

SOFTWARE ENGINEERING MS

PROGRAM OVERVIEW FOR EMPLOYERS

In 1996 RIT became the first university in the US to offer the baccalaureate software engineering degree. Many schools have followed and are following our leadership, as undergraduate software engineering degrees are increasingly featured in university portfolios.

Building on our leadership position in undergraduate software engineering education, we implemented an innovative Master of Science degree in Software Engineering to capitalize on the expertise we've gained at the undergraduate level. The degree is designed to appeal to software professionals with at least three years of experience developing software, or to professionals with a formal undergraduate background in software engineering, computer science, or computer engineering and at least one year of experience developing software.

The program's core content ensures that graduates will possess both breadth and depth of knowledge in software engineering. Specialization tracks in software quality and software design provide the students with the opportunity to match their graduate education with their professional goals.

Degree(s) Awarded

Master of Science

Enrollment

Approximately 15-20 students

Cooperative Education Component

Cooperative education assignments are optional, but encouraged.

Salary Information (Avg/Range)

Co-op:	\$19.50	\$10.00 - \$35.00
*MS:	\$76,500	\$60,000 - \$100,000

Equipment & Facilities

In addition to specialized departmental facilities, students have access to general campus-wide computing facilities, as well as the laboratories supporting both computer science and computer engineering. Campus-wide computing resources include numerous labs equipped with Windows and Macintosh platforms, a VMS cluster, a Digital UNIX cluster, and library resources.

Student Skills & Capabilities

The MS program comprises 52 quarter credit hours, anchored by a three quarter (12-credit hour) *practicum* where students work with peers and faculty on a long-term, moderately complex software development project. Initially students serve in basic support and developer roles, but as they progress through the practicum and accompanying coursework they are assigned correspondingly greater responsibilities. As a consequence, the program combines fundamental and theoretical concepts taught in courses with their application in a constrained but realistic setting. Core courses include topics on software re-engineering, software modeling, and empirical software engineering, and ensure that graduates will possess both breadth and depth of knowledge in software engineering. The program provides students with the opportunity to tailor their program of study by offering two alternative tracks of study: *software design and software quality*.

Software Engineering

Course Sequence MS degree

The Core:

Software Engineering Practicum I
Software Engineering Practicum II
Software Engineering Practicum III
Research Methods
Software Evolution and Re-engineering
Process Engineering and Environments
Empirical Software Engineering
Software Modeling
Experience and Research Report

Electives:

Track electives (one of the following):
Software Quality Engineering (quality track)
Software Architectures and Product Lines (design track)

Technical electives: (3 graduate level courses from any of the following programs)

Computer Science
Software Development and Management
Computer Engineering Business

Selected Employers of BS and MS Software Engineering Co-op and Graduating Students:

Activision, Amazon Services, Apple Inc., BAE Systems, Blackbaud, Digital Receiver Technology Inc., EnerNOC Inc., Fidelity Investments, Goldman Sachs, Goodrich, Google, Harris Corporation, IBM Corp., JP Morgan Chase, L-3 Communications, Lockheed Martin, Microsoft Corporation, Minitab Inc., Mitre Corp., MOOG Inc., Northrop Grumman, Oracle, Paychex, Rochester Software Associates, Siteworx Inc., Thomson Reuters, Webster Financial Corp., Welch Allyn Inc., Xerox Corporation, ZOS Communications

Contact Us:

We appreciate your interest in RIT co-op, graduating students or alumni. We will make every effort to make your recruiting endeavor a success. Feel free to contact Kara Leonard and Lisa Monette, the program coordinators who work with the MS Software Engineering program. For your convenience, you can access information and services through our web site at <http://www.rit.edu/recruit>.

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