at least 3.0 to be eligible for admission to Massachusetts College of Pharmacy. Those who are not selected or who do not maintain the academic average necessary for transferring may remain at RIT and complete their degree program.

Requirements for the AS and BS degrees in biology or chemistry and pharmacy

The student must meet the minimum requirements of the Institute as described on page 29 and in addition must complete the requirements contained in one of the particular options listed on these pages or its equivalent as determined and approved by the departments. The bachelor of science degree in pharmacy from the Massachusetts College of Pharmacy requires five years of study, a summer internship and 260 hours of credit for a degree.

Accreditation

The Massachusetts College of Pharmacy is accredited by the New England Association of Schools and Colleges and The American Council on Pharmaceutical Education.

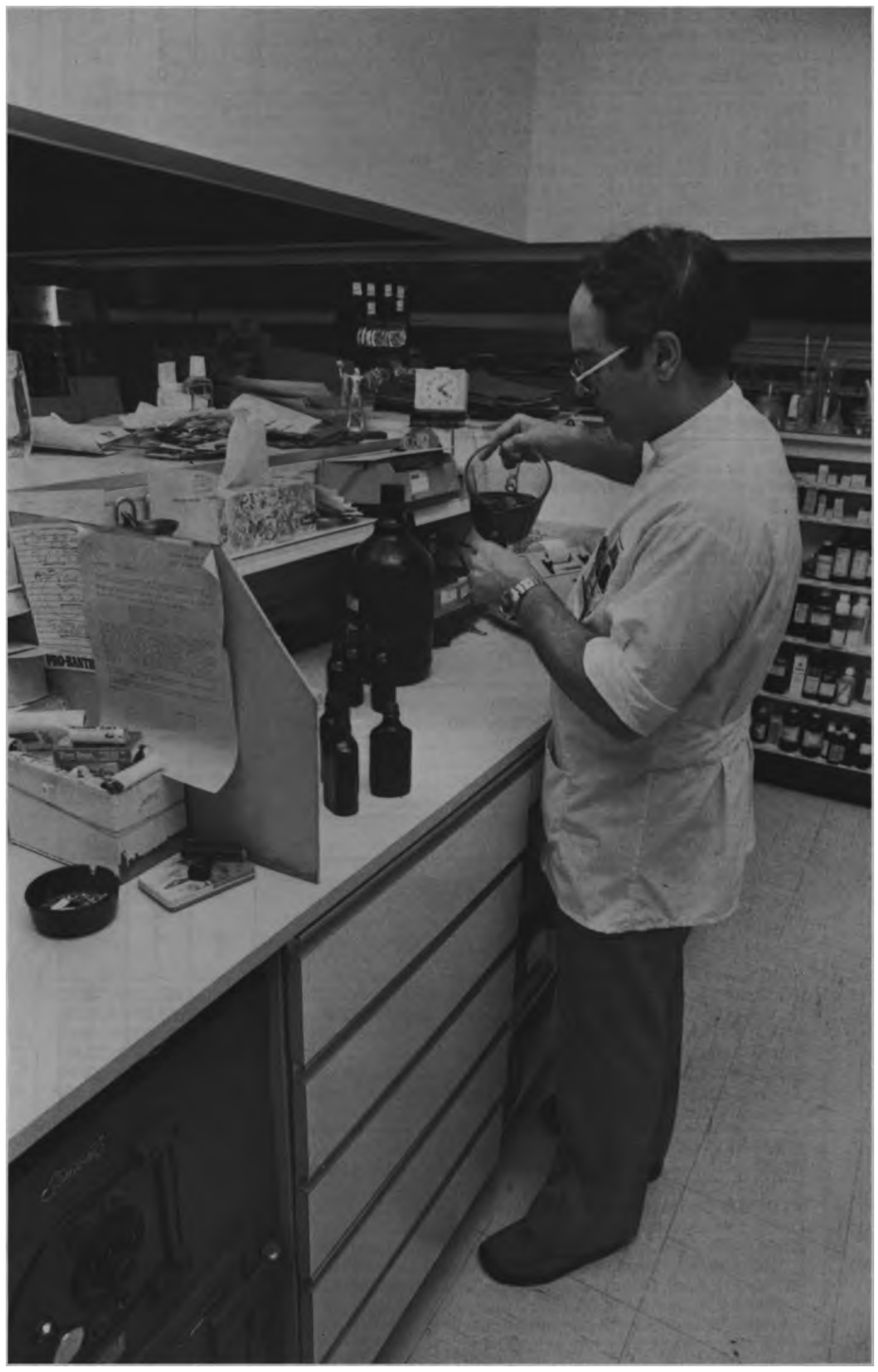
Course descriptions

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

Transfer to Massachusetts College of Pharmacy Phase

Biology or chemistry major students accepted for transfer admission into Massachusetts College of Pharmacy will enter the third year (their fourth year) of the pharmacy program. The curriculum of study includes courses in medical terminology, pharmaceutics, public health, virology, pharmacy orientation, pathology, medicinal chemistry, biopharmaceutics, pharmacy law, dispensing, and general education electives. The pharmacy program is concluded with a clinical pharmacy internship in the Boston area. MCP will grant the bachelor of science degree in pharmacy.

The Institute will accept 45 transfer credits from MCP toward the bachelor's of science degrees in either Biology or Chemistry from RIT depending on the option followed during the first three years of study at RIT. While enrolled at MCP the student must utilize 15 of the minimum hours of MCP electives to satisfy RIT's general studies requirement.



Pharmacy Program (Biology option)

Year		Quarter Credit Hours: Fall	Winter	Spring
First Year	SBIG-201, 202, 203 General Biology	3	3	3
	SBIG-205, 206, 207 General Biology Lab	1	1	1
	SCHG-215, 216, 217 General & Analytical Chemistry	3	3	3
	SCHG-225, 226, 227 Gen. & Analytical Chemistry Lab	1	1	2
	SMAM-251, 252, 253 Calculus	4	4	4
	or			
	SMAM-204 College Algebra	4		
	and			
	SMAM-214, 215 Intro. Calculus		3	3
	SBIG-204 Communication Skills		1	
	*General Studies Electives-Lower Division	4	4	4
	‡Physical Education Electives	0	0	0
Second Year AS Degree	SBID-340 General Ecology	4		
	SBIO-305, 306 Physiology & Anatomy		4	4
	SPSP-211, 212, 213 College Physics	3	3	3
	SPSP-271, 272, 273 College Physics Lab	1	1	1
	SCHO-231, 232, 233 Organic Chemistry	4	4	4
	*General Studies Electives-Lower Division	4	4	4
	‡Physical Education Electives	0	0	0
Third Year	ICSP-205 ComputerTechnology	3		
	SBIC-404 Intro Microbiology	5		
	SCHB-702 Biochemistry	3		
	SBIO-304 Botany		4	
	SBIT-432 Biology Lab Techniques		4	
	SBID-421 Genetics			4
	SBIB-550 Biology Seminar			2
	Science Elective:		4	4
	*General Studies Electives-Upper Division	5	5	5

**See Pg. 98 for General Studies requirements.*
‡See Pg. 40 for Policy on Physical Education.

Pharmacy Program (Chemistry option)

Year		Quarter Credit Hours: Fall	Winter	Spring
First Year	SBIG-201, 202, 203 General Biology	3	3	3
	SBIG-205, 206, 207 General Biology Lab	1	1	1
	SCHG-211, 212 General Chemistry	3	3	
	SCHO-230 Organic Chemistry			3
	SCHG-261, 262, 263 Intr. to Chem. Anal	3	3	3
	SMAM-251, 252, 253 Calculus	4	4	4
	*General Studies Electives-Lower Division	4	4	4
	‡Physical Education Electives	0	0	0
Second Year AS Degree	SMAM-305 Calculus	4		
	SCHA-311 Anal. Chem. - Instrumental Analysis	4		
	SBIO-305, 306 Phys. & Anatomy		4	4
	SPSP-311,312 University Physics	4	4	
	SPSP-371, 372 University Physics Lab	1	1	
	SCHP-340 Intro. Phys. Chemistry		3	
	SCHP-441 Physical Chem			3
	SCHP-445 Physical Chemistry Lab			1
	SCHO-431 Organic Chemistry			2
	SCHO-435 Organic Chemistry Lab			2
	SCHC-201 Chem. Literature			2
	*General Studies Electives-Lower Division	4	4	4
	‡Physical Education Electives	0	0	0
Third Year	SCHP-442, 443 Physical Chemistry	3		3
	SCHP-446, 447 Physical Chemistry Lab	1		1
	SCHB-702 Biochemistry	3		
	ICSP-205 Computer Tech	3		
	SPSP-313 University Physics	5		
	SCHO-432, 433 Organic Chemistry		2	2
	SCHO-436, 437 Organic Chemistry Lab		2	2
	SCHA-312 Anal. Chem - Separations			4
	Science Elective		4	
	*General Studies Electives-Upper Division	5	5	5

**See Pg. 98 for General Studies requirements.*
‡See Pg. 40 for Policy on Physical Education.

Chemistry Provides Full Range of Options

Earl Krakower, Head

The Department of Chemistry offers programs leading to the AS degree in chemistry, the AAS degree in chemical technology, the BS degree in chemistry and the MS degree in chemistry.

The AAS degree in chemical technology involves a three-year curriculum and incorporates direct industrial cooperative employment. The chemical technology curriculum is designed to integrate the component skills, knowledge, and attributes necessary for the performance of industrial laboratory tasks. Emphasis is placed on laboratory experiences centered about qualitative and quantitative analysis. Advanced laboratory work is designed to teach the student special laboratory techniques and modern instrumentation.

The five-year 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. Graduates qualify 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 number of graduates continue their education for the MS or Ph.D. degrees in chemistry, or pursue careers in pharmacy, medicine, dentistry, and optometry.

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 29 and in addition must complete the requirements contained in the particular program listed herein or its equivalent as determined and approved by the Chemistry Department.

As part of the BS requirements, the student must pass a series of comprehensive chemistry exams that are offered during the senior year.

To meet the requirements leading to the BS degree approved by the Committee on Professional Training of the American Chemical Society, the student must take specifically designated courses in chemistry and related sciences and must complete a minimum of 186 quarter credit hours and 372 quality points. 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, physics, computer science, mathematics, business, or photo science is possible.

Chemistry

Year		Fall	Winter	Spring
		Quarter Credit Hours		
First Year	SCHC-211, 212 General Chemistry	3	3	
	SCHA-261, 262, 263 Intro, to Chemical Analysis	3	3	3
	SCHO-230 Intro, to Organic Chemistry			3
	SMAM-251, 252, 253 Calculus	4	4	4
	SCHC-201 Chemical Literature			2
	ICSP-205 ComputerTechniques		3	
	*General Studies Electives-Lower Division	4	4	4
	‡Physical Education Electives	0	0	0
Second Year AS Degree		F orW		S orSR
	SCHA-311 Instrumental Analysis	4		
	SCHA-312 Separations Techniques			4
	SMAM-305 Calculus	4		
	SMAM-306 Differential Equations		4	
	SPSP-311, 312 University Physics	4		4
	SPSP-371, 372 University Physics Lab	1		1
	*General Studies Electives-Lower Division	4		4
	‡Physical Education Electives	0		0
Third Year		F orW		S or SR
	SCHP-340 Introduction to Physical Chemistry	3		
	SCHP-441 Physical Chemistry			3
	SCHP-445 Physical Chemistry Lab			1
	SCHO-431 Organic Chemistry			2
	SCHO-435 Organic Chem. Lab			2
	SPSP-331 Electronics & Electricity	5		
	SMAM-431 Linear Algebra	4		
	GLLC-421 German			5
	*General Studies Elective	4		5
	‡Physical Education Elective	0		
Fourth Year		F or W		S orSR
	SCHP-442, 443 Physical Chemistry	3		3
	SCHP-446, 447 Physical Chemistry Lab	1		1
	SCHO-432, 433 Organic Chemistry	2		2
	SCHO-436, 437 Organic Chem. Lab	2		2
	SCHC-402 Introduction to Research	0		
	Institute-wide Electives			6
	SCHI-762 Inorganic Chemistry			3
	GLLC-422 German	5		
	*General Studies Elective	5		
Fifth Year		F orW		5
	SCHI-763 Inorganic Chemistry	3		
	or SCHB-702 Biochemistry	3		
	SCHA-711 Instrumental Analysis	3		
	SCHA-720 Instrumental Analysis Lab	2		
	Chemistry Electives			6
	*General Studies Electives	5		5
	Institute-Wide Electives	5		6

Chemical Technology

Year		Fall	Winter	Spring
		Quarter Credit Hours		
First Year	SCHT-241, 242 Chem. Tec. I (General) & (Analytical)	6		6
	SCHG-215 Chem. Tec. II Gen. & (Analytical) Lee	3		
	SMAM-201, 202 Algebra, Trigonometry	3		3
	GLLC-220 English Composition	4		
	PPRM-201 Introduction to Technical Writing			3
	*General Studies Elective-Lower Division			4
	‡Physical Education Elective	0		0
Second Year		SRorF		WorS
	SCHT-243, 244 Chem. Tec. III, IV (Organic)	6		5
	SMAM-203 Algebra, Trigonometry	3		
	SMAM-309 Statistics			4
	SPSP-211 College Physics			3
	SPSP-271 College Physics Lab			1
	SCHT-309 Glassblowing Techniques			2
	*General Studies Electives-Lower Division	8		
	‡Physical Education Elective	0		0
Third Year AAS degree		SRorF		W orS
	SCHT-305, 306 Chemistry Speciality (Spectrometry)	4		4
	SPSP-212, 213 College Physics	3		3
	SPSP-272, 273 College Physics Lab	1		1
	SPSP-301 Electronics for Technologists			3
	Institute-wide Electives	4		4
	*General Studies Electives-Lower Division	4		4

See Pg. 98 for General Studies requirements.
‡See Pg. 40 for Policy on Physical Education.

Mathematics Program Can Be Designed With Or Without Co-op

Edward A. Newburg, Head

The Department of Mathematics offers two degree programs, one in mathematics and one in computational mathematics. Each program leads to the AS and then the BS degrees.

The AS degree will ordinarily be completed in two years and involves no cooperative employment. The BS degree involves a five-year curriculum and incorporates industrial cooperative employment during the third, fourth and fifth years. However, the Department of Mathematics will design a special curriculum for students who do not desire to participate in the system of cooperative employment.

The program leading to the BS in mathematics is a traditional applied mathematics program requiring a minor concentration in one of a variety of fields of application chosen by the student.

The program leading to the BS in computational mathematics emphasizes some of the more modern topics in applied mathematics and incorporates a strong minor in computer science.

Graduates of either program qualify for positions in industrial institutions and business concerns as well as for graduate studies leading to an MS or Ph.D. degree, not only in mathematics but in a number of other fields as well.

Requirements for the AS and BS degrees in mathematics or computational mathematics

The student must meet the minimum requirements of the Institute as described on page 29 and in addition must complete the requirements contained in one of the particular programs listed below or its equivalent as determined and approved by the Mathematics Department. In conjunction with a faculty advisor, individual student programs will be established to meet particular needs, interests, and goals.

Course descriptions

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

Mathematics

Year		Quarter Credit Hours Fall	Winter	Spring
First Year	SMAM-251, 252, 253 Calculus	4	4	4
	SMAM-210,211 Freshmen Seminar	1	1	
	ICSS-202 Intro. Computer Science	4		
	ICSP-215 Programming Language-FORTRAN		4	
	SMAM-265 Discrete Mathematics			4
	**Science	5	5	5
	*General Studies Electives-Lower Division	4	4	4
	‡Physical Education Elective	0	0	0
Second Year AS Degree	SMAM-305 Calculus	4		
	SMAM-306 Differential Equations		4	
	SMAM-307 Differential Equations			
	or SMAM-308 Engineering Math			4
	SMAM-351, 352 Probability and Statistics	4	4	
	SMAM-431 Linear Algebra			4
	# Elective	4	4	4
	*General Studies Elective-Lower Division	4	4	4
	‡Physical Education Elective	0	0	0
Third Year		F or W		S orSR
	SMAM-432 Linear Algebra	4		
	SMAM-361 Mathematical Modeling			4
	*General Studies Electives-Upper Division	5		5
	Mathematics Elective	4		4
	# Elective	4		4
Fourth & Fifth Year	***SMAM-531, 532 Abstract Algebra	4		4
	***SMAM-411,412 Real Variables	4		4
	*General Studies Electives-Upper Division	10		10
	Mathematics Elective	4		4
	# Elective	12		12

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

**See Pg. 98 for General Studies requirements.*

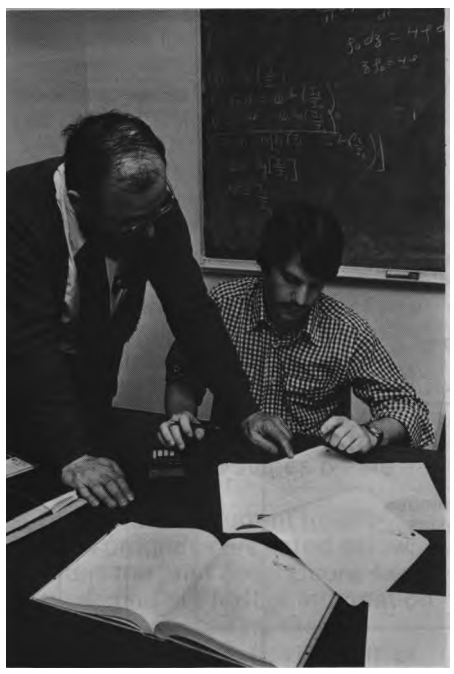
‡See Pg. 40 for Policy on Physical Education.

***One of the following introductory sequences, including the associated laboratory:*

SBIG-201, 202, 203 General Biology
SCHC-211,212 General Chemistry
SCHO-230 Introduction to Organic Chemistry
SCHG-205, 206, 207 Chemical Principles
SPSP-311,312, 313 University Physics
SPSP-205, 206, 207 General Physics

****Given in alternate years and blocks*

#The primary objective of these unspecified electives is to fulfill the requirement of a minor concentration in one of the areas mentioned above. After that requirement is fulfilled, the electives become entirely free electives.



Computational Mathematics

Year		Quarter Credit Hours Fall	Winter	Spring
First Year	SMAM-251, 252, 253 Calculus	4	4	4
	SMAM-265 Discrete Mathematics			4
	ICSS-202 Intro. Computer Science	4		
	ICSP-215 Programming Language-FORTRAN		4	
	**Science	5	5	5
	*General Studies Elective-Lower Division	4	4	4
	‡Physical Education Elective	0	0	0
Second Year	SMAM-305 Calculus	4		
	SMAM-306 Differential Equations		4	
	SMAM-351, 352 Intro. Probability & Statistics	4	4	
	SMAM-410 Advanced Calculus			4
	SMAM-431 Linear Algebra			4
	ICSP-305 Assembly Language Programming	4		
	ICSS-315 Digital Computer Organization		4	
	Computer Science Elective			4
	*General Science Elective-Lower Division	4	4	4
	‡Physical Education Elective	0	0	0
Third Year		F or W		S orSR
	SMAM-432 Linear Algebra	4		
	SMAM-365 Combinatorial Mathematics	4		
	SMAM-361 Mathematical Modeling			4
	*General Studies Elective-Upper Division	5		5
	Electives	4		8
Fourth & Fifth Year	***SMAM-511,512 Numerical Analysis	4		4
	***SMAM-531, 532 Abstract Algebra	4		4
	ICSS-320 Data Structure Analysis			4
	*General Studies Elective-Upper Division	10		
	Electives	12		8

NOTE: A detailed analysis of the above program is contained in a brochure prepared by the Department of Mathematics and is available upon request.
**See Pg. 98 for General Studies requirements.*
‡See Pg. 40 for Policy on Physical Education.
***One of the following introductory sequences, including the associated laboratory:*
SBIG-201, 202, 203 General Biology
SCHC-211,212 General Chemistry
SCHO-230 Intro to Organic Chemistry
SCHG-205, 206, 207 Chemical Principles
SPSP-311,312,313 University Physics
SPSP-205, 206, 207 General Physics
****Given in alternate years and blocks*

Physics Grads Head for Industry, Government Or Academia

V. V. Raman, 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 29 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 course offered at RIT, please request the Course Description catalog from the Admission Office.

Physics

Year		Quarter Credit Hours Fall	Winter	Spring
First Year	SMAM-251, 252, 253 Calculus	4	4	4
	SCHC-211, 212 General Chemistry	3	3	
	SCHO-230 Introduction to Organic Chemistry			3
	SCHG-205, 206 Chemical Principles Laboratory	1	1	
	SPSP-200 Physics Orientation	1		
	SPSP-311,312 University Physics		4	4
	SPSP-371, 372 University Physics Laboratory		1	1
	*General Studies Electives-Lower Division	4	4	4
	‡Physical Education Elective	0	0	0
Second Year AS Degree	SMAM-305 Calculus	4		
	SMAM-306, 307 Differential Equations		4	4
	SPSP-313 University Physics	4		
	SPSP-373 University Physics Laboratory	1		
	SPSP-321 Introduction to Laboratory Techniques		3	
	SPSP-314, 315 Introduction to Modern Physics		4	4
	SPSP-380 Theoretical Physics I			4
	ICSP-205 ComputerTechniques	3		
	*General Studies Electives-Lower Division	4	4	4
	‡Physical Education Elective	0	0	0
Third Year		F		S
	SPSP-431, 432 Electronic Measurements	3		3
	SPSP-401, 402 Intermediate Mechanics	4		4
	**SPSP-455 Optical Physics	4		
	*General Studies Elective	5		5
	Institute-wide Elective			4
Fourth Year	SPSP-411, 412 Electricity & Magnetism	4		4
	**SPSP-415 Thermal Physics	4		
	SPSP-421, 422 Experimental Physics	2		2
	SPSP-501 Theoretical Physics			4
	*General Studies Elective	5		5
Fifth Year BS degree		F		S
	SPSP-552 Atomic Physics & Quantum Mechanics	4		
	SPSP-521 Advanced Experimental Physics	3		
	SPSP-531 Solid State Physics			4
	SPSP-553 Nuclear Physics			4
	*General Studies Elective	5		5
	Institute-wide Elective	4		4

**See Pg. 98 for General Studies requirements.*
‡See Pg. 40 for Policy on Physical Education.
***SPSP-455 and SPSP-415 given in alternate years.*

School of Health Related Professions Coordinates Various Institute Programs

Edward B. Stockham, Director

RIT has educated health professionals for more than a quarter of a century, since a program in dietetics was started in 1950.

The School of Health Related Professions in 1976 began coordinating the Institute's certificate, associate's, bachelor's, and master's degree programs in the health fields and its continuing education programs in health, as well as in planning for future programs.

The student in the health professions looks on a bright employment future. Studies have documented a critical need for allied health professions.

Allied health professionals work as members of health-care teams supporting the services of physicians, dentists, and other health professionals. They are in increasing demand because physicians more and more are delegating functions that do not require their level of training and experience.

Because the allied health professions offer job options at various degree levels, RIT is training people for various stages on the career ladder.

The Institute's current health-related programs are listed below. Besides the brief descriptions here, you can find out further information on each by consulting the appropriate page in this Bulletin or other Institute publications as indicated in the chart on this page.

Biomedical Computing is a bachelor's degree program in the College of Science,* which prepares professionals with competence in computing for health industries.

Biomedical photographic communications is an undergraduate and bachelor's degree program in the College of Graphic Arts and Photography. It educates people to work in audiovisual and educational resource departments in hospitals, medical and dental schools, research centers, and other health institutions.

**offered jointly with the School of Computer Science & Technology*

Dietetics & Nutritional Care is a bachelor's degree program in the Department of Food Administration and Tourist Industries Management within the College of Business. RIT's two options (General Dietetics/ Coordinated Undergraduate Program) in dietetics prepare students for the complete range of nutritional employment from management of food systems to therapeutics.

Medical illustration is an option within the bachelor of fine arts degree program in the College of Fine and Applied Arts. Medical illustrators work as part of teams supplying the growing needs for professional audiovisual media of a medical nature.

Medical technology is a bachelor's degree program in the College of Science which educates students to perform medical laboratory analysis in clinical laboratories.

Nuclear medicine technology is a bachelor's degree program in the College of Science which prepares students to assist physicians in procedures that require the use of radioactive materials and nuclear instrumentation.

Clinical Chemistry is a master's degree program in the College of Science which provides the academic background for individuals who aspire to careers in middle management in clinical chemistry laboratories.

Health sciences applications of instructional technology is an option within the Institute College's master's degree program in instructional technology. Its graduates are prepared to work with health professionals in designing and evaluating instructional systems and materials for the allied health professions such as nursing, medicine, and dentistry.

Health institutions management is an associate's degree program within the College of Continuing Education. Its graduates are prepared for administrative positions in hospitals, nursing homes and related health service areas.

Pharmacy (with either Biology or Chemistry options) is a double bachelor's degree program offered through the College of Science in cooperation with Massachusetts College of Pharmacy. Its graduates are prepared to work as pharmacists in the health care industry or research.

Program	College	Degree	See Page
Biomedical Computing	Science‡	BS	172
Biomedical Photographic Communications	Graphic Arts & Photography	AAS BS	120
Clinical Chemistry	Science	MS	*
Coordinated Undergraduate Program in General Dietetics (CUP)	Business	BS	62
Health Institutions Management	Continuing Education	AAS	**
Health Sciences Applications of Instructional Technology option	Institute College	MS	*
Medical Illustration option	Fine and Applied Arts	BFA	92
Medical Technology	Science	BS	173
Nuclear Medicine Technology	Science	BS	174
Medical Laboratory Technician	National Technical Institute for the Deaf	AAS	†
Medical Record Technician	National Technical Institute for the Deaf	AAS	†
Optical Finishing Technology	National Technical Institute for the Deaf	AAS	†

**See Graduate Bulletin*
***See CCE course catalog*
†See NTID Bulletin
‡Offered jointly with the School of Computer Science and Technology

Biomedical Computing Specialists Use Computers In Health Industry

William A. Burns, Acting Program Director

The program is a joint effort of the College of Science's School of Health Related Professions and Institute College's School of Computer Science and Technology, and leads to a bachelor of science degree in biomedical computing. Students in the program receive training in the basic and medical sciences; specialized training in computer science with an emphasis on clinical, hospital, and laboratory applications; and experiential learning in biomedical computing in a hospital, clinic or medical laboratory setting.

The program is one of only a few such programs in the United States and prepares students to apply computers to medical record keeping, diagnosis, patient monitoring, laboratory analysis, instrumentation and medical research. The program was begun because of the widespread use of computers for a broad spectrum of purposes within the health industry. At many of the larger medical centers, the use of computers to acquire, process, display and store medical data has become widespread.

Like RIT's other science curricula, the Biomedical Computing program combines cooperative work experience (Co-op) and in-classroom study. The program spans five years to allow students to alternate quarters in school with quarters in paid employment during their last three years. Co-op allows students the opportunity to practice new skills in real-life situations and to test their chosen fields before making a lifelong commitment. The experiences they acquire not only make their education more relevant, but also make them more valuable to prospective employers.

Requirements for the BS degree in Biomedical Computing

The student must meet the minimum graduation requirements of the Institute as described on page 29 and in addition must complete the requirements contained in the particular program listed below or its equivalent as determined and approved by the School. Transfer students usually will be required to take 100 quarter credit hours, depending on the program they completed at their previous school. Specific requirements will be determined by the School.

Course descriptions

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

Biomedical Computing Program

Year		Quarter Credit Hours Fall	Winter	Spring
First Year	ICSS-202 Intro, to Computer Science	4		
	SCHG-215, 216, 217 Gen./Anal Chemistry	3	3	3
	SCHG-225, 226, 227 Gen./Anal Chemistry Lab	1	1	2
	SMAM-251, 252, 253 Calculus	4	4	4
	ICSP-230 Discrete Structure		4	
	ICSP-215 Programming Language - FORTRAN			4
	*General Studies-Lower Division	4	4	4
	‡Physical Education Electives	0	0	0
Second Year	ICSP-305 Assembly Language	4		
	SBIG-210 Human Microbiology	4		
	SBIG-221 Cell Biology	4		
	SPSP-205, 206 General Physics	3	3	
	SPSP-275, 276 General Physics Lab	1	1	
	LCSS-320 Data Structure		4	
	SCHO-202 Organic Chemistry		4	
	SBIO-305, 306 Phys. & Anat		4	4
	SPSP-331 Intro, to Electricity & Electronics			5
	SCHO-203 Biochemistry			4
	*General Studies Elective-Lower Division			4
	‡Physical Education Electives	0	0	0
		F/W		S/S
Third Year	ICSS-315 Digital Computer Organization	4		
	SBIT-432 Bio. Lab Techniques	4		
	SCHO-204 Biochemistry	4		
	ICSS-321 Search & Sorting Techniques			4
	SBIT-433 Bio. Lab Techniques			4
	*General Studies Electives	4		9
Fourth Year	ICSS-430 Numerical Methods	4		
	ICSS-400 Logical Design	4		
	SHPG-301 Medical Terminology	3		
	ICSS-440 Operating Systems			4
	SMAM-309 Statistics			4
	*General Studies Electives-Upper Division	5		10
Fifth Year	ICSS-575 Mini Systems/Applications	4		
	Institute Electives	8		
	ICSS-755 Real Time Computation			4
	ICSS-721 Microprofessors & Microcomputers			4
	*General Studies Elective-Upper Division	5		5

*See *Pg. 98 for General Studies requirements.*
‡See Pg. 40 for Policy on Physical Education.

Medical Technology Program Prepares Students for Lab Work in Variety of Situations

William A. Burns, Program Director

The major function of the medical technology program, which leads to the bachelor of science degree is the preparation of students for employment in hospital laboratories, industrial-medical or research laboratories, and pharmaceutical companies. This program has been accepted by the Board of Registry of Medical Technologists of the American Society of Clinical Pathologists as meeting all requirements prior to the Registry examination.

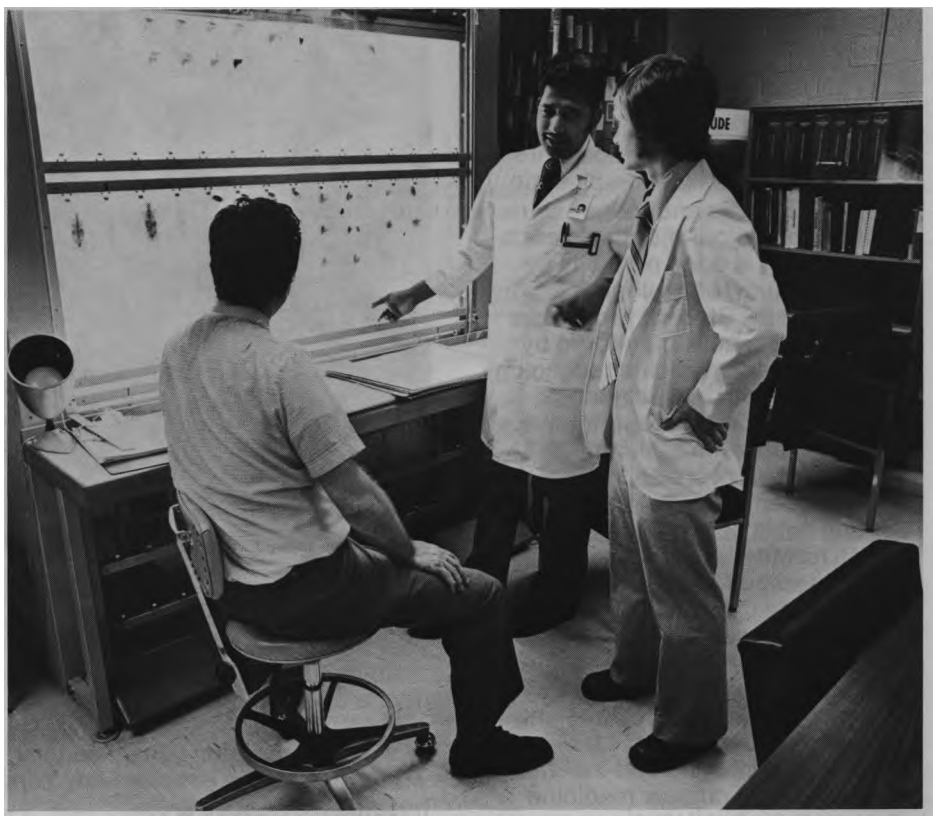
Students enrolled in the medical technology program attend classes at RIT during the Fall, Winter and Spring Quarters for three years. In the Fall Quarter of their third year, they apply for internship to hospital schools of medical technology that are approved by the American Society of Clinical Pathologists. They will then spend their fourth academic year at the hospital that accepts them as an intern in medical technology. At the present time a new integrated internship year is being developed by the medical technology faculty. This new development will provide a second track for completion of a BS degree in medical technology. The students in this track will spend one half of their fourth year at RIT training in clinical methods of analyses and they will spend the last half of this year in hospital laboratories for observation, instruction, and practical training.

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

Medical Technology

Year		Quarter Credit Hours		
		Fall	Winter	Spring
First Year	SBIG-201, 202, 203 General Biology	3	3	3
	SBIG-205, 206, 207 General Biology Lab	1	1	1
	SCHG-215, 216, 217 General Analytical Chemistry	3	3	3
	SCHG-225, 226, 227 General Analytical Chemistry Lab —	1	1	2
	SMAM-221, 222, 223 College Math	4	4	4
	*General Studies Elective-Lower Division	4	4	4
	‡Physical Education Elective	0	0	0
Second Year	SBIO-305, 306 Physiology and Anatomy		4	4
	SCHO-231, 232 Organic Chemistry	4	4	
	SPSP-211,212, 301 College Physics & Electronics	3	3	3
	SPSP-271, 272 College Physics Lab	1	1	
	ICSP-205 Computer Techniques	3		
	SBIG-315 Medical Genetics		2	
	SBIG-204 Communication Skills (Fall or Spring)	1		1
	*General Studies Electives-Lower Division	4	4	4
	Institute Wide Electives			4
	‡Physical Education Elective	0	0	0
Third Year	SBIG-401 Immunohematology	3		
	SBIO-404, 405 Microbiology	5	4	
	SCHB-702, 703 Biochemistry	3	3	
	SCHB-605, 606 Biochemistry Case Studies	1	1	
	SBIT-432, 433 Biology Laboratory Techniques		4	4
	SMAM-309 Statistics			4
	SBIC-410 Hematology			4
	‡General Studies Elective-Upper Division	5	5	5

BS degree: the fourth year taken at an approved hospital for training medical technologists.
**See Pg. 98 for General Studies requirements.*
‡See Pg. 40 for Policy on Physical Education.



Nuclear Medicine Technology Program Includes One Year Clinical Training

Dr. Jerome Wagner, Program Director

The program leading to the BS degree in nuclear medicine technology spans four years, the first three of which are spent on campus. The fourth year consists of clinical training at one or more approved hospitals.

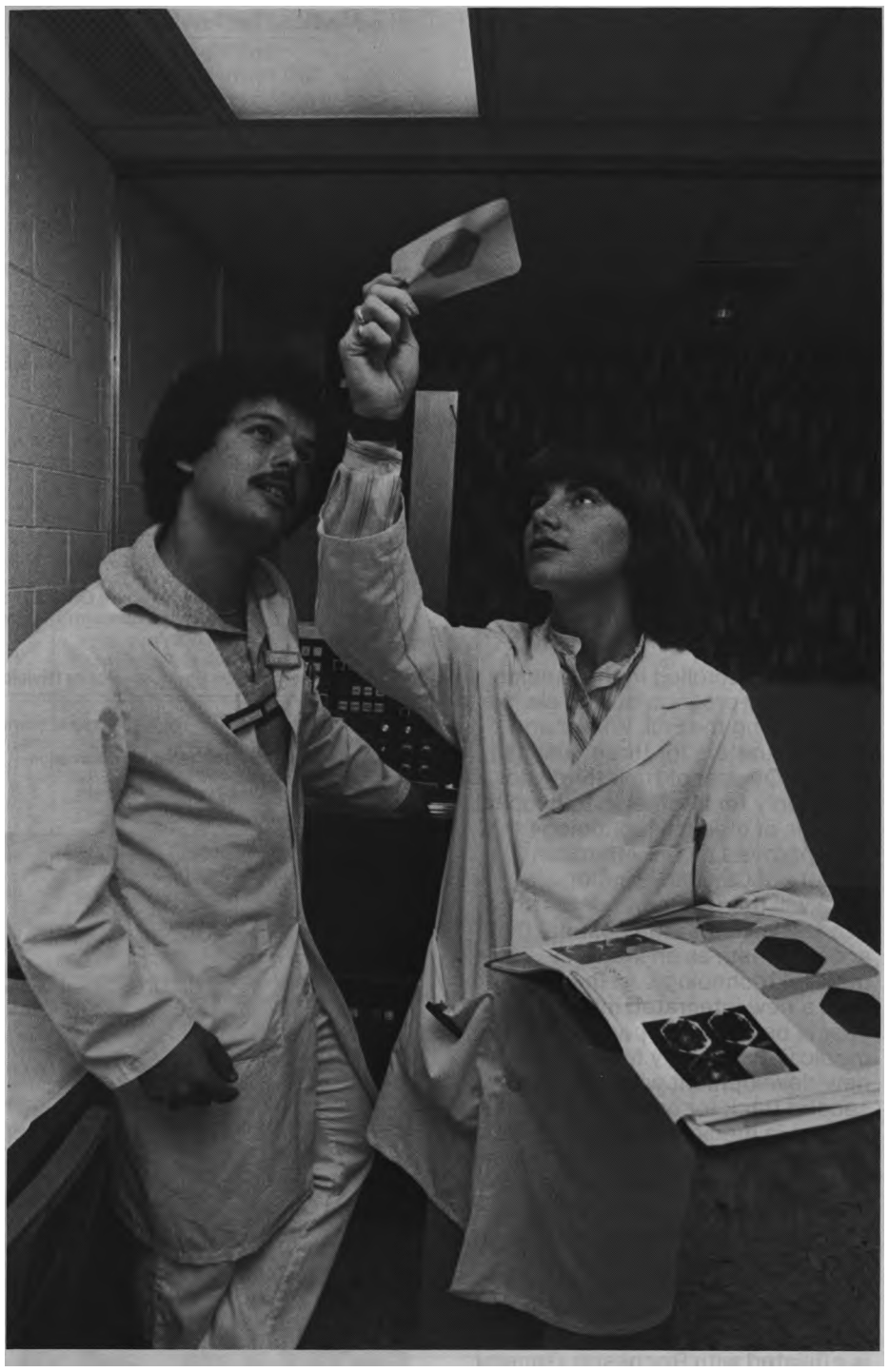
Clinical training in nuclear medicine technology

The NMT clinical internship begins in early September and ends in mid-September of the following year. The first two weeks of training are an intensive introduction to the theory and practice of nuclear medicine technology taught by physicians and technologists from the program's affiliated hospitals. Classes during this time are held on the RIT campus, and laboratory sessions take place at Rochester hospitals.

Most of the internship 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. Several times during each four-month rotation, students return to the RIT campus for a half-day of lectures and discussions.

Training during the hospital internship 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 internship also includes a substantial component of training in radioimmunoassay theory and practice. One week of classroom and laboratory work in RIA at RIT during the winter of the internship year is followed by four weeks of radioimmunoassay clinical training at one of the affiliated hospitals.



The RIT nuclear medicine technology program has affiliations with the following Upstate New York hospitals: Syracuse area-Community General Hospital; Crouse-Irving Memorial Hospital; Veterans Administration Hospital. Rochester area- The Genesee Hospital; Highland Hospital; Rochester General Hospital; Strong Memorial Hospital. Binghamton area-Our Lady of Lourdes Hospital; Charles Wilson Memorial Hospital. Canandaigua area-Frederick Ferris Thompson Hospital. Buffalo area-Sisters of Charity Hospital.

The RIT program is also affiliated with Veterans Administration Hospital, St. Louis, Missouri. Students who wish to intern at this hospital make application in the month of January preceding the start of the clinical year. Students selected for internships there receive a stipend and spend the entire year in St. Louis.

Requirements for the BS degree in nuclear medicine technology

The student must meet the minimum graduation requirements of the Institute as described on page 29 and in addition must complete the requirements contained in the particular program listed below or its equivalent as determined and approved by the School of Health Related Professions. In conjunction with a faculty advisor, individual student programs will be established to meet particular needs, interests, and goals. A planned elective concentration in another field such as biology, chemistry, mathematics, computer science, business or photo science is possible.

Accreditation

The nuclear medicine technology program has been accredited by the Joint Review Committee on Education Programs in NMT of the American Medical Association.

Course descriptions

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

Nuclear Medicine Technology

Year		Quarter Credit Hours Fall	Winter	Spring
First Year	SMAM-221, 222, 223 College Math	4	4	4
	SCHG-215, 216, 217 General & Analytical Chemistry	3	3	3
	SCHG-225, 226, 227 General & Analytical Chemistry Lab	1	1	2
	SBIG-201, 202, 203 General Biology	3	3	3
	SBIG-205, 206, 207 General Biology Lab	1	1	1
	*General Studies Electives-Lower Division	4	5	4
	‡Physical Education Elective	0	0	0
Second Year	SPSP-211, 212, 213 College Physics	3	3	3
	SPSP-271, 272, 273 College Physics Lab	1	1	1
	SCHG-202 Organic Chemistry		3	
	SCHG-222 Organic Chemistry Lab		1	
	SCHG-203 Biochemistry			4
	SBIO-305, 306 Physiology & Anatomy		4	4
	ICSP-205 Computer Techniques	3		
	*General Studies Electives-Lower Division	4	4	4
	**Program Elective	4		
	‡Physical Education Elective	0	0	0
Third Year	SPSP-351, 352, 353 Radiation Physics	5	5	5
	SBIT-430 Radiation Biology	4		
	SMAM-309 Statistics			4
	*General Studies Electives-Upper Division	5	5	5
	**Program Elective	4	4	
	Institute-Wide Elective		4	4
Fourth Year	SHPN-501 Intro to Clinical Nuclear Medicine	6		
	SHPN-502 Clinical Nuclear Medicine Lecture Series		1	1
	SHPN-503 Review in Nuclear Medicine	1	1	2
	SHPN-510 Radionuclude Imaging & External Monitoring	4	7	4
	SHPN-511 Patient Positioning & Nursing Procedures	1	2	1
	SHPN-512 Nuclear Medicine Pharmacy In-Vitro Procedures & Therapy	2	2	2
	SHPN-513 Nuclear Medicine Administrative Procedures & Radiation Protection	2	1	1
	SHPN-514 Instrumentation in Nuclear Medicine	1	1	1
	SHPN-401 Introduction to Radioimmunoassay		2	
	SHPN-402 Radioimmunoassay Practicum			4

*See *Pg. 98 for General Studies requirements.*
‡See Pg. 40 for Policy on Physical Education.
***Program electives must be approved by the Nuclear Medicine Technology Program Director and can be used to concentrate in an area related to Nuclear Medicine.*

ROTC Trains Junior Officers To 'Evaluate, Decide and Lead'

The general objective of the Reserve Officers' Training Corps is to produce junior officers who, by education, training, attitude, maturity and qualities, are suitable for continued development as officers in the United States Army. The intermediate objectives of the program are to develop in each student:

1. The fundamentals of self-discipline, integrity, and responsibility;
2. An appreciation of the role of a participating citizen in matters dealing with national defense;
3. The ability to evaluate situations, to make decisions, to understand people, and to practice those attributes considered essential in a leader.

Four-year program

The Army ROTC program at Rochester Institute of Technology is voluntary and open to all male and female students enrolled on a full-time basis.

Students are eligible to enroll in this program any time during their freshman or sophomore years. They may also disenroll at any time during these first two years **without obligation.** Upon completion of the sophomore year, the student may request enrollment in the Advanced ROTC Course for the junior and senior years.

Two-year program

This program is offered to all qualified students with two school years remaining who did not previously participate in ROTC. Students in this program attend a six-week Basic Summer Camp between their sophomore and junior years, in lieu of the first two years of ROTC normally presented in the classroom. Upon successful completion of this basic camp, the student is enrolled in the Advanced Course for the last two years. It should be noted that interested students should begin processing applications for this program early in the sophomore year.

Commissioning

In both the two-year and four-year programs, the student must successfully complete all degree requirements. Additionally, each student attends a six-week Advanced Summer Camp, usually between the junior and senior year, prior to being commissioned as a second lieutenant on graduation day.

ROTC sponsors many extra-curricular and hands-on type activities through which the cadet may find an opportunity to develop leadership potential, broaden overall cultural, civic and social backgrounds, and enjoy voluntary weekend outdoor events.

All courses receive full academic credit as free electives.

Scholarships
Full-tuition scholarships are available on a competitive basis to freshmen, sophomores and juniors. Under this program, the Army pays for all tuition fees, lab fees, textbooks, and other required expenses, except room and board. In addition, all students entering the Advanced Course receive $100 per month, with or without a scholarship, for ten months of each academic year. Throughout the entire program, the ROTC student is provided textbooks and related materials free of charge.

For further information
Additional information about ROTC may be obtained by visiting the unit's fifth floor offices in the administration building or by calling 475-2881, 2882.

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

ROTC Faculty

Professor of Military Science
Lieutenant Colonel Victor F. Keefe, BA, MA, University of Oklahoma

Assistant Professors of Military Science

Major Malcolm R. McLellan, BA, University of Alabama; MA, East Texas State

Captain David J. Block, BS, Alfred University

Captain Robert G. Hipp, AB, University of Buffalo; MS, Alfred University

Sergeant Major
Rodolfo Montalvo

Training Specialist
Master Sergeant Harold K. Barrett

Supply Specialist
Staff Sergeant Michael P. O'Connor

Military Personnel Clerk
Mrs. Mary Bonvillian

Secretary
Mrs. Phyllis Sarnack

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Albert K. Chapman*

Brackett H. Clark*, Honorary Vice Chairman, Board of Trustees, Rochester Institute of Technology; Chairman of the Board and Treasurer, Rapidac Machine Corporation

Hugh E. Cumming, President and Director, Curtice-Burns, Inc.

E. Kent Damon, Treasurer, Rochester Institute of Technology; Vice President and Secretary, Xerox Corporation

Francis E. Drake, Jr., Chairman of the Board and Chief Executive Officer, Rochester Gas & Electric Corporation

David D. Egan, Partner, Egan & Egan Attorneys

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

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

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

Maurice R. Forman*, Retired Chairman, B. Forman Company

James S. Gleason, Vice President and Treasurer, The Gleason Works

Lawrence C. Gleason*, Former Chairman of the Board, The Gleason Works

Fred H. Gordon, Jr.*, Chairman, Executive Committee, Mixing Equipment Co., Inc. (a unit of General Signal Corporation)

Lucius R. Gordon, Chairman of the Board, Mixing Equipment Co., Inc. (a unit of General Signal Corporation)

Thomas H. Gosnell, President, Lawyers Cooperative Publishing Company

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

Alfred M. Hallenbeck, Attorney, Nixon, Hargrave, Devans and Doyle

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

John D. Hostutler, President, Industrial Management Council

Thomas E. Hustead, General Manager, Rochester Products, Division of General Motors Corporation

Frank M. Hutchins, Vice Chairman, Board of Trustees, Rochester Institute of Technology; Chairman and Chief Executive Officer, Hutchins/Young & Rubicam Inc.

Byron Johnson, Senior Partner, Johnson, Reif and Mullan

John Wiley Jones*, Chairman of the Board, Jones Chemicals, Inc.

Thomas F. Judson, Chairman and Chief Executive Officer, John B. Pike & Son, Inc.

Arthur M Lowenthal*

William J. Maxion, Chairman of the Board, Case-Hoyt Corporation

Russell C. McCarthy*, Retired Manager, Industrial Management Council

J. Warren McClure, Vice Chairman, Board of Trustees, Rochester Institute of Technology; President, McClure Media Marketing Motivation Co.

C. Peter McColough*, Chairman of the Board and Chief Executive Officer, Xerox Corporation

Paul Miller*, Former Chairman of the Board, Gannett Company, Inc.

Mrs. Frederick S. Mulford, President, Rochester Institute of Technology Women's Council

Alfred J. Murrer, President and Chief Executive Officer, The Gleason Works

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

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

M. Richard Rose, President, Rochester Institute of Technology

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

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

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

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

Arthur L. Stern, Partner, Dibble, Koff, Lane, Stern & Stern

Robert J. Strasenburgh II, Former Chairman and President, Strasenburgh Laboratories

Mrs. Homer Thornberry, Former Member, National Advisory Group, National Technical Institute for the Deaf

Gaylord C. Whitaker, Consultant, Singer Education Systems

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

Kenneth W. Woodward, M.D., Executive Director, Neighborhood Health Centers of Monroe County Inc.

**Member of Honorary Board*

Endowed Professorships

College of Business

J. Warren McClure Professorship in Marketing

Established: 1977

Donor: Mr. and Mrs. J. Warren McClure

Purpose: To perpetuate Mr. McClure's professional interest in the field of marketing.

Held by: Professor Herbert J. Mossien

College of Continuing Education

Frederick H. Minett Professorship in Continuing Education

Established: 1972

Donor: Mr. Minett by bequest

Purpose: To provide a permanent memorial for Mr. Minett and to recognize his interest in students who obtain their education through the evening division.

Held by: Presently open

Paul A. Miller Distinguished Professorship in Continuing Education

Established: 1978

Donor: RIT Board of Trustees

Purpose: To honor Dr. Miller on the occasion of his retirement as President of the Institute and to give lasting recognition to his standing as an acknowledged authority in the field of continuing education.

Held by: Presently open

Russell C. McCarthy Chair

Established: 1979

Donors: Mr. Fred Gordon, Mr. Lucius Gordon, Mixing Equipment Company and General Railway Signal Company, units of General Signal Corporation, and other friends of Mr. McCarthy.

Purpose: To honor Mr. McCarthy as Manager of the Industrial Management Council for twenty years and his role as a champion of and an authority on industry and business. Mr. McCarthy has served RIT as a Trustee and Honorary Trustee since 1947.

Held by: Presently open

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: 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: Professor Hans Christensen

College of General Studies

Caroline Werner Gannett Professorship in the Humanities

Established: 1974

Donor Mrs. Frank E. Gannett

Purpose: To perpetuate Mrs. Gannett's lifelong interest in education especially those fields of study that have a humanistic perspective.

Held by: Professor Raymond H. Merritt

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 Herbert H. 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 James E. McMillion

Paul and Louise Miller Distinguished Professorship in Newspaper Production Management

Established: 1976

Donor: Frank E. Gannett Newspaper Foundation

Purpose: To honor the former chairman of the Board of the Gannett Company, and to perpetuate his interest in good management practices in the newspaper industry.

Held by: Professor Robert G. Hacker

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.

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College of Graphic Arts and Photography

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Institute College

Mary Sullivan, BA, MA, Ph.D.
College of General Studies

Faculty and Staff

College of Business

Dale F. Gibson, BA, MBA, Acting Dean; Associate Professor

Raymond F. Von Deben, BS, MS, Assistant Dean, Student Services; Professor

Janet C. Barnard, BS, M.Ed., Ed.D., Coordinator of Undergraduate Business Administration Planning; Assistant Professor

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George Alley, BA, MS, Director, Department of Food Administration; Professor

Arden L. Travis, BS, M.Ed., Ed.D., Director of Experiential Learning Programs; Associate Professor

Mary Dean Gridley, BA, Winthrop College; MAT, University of South Carolina-Coordinator of Experiential Learning Programs; Instructor

School of Business Administration and School of Retailing

Robert J. Barbato, BA, LeMoyne College; Assistant Professor

William E. Beatty, BA, Western Maryland; ML, Pittsburgh; MBA, New York University-Associate Professor

Thomas R. Burns, BBA, Ohio State; J.D., Notre Dame-Lecturer

Richard J. Butler, BS, MS, Clarkson College-Assistant Professor

Henry J. Cassia, BS, MBA, New York University-Associate Professor

You-Keng Chiang, BA, Central University, Chunking; MA, Ph.D., Chicago-Professor

Thomas E. Comte, BS, University of California-Davis; MBA, Columbia University; Ph.D., University of Missouri at Columbia-Assistant Professor

Dorothy Cotton, Fashion Specialist, Public Relations Consultant-Lecturer

Frederick D. Crowley, BBA, Iona College; MBA Iona College-Assistant Professor

William P. Curington, BS, University of Texas-Austin; MILR, Michigan State University; MA, Syracuse University-Assistant Professor

Terry L. Dennis, BS, Clarkson College; MS, Ph.D., Purdue-Associate Professor

Andrew J. DuBrin, AB, Hunter College; MS, Purdue; Ph.D., Michigan State-Professor

William E. Dunkman, BS, Commercial Engineering, Cincinnati; MS, Ph.D., Columbia-Professor

Stanley M. Dye, BA, Haverford College; C.P.A., New York-Distinguished Lecturer

James C. Galloway, AB, Rochester; MBA, University of Pennsylvania-Assistant Professor

John K. Hartley, Jr., BS, MS, Georgia Institute of Technology-Associate Professor

John A. Helmuth, II, BA, MA, Old Dominion University-Assistant Professor

Gene G. Hoff, BBA, Hartwick; MBA, University of Rochester; CMA-Assistant Professor

Frank E. Holley, BS, University of Illinois-Distinguished Lecturer

Paul A. Lebowitz, BA, Case Western University; MS, Rochester Institute of Technology; CPA, New York-Instructor

Margaret S. Marshall, BA, MS, West Virginia-Lecturer

James E. McMillion, Jr., BFA, MFA, Ohio State-Professor, James E. McGhee Professor in Photographic Management

E. James Meddaugh, BS, Rutgers; MBA, Drexel; Ph.D., Pennsylvania State; C.P.A., New York-Associate Professor

William L. Mihal, BS, MS, Clarkson College; Ph.D., University of Rochester-Associate Professor

Herbert J. Mossien, BS, Alfred-J. Warren McClure Professor in Marketing

James E. Pawlukiewicz, BS, MA, University of Kentucky-Assistant Professor

Keith G. Provan, BS, American University; MBA, Boston University; Ph.D., SUNY-Buffalo-Assistant Professor

John L. Roman, BS, MS, SUNY-Albany-Instructor

Jose A. Ruilan, BS, Western Carolina University; MS, Rochester Institute of Technology-Instructor

Joseph H. Schuler, Jr., BFA, Syracuse; MFA, Rochester Institute of Technology-Lecturer

Dean C. Siewers, BS, Marietta; MBA, Duke University; Ph.D., University of North Carolina-Assistant Professor

Patricia Sorce, BA, Kent State University; MS, Ph.D., University of Massachusetts-Assistant Professor

Hollister Spencer, BA, MBA, Harvard; DBA, Arizona State-Professor

William Stevenson, BIE, MBA, Ph.D., Syracuse-Associate Professor

Daniel D. Tessoni, BBA, St. John Fisher, MS, Clarkson College of Technology-Instructor

Philip R. Tyler, DBA, Michigan State-Associate Professor

Paul H. Van Ness, BA, MBA, University of Michigan-Associate Professor

Stanley M. Widrick, BS, Clarkson College of Technology; MBA, SUNY at Buffalo; Ph.D., Syracuse University-Assistant Professor

Thomas A. Williams, BS, Clarkson; MS, Ph.D., Rensselaer Polytechnic I nstitute - Prof essor

Eugene O. Wilson, BS, MS, Syracuse; MBA, Rochester-Associate Professor

Julian E. Yudelson, BS, University of Pennsylvania; MBA, Emory University; Ph.D., Northwestern University-Associate Professor

John S. Zdanowicz, BS, Rochester Institute of Technology; MBA, Ph.D., Michigan State-Associate Professor

Department of Food Administration and Tourist Industries Management

Frank A. Bucci, BS, New Hampshire; MBA, Boston College-Associate Professor

Francis M. Domoy, BA, MA, SUNY-Buffalo; Ph.D., Michigan State University-Associate Professor

Leila P. Hopkins, BS, Tennessee; MS, Iowa State; R.D.-Assistant Professor

Janet M. Sim, BS, Colorado State; MS, Iowa State-Associate Professor

Linda Underhill, BS, MS, Rochester Institute of Technology-Instructor

Carol B. Whitlock, BS, MS, Pennsylvania State; Ph.D., Massachusetts-Assistant Professor

Clinical Faculty

Jean Fox, Director of Dietetics, Rochester General Hospital

Jean Queale, Chief of Dietetic Service, The Veterans Administration Hospital, Canandaigua, New York

College of Continuing Education

Administrative Officers

Robert A. Clark, BS, Ph.D.; Acting Dean-Professor

Norman A. Flannigan, BS, M.Ed., Ph.D.; Assistant Dean, Operations-Associate Professor

Harold M. Kentner, BA, MA, Assistant Dean, Community Relations-Professor

Evening Programs and Summer Session

Frederick P. Gardner, BA, MS, Ed.D., Executive Director-Associate Professor

Betty J. Glasenapp, ABA, Administrative Coordinator, Summer Sessions

Advising, Evaluation and Staff Development

Ronald J. Hilton, BA, MA, Executive Director-Associate Professor

Brenda G. Gumbs, BA, MS, Coordinator of Advising

External Programs and Special Courses

Dorothy K. Paynter, BA, M.Ed., Acting Executive Director-Assistant Professor

Jessie M. James, BA-Program Consultant, Instructor

Robert M. Way, AB, MS, Program Consultant-Associate Professor

Promotion and Publications

George L. Bedirian, BA, MA, MS, Coordinator, Promotion and Publications-Lecturer

Cheryl Gattalaro, BA, Promotions and Publications Associate

Academic Areas

Business and Community Studies

Rolf A. Zerges, BS, MA Academic Administrator, Chairperson, Business Administration and Community Studies-Associate Professor

John H. Hickman, BA, JD., Chairperson, Management Studies-Associate Professor

William J. Walsh, C.P.A. Chairperson of Accounting-Lecturer

Humanistic Studies

Andrea C. Walter, BA, MA, Ed.D.-Acting Academic Administrator, Chairperson, Humanities and Communications, Associate Professor

Walter R. Bieder, BA, MA, Chairperson, Behavioral Science-Assistant Professor

Jean Schanker, BFA, MF, Chairperson, Fine Arts and Design

Surjit Singh, MFA, Chairperson, Crafts-Assistant Professor

Technical Studies

Robert A. Clark, BS, Ph.D., Academic Administrator, Chairperson, Chemistry-Professor

Austin J. Bonis, BS, MA, Ph.D., Chairperson, Statistics, Professor

Lloyd B. Andrus, Lecturer

Andrew Davidhazy, BFA, MFA, Chairperson, Photography, Associate Professor

Mario DiQuillio, BS, MS, Chairperson, Engineering Drawing-Associate Professor

Frederick P. Frey, Jr., BS, MS, Chairperson, Mathematics-Assistant Professor

Alfred C. Haacke, BS, Chairperson, Computer Systems, Physics and Electromechanical Technology-Associate Professor

Robert Holmes, BSME, Senior Technical Associate-Lecturer

Bernard A. Logan, BS, M.Ed., Chairperson, Electrical and B. Tech.-Associate Professor

Louis H. Rohr, Ph.B, MS, Chairperson, Mechanical-Assistant Professor

Joseph Waldinsperger, NYS Vocational Certification, Chairperson, Machine Shop-Assistant Professor

School for Applied Industrial Studies

Orville Adler, B. Tech, Senior Technical Associate-Lecturer

Edwin Spong, Manpower Specialist

Operations Areas

Norine King, Management Diploma-Coordinator, Information Services

Genevieve Knapp, Management Diploma-Coordinator, Financial Services

Janet Switzer, Management Diploma-Registration Services

Adjunct Faculty

Refer to the College of Continuing Education catalog of programs and schedule of classes, available from CCE.

Eisenhower College

Joseph D. Coffee, Jr., AB, Columbia University-President

A detailed listing of RIT's Eisenhower College faculty may be obtained by writing for the Eisenhower College Bulletin, available from the Office of Admission.

College of Engineering

Richard A. Kenyon, BME, MS, Ph.D., P.E., Dean, Professor

Douglas M. Marshall, BSEM, MSEM, Associate Dean, Associate Professor

Harvey Rhody, BSEE, MSEE, Ph.D., Department Head, Electrical Engineering; Associate Professor

Richard Reeve, BS, MS, Ph.D., Department Head, Industrial Engineering; Professor

Robert M. Desmond, BSME, MSME, Ph.D., P.E., Department Head, Mechanical Engineering; Professor

Swaminathan Madhu, MA, MSEE, Ph.D., Director of Graduate Programs, Professor

Roy S. Czernikowski, BEE, ME, Ph.D., Coordinator, Computer Engineering Program; Associate Professor

Roger E. Heintz, BSEE, MSEE, Ph.D., Coordinator of Transfer Programs, Electrical Engineering; Associate Professor

Betty M. Weatherhog-
Administrative Assistant to the Dean

Electrical Engineering Department

Robert C. Baker, BEE, MSEE, Cornell; P.E.-Associate Professor

Frank J. Bogacki, BSEE, Gannon College; MSEE, Pennsylvania-Assistant Professor

George Brown, BSEE, Vanderbilt; MSEE, Rochester-Associate Professor

Roy S. Czernikowski, BEE, Catholic University of America; ME, Ph.D., Rensselaer Polytechnic Institute-Associate Professor

Lynn F. Fuller, BS, MS, Rochester Institute of Technology; Ph.D., SUNY at Buffalo-Assistant Professor

Roger E. Heintz, BSEE, Michigan Technological University; MSEE, Ph.D., Syracuse-Associate Professor

Kenneth W. Hsu, BS, National Taiwan Normal University, China; MSEE, Ph.D., Marquette-Assistant Professor

Robert E. Lee, BSME, MSEE, Ph.D., Rochester-Associate Professor

Swaminathan Madhu, MA, University of Madras; MSEE, Tennessee; Ph.D., Washington-Professor

James E. Palmer, BSc, University of Western Ontario; MSEE, University of Pennsylvania; Ph.D, Case Institute of Technology-Professor

George W. Reed, BEE, Clarkson College; MEE, Delaware; P.E.-Professor

Harvey Rhody, BSEE, Wisconsin; MSEE, Cincinnati; Ph.D., Syracuse-Associate Professor

Edward R. Salem, BSEE, Pennsylvania State; MSEE, Catholic University of America; Ph.D., Buffalo-Associate Professor

Tapan K. Sarkar, B. Tech., Indian Institute of Technology, India; MScE, University of New Brunswick, Canada; MSEE, Ph.D., Syracuse-Assistant Professor

Mohamed K. El-Sherbiny, BSEE, MSEE, University of Assiut, Egypt; Ph.D., Iowa State University-Visiting Associate Professor

Raman M. Unnikrishnan, BSEE, University of Kerala, India; MSEE, South Dakota State University; Ph.D., Missouri-Assistant Professor

Fung-I Tseng, BSEE, Taiwan University; MSEE, Chiao-Tung University, Taiwan; Ph.D., Syracuse-Assistant Professor

Watson F. Walker, BSEE, Brooklyn Polytechnic Institute; Ph.D., Syracuse-Professor

Industrial Engineering Department

Richard Reeve, BS, MS, Ph.D., Buffalo-Professor

Gary D. Christie, BS, Rochester Institute of Technology; MSIE, Virginia Polytechnic Institute & State University-Instructor

Jasper E. Shealy, BS, Georgia Institute of Technology; MS, Ph.D., SUNY at Buffalo-Associate Professor

Ralph H. Stearns, BS, Pennsylvania; MBA, New York University; P.E. (Mass.)-Associate Professor

Mechanical Engineering Department

William Bober, BCE, City College of New York; MS, Pratt Institute; Ph.D., Purdue; P.E.-Associate Professor

Richard G. Budynas, BME, Union College; MSME, Rochester; Ph.D., Massachusetts; P.E.-Associate Professor

Robert M. Desmond, BSME, Worcester Polytechnic Institute; MSME, Ph.D., Minnesota; P.E.-Professor

Robert A. Ellson, BME, City College of New York; MSME, Ph.D., Rochester, P.E.-Associate Professor

Charles W. Haines, AB, Earlham; MS, Ph.D., Rensselaer Polytechnic Institute; Mathematics and Mechanical Engineering-Associate Professor

William F. Halblieb, BSGE, Massachusetts Institute of Technology; MSME, Rochester, Ph.D., Cornell; P.E.-Professor

Richard B. Hetnarski, MSME, Gdansk Technical University; MS, Warsaw University; Dr. Tech. Sci., Polish Academy of Sciences; P.E.-Professor

Bhalchandra V. Karlekar, BEME, College of Engineering, Baroda, India; MSME, Ph.D., Illinois State; P.E.-Professor

Richard A. Kenyon, BME, Clarkson College; MS, Cornell; Ph.D., Syracuse; P.E.-Professor

Douglas M. Marshall, BSEM, MSEM, West Virginia-Associate Professor

Chris Nilsen, BS, Rochester Institute of Technology; MSME, Worcester Polytechnic Institute; Ph.D., Michigan State; P.E.-Associate Professor

Alan H. Nye, BSEM, MSME, Clarkson College; Ph.D., Rochester-Visiting Assistant Professor

Neville F. Rieger, BME, M. Eng. Sc., University of Melbourne; Ph.D. University of Nottingham-Professor

Martin P. Sherman, BAE, New York University; MA, Ph.D., Princeton; P.E.-Associate Professor

Robert L. Snyder, BS, Rochester Institute of Technology; Ph.D., Iowa State; P.E.-Professor

Wayne W. Walter, BE, State University of New York Maritime College, Bronx; MS, Clarkson College; Ph.D., Rensselaer Polytechnic Institute; P.E.-Associate Professor

Paul H. Wojciechowski, BS, MS, Ph.D., Rochester-Associate Professor

Academic Technical Associates

Donald E. Buss-Technical Associate, Electrical Engineering Department

Kenneth R. Hood-Lecturer and Senior Technical Associate, Mechanical Engineering Department

Adjunct Faculty

John C. Bancroft, BSc., MSc., University of Calgary; Ph.D., Brigham Young University

David DeMarle, BS (Chemistry), Iowa State University

Dominick J. Fantauzzo, BS, MS, Rochester Institute of Technology

Grace K. Golden, BSME, University of Missouri

Ralph E. Harper, BA, Rochester; LLB, George Washington University

Alexander E. Martens, BSEE, Bresslaw (Germany); MSEE, University of Rochester

Roger Morton, Ph.D., Monash University

Sukumar Sikdar, Ph.D., Kharagpur (India)

College of Fine And Applied Arts

Robert H. Johnston, BS, MA, Ph.D., Dean, Director, School for American Craftsmen; Professor

Peter Giopulos, BFA, M.Ed., Associate Dean; Director, Art and Design; Associate Professor

Kener E. Bond, Jr., B.Ed., MFA, Assistant Dean; Professor

Philip W. Bornarth, BAE, MAE, Art Institute of Chicago, Academic Representative, Fine Arts; Professor

Robert A. Cole, BA, MS, Maryland, Academic Representative, Foundation Studies; Assistant Professor

Gary Griffin, BA, California State University; MFA, Tyler School of Art, Temple, Academic Representative, School for American Craftsmen; Assistant Professor

Craig J. McArt, BID, Syracuse University; MFA, Rochester Institute of Technology; Academic Representative, Environmental Design; Associate Professor

Fred Meyer, BFA, MFA, Cranbrook Academy of Arts; Academic Representative, Graduate Studies; Professor

James Ver Hague, BS, Massachusetts Institute of Technology; MS, Rensselaer Polytechnic Institute; BA, State University of New York at Buffalo; MFA, State University of New York at Buffalo; Academic Representative, Communication Design; Assistant Professor

School of Art and Design

Norman A. Bate, BFA, Pratt Institute; MFA, Illinois State-Professor

Eric Bellmann, BS, SUNY College at Buffalo; MFA, Rochester Institute of Technology; Advanced Studies, Pratt Center for Contemporary Printmaking-Lecturer

Susan Carter, AB, Smith College; BFA, MFA, Yale-Assistant Professor

David Dickinson, Chelsea School of Art, London, England; SKHS, Oslo, Norway; MFA, Rochester Institute of Technology-Lecturer

William W. DuBois, BFA, Ohio University; M.Ed., Bowling Green State University-Assistant Professor

Alan Fisher, BS, Indiana University; MFA, Rochester Institute of Technology-Lecturer

Alonzo K. Foster, BA, University of Delaware; MFA, Rochester Institute of Technology-Lecturer

Ruth E. Gutfrucht, BFA, MFA, Rochester Institute of Technology-Professor

Robert Heischman, BFA, Miami University; UCFA, Ruskin School of Art-Assistant Professor

James Hennessey, BS, Illinois Institute of Technology; MFA, California Institute of the Arts-Assistant Professor

Barbara Hodik, BS.Ed., Benedictine College; MA, New York University; Ph.D., Pennsylvania State-Associate Professor

Paul Hoogesteger, BD, University of Michigan-Lecturer

Robert Kerr, BFA, Illinois State-Associate Professor

Frederick Lipp, BFE, School of the Art Institute of Chicago; MFA, Rochester Institute of Technology-Assistant Professor

Bernadette Merkel, BFA, MFA, Rochester Institute of Technology-Assistant Professor

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Cesar E. Paredes, BS, MS, Rochester Institute of Technology-Lecturer

Ronald E. Padgham, BFA, Ohio Wesleyan; MFA, Syracuse University; Ed.D, University of Rochester- Associate Professor

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Luvon Sheppard, BFA, MST, Rochester Institute of Technology-Instructor

Bruce Sodervick, BS, Indiana State; MFA, Southern Illinois-Assistant Professor

Joan Szabla, BFA, Madonna College; MA, Catholic University of America-Professor

James E. Thomas, BS, Philadelphia College of Art; MFA, Pennsylvania State-Associate Professor

Toby Thompson, BID, Syracuse; MFA, Rochester Institute of Technology-Professor

Ann VerHague, BA, BS, Rensselaer Polytechnic Institute-Lecturer

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Sheila Wells, BA, California College of Arts and Crafts; MFA, Rochester Institute of Technology-Associate Professor

Michael White, BFA, MFA, Rochester Institute of Technology-Lecturer

Lawrence Williams, BFA, Kansas City Art Institute; MFA, Illinois State- Professor

Norman Williams, BFA, Syracuse; MS, Syracuse-Associate Professor

Stanley H. Witmeyer, Diploma, Rochester Institute of Technology; BS, SUNY at Buffalo; MFA, Syracuse-Professor Emeritus

Richard Wolf, BFA, Pratt Institute-Visiting Assistant Professor

School for American Craftsmen

Donald G. Bujnowski, BS, SUNY at Buffalo; MA, Minnesota-Professor

Hans Christensen, Diploma, National College of Arts and Crafts, Copenhagen-Charlotte Fredericks Mowris Professor in Contemporary Crafts

Hobart Cowles, BFA, Wesleyan; MA, Ohio State-Professor

Amy Davison, BFA, Tufts University; MFA, Tyler School of Art-Visiting Assistant Professor

William A. Keyser, Jr., BS, Carnegie-Mellon Institute of Technology; MFA, Rochester Institute of Technology-Professor

Max L. Lenderman, BS, MS, Indiana State; MFA, Kansas-Assistant Professor

Jon Meyer, BS, University of Vermont; Orrefors Glass Studio, Sweden-Assistant Professor

Robert D. Schmitz, BS, East Carolina University; MS, Alfred University; MFA, Wisconsin-Assistant Professor

Douglas E. Sigler, BFA, Rochester Institute of Technology; MFA, Rochester Institute of Technology-Associate Professor

College of General Studies

Mary Sullivan, BA, MA, Ph.D., Dean-Associate Professor

Dane R. Gordon, BA, BD, MA, Assistant Dean-Professor

John O. Ballard, BA, MPA, Director, Criminal Justice Program-Associate Professor

Arnold J. Berman, BA, MA, MSW, Director, Social Work Program-Assistant Professor

Edwin O. Hennick, BSE, Staff Chairperson, Science and Humanities-Associate Professor

Louis E. Neff, AB, MA, Staff Chairperson, Social Science-Associate Professor

Thomas J. O'Brien, BS, MA, Staff Chairperson, Language and Literature-Professor

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Language and Literature staff

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Helen Baron, BA, University of Michigan; MA, Teachers College, Columbia-Lecturer

Sarah Collins, AB, Centre College; MA, Ph.D., Indiana University-Professor

William De Ritter, BA, St. Lawrence; MA, University of Rochester-Associate Professor

Marion H. Fey, BA, Salem College; MA, University of Florida-Lecturer

Robert E. Golden, AB, Michigan State; Ph.D., University of Rochester-Associate Professor

Helen Hadsinskyj, BA, University of Kharkov, Ukraine-Visiting Assistant Professor

Lakshmi Mani, BA, MA, Calcutta; MA, SUC at Geneseo; Ph.D., McGill-Associate Professor

Stanley D. McKenzie, BS, Massachusetts Institute of Technology; MA, Ph.D., Rochester-Associate Professor

Joseph M. Nasser, BA, MA, University of Toledo; Ph.D., SUNY at Binghamton-Lecturer

Thomas J. O'Brien, BS, University of Rochester; MA, Columbia University-Professor

Katherine M. Quill, BA, Smith College; MA, Ph.D., University of Rochester-Lecturer

James J. Philbin, BA, Connecticut; MA, Stanford-Professor

Mark L. Price, BA, MA, Miami University-Assistant Professor

L. Robert Sanders, BA, MA, SUNY at Albany-Professor

Norris M. Shea, BA, Gannon; MA, Western Reserve-Professor

Caroline Snyder, BA, MA, Radcliffe; Ph.D., Harvard-Associate Professor

Elaine M. Spaull, BA, George Washington University; MA, Georgetown University-Lecturer

Karin M. Strand, BA, Northwestern University; MAT, Brown University; Ph.D., Northwestern University-Lecturer

Sister Mary Sullivan, BA, Nazareth College; MA, Ph.D., University of Notre Dame-Associate Professor

U.T. Summers, AB, Vassar; MA, Radcliffe-Assistant Professor

Dorothy R. Warded, BA, Wellesley College; B. Litt., Oxford University (England)-Lecturer

Jane B. Weedman, BS, Indiana University; MA, University of Dayton; Ph.D., SUNY at Buffalo-Lecturer

Science and Humanities staff

Bruce A. Austin, BA, Rider College; MS, Illinois State University at Normal-Instructor

Douglas R. Coffey, BFA, Denver; MA, Western Reserve-Associate Professor

Norman R. Coombs, BS, MS, Ph.D., Wisconsin-Professor

Keith Foley, B. Music, MM, Eastman School of Music-Lecturer

Josephine M. Gray, BA, Rochester; MS, SUC at Brockport-Assistant Professor

Dane R. Gordon, BA, MA, University of Cambridge; BD, University of London; MA, University of Rochester-Professor

Edwin O. Hennick, BSE, Michigan State; M.Ed., Rochester-Associate 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

Richard D. Lunt, BA, Oberlin; MA, Ph.D., New Mexico-Professor

Salvatore Mondello, BA, MA, Ph.D., New York University-Professor

Linda I. Nagle, BA, University of Tampa; MA, Ph.D., Rutgers University-Visiting Assistant Professor

Pellegrino Nazzaro, BA, P. Giannone; Ph.D., University of Naples-Professor

Egidio Papa, BA, Aloisiano College, Gallarate, Italy; Ph.D., Gregorian University, Rome-Assistant Professor

Howard Pollack, B. Music, University of Michigan; Doctoral Studies, Cornell University-Lecturer

John T. Sanders, BA, Purdue University; MA, Boston University; Ph.D., Boston University-Assistant Professor

David B. Suits, BA, Purdue University; MA, Ph.D., University of Waterloo-Assistant Professor

Hertha J. Schulze, BA, Minnesota; MA, Radcliffe; Ph.D., Minnesota-Associate Professor

Houghton Wetherald, BA, Brown; MFA, Oberlin-Associate Professor

John A. White, BA, Ph.D., Cambridge University-Assistant Professor

Fred L. Wilson, BA, Murray State University; Ph.D., University of Kansas-Professor (temporary joint appointment with NTID)

Hans W. Zandvoort, MFA, Royal Academy of Fine Arts, The Hague-Associate Professor

Social Science staff

Louis J. Andolino, BS, Rochester Institute of Technology; MA, Kent State University-Associate Professor

Brian P. Barry, BA, St. John Fisher; MSS, Ph.D., Syracuse-Assistant Professor

N. Evelyn Brandon, BS, MS, Howard- Associate Professor

Robert J. Brown, BS, SUNY, at Potsdam; Ph.D., Syracuse-Associate Professor

Todd H. Bullard, BA, West Liberty State College; MA, West Virginia; Ph.D., Pittsburgh-Professor

Kathleen C. Chen, BA, Rangoon University, Burma; MA, Bryn Mawr College; Ph.D., Pennsylvania State-Associate Professor

Constantino Dumangane, Sr., BA, MPA, Syracuse-Assistant Professor

Louis R. Eltscher III, BA, Houghton; MA, American University-Associate Professor

Janet E. Farnum, BA, SUNY at Brockport; Ph.D., University of Rochester-Visiting Assistant Professor

Joseph E. Fitzpatrick, BA, M.Ed., Buffalo-Professor

Roger W. Harnish, BA, University of Rochester; MS, Ph.D., Oklahoma State-Assistant Professor

Samuel Haskell, BA, Cornell University; MA, Ph.D., University of Tennessee-Lecturer

Morton Isaacs, BA, Chicago; BS, MA, Columbia; Ph.D., Yeshiva-Associate Professor

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Nuclear Medicine Technology

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Biomedical Photographic Communications Program

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General Dietetics/ Coordinated Undergraduate Program

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Jean Queale, Chief of Dietetic Service, The Veterans Administration Hospital, Canandaigua, New York

Medical Illustration Program Option

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Health Institutions Management Program

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Allied Health Continuing Education Programs

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Educational Support And Development Division

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Instructional Media Services

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Wallace Memorial Library

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Finance and Administration Division

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Administrative Services

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Gerda Dymsza, BA, Brown-Director, Horton Child Care Center

Apartment Housing

Edward O. Ingerick-Manager

Audit Services

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Jan Layne, BA, Ohio State, MBA, Rochester Institute of Technology-Staff Auditor

Bookstore

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Frederick P. Burger, BA, Buffalo State-Photo Dept. Manager

Ellen Tonelli, AAS, Monroe Community College-Tradebook/Gift Dept. Manager

Campus Services

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William Allen, BS, U of Louisville-Director, Protective Services

Lodewyk Boyon, AAS, Grotius College-Director, Plant Engineering

Roy Demenint, BS, Clarkson College-Director, Operations

Elizabeth Nolan, Manager, Administrative Services

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Elaine Anselm-Programmer

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Valerie A. Liotta-Payroll Operations Specialist

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Gary Gasper, AAS, Morrisville-Manager of the Cellar, Corner Store

Ice Arena
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Personnel
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Purchasing
William H. Batcheller-Director

Arthur D'Angelo-Supervisor, Mail Services

Frank Cocola-Supervisor, Printing and Duplicating Services

Robert Goldstein-Purchasing Agent

Lawrence Thibault-Purchasing Agent

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Institutional Advancement Division

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John H. **Potter,** BS, BA, University of Missouri-Director of Planned Giving

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Orientation and Special Programs

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Raymond C. Bell, Trainer

Chaplains

Rev. Gerald J. Appelby, BA, BD, St. Bernard's; Ed.M., Rochester-Director and Catholic Chaplain

Marvin Stark, BA, State University at Albany; MA, Baltimore Hebrew College; MSW, University of Maryland-RIT Hillel Director

Sister Shirley Pilot, BA, Nazareth; Ed.M., University of Rochester-Catholic Chaplain

Rev. Kenneth H. Carlson, BA, Michigan State; MA, Boston U.; M.Div., Christ Seminary (Seminex) St. Louis, MO.-Lutheran Campus Pastor/Protestant Chaplain

Rev. Thomas Erdle, BA, M.Div., St. Bernard's; MA, New York University-Catholic Chaplain-NTID

Part-time

Ms. June Campbell, Gardner-Webb College, North Carolina-Baptist Campus Minister/NTID

Rev. Jack R. Cleeton, Central Bible College, Springfield, Mo.-Minister of Christian Education, Assembly of God Chaplain/NTID

Rev. Herbert H. Eaton, Boston University, Howard University, Baptist Minister; United Church of Christ; United Ministries in Higher Education; Chaplain/NTID

Rev. Robert C. Royal, Wake Forest, North Carolina; Doreathea Hospital, Raleigh, North Carolina

Rev. Alvin Burnworth-Chaplain to Episcopal/NTID

Counseling Center

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Gaillard Ashley, BS, Northern Colorado; MA, Connecticut-Counselor, (Associate Professor)

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Linda Garfinkel, BS, Purdue-Psychometrist

Mahlon Gebhardt, BA, Albright; M.Ed., Lehigh-Counselor, (Associate Professor)

Joseph Hauser, BA, University of Rochester; MA, Catholic University-Clinical Director, (Associate Professor)

Joyce Herman, BA, University of Rochester-Counselor, (Assistant Professor)

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Richard Marchard, BA, St. Anselm's; M.Ed., New Hampshire; Ph.D., Florida State-Counselor (Associate Professor)

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Health Services

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Higher Education Opportunity Program

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†Refer to CCE Course Catalog

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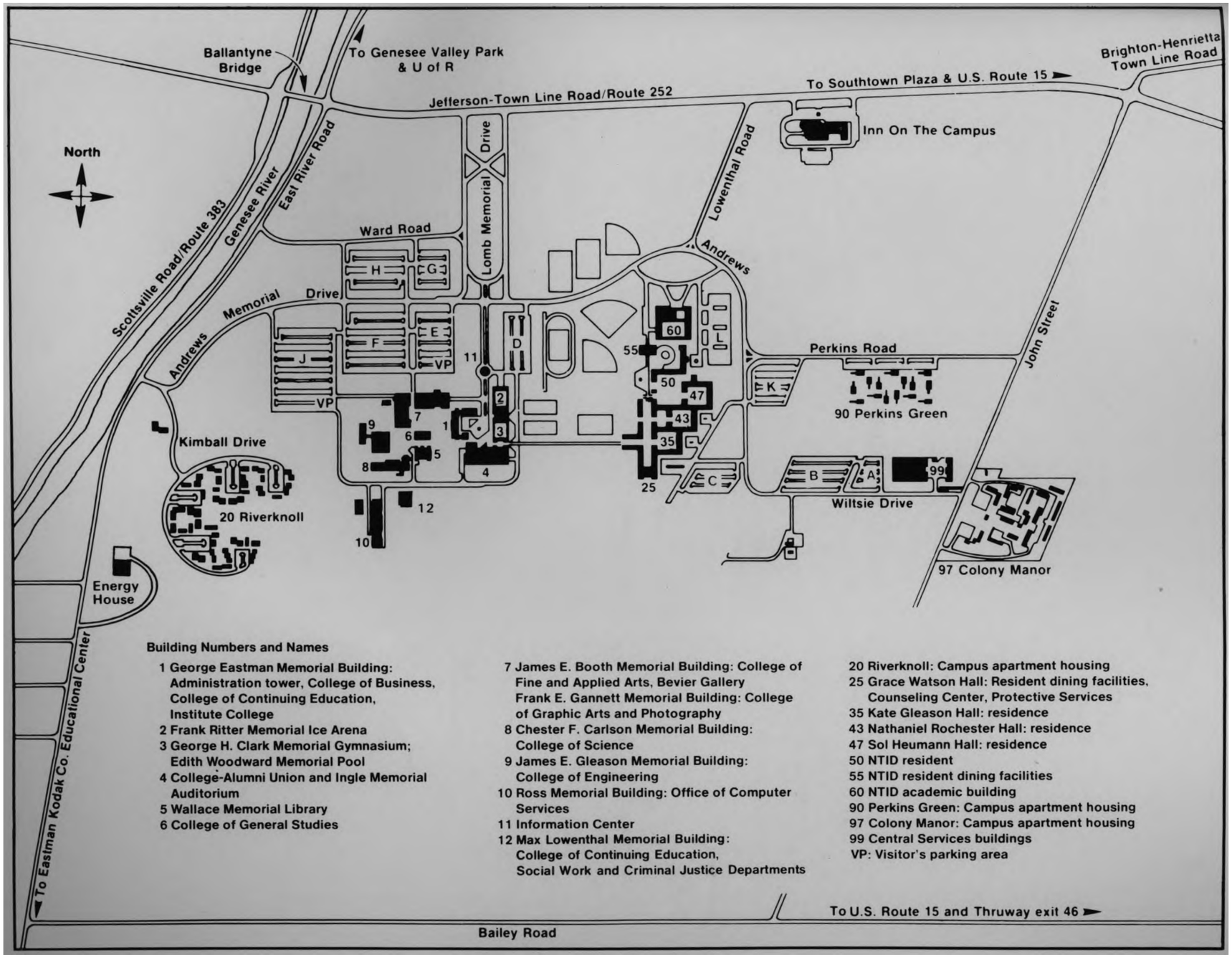
YEARS OF COMMITMENT
TO QUALITY CAREERS



Building Numbers and Names

1 George Eastman Memorial Building: Administration tower, College of Business, College of Continuing Education, Institute College
2 Frank Ritter Memorial Ice Arena
3 George H. Clark Memorial Gymnasium; Edith Woodward Memorial Pool
4 College-Alumni Union and Ingle Memorial Auditorium
5 Wallace Memorial Library
6 College of General Studies
7 James E. Booth Memorial Building: College of Fine and Applied Arts, Bevier Gallery
Frank E. Gannett Memorial Building: College of Graphic Arts and Photography
8 Chester F. Carlson Memorial Building: College of Science
9 James E. Gleason Memorial Building: College of Engineering
10 Ross Memorial Building: Office of Computer Services
11 Information Center
12 Max Lowenthal Memorial Building: College of Continuing Education, Social Work and Criminal Justice Departments
20 Riverknoll: Campus apartment housing
25 Grace Watson Hall: Resident dining facilities, Counseling Center, Protective Services
35 Kate Gleason Hall: residence
43 Nathaniel Rochester Hall: residence
47 Sol Heumann Hall: residence
50 NTID resident
55 NTID resident dining facilities
60 NTID academic building
90 Perkins Green: Campus apartment housing
97 Colony Manor: Campus apartment housing
99 Central Services buildings
VP: Visitor's parking area