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Welcome to the College of Engineering Technology, the largest private college of engineering technology in the U.S. This college is known as the place of choice for an applied engineering degree where students learn theory through practical application with a firm grounding in the STEM (science, technology, engineering, and mathematics) disciplines. Our academic majors are unique and upon graduation our students typically become engineers in industry. The college offers numerous undergraduate and graduate engineering technology degree programs, which are ranked among the top three elite engineering technology programs in the nation.

Distinguishing characteristics of each major include:
- Career-focused curricula grounded in theory and enhanced through application,
- An expectation that all students will make meaningful contributions in their areas of study,
- An expectation that all students will complete cooperative educational experiences in their intended career fields,
- An expectation that all students have an opportunity to complete an international study experience, and
- Preparation to work in a global environment.

No matter the major you choose, you will receive a strong academic experience which includes a practical and theoretical education. You will also have the opportunity to engage in areas of study for which we are recognized as a world leader for our innovative curricula, faculty and staff expertise, and world-class facilities and equipment.

The college offers an academically enriching, diverse, and welcoming environment in which our students thrive and build the life and professional skills needed to be successful citizens and leaders in a global community.

We invite you to explore the College of Engineering Technology. What you will find is a world of opportunity, a supportive and welcoming environment, and a community of committed and dedicated scholars, mentors, and professionals.

S. Manian Ramkumar, Ph.D.
Interim Dean
FAST FORWARD:
Applied technology, interactive teams, and hands-on, minds-on learning. This is engineering technology at RIT.

RIT is recognized as one of the world’s leading technological universities.

RIT has long been a leader in educating scientists, technologists, and engineering professionals for dynamic, exciting careers. The College of Engineering Technology offers nine majors in a range of technological fields, including engineering technology, media arts and technology, sustainability, packaging science, and safety technology. You’ll combine hands-on learning as you apply current and emerging technologies to interactive projects and assignments. You’ll also collaborate on multidisciplinary teams where you’ll apply your knowledge and technical skills to define problems and help create real-world solutions.

What is engineering technology?
Engineering technology majors are very different from traditional engineering majors. In engineering technology, technical subjects are taken early in the curriculum. Extensive laboratory experiences allow students to be motivated by real-world applications while also studying fundamentals. Engineering programs typically teach more mathematics, science, and liberal arts in the first two years.

At RIT, engineering technology students take applied calculus and college physics (algebra-based and trigonometry-based sequences), while engineering students take theoretical calculus and university physics (calculus-based sequences). Engineering technology graduates apply current engineering principles and theory to the solution of industrial problems, while engineering graduates are more likely to work on conceptual research, open-ended design challenges, and the development of new principles. Both tracks can lead to exciting professional careers, so it is important for you to assess your abilities, interests, and career objectives before deciding on an engineering technology or engineering major.

 Marketable career preparation
By studying in state-of-the-art facilities and working with industry-standard equipment, RIT students enter the workforce prepared to make an impact their first day on the job. Our majors emphasize the application of current technology to the solution of contemporary problems. Hands-on laboratory exercises, project-based assignments, and co-op work experience reward you with practical, relevant, and broad experience in your career field.

At RIT, we realize that career success requires more than just technical and academic skills. People skills can be just as important. Here you’ll acquire real-world skills in communication, critical thinking, teamwork, and problem solving through a required liberal arts component.

The cooperative education advantage
Classroom learning is only one part of your RIT education. You’ll also gain valuable on-the-job experience through cooperative education—alternating periods of on-campus study with periods of full-time paid employment directly related to your career field. All majors described in this viewbook offer co-op, giving you the chance to apply your skills in professional situations while you’re still a student. Whether you work for a large industrial company, in a world-renowned engineering facility, or at a small consulting firm, you’ll get a good idea of what to expect in your career after graduation.

A high-tech learning environment
As an engineering technology student, you’ll spend plenty of time in media-supported classrooms and “smart” labs, which allow the use of computer modeling and 3D imaging. In our Center for Integrated Manufacturing Studies, you’ll find an impressive array of technology-based laboratories for courses in CAD/CAM systems, plastics, assembly automation, and electronics manufacturing, instrumentation, environmental testing, and package testing. You’ll also have access to the College of Engineering Technology’s interactive work spaces for small group study and team projects and three computer centers.

Experienced, dedicated faculty
The academic excellence and professional experience of more than 75 full-time faculty members in this college enriches your education. Our professors are dedicated teachers who have significant industry experience in the fields in which they teach. They bring today’s technology issues directly into the classroom and use examples from industry to illustrate key concepts. You’ll benefit from the chance to know them as mentors, advisers, and friends who are dedicated to helping you succeed.

Graduates in demand
Hundreds of employers recruit on campus each year because they know RIT graduates have professional abilities, technology skills, and work experience that are current with industry demands. Our graduates work for a range of companies in high-tech industries, including software development companies, computer manufacturers, civil engineering and construction firms, environmental consultants and management agencies, manufacturers, telecommunications conglomerates, packaging companies, and more. For the past two years, more than 95 percent of our graduates are employed or in full-time graduate school within six months of graduation.
ENGINEERING TECHNOLOGY EXPLORATION OPTION

If several of the engineering technology majors in this viewbook appeal to you but you are unsure about your career direction, you may enter RIT as an engineering technology exploration student. This lets you spend up to a year exploring the career options available without any loss of time toward graduation. You’ll take foundation courses that can be used to fulfill the requirements of any of our engineering technology or related majors. During your freshman year, you’ll take a career-discovery course, and a faculty adviser will help you narrow your program focus. At the end of your freshman year in the exploration option, you will choose the program that best fits your career goals and declare a major.

WOMEN IN TECHNOLOGY

Women in Technology (WIT) offers women in the applied sciences and technology-based majors at RIT a wide range of opportunities and supportive resources. Administered through the College of Engineering Technology, WIT hosts both academic and social activities for female students to connect outside the classroom through their shared passion for technology. With an engaging and dynamic alumnae network, WIT provides opportunities to network with supportive alumnae about co-op and permanent employment. WIT also reaches out to students in grades K-12 to encourage young girls to explore the many exciting career options available in the science and technology fields through Girl Scout Technology Days. Visit the WIT website at rit.edu/wit.
Roads, bridges, airports, modern buildings, clean water, and electric power—it is the civil engineering technology professional that makes these modern conveniences possible. From planning construction projects and upgrading our nation’s aging infrastructure to restoring polluted rivers, assessing soil conditions and designing green skyscrapers, civil engineering technology is a career path that enables you to see the impact of your work.

Challenging and rewarding
As a civil engineering technology student, you’ll take hands-on courses to acquire the technical knowledge you need to tackle today’s infrastructure, construction, transportation, and environmental problems. Students combine classroom and laboratory learning with the latest computing applications and co-op experiences to estimate soil strength, survey boundary lines, design bridges, develop site plans, and much more. Your upper-level courses address the broad scope of civil engineering technology, including hydraulics, structural analysis and design, soil mechanics, and principles of water and wastewater treatment. Students may choose to pursue a professional option in construction management, structural design, or water resources to gain a deeper understanding of these disciplines and how they impact civil engineering.

Paid, professional experience
Twelve months of required cooperative education provides you with paid, professional experience while you explore an array of career paths. Students have worked for private engineering firms, construction companies, inspection and testing companies, and government agencies. You might survey property for an engineering firm, assist construction project managers, or work in operations at a municipal water treatment plant.

Graduates step into leadership roles
A practical, rigorous education, supported by hands-on laboratory experiences and cooperative education, places our civil engineering technology graduates in great demand. You’ll have career choices in a variety of work environments—outdoors on site or in office and laboratory settings. Recent graduates are employed as consulting engineers, project managers, structural designers, construction inspectors, and environmental engineers. The accredited program provides a path to professional licensure in most states.

What you’ll study

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Undergraduate students from the civil engineering technology major earned two first-place and one second-place finish at the recent Associated Schools of Construction Northeast Regional construction management competition.

Student competitors have 16 hours to assemble a complete written bid proposal for a real project being built by the sponsoring firm. The comprehensive proposals include a detailed cost analysis, schedule, labor requirements, and plans to do the work itself. Teams also present their proposals to the sponsoring firm’s representatives the next day.

Four separate RIT teams competed this past year. The competition is part of the annual Associated Schools of Construction conference and job fair. Universities with four-year construction engineering and management degree programs in the Northeast—from Maine to Virginia—participate. This year, 35 teams from 16 universities competed in four divisions of construction management.

Universities with four-year construction engineering and management degree programs in the Northeast—from Maine to Virginia—participate. This year, 35 teams from 16 universities competed in four divisions of construction management.
Computer engineers are valued for their unique understanding of and the ability to develop the hardware and software necessary for the design and development of systems involving microprocessors. With focused academic preparation in embedded systems design, these versatile professionals can thrive throughout the ever-growing computer industry and in many other industries as well. RIT’s computer engineering technology major prepares students to work as hardware design engineers, firmware specialists, and computer systems designers.

An emphasis on skill development
The computer engineering technology major bridges the gap between hardware and software by providing a solid foundation in both areas while tying them together with a curriculum that includes intensive classroom, laboratory, and cooperative education components. The curriculum is built on a foundation of math, physics, circuit theory, digital electronics, and microprocessor-based hardware and software design. Through a variety of theoretical learning experiences, laboratory exercises, and projects, students learn industry-standard approaches to hardware and software development with a focus on embedded system design and integration. You may also choose electives to explore technical areas including power and energy, computer science, and wireless communications. Options in either audio or telecommunications provide students with the opportunity to focus their education and enhance their marketability.

Earn while you learn
Twelve months on paid cooperative education enables you to gain extensive professional experience working in industry. Upon graduation you will have real design experience using state-of-the-art microprocessors, Field Programmable Gate Arrays (FPGAs), and associated development tools for software and Hardware Design Language (HDL) development. In recent years students have worked for industry leaders such as Intel Corporation, Harris Corporation, Redcom Labs, National Semiconductor, Apple, and Tesla.

Pursue a dual degree
To really give yourself a competitive advantage, consider an accelerated dual degree, where you can earn a BS in computer engineering technology and an MS in computer science in as little as five years.

A growing career field
Graduates of the computer engineering technology major are working as software and hardware design engineers, Digital Signal Process (DSP) engineers, systems analysts, embedded programmers, and systems engineers.

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AUDIO OPTION
Fundamentals of Audio Engineering
Modern Audio Production
Introduction to Acoustics
Audio Power Amplifiers

TELECOMMUNICATIONS OPTION
Networking Technologies
Communications Electronics w/ Lab
Wireless RF Systems
Fiber Optics Technology

Sungyoung Kim, an associate professor in the electrical, computer and telecommunications engineering technology department, was invited to Yamaha Corporation to investigate various rendering methods for listeners’ enhanced auditory impressions.

His recent research interests cover the auditory depth control integrated with 3-D visual display, the perceptual process and the associated attributes that provide convincing immersive sound fields, the brain response to immersive sound field, and the training methods of faster acquisition of critical listening ability. Kim’s research helps to inform the audio option in the computer engineering technology major, as well as the music and technology immersion.
Electrical systems are being incorporated in a wide array of applications, from digital systems, automobiles, and aerospace to industrial process control, robotics, power distribution, biomedical electronics, telecommunications, and consumer products. Electrical engineering technology emphasizes the practical application of leading-edge technologies to analyze a problem, design an electrical solution, and implement the solution using current technology.

Focused yet flexible
The electrical engineering technology curriculum begins with foundation courses in circuit theory, analog and digital electronics, microprocessors, physics, calculus, and the liberal arts. As you become more proficient in applications and theory, you will add depth to your knowledge by selecting professional electives—in areas such as electric power systems, electronic communications, embedded systems, telecommunications, networking, or optics—to meet your career goals and aspirations. Options in either audio or telecommunications provide students with the opportunity to focus their education and enhance their marketability.

A Competitive Advantage
One aspect of the curriculum that gives you an edge in your career is the 12 months of paid cooperative education. Help a small electronics startup work the bugs out of a high-tech product about to be launched. Install and maintain complex electronic systems for a wireless cellular communication service provider. Learn about the utilities industry as you diagnose and correct system faults in a power generation facility. Or you might work as part of a development team for a NASDAQ 100 corporation as it modifies product specifications.

A wide-open career
The electrical engineering technology major prepares you for long-term success after graduation. Our students have gained employment in such areas as design engineering, product development and evaluation, power distribution, test engineering, industrial automation and control, technical sales and marketing, and project management. Our graduates often receive multiple job offers and move through increasing levels of responsibility early in their careers—a tribute to the high quality of their RIT education.

What you’ll study

First and Second Years
- First Year Writing
- Year One: College Experience
- Calculus A, B, C
- DC Circuits w/ Lab
- Digital Fundamentals w/ Lab
- AC Circuits w/ Lab
- Computational Problem Solving I
- Electronics I, II w/ Lab
- Microcontroller Systems w/ Lab
- Calculus and Differential Equations
- Digital Systems Design w/ Lab
- Electrical Machines and Transformers w/ Lab
- General Education—Liberal Arts and Sciences
- Wellness Education

Third - Fifth Years
- College Physics I
- Signals, Systems, and Transforms
- Communications Elective w/ Lab
- Introduction to Statistics I
- Career Orientation
- Digital Signal Processing
- Design and Innovation
- Technical Electives
- Engineering Economics
- Control Systems
- Mechanical/Manufacturing ET Elective
- Technical Elective II
- Transmission Lines w/ Lab
- Free Electives
- General Education—Liberal Arts and Sciences
- Cooperative Education

AUDI Option
- Fundamentals of Audio Engineering
- Modern Audio Production
- Introduction to Acoustics
- Audio Power Amplifiers

TELECOMMUNICATIONS Option
- Communications Electronics w/ Lab
- Networking Technologies
- Wireless RF Systems
- Fiber Optics Technology
As product designs become more complex and the demand for more efficient products increases, the divide between mechanical and electrical engineering technology decreases. There is a growing need for professionals who can combine electrical and mechanical knowledge and apply it to develop systems. The demand for professionals with this unique combination of skills has increased dramatically over the last decade. RIT’s electrical mechanical engineering technology major benefits students who want to attain a level of expertise in both disciplines.

**A flexible program**
The electrical mechanical engineering technology major shares a common first two years with the mechanical engineering technology and manufacturing engineering technology majors, making it easy to switch between these majors should your career plans change. Then you’ll receive a strong foundation in the electrical, mechanical, and manufacturing disciplines through courses in electricity, electronics, microprocessors, computer programming, mechanics, materials, thermal science, engineering graphics, manufacturing processes, and economic analysis. To complete your degree, you’ll choose a technical concentration in electrical systems, mechanical design, or manufacturing management. With the help of an adviser, you also may design your own concentration.

**On-the-job training**
Co-op work awaits you as a student in the electrical mechanical engineering technology program. Run tests on the latest diagnostic medical equipment, help refine the electronic control system for an automotive manufacturer, or work on a team tackling production efficiency issues. No matter the job, you’ll have 12 months of paid work experience under your belt when you graduate.

**Integration in your future**
With this broad base of technical knowledge, you can bring a variety of specialists together in the workplace. Your interdisciplinary background makes you a strong candidate for employment. When you graduate, you’ll join our successful alumni who are working as product engineers, quality assurance engineers, technical analysts, robotic designers, and more.

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**The Center for Electronics Manufacturing and Assembly**
focuses on semiconductor chip packaging, printed circuit board assemblies, and electronics/optoelectronics systems for the electronics packaging industry. The facility used by undergraduate students majoring in electrical mechanical engineering technology, as well as faculty members, for designing projects, and by industry partners for research, product development, and extensive corporate training.
The environmental sustainability, health and safety major emphasizes globally sustainable approaches and prepares you to be a professional leader in moving industry and society toward a more sustainable and socially responsible future. Graduates assist various industries in producing goods and services that avoid environmental contamination, protect workers from hazardous conditions and chemicals, and utilize less energy and fewer natural resources. Students are prepared to eliminate, reduce, and control the release of pollutants into the environment and to manage health and safety hazards associated with an organization's activities, products, and services.

Field work, research, and problem solving
You will gain a diverse skill set based on a strong foundation in basic sciences: applied environmental, health and safety science and technology; sustainability and social responsibility; and the basic tools of team building, effective communication, and leadership. Both classroom assignments and projects, combined with field trips and outdoor labs, create a diverse learning environment where you will gain knowledge in real environmental and industrial settings.

Graduates in demand
ESHS graduates develop solutions for real-life environmental, health and safety problems, and drive organizations toward environmental sustainability. Whether you enter the workforce immediately after graduation or pursue an advanced degree, you will be in demand. More than 90 percent of our students are employed in the field within three months of graduation, working at environmental protection organizations, Fortune 100 companies, environmental consultancies, universities, and government agencies such as the EPA, OSHA, and NYS-DEC. Graduates have also earned advanced degrees at top universities. You may also choose to combine your BS degree with an MS degree in our five-year, dual-degree program.

What you’ll study

First and Second Years
First Year Writing
Year One: College Experience
Environmental Sustainability, Health and Safety Seminar
Applied Calculus
Chemistry I, II w/ Labs
Principles of Environmental Sustainability, Health and Safety
College Physics I, II w/ Labs
Environmental Geology
Environmental Monitoring and Measuring I, II
General Biology I, II w/ Labs
EHS Communication
Introduction to Hydrology
Solid and Hazardous Waste Management
Occupational Safety
General Education—Liberal Arts and Sciences
Wellness Education

Third - Fifth Years
Industrial Wastewater Management
Occupational Health w/ Lab
Introduction to Statistics
Accident Causation and Prevention
Social Responsibility and Environmental Sustainability
Environmental Health and Safety Law
Air Emissions Management
Corporate Environmental Health and Safety Management
Capstone Project
Professional Electives
Free Electives
General Education—Liberal Arts and Sciences
Cooperative Education Preparation
Cooperative Education

The Student Environmental Action League is a group of students who raise awareness of environmental issues and perform volunteer work. During Electronic Waste Recycling Day, more than six tons of equipment are collected and turned over to a local recycling company. The club also participates in the Ocean Conservancy’s International Coastal Cleanup Day, in which volunteers remove trash and debris from the world’s beaches and waterways. RIT students removed 1,205 pounds of garbage from the shorelines of the Genesee River, Red Creek, and Erie Canal.
Global competition and new technologies are driving industrial productivity. Improved output has led to advanced processes, the implementation of robotics, and increased automation. The result is high demand for professionals well versed in advanced manufacturing technologies.

A focus on production
The manufacturing engineering technology major includes a balance of traditional and nontraditional manufacturing processes. Technology, whether in the development, integration, or implementation stages, is a focal point of the major. Courses cover topics in materials technology, computer-aided design, computer-aided manufacturing, controls for manufacturing automation, microprocessors, robotics, electrical and electronics principles, surface mount electronics packaging, quality control, engineering economics, and production and operations management. Extensive experience is gained in focused, hands-on laboratory activities.

Impressive resources
RIT has one of the only complete, in-house manufacturing production and assembly systems in higher education. This comprehensive, hands-on system—which includes a robotics system, surface-mount assembly system, metrology lab system, and a CNC manufacturing system—enables students to experience the entire manufacturing process as part of their studies.

The major also is dedicated to helping worldwide manufacturers compete globally through applied technology, the development of intelligent systems, and training. You’ll have the opportunity to work on industry projects provided by the many manufacturers who work with the program on implementing new manufacturing technology.

Manufacturing leadership starts with co-op
Students complete 12 months of paid cooperative education before they graduate. You might work for a small manufacturer, designing and building a robot to perform assembly tasks. You might work for a company like Boeing, working on a team to set up a production line for a new high-performance aircraft. Or you might establish quality-control procedures for a company like General Electric.

Wide-ranging career opportunities
You’ll entertain career opportunities in production/process engineering, quality control, manufacturing system design, robotics, operations management, advanced materials processing, research and development, applications engineering, marketing, and more. Or, continue your education with our MS degree in manufacturing and mechanical systems integration.

What you’ll study
First and Second Years
First Year Writing

Third - Fifth Years
Introduction to Statistics II Automation Control Systems w/ Lab Electronics Manufacturing w/ Lab Free Electives Quality Engineering Principles Robotics and Automation w/ Lab Engineering Economics General Chemistry for Engineers Lean Production and Supply Chain Operations Integrated Design for Manufacture and Assembly Technical Electives Production Systems Design Production Systems Development General Education— Liberal Arts and Sciences Cooperative Education

RIT was selected by the U.S. Department of Energy to lead the organization’s new Reducing Embodied-Energy and Decreasing Emissions (REMADE) Institute—a national coalition of leading universities and companies that will forge new clean energy initiatives deemed critical in keeping U.S. manufacturing competitive. RIT has a long and well-established reputation as a global leader in sustainable manufacturing, remanufacturing, applied research, technology transfer, and policy development.
From turbines and engines to high-performance automobiles, jet aircraft, and air-conditioned environments, mechanical engineering technology has played a pivotal role in the development of modern civilization. Today, competitive pressures and advancing technologies are forcing companies to improve and update manufacturing processes and product designs more rapidly than ever before.

Mechanical engineering technology involves understanding how machinery works—and identifying ways to design it, make it, or utilize it better. As a mechanical engineering technology graduate, you’ll have opportunities to improve manufacturing techniques, create robots, increase fuel efficiency and power output, streamline aerodynamics, and design and develop new products.

A project-oriented curriculum
As a mechanical engineering technology major, you’ll study the foundations of mechanics, materials, and energy. Early on you’ll develop an understanding of mathematics, materials, and computer-aided design and drafting. Later courses focus on mechanical design and dynamics, mechanical analysis, and applied thermofluid engineering. The major emphasizes the development of a design methodology, so a substantial amount of laboratory work is required. You can customize the major with a concentration in product design; heat, power, and HVAC systems; or plastics processing.

Gain progressive, practical experience
With a broad base of knowledge supported by sophisticated laboratory experiences, will be able to make immediate contributions regardless of the industry you choose to enter. Twelve months of cooperative education provide you with hands-on experiences and give you a competitive advantage in the job market.

After graduation
Graduates are in demand by a variety of companies that manufacture or use mechanical systems. You’ll be well prepared to embark on a professional career in machine design, field service engineering, technical sales, thermal analysis, applied product design, utilities operations, HVAC design, and plant operations.

What you’ll study

First and Second Years
First Year Writing
Year One: College Experience
Fundamentals of Engineering Manufacturing Processes
Calculus A, B
Foundations of Metals w/ Lab
Engineering Communication and Tolerancing
Machine Tools Lab
College Physics I, II w/ Labs
Principles of Statics
Multivariable Calculus & Differential Equations
Foundations of Non-Metallic Materials w/ Lab
Strength of Materials
Circuits and Electronics
Circuits w/ Lab
Introduction to Statistics I
Effective Technical Communications
General Education—Liberal Arts and Sciences
Wellness Education

Third - Fifth Years
Introduction to Statistics II
Mechanical Dynamics with Applications
General Chemistry for Engineers
Fluid Mechanics and Fluid Power
Mechanical Analysis and Design I, II w/ Lab
Experimental Methods
Thermal Fluid Systems I, II w/ Lab
Technical Electives
Free Electives
General Education—Liberal Arts and Sciences
Cooperative Education Preparation
Cooperative Education
Packaging is, literally, everywhere. Packages keep items fresh, communicate warnings and instructions, and protect products, as well as make them easy to use and appealing to consumers. Because almost every company creates or uses some type of packaging, there is a tremendous need for professionals who can balance the huge demand for packaging with its environmental impact.

Enter packaging engineers. These professionals help determine how to safely store and efficiently ship products, increase sales based on item presentation, and develop packaging materials that won’t harm the environment. RIT’s packaging science major teaches you how to tackle these issues from all angles.

In step with industry
RIT is one of a handful of universities that offers a bachelor’s degree in packaging science. The curriculum, developed in conjunction with the packaging science industry, offers courses in a wide range of subjects, including math, science, materials, the environment, design, and business. You’ll also have access to facilities that are second to none. Located in RIT’s state-of-the-art research building, our packaging science labs contain some of the most advanced packaging testing equipment in the nation. Outside the classroom, you’ll get two semesters of paid, professional cooperative education experience working for companies that make or use packaging.

Electives complete the “package”
As part of a packaging science major, you can take specific packaging elective courses, which center on science and engineering and have a decidedly technical bent. Also offered is a selection of management courses by RIT’s Saunders College of Business, and printing courses within our College of Imaging Arts and Sciences. You can enhance your knowledge of packaging for distribution, accounting, marketing and sales, or graphics communication. You may also design a custom collection of elective courses.

A strong career outlook
A degree in packaging science offers a rare opportunity to find work in just about any industry that interests you. Countless employers await you in the food, beverage, pharmaceutical, chemical, computer, electronic, and many other industries. Upon graduation, you’ll join RIT’s successful alumni who are packaging engineers, designers, scientists, analysts, researchers, sales and marketing representatives, brand managers, and environmental impact specialists working in the United States and abroad.

What you’ll study

First and Second Years
First Year Writing
Year One: College Experience
Calculus A, B
General & Analytical Chemistry w/Lab
Introduction to Packaging
Packaging Design I, II
Chemistry of Materials
Introduction to Organic Polymer Technology
Packaging Metals and Plastics
Packaging Paper and Glass
Introduction to Statistics I, II
College Physics I
Environmental Science
Containers I, II
General Education—Liberal Arts and Sciences
Wellness Education
Cooperative Education

Third and Fourth Years
Introduction to Statistics II
Principles of Marketing
Packaging for Distribution
Packaging Regulations
Dynamics and Protective Packaging
Technical Communications
Food Packaging
Printing Elective
Packaging for Marketing and End Use
Operations Management
Packaging Supply Chain
Packaging Electives
Free Electives
General Education—Liberal Arts and Sciences
Cooperative Education

Three multidisciplinary teams made up of students from the packaging science and graphic design majors were recognized for their unique designs in the 2016 Paperboard Packaging Alliance Student Design Challenge. The student competition is part of the annual Pack Expo International, one of the largest trade shows for the packaging industry. Teams were asked to design an unconventional, innovative premium package for dry goods that contains a structural component that enhances its function and stands out on upscale grocery store shelves. Team L’Orto placed second overall in the competition, Team Wild Crunch took fifth place, and Team Le Sel received a Shout Out designation for its work.

Packaging Science
rit.edu/packaging
School of Media Sciences

The School of Media Sciences integrates the worlds of print and new media. Within the digital media environment, the school offers programs that combine graphic communications from conventional print and publishing into cross-media technologies. Leadership and management in these dynamic industries require an understanding of cutting edge technology and emerging markets. For example, you’ll learn to design customized marketing communications that increase advertising revenues, create new ink formulas for eye-popping retail displays, implement social media plans, and more. Graduates leave with an innovative, integrated skill set, a solid technical background of digital workflow processes, and a keen understanding of industry issues and trends.

Media Arts and Technology

The media arts and technology major is a solutions-focused program where you’ll learn how to produce, distribute, and manage content to reach audiences of all sizes through web, print, and mobile platforms. This major’s core provides a balance of the creative, business, and technical aspects of graphic communication through immersive study focused on design, imaging, business, and the applied sciences.

Specializations lead to creative courses
Elective courses allow you to customize your course of study as you develop specializations around areas of cross-media publishing, next-generation packaging, advertising and promotion, media management, business strategy, sustainability, digital materials, print and new media production, and the development of innovation applications across media.

Apply your skills in industry
Students are required to complete two full-time cooperative education experiences. You’ll earn a salary while gaining valuable industry experience as you prepare for your future career. Some of our students have completed co-ops with media producers, publishers, advertising agencies, news organizations, packaging companies, communication departments, website developers, and more.

What you’ll study

<table>
<thead>
<tr>
<th>First and Second Years</th>
<th>Third - Fifth Years</th>
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<tr>
<td>Cross Media Foundations</td>
<td>Information Architecture for Publishing</td>
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<td>Print Production</td>
<td>Media Business Management</td>
</tr>
<tr>
<td>Webpage Production I, II</td>
<td>Team Project</td>
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<td>Typography and Page Design</td>
<td>Program Electives</td>
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<td>Production Workflow</td>
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<td>Imaging</td>
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<td>Database Publishing</td>
<td>First Year Writing Seminar</td>
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<tr>
<td>Introduction to Statistics I, II</td>
<td>General Education–Liberal Arts and Sciences</td>
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<tr>
<td>College Algebra</td>
<td>Wellness Education</td>
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<tr>
<td>Professional and Technical Writing</td>
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ACADEMIC ENRICHMENT:

Your academic experience is enhanced by what happens both in and out of the classroom.

rit.edu/enrichment

Accelerated degree programs, the Honors Program, more than 90 minors, study abroad, and research … RIT offers many opportunities for you to enrich your education beyond academics and expand your undergraduate experience.

Accelerated dual-degree options
Getting an advanced degree is one way to set yourself apart from the crowd. RIT offers a number of accelerated dual BS/MS and BS/MBA degrees that allow you to earn a bachelor’s degree and a master’s degree, or MBA, in five years of study. Consider these accelerated dual-degree programs:

- BS, Computer Engineering Technology/MS, Computer Science
- BS, Electrical Mechanical Engineering Technology/MS, Manufacturing and Mechanical Systems Integration
- BS/MS, Environmental Health and Safety Management
- BS, Environmental Sustainability, Health and Safety/MS, Environmental Health and Safety Management
- BS, Manufacturing Engineering Technology/MS, Manufacturing and Mechanical Systems Integration
- BS, Mechanical Engineering Technology/MS, Manufacturing and Mechanical Systems Integration

Innovation and entrepreneurship— a university-wide initiative
RIT has long been a center for innovation, creativity, and entrepreneurship. The range of activities and facilities is extensive and includes:

- RIT Innovation Hall of Fame
- Simone Center for Student Innovation and Entrepreneurship
- Venture Creations
- Student Incubator
- RIT Business Incubator
- Tiger Tank Annual Student Competition
- RIT 48: Entrepreneurial Boot Camp
- Entrepreneurs Hall—a residential community devoted to entrepreneurship

Study Abroad
RIT’s Study Abroad program enhances your understanding of other cultures. You may study full time in RIT-affiliated programs in more than 20 countries around the world. You can elect to study courses in your major, or fulfill liberal studies classes while gaining the experience of living and learning in a culture different from your own. Learn more at rit.edu/studyabroad.

Honors Program
The Honors Program admits approximately 150 entering freshmen each year. The Honors Program features several distinctive and complementary components:

- Honors courses
- Research and professional development
- Complementary learning experiences (annual volunteering and community service projects)
- Honors advising and mentoring
- Honors residence

Eric Vergo, a mechanical engineering technology major, has a collection of original twisting puzzles that can be found on TwistyPuzzles.com. They reside alongside some of the best puzzle innovations by top puzzle developers in the country. Vergo’s collection of multifaceted, vibrantly colored puzzles includes puzzles with 12 or 18 sides, twisting corners, and rounded edges, and they come with names like Ultra-X, Royal Pentultimate, and Rex Skewb. MF8, a major toy company in China, approached Vergo to purchase one of his designs, the Pentagram. It will soon be available in toy stores.
Minors and immersions can give you a secondary area of expertise or the chance to explore other areas of interest. They may complement your major, broaden your career options, or expand your personal interests. For the most current list of minors and immersions please visit rit.edu/minors and rit.edu/immersions.
The necessary elements of a satisfying and rewarding educational experience are cutting-edge academic programs, outstanding faculty, and first-rate facilities—all of which you’ll find at RIT. In today’s world, however, that’s not enough. You also need to find a way to make your education “real.” To successfully face the challenges that await you upon graduation, you must prove your ability to tackle real-world problems and operate in real-world settings.

Through varied experiential learning opportunities and our renowned cooperative education program, RIT helps you “keep it real.”

**Value-added learning**

Simply translated, experiential education means learning by doing. These initiatives put classroom lectures and textbook theories to the test, all the while letting you hone an overall sense of direction and purpose.

The College of Engineering Technology’s majors provide students with a full array of experiential learning opportunities.

A few to consider:

- Work with faculty and industry on applied research generated through RIT’s Center for Integrated Manufacturing Studies or Center for Electronics Manufacturing and Assembly.
- Team with students from RIT’s eight other colleges on projects that propel your skills to the next level even as they cement lifelong friendships.
- Participate in the study abroad program, living and learning in another culture.

**Work while you learn**

Cooperative education is perhaps the most extensive and intensive of experiential education experiences at RIT. Co-op is full-time, paid work experience directly related to your course of study and career interests. In addition to gaining professional work experience and developing a critical network of contacts, co-op is often the best way to develop the necessary business success skills—leadership, decision-making, communication, professionalism, flexibility, and independence.

**Experience that pays**

Besides being a great way to gain professional experience, co-op also provides you with a salary—real income that you can apply toward tuition, books, and living expenses. Many students received permanent job offers from their co-op employers. What’s more, no tuition is charged for the semesters you are employed as a co-op student.

**How it works**

RIT’s Office of Career Services and Cooperative Education offers instructional materials, workshops, and access to thousands of job postings and employer contacts to help you through the entire work preparation and job search process. A coordinator assigned to your academic major will work with you one-on-one to achieve your employment and career goals, as well as complete co-op assignments. All you need are an open and inquisitive mind and a passion for exploring and developing your career interests.
Amanda Bao, professor of civil engineering technology, conducted research that showed a 180-degree shift in the direction of the H-steel pile foundations in bridges could add new life to the structure and increase load resistance and capacity—even in the event of earthquakes or tsunamis. Bao, a former bridge structural engineer at Jacobs Engineering Group, Inc., and Michael Baker Corporation, is an expert in seismic behavior of bridges. She teaches structural engineering courses including structural analysis, dynamics, structural loads and systems, steel design, reinforced concrete design, and timber design.

Elizabeth M. Dell, professor of manufacturing and mechanical engineering technology, organizes educational and mentoring activities for female students, including professional development workshops that address barriers female students face in pursuing careers in the technical or STEM disciplines. Her current research interests include the characterization of biodegradable plastics, environmental considerations in materials selection for product design, and characterization and failure analysis of polymer-based products and materials.

Robert Garrick, professor of manufacturing and mechanical engineering technology, is a 2015 recipient of the Eisenhart Award for Outstanding Teaching. He was recognized for his work on the Technology Rich Interactive Learning Environment classroom, also referred to as TRILE. Garrick led the development of the interactive classroom as well as research on its effectiveness, including the influence TRILE has had on collaborative learning.

Drew Maywar, associate professor of electrical, computer, and telecommunications engineering technology, conducts cutting-edge research in photonics—the science of transmitting data via light impulses. Photonics is necessary for highly sophisticated fiber optical network systems, from smartphones and the internet to fighter jets. Maywar was part of the team at Lucent Technologies that developed the terabit-per-second fiber-optic communications system that anchors the global cellular and wireless networks used worldwide every day. He is a Fulbright Scholar, speaks Japanese, and is an editor of the *Japanese Journal of Applied Physics*.

Shola Olabisi, assistant professor of electrical, computer, and telecommunications engineering, previously worked for GE Transportation as an electric machine design engineer. His research focuses on electric machine design and application, multifactor stress aging of insulation and dielectrics, and pulsed power and energy systems. He is an active member of the Institute of Electrical and Electronics Engineers (IEEE), Eta Kappa Nu (Electrical Engineering Honor Society), American Association for the Advancement of Science (AAAS), Alliance for Graduate Education and the Professoriate (AGEP), and the National Society of Black Engineers (NSBE).

Karen Proctor, professor of packaging science, worked as a packaging professional at Xerox Corporation and Amway Corporation. Her areas of expertise include distribution, process control, sustainable packaging innovation, and packaging at the point of purchase. Proctor currently serves as the educational vice president for International Safe Transit Association, and is developing sustainable packaging standards for the Wal-Mart supply chain. Her research interests include expanding and developing packaging-related research projects focused on sustainability.

Bruce Myers, interim administrative chair of the School of Media Sciences, has more than 20 years of experience in the printing industry. He has worked with consumer packaging companies to develop and implement corporate brand color control programs, and he has served as a global sales training manager in Asia. In addition to teaching at RIT, Myers has also taught at New York University and Kean University. His specialties in teaching include color reproduction, quality control, and management.
RIT in Brief

**COLLEGES AND DEGREE-GRANTING UNITS:**
- College of Art and Design
  - School for American Crafts
  - School of Art
  - School of Design
  - School of Film and Animation
  - School of Photographic Arts and Sciences
- Saunders College of Business
- B. Thomas Golisano College of Computing and Information Sciences
- Kate Gleason College of Engineering
- College of Health Sciences and Technology
  - Wegmans School of Health and Nutrition
- College of Liberal Arts
- National Technical Institute for the Deaf
- College of Science
  - Chester F. Carlson Center for Imaging Science
  - Thomas H. Gosnell School of Life Sciences
  - School of Mathematical Sciences
  - School of Chemistry and Materials Science
  - School of Physics and Astronomy
- B. Thomas Golisano College of Human Sciences
  - Golisano Institute for Sustainability
  - School of Media Sciences
- Wegmans School of Health and Nutrition
- College of Engineering Technology
- School of Photographic Arts and Sciences
- School of Art
- School for American Crafts

**DEGREES:**
- Bachelor of Fine Arts (BFA) and Master of Science for Teachers (MST); Bachelor's Administration (MBA), Master of Engineering (ME), Doctoral (Ph.D.) programs in Astrophysical Sciences and Technology, Color Science, Computing and Information Sciences, Environmental Science, Imaging Science, Information Sciences, Engineering, Physics, and Astronomy.

**RIT STUDENT BODY:**
- More than 3,400 students from more than 100 countries. More than 3,400 students from diverse racial and ethnic backgrounds are enrolled at RIT's international campuses. An additional 2,188 students are enrolled at RIT's international campuses. RIT also has international campuses in China, Croatia, Dubai, and Kosovo.

**FACILITIES:**
- RIT's campus occupies 1,300 acres in suburban Rochester, the third-largest city in New York state. RIT also has international campuses in China, Croatia, Dubai, and Kosovo.

**DEGREES:**
- Doctoral (Ph.D.) programs in astrophysical sciences and technology, color science, computing and information sciences, engineering, imaging science, mathematical modeling, microsystems engineering, and sustainability; master's degree programs: master of architecture (M.Arch.), master of business administration (MBA), master of engineering (M.Eng.), master of fine arts (M.F.A.), master of science (M.S.), and master of science for teachers (M.S.T.); bachelor's degree programs: bachelor of fine arts (B.F.A.) and bachelor of science (B.S.); and associate degree programs: A.S., A.O.S., A.A.S.

**THE CAMPUS:**
- RIT is an internationally recognized leader in preparing deaf and hard-of-hearing students for successful careers in professional and technical fields. The university provides unparalleled access and support services for the more than 1,100 deaf and hard-of-hearing students who live, study, and work with hearing students on the RIT campus.

**COOPERATIVE EDUCATION:**
- Offers paid career-related work experience in many degree programs. RIT has the fourth-oldest and one of the largest cooperative education programs in the world, annually placing more than 4,400 students in nearly 6,300 co-op assignments with nearly 2,300 employers across the United States and overseas.

**THE RIT STUDENT BODY:**
- More than 3,400 students from more than 100 countries. More than 3,400 students from diverse racial and ethnic backgrounds are enrolled at RIT's international campuses. An additional 2,188 students are enrolled at RIT's international campuses.

**EXPENSES:**
- Full-time students enrolling for the first time and living in an RIT residence hall have the following 2018-19 academic year expenses. We estimate that the typical student also spends an average of $2,054 per year for books, transportation, and personal expenses.

**VISITS TO CAMPUS:**
- RIT is an internationally recognized leader in preparing deaf and hard-of-hearing students for successful careers in professional and technical fields. The university provides unparalleled access and support services for the more than 1,100 deaf and hard-of-hearing students who live, study, and work with hearing students on the RIT campus.

**ATHLETICS:**
- Men's Teams—baseball, basketball, crew, cross country, ice hockey (Division I), lacrosse, soccer, swimming, tennis, track, and wrestling.
- Women's Teams—basketball, crew, cross country, ice hockey (Division I), lacrosse, soccer, softball, swimming, tennis, track, and volleyball.

**VISITS TO CAMPUS:**
- RIT promotes and values diversity within its workforce and provides equal opportunity to all qualified individuals regardless of race, color, creed, age, marital status, sex, gender, religion, sexual orientation, gender identity, gender expression, national origin, veteran status, or disability.

**THE ADVISORY COMMITTEE ON CAMPUS SAFETY:**
- The Advisory Committee on Campus Safety will provide, upon request, all campus crime statistics as reported to the United States Department of Education. RIT crime statistics can be found at the Department of Education website, http://ope.ed.gov/security, and by contacting RIT's Public Safety Department at 585-475-6200 (v/tty).