

# Computer Science



## program

### One Department – Three Majors

The computing field continues to expand, and that is reflected by the three majors within our department: Computer Science, Information Systems and Information Technology.

**Computer Science:** the science of computing. We deal with the theoretical and algorithmic foundations of computation. You will take an extensive core of computer science courses, as well as classes in mathematics and the natural sciences. Traditionally, computer scientists work in (a) designing and implementing software, (b) devising new ways to use computers and (c) develop effective ways to solve computing problems.

**Information Systems:** the application of computing. You will combine a core of computing classes with a concentration of courses in an allied area. The allied area is taken from the School of Business and prepares you to succeed in a business environment. Information Systems specialists integrate computing solutions and business processes to meet the information needs of businesses and other organizations.

**Information Technology:** Web-based computing. This degree prepares you to create highly dynamic information handling systems that are Web-based. The program focuses on the programming applications of the Internet and WWW: dynamic scripting, information processing and visual interfaces. You will take a strong core of computing courses, supported by classes in business, communications and art.

## Majors and Minors

### Majors:

- Computer Science (BS)
- Information Technology (BS)
- Information Systems (BS)

### Minors:

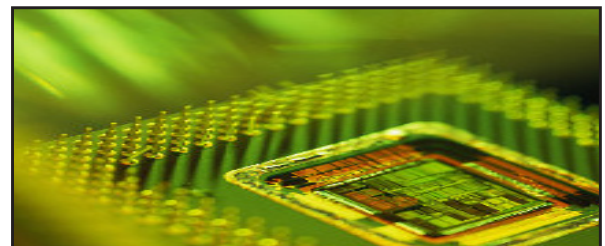
- Computer Science
- Information Technology
- Information Systems

<http://www.sru.edu>

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**Minors:** we have academic minors in all three of the majors. In particular, students from School of Business find the Information Systems minor to be very attractive. Majors in our department can enhance their job skills by adding a department minor. For example, the Information Technology major thinking of providing web services might add a minor in Information Systems to learn more of the business fundamentals.

SRU is very proud of the fact that two of these programs (computer science and information systems) have received the prestigious accreditation by the Computing Accreditation Commission of ABET, Inc. professional society. Dual ABET accreditation is a rare thing and we are pleased that our department has earned this honor. For the incoming student, our ABET accreditation assures you that we have a very high-quality academic program, as judged by our peers in the profession. We will be seeking accreditation for our IT program in the near future.



## career opportunities

Two of the top fastest growing occupations through 2016, according to the Bureau of Labor Statistics deal with computing. BLS predicts a 53% increase in demand for network analysts and a 45% increase for software engineers. SRU Computer Science will prepare you for this path. Currently our department has more requests from local businesses for computer internships than we have students to supply. We believe the employment prospects are excellent for students entering our program.

## student organizations

Student organizations include the Computer Technology Club (CTC) and the local chapter of the national honorary society for computing sciences, UPE (Upsilon Pi Epsilon). SRU sponsors student programming teams at the state, regional, and international levels.

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# Computer Science



## state-of-the-art technology



Slippery Rock University has named information technology as one of our "Areas of Distinction" and has made huge investments in the technical infrastructure on campus. The new \$14.5 million, 87,000 square foot Advanced Technology and Science Hall is the home for the Computer Science Department.

- Four fully-wired "smart classrooms" where each student has access to a workstation so the courses may seamlessly move from lecture mode to laboratory mode as we study computing.
- Unix/Graphics laboratory housing a mixture of PC's and high end graphics workstations that run the Linux operating system.
- Artificial Intelligence/Robotics laboratory which has a full complement of AI software and tools, along with mobile robots and robotic arms.
- PC laboratory is a general purpose lab supporting most courses in our curriculum, hosting a wide range of specialty software used by the CpSc courses. General purpose software is available in many labs across campus.
- Architecture laboratory which houses our prototyping equipment where students experiment with standard hardware components ranging from simple logic gates up through various computer architectures.
- A cluster computer, Gravel, consisting of 24 Dell hyperthreaded servers connected by a gigabit Ethernet network. Gravel was built and is managed by students in Computer Architecture. Students use it to explore distributed memory parallel processing, in much the same way IBM's famous Watson cluster operates. Another micro-cluster, Pebbles, consisting of four quadcore motherboards is housed in a portable frame where students can explore both shared-memory and distributed memory parallelism.
- Network laboratory features 90 servers for course use. Students will configure servers for a variety of services (HTTP, HCP, DNS, etc.) using both Unix and Windows operating systems.
- Undergraduate Research Projects laboratory is set up for those students collaborating with faculty members on current research projects. Every year some of our students get their research projects published.

## student opportunities

- Internships with area businesses. We regularly place students with companies ranging from the Bayer Corporation to US Steel, from the Pittsburgh Pirates to McKesson Robotics. Internships let you gain valuable work experience (and paychecks) along with academic credit. Each of our majors will allow you to apply three credits of Internship toward graduation.
- Our board of visitors is composed of two dozen area business leaders who advise the department on curricular matters. Each spring the board hosts a Job Shadow Day and an Industry Awareness Night. The shadow day teams students with professionals to let the student see a "day in the life" of a computer worker.
- Microsoft Developer's Network- Academic Alliance (MSDN-AA): we receive current versions as well as beta releases for all of Microsoft's development software (operating systems, servers, compilers, development environments, etc.). We may legally distribute this software to our students free of charge. Last year we gave away nearly \$250,000 worth of software to computing students at SRU.



## Contact Info:

### Admissions Office

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Slippery Rock University  
Slippery Rock, PA 16057  
Phone: 724-738-2015  
E-mail: [admissions@sru.edu](mailto:admissions@sru.edu)  
Campus Tours: 1-800-929-4778  
Web: [www.sru.edu/undergraduateadmissions](http://www.sru.edu/undergraduateadmissions)

### Department Contact:

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Slippery Rock University is an equal opportunity/affirmative action institution  
A member of the Pennsylvania State System of Higher Education

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