

# IMAGING AND PHOTOGRAPHIC TECHNOLOGY

<http://www.rit.edu/cias/photo>

## PROGRAM OVERVIEW FOR EMPLOYERS

Imaging and Photographic Technology is a unique program in photography which includes specialized education in technical, industrial, and scientific imaging applications. Graduates of this program are well-rounded individuals, with skills adaptable to a variety of photography and imaging-related fields. Their technical education is complemented by traditional coursework in mathematics, computers, science, and liberal arts including technical writing. The solid base of skills acquired by the graduates of this program prepares them for a variety of positions within the field of technical photography and imaging technology. They can also elect to specialize in a concentration area such as graphic arts, color technology, still photography, digital imaging and electronic photography, science, engineering and others. The co-op requirement enhances student knowledge acquired in the classroom and the laboratory.

### Degree(s) Awarded

Bachelor of Science

### Enrollment

Approximately 50 students are enrolled.

### Cooperative Education Component

Students are required to complete at least two co-op work assignments.

### Salary Information (Avg/Range)

Co-op: \$11.66                      \$7.00 - \$19.00

BS:        \$37,725 - \$56,000

### Equipment & Facilities

Students have access to the following laboratories (not all inclusive):

Photoinstrumentation

Optics

Sensitometry/Tone Reproduction

Holography

Color Management

Color Measurement

Chemistry (Photo Emulsion)

High Speed Photography

Computer Imaging

Scanning Electron Microscopy

Traditional Studios/Darkrooms

Digital Photography Workstations

### Student Skills & Capabilities

At the completion of two years of study students are expected to possess skills in the following areas: black and white film and digital sensitometric evaluation methods, digital camera evaluation and characterization, tone reproduction, color photographic theory, light sources, photometry and color specification and measurement along with introductory concepts related to electronic imaging. Students should be able to operate various cameras including digital small and medium format and 4x5 film cameras, know how to properly use reflected and incident light meters to determine exposure, know basic lighting schemes, produce quality printing of black and white and color materials, be proficient in print presentation and finishing operations. General knowledge of geometrical optics as applied to photographic systems, lens testing and evaluation procedures. Background in photographic chemistry, processing chemicals and their formulations. The student will have been introduced to programming in Excel, HTML and IDL and will be proficient in the use of computers as word processors as well as their application to problem solving in photographic and imaging technology.

At the completion of three years of study students are expected to possess fundamental knowledge in a number of areas, as well as entry level skills in their self-elected area of concentration or minor. Further color knowledge is acquired as it pertains to digital equipment and materials. Coursework in graphics/multimedia is introduced, such as the use of photography in publication and Web publishing. Most students will have developed their own home page. Digital Image Processing processes, technology and application of DIP equipment and procedures are introduced. Students understand computer processing techniques of images to enhance/modify/use images. Additionally, they will also possess basic skills in the preparation of websites and materials for the internet.

At the completion of four years of study students are expected to possess knowledge & skills in a number of photographic/imaging areas, as well as additional skills in their primary area of minor or concentration or in additional area of specialization. Students will have completed two cooperative work experiences, each consisting of ten weeks of full-time employment. In their last year, students receive a broad overview of high speed photographic and video cameras for qualitative as well as quantitative purposes. This includes experience with microflash equipment, high speed intermittent and rotating prism film and digital cameras, synchroballistic cameras, streak cameras, and others. They also receive instruction in theory and practice of UV and IR Imaging, 3D Photography, Holography, X-Ray, Non-silver, etc.. Students will also have completed an Intro to Research course and should have additional skills in management & quality control. At this level students should be able to function as a skilled laboratory assistant in most any photographically related endeavor, at the junior engineering level in a number of imaging related disciplines, as skilled research or technical associates or as photographic technologists or research associates or applications engineers in various industrial, scientific, or business enterprises.

# Imaging and Photographic Technology

## Course Sequence BS degree

### First Year:

Photographic Technology I  
Photography I  
Materials & Processes of Photography  
Systems Design/Graphic Presentation  
College Algebra and Trig  
Calculus for Technologists I  
Data Analysis  
Liberal Arts  
Physical Education

### Third Year:

Photographic Technology III  
Nature, Architectural or Photo Elective  
Color Management for Photographers  
Imaging Workflows  
Digital Image Processing  
Technical Writing  
General Education and Open Electives  
Cooperative Education (Summer)

### Second Year:

Photographic Technology II  
Photographic Sensitometry  
Technical Photographic Chemistry  
Photographic Optics  
Color Photographic Systems  
Color Photography/Design  
Color Printing Theory  
Color Measurement  
College Physics and College Physics Lab  
Liberal Arts  
Physical Education  
Cooperative Education (Summer)

### Fourth Year:

Photographic Technology IV  
High-Speed/Time-Lapse  
Introduction to Research  
Survey of Nonconventional Imaging  
General Education and Open Electives  
Liberal Arts

## Employers of Imaging and Photographic Technology Co-op and Graduating Students:

Canon, Concord Camera Corporation, Creo, Defense Info Agency, Delphi, Eastman Kodak Company, Edmund Scientific, Estee Lauder, Foveon, Fuji, Gretag/Macbeth, Harley Davidson, Hewlett Packard, IBM, ITT, Ilford Corporation, Indyne, Konica, Leaf Systems, Lockheed Martin, Los Alamos National Lab, Micron Technology, Monaco, NASA, National Geospatial Agency, New York Post, Pantone, Popular Photography, Sinar Bron, Spencer Labs, Swiss Federal Laboratories, Synacor, UR Lab for Laser Energetics, US Forest Service, United Space Alliance, X-Rite, Xerox Corporation, etc.

## 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 Lisa Vasaturo, the program coordinator who works with the Imaging and Photographic Technology program. For your convenience, you can access information and services through our web site at <http://www.rit.edu/recruit>.

### Lisa M. Vasaturo

#### Program Coordinator

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