

# PACKAGING SCIENCE

<http://www.rit.edu/cast/mmetps/bs-in-packaging-science.php>

## PROGRAM OVERVIEW FOR EMPLOYERS

The curriculum prepares individuals for employment within a broad occupational cluster of the packaging industry. Individuals may work in the supplier, service and packaging end user levels of multiple packaging industry segments. These industry segments include but are not limited to food, beverage, cosmetics, consumer goods, pharmaceuticals, medical devices, electronics, industrial items, and automotives/motorcycles. Packaging design and development parameters taught include product protection, regulatory compliance, customer utility, manufacturing feasibility, economics, marketing needs, sustainability and environmental impact. Students gain a comprehensive core background and achieve areas of specialization through the selection of minors. The list of minors includes, but is not limited to: management, marketing, printing, business, foreign language, and various engineering fields. Students prepare for positions with titles such as packaging engineer, packaging scientist, packaging associate, packaging designer, packaging specialist, and packaging developer.

### Degree(s) Awarded

Bachelor of Science. Two Master of Science programs are also offered: a traditional program; a time-compressed Executive Leader program for industry professionals.

### Enrollment

Approximately 200 undergraduates, 50 graduate students. Graduating class approximately 45-55 students.

### Cooperative Education Component

Two quarters of co-op are required of undergraduates. Additional quarters are encouraged. Students are eligible after their 2<sup>nd</sup> year and completion of the core packaging classes.

### Salary Information (Avg/Range)

|        |          |                     |
|--------|----------|---------------------|
| Co-op: | \$18.88  | \$12.00 - \$28.00   |
| BS/MS: | \$54,889 | \$32,000 - \$76,000 |

### Equipment & Facilities

The extensive facilities include a state-of-the-art packaging dynamics lab, modern computer lab, packaging attribute assessment lab, and the American Packaging Corporation Packaging Innovation Center. Students learn to perform packaging evaluations and report results.

### Student Skills & Capabilities

- The program emphasizes the application of fundamental concepts, theory, innovation, critical thinking, creative thinking, and communication on practical problems. Studies in packaging science include examining the procedures for developing new, improved packages; testing the physical and chemical properties of materials; and learning structural design by making and testing sample containers in the department's advanced testing facility. Students also learn the industry's legal aspects, as well as economic, energy and environmental considerations in packaging development and production.
- In conjunction with their packaging science education, students complete course sequences in chemistry, physics, mathematics, and liberal arts. Students receive a broad general education as well as expertise in packaging science.
- The Master of Science degree is comprised of 3 components: packaging core courses, thesis research or project, and elective credit. The curriculum is flexible enough to meet the needs of professionals who have been in the field for a number of years, and is suitable for those students who wish to pursue a graduate program immediately upon receiving a BS degree. There is also an Executive Leader Master's program for professionals who have been in the packaging field for at least five years. This program involves extensive online courses and some on campus lab related coursework during the summer.

# Packaging Science

## Course Sequence BS degree

### First and Second Years:

Principles of Packaging  
Packaging Materials I & II  
Career Seminar  
Rigid Containers  
Flexible Containers  
Engineering Design Graphics  
Computer Applications

(Above core of Packaging courses must be completed prior to co-op)

### Third and Fourth Years:

Packaging Production Systems  
Packaging for Distribution  
Packaging for Marketing  
Shock and Vibration  
Packaging Regulations  
Principles of Printing  
Technical Communication  
Professional Electives [3]  
Packaging Management  
Packaging Economics  
Packaging and the Environment  
Packaging Process Control  
Medical Products Packaging  
Food Preservation and Packaging  
Export Packaging

### Additional coursework:

College Physics  
Inorganic and Organic Chemistry  
Polymer Chemistry  
Algebra

Calculus  
Statistics  
Macro and Micro Economics  
Effective Speaking

**Minor:** Students will be able to take minors in a wide variety of areas to enhance their programs.

### Employers of Packaging Science Co-op and Graduating Students:

American Packaging Corp., Becton Dickinson, Bath & Body Works, Boston Scientific, Bristol Squibb, Burt's Bees, Cadbury, Colgate-Palmolive, Corning Life Sciences, Coty Inc, Crayola, Diamond Packaging, EISAI Inc., Eastman Kodak Company, Equity Packaging, Estee Lauder, Elizabeth Arden, Fisher Price, General Electric Co., Gillette, GlaxoSmithKline, Green Mountain Coffee Roasters, Harris RF Communications, Heinz North America, Hammer Packaging, Hasbro, Hub Folding Box Co., IBM, International Paper, Johnson & Johnson, Johnsonville Sausage, Kellogg Company, Kraft Foods, LiDestri Foods Inc., L'Oreal, Mattel Inc., MeadWestvaco, McCormick & Company, McNeil Consumer Products, Merck, Nice-Pak Products Inc., Nova Chemicals, Ocean Spray Cranberries, Ortho Clinical Diagnostics, Packaging Corporation of America, Pepsi-Cola, Pfizer Consumer Healthcare, Procter & Gamble, Reckitt Benckiser, Rich Products, Rock-Tenn, Sanofi Pasteur, SC Johnson & Son, Sun Products Corporation, Sealed Air, Syngenta, Teleflex Incorporated, The Clorox Company, The Maco Bag Corporation, Toyota, UCB Pharmaceuticals, Unilever, Watson Pharmaceutical, West Pharmaceutical Services, Wrigley, Wyeth, Xerox

### Contact Us:

We appreciate your interest in hiring RIT co-op, graduating students or alumni. We will make every effort to make your recruiting endeavor a success. Call our office and ask to speak with Shauna Newcomb, the program coordinator who works with the Packaging Science program. For your convenience, you can access information and services through our web site at <http://www.rit.edu/recruit>.

### Shauna H. Newcomb

#### Program Coordinator

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