

SOFTWARE DEVELOPMENT AND MANAGEMENT

PROGRAM OVERVIEW FOR EMPLOYERS

The focus of the MS in Software Development and Management program is a study of the problems, practices, and methodologies used for software development at the enterprise level. The underlying principle of this curriculum is that software development is a manageable process – i.e. that the software development problems encountered now and in the future will be amenable to solutions based on approaching software development as a user service, with sound managerial methodologies, and the reasoned application of technology. The program is designed for individuals who have at least two years of employment experience in software development and who wish to expand their current design skills as well as to develop new management skills. Students typically have undergraduate degrees in computer science, information systems, engineering, or other computer-related disciplines. RIT recognizes the need for software professionals who are effective communicators as well as being well versed in the use of current methodologies and software development tools. Graduates become professionals who are skilled in the application of software development practices as well as in leading successful software development projects and participating in corporate planning and decision-making.

Degree(s) Awarded

Master of Science

Enrollment

Approximately 30 students enrolled in this program.

Cooperative Education Component

Cooperative education assignments are optional.

Salary Information (Avg/Range)

Co-op:	\$14.00	\$12.00 - \$16.00
MS:	\$75,600	\$60,000 - \$94,000

Equipment & Facilities

- The Information Science & Technologies department's curriculae is supported by over 200 computers with a mixture of hardware platforms (PC and Mac) and operating systems (Windows, Linux, and Mac OS) distributed across more than 6 different labs. In addition to labs that support general-purpose computing, there are special-purpose labs for the in-depth study of topics such as database theory and practices, website design and interactive media, , human-computer interaction, etc.
- RIT provides broadband network access both on campus and to the Internet. Details of the connectivity of the campus are available at <http://www.rit.edu/its/services/tele/>.

Student Skills & Capabilities

- The graduate of this program will possess the software design skills, knowledge of technical tools and techniques, and the understanding of the managerial approaches and philosophies necessary to be successful in today's corporate software development environments. Students learn the central role of the software design process in the development of integrated solutions to problems. This includes software requirements, definition, specification development, design, implementation, and verification. Analysis and synthesis skills are emphasized along with the importance of business communication skills.
- The Software Development and Management curriculum is based on the Java programming language, and provides for a conceptual and comprehensive understanding of the issues involved in the software development field. The curriculum allows for flexibility by providing opportunities to study the software development lifecycle and management of the development process as well as other areas such as enterprise architecture and human-computer interaction.

Software Development and Management MS

Course Sequence MS degree

The Curriculum

The program of study of this graduate degree consists of 48 quarter-credits comprised of the software development and management core, two electives, and a software development project. Two (2) optional cooperative work experiences are possible.

The core foundation block includes seven (7) courses organized into two (2) topic areas:

Themes in Software Development & Management

Software Development:

- Object Technologies
- Data Modeling & Database Implementation
- Component Development

Project Management:

- Project Management
- Process Management
- Economics of Software Development

A business management elective

An upper-level concentration block of three (3) courses selected from the following topic areas:

Enterprise Architecture:

- Integration Technologies
- Data Architecture & Management
- System Architectures

Architecture Fundamentals:

- Data Architecture & Management
- Foundations of HCI
- A third course with faculty approval

Human Computer Interaction (HCI):

- Foundations of HCI
- Advanced Topics in HCI
- Usability Economics
- CSCW & Groupware

Other advanced concentration topics are possible with faculty approval

Employers of Software Development and Management Students:

Adobe, Cabletron, Eastman Kodak Company, Harris Corporation, IBM Corporation, Lockheed Martin, McNeil Consumer Products, Paychex, Texas Instruments, Xerox, U.S. Air Force.

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 Annette Stewart, the program coordinator who works with the Software Development and Management program. For your convenience, you can access information and services through our web site at <http://www.rit.edu/recruit>.

Annette K. Stewart

Program Coordinator

Office of Cooperative Education and Career Services

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