R·I·T

OFFICE OF COOPERATIVE EDUCATION AND CAREER SERVICES

http://www.rit.edu/recruit

COMPUTER SCIENCE

http://www.cs.rit.edu

PROGRAM OVERVIEW FOR EMPLOYERS

The goals of cooperative education for computer science students include the application of theory to real-world situations and the opportunity to work with others in a professional environment. Computer Science students show special interest and capabilities in areas requiring analytical abilities and problem solving skills. The requirements of the program prepare students for software development along with communication skills needed for team projects.

Degree(s) Awarded

Bachelor of Science (5 year)
Master of Science
Combined BS/MS Degree

Enrollment

Approximately 675 BS students; approximately 76 BS/MS students; approximately 300 MS students.

Cooperative Education Component

Students are required to complete four co-op work assignments. Co-op students are able to work 3 or 6 months at a time.

Salary Information (Avg/Range)

Co-op:	$18.60	$8.00 - $45.00
BS:	$64,000	$50,000 - $95,000
BS/MS:	$80,000	$76,000 - $95,000

Equipment & Facilities

Well over 100 workstations and servers. Linux operating systems environment. PC lab, MAC lab, and specialized labs in Graphics, Database, Distributed Systems, Document & Pattern Recognition, Computational Studies, Portable Eye Tracking, as well as several labs devoted to research and development.

Accreditation

The BS degree is nationally accredited by the Computing Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, Telephone (410) 347-7700.

Student Skills & Capabilities

- The CS Department emphasizes problem solving and the Object-Oriented paradigm, both in analysis and design (understanding the problem and crafting a suitable solution) as well as in implementation (writing code and documentation) and testing. Team and cooperative efforts are encouraged.

- Prior to starting the initial co-op work block, students have completed four quarters of problem solving and Object-Oriented design using three different programming languages (currently, Python, Java and C++). They have also completed two courses in Professional Communications and Software Engineering.

- After completing their 2nd or 3rd co-op: Students are capable of assisting in feasibility studies, analysis and design. They have a strong programming background and have developed skills in abstract and formal reasoning and are able to adapt to new concepts in the computer field. Students have also gained adequate self assurance and knowledge to competently carry out administrative duties such as training, coordinating, scheduling, project monitoring and making presentations.

Computer Science

Course Sequence BS degree

First and Second Years:
Problem-Based Introduction to Computer Science
Data Structures for Problem Solving
Object-Oriented Programming
Project-Based Calculus I, II, III
University Physics I, II, III or
General & Analytical Chemistry I, II, III & Labs or
General Biology I, II, III & Labs
Software Engineering
Computer Organization
Discrete Mathematics I, II
Probability
Professional Communications
Writing and Arts of Expression
FYE/Wellness
Free Electives & Liberal Arts

Third, Fourth, Fifth Years:
Introduction to CS Theory
Operating Systems I
Data Communications and Networks I
Programming Language Concepts
Computer Science Related Electives
Computer Science Electives
Related Electives or Minor
Liberal Arts
Science Electives
Free Electives
Cooperative Education (4 quarters)

Selected Upper Division Electives:

Graphics
- Computer Graphics 1
- Computer Graphics 2
- Computer Animation – Algorithms & Techniques

Data Management
- Database Concepts
- Database System Implementation
- Secure Database Systems
- Introduction to Data Mining

Languages and Tools
- XML – Architecture, Tools & Techniques
- Paradigms and Programming Skills
- Language Processors
- Programming Language Theory
- Compiler Construction
- Language Based Security

Computer Vision
- Introduction to Computer Vision
- Biologically Inspired Intelligent Systems
- Advanced Computer Vision

Intelligent Systems
- Artificial Intelligence
- Artificial Intelligence for Interactive Env.
- Neural Networks and Machine Learning
- Knowledge Based Systems
- Genetic Algorithms
- Pattern Recognition

Social and Professional Issues/Others
- Privacy and Security
- Honors Seminar
- Independent Study
- Seminars on Current Topics

Distributed Systems
- Parallel Computing 1
- Parallel Computing 2
- Data Communications & Networks 2
- Data Communications & Networks 3
- Ad-Hoc Networks

Architecture and OS
- Systems Programming 1
- Systems Programming 2
- Computer Architecture
- Operating Systems II
- Distributed Operating Systems 1
- Distributed Operating Systems 2

Theory
- Complexity & Computability
- Cryptography
- Analysis of Algorithms
- Computability
- Complexity
- Cryptography 2
- Theory of Computer Algorithms
- Xtreme Theory

Other opportunities include selected courses taken from: graduate Computer Science offerings, Software Eng, and Computer Eng.

Selected Employers of Computer Science Co-op and Graduating Students:

America Online, Apple Inc, Blackbaud, CA Inc, Carestream Health, Genius.com Inc, Google, Harris Corp, IBM, Innovative Solutions, Intel, Lockheed Martin, Microsoft, Minitab Inc, Moog Inc, Mozilla, National Security Agency, NVIDIA Corp, Ortho-Clinical Diagnostics, Paetec Communications, Paychex, Railcomm Inc, RightNow Technologies, Rochester Software Associates, SPARTA Inc., dba Cobham, Thomson Reuters, Vicarious Visions, Vicor Corp, Webster Financial Corp, Zoran Corp.

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 Kristine Stehler, the program coordinator who works with the Computer Science program. For your convenience, you can access information and services through our web site at http://www.rit.edu/recruit.

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