

INFORMATION SYSTEMS MANAGEMENT 2008-09



UNIVERSITY OF CALIFORNIA, SANTA CRUZ

THE INFORMATION SYSTEMS MANAGEMENT MAJOR

Information systems management (ISM) is a multidisciplinary major that focuses on the fusion of information systems, technology, and business management for two purposes: the use of information systems to solve business problems, and the management of technology, which includes new product development and supply chain management. It is a rigorous, challenging major for those students wanting to pursue careers in information systems management and the management of technology. To accomplish these objectives, students must learn the mathematics, science, and technical fundamentals of computer science and engineering as well as understand the environment in which information systems and technology management solutions will be applied, through economics, business, and management of technology courses.

STUDY AND RESEARCH OPPORTUNITIES

- ◆ B.S.
- ◆ Minor in Information Systems and Technology Management
- ◆ Intended for students who have an interest in both business and technology, especially computer systems

ADMISSION TO THE JACK BASKIN SCHOOL OF ENGINEERING (BSOE)

Please see the current *UC Santa Cruz General Catalog* for a full description of the BSOE admissions policy.

Freshman Applicants: Admission into a BSOE major is based on high school grade point average, test scores, courses completed in mathematics and sciences, and/or the personal statement. Applicants who are not accepted into the major at the time of admission to UCSC may still reapply for admission to the major after enrolling at UC Santa Cruz.

Transfer Applicants: Admission into the major will be based on the student's academic college record. Applicants are encouraged to take and excel in as many courses that are equivalent to the department's foundation courses as possible (see *Transfer Preparation* section). An applicant will be approved, conditionally approved, or declined. Only students who have completed most or all of the foundation courses will be approved or conditionally approved for the major.

HIGH SCHOOL PREPARATION

It is recommended that high school students intending to apply to the BSOE have completed four years of mathematics (through advanced algebra and trigonometry) and three years of science in high school, including one year each of chemistry, physics, and biology. Comparable college mathematics and science courses completed at other institutions may be accepted in place of high school preparation. Students without this preparation may be required to take additional courses to prepare themselves for the program.

TRANSFER PREPARATION

The BSOE strongly encourages applications from transfer students. Due to the prerequisite structure for upper-division courses, it is necessary for prospective transfer students to have completed as many of the lower-division requirements for the respective majors as possible to complete the degree within a reasonable time. Students must plan carefully because many courses must be taken sequentially. Applicants must take and excel in as many courses that are equivalent to the department's foundation courses as possible. UC Santa Cruz foundation courses in information systems management are:

- Computer Science 12A, *Introduction to Programming*
- Computer Engineering 16, *Applied Discrete Mathematics*, or Computer Engineering 16H, *Honors Applied Discrete Mathematics*
- Mathematics 19A and 19B, *Calculus for Science, Engineering, and Mathematics* (two quarters); or Economics 11A and 11B, *Mathematical Methods for Economists* (two quarters)
- Information Systems Management 50, *Business Information Systems*; or Economics 1, *Introduction to Microeconomics*, and Economics 2, *Introduction to Macroeconomics*

Transfer students should not follow the Intersegmental

General Education Transfer Curriculum (IGETC) because it will not provide transfer students with enough mathematics and engineering courses to allow them to complete these programs at UC Santa Cruz in two years.

In addition to the foundation courses required for admission, some transfer students may choose to take other articulated lower-division courses for the major. Such courses are listed on the web site www.assist.org. For a complete list of lower-division courses for the major, visit www.tim.ucsc.edu/undergraduates/curriculum.

INTERNSHIPS, FIELD WORK, AND EDUCATION ABROAD OPPORTUNITIES

Many students find internships and fieldwork to be a valuable part of their academic experience. They work closely with faculty and career advisers in the UC Santa Cruz Career Center to identify existing opportunities and often to create their own internships with local companies or in nearby Silicon Valley. For more information about internships, contact the undergraduate director of the ISM program or visit intern.ucsc.edu.

BSOE students may wish to develop their cross cultural competency, typically via the Education Abroad Program (EAP). Interested students must work very closely with the faculty and academic advisers in their major very early during the freshman or sophomore year to create a plan for transferability of course work towards graduation. For more EAP information, visit eap.ucop.edu/eap/country/default.htm.

FOR MORE INFORMATION

CAREERS

Systems analysis and design	Business process engineering
Applications development	Business analysis
Systems architecture development	Information systems management
Data warehousing and data mining	Information systems project management
Systems integration	Information technology sales/marketing
Product and technology management	Information technology technical support
Product and technology development	
Supply chain management	

These are only samples of the field's many possibilities.

For further information about the information systems management major, see:

reg.ucsc.edu/catalog/html/programs_courses/ismPS.html

The information systems management page of the BSOE web site can be found at:

www.tim.ucsc.edu/undergraduates

If you have other questions, contact:

Undergraduate Advising Office
Jack Baskin School of Engineering
1156 High Street
Santa Cruz, California 95064
www.soe.ucsc.edu/admissions
soeadmissions@soe.ucsc.edu
(831) 459-5840