COMPUTER SCIENCE

College of Science and Mathematics • The University of South Carolina

CAROLINA MAJORS

• The Department of Computer Science in the College of Science and Mathematics affords a comprehensive education in computer science with extensive facilities for practical, hands-on training, faculty active in broad areas of research and a liberal arts degree program.

• Department facilities include 20 DECStation 2100 workstations with color monitors, 18 Personal DECStation 5000 workstations with monochrome monitors, four IBM RS6000 workstations, one SGI Crimson Elan used for research, and two DECStation 5000 file servers with approximately nine GBytes of disk space. Approximately two-thirds of these workstations are available for student course work and research. The Department also has three microcomputer labs that are used by undergraduates. One of these labs contains Mac II's with color monitors. All of the Mac II's have 40 megabyte hard disks. The third lab contains IBM-compatible PCs. There are also two large Macintosh computer labs, used exclusively for the computer literacy and basic programming courses. Each of these two labs contains 25 Macintosh computers. There are two public terminal rooms with workstations and terminals, as well as terminals in all graduate assistant offices.

• Faculty research includes automata theory, computer vision, data bases, graphics, image and text processing, information systems, knowledge-based systems, scientific simulation and system architecture.

• The Department enrolls approximately 250 undergraduate and 100 graduate stations.

Degree Programs

The Department of Computer Science offers two baccalaureate degrees: the Bachelor of Science in Computer Information Systems, which is well suited for students planning a career in computing in business organizations, and the Bachelor of Science in Computer Science, which is a more intensive major, preparing students for professional practice as a computer scientist or for advanced research in graduate school. Both of these programs follow the guidelines for undergraduate computer science curricula recommended by the Association of Computing Machinery, the professional organization for computer scientists. Each of the curricula emphasizes a broad liberal arts background with specializations in computer science. The BSCS is accredited by the Computer Science Accreditation Commission (CSAC) of the Computing Sciences Accreditation Board (CSAB), a specialized accrediting body recognized by the Council on Postsecondary Accreditation and the U.S. Department of Education.

In order to earn the Bachelor of Science in Computer Information Systems degree a student must successfully complete 128 hours of approved courses; for the Bachelor of Science in Computer Science, completion of 130 hours of approved courses is necessary. The Bachelor of Science in Computer Information Systems degree requires 24 major hours of computer science; the Bachelor of Science in Computer Science requires 33 major hours of computer science; both degrees also require completion of 8 hours of introductory science before the major courses may be taken. Both programs contain courses which satisfy the general education requirements of the College of Science and Mathematics.

Graduate program in the Department of Computer Science lead to the degrees of Master of Science and Doctor of Philosophy.

Curriculum

Your studies in the Department of Computer Science will be structured, generally, around courses that fulfill general education requirements established by the College, courses that comprise a departmental major, courses that comprise a supporting cognate and several hours of electives.

During your first two years you will satisfy general education requirements such as English, foreign language, history, mathematics, social sciences, natural sciences and humanities. You must also complete two introductory computer science courses and one course each in discrete mathematics and calculus with a grade of "C" or above before you can enroll in any major-level course, generally in your sophomore year. The introductory courses provide a rigorous introduction to computer science, covering such areas as algorithmic design and programming in a high-level computer language, programming style and technique and an introduction to data structures.

Entrance and Progression

Your standing in the Department of Computer Science depends on your academic performance. You are expected to maintain a semester, yearly and cumulative grade point average of 2.0 on a scale of 4.0 You must also receive a minimum grade of "C" in each computer science course and you may enroll in any computer science course a maximum of twice to earn the required "C" or above. Your academic record for previous semesters will be reviewed at the end of each spring semester.

Careers in Computer Science

Specialists in the computer field work for business firms, computer compa-

nies, scientific and engineering laboratories, colleges and universities and governmental agencies. A strong academic background in computer science can lead to a variety of positions:

- Engineering and scientific programmers focus on computer applications mathematical in nature.
- Systems software programmers create or maintain operating systems, monitors, data base packages, compilers, assemblers and utility programs.
- Data base specialists design and control the use of an organization's data resources.
- Documentation specialists document programs and systems as well as user manuals, marketing publications and other information required to use computer systems.
- Senior analysts/project leaders are responsible for user liaison, system specification, systems design and project control.

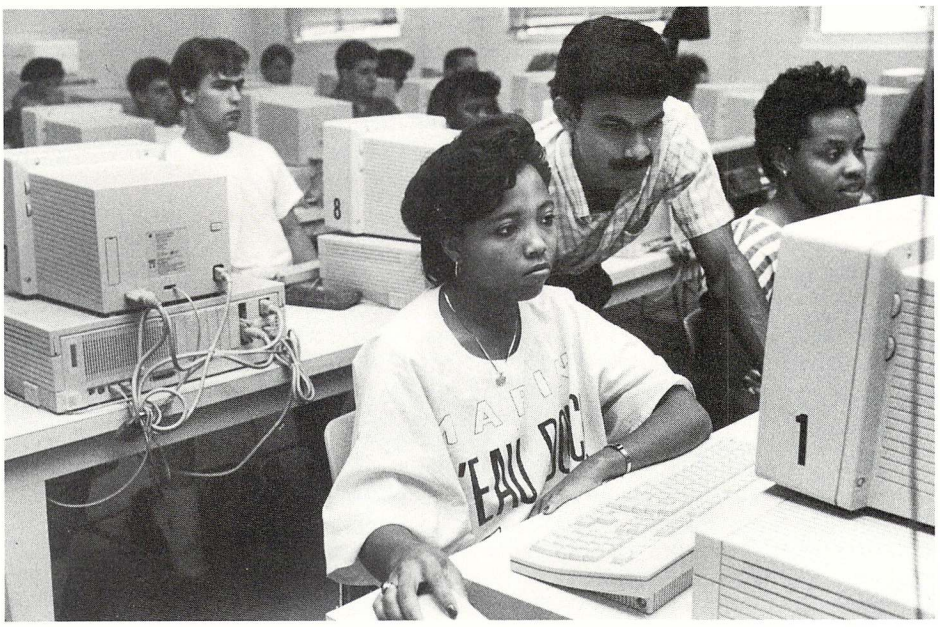
Management positions for computer science graduates include systems manager, data center operations manager and information systems director. Marketing positions involve sales representatives, marketing managers and technical support managers.

Awards

Annually, at USC's Awards Day, the Department of Computer Science gives an award to the outstanding senior in Computer Science. The NCR Corporation also gives annual awards to two outstanding computer science majors.

Planning Your Career

The University Career Center is available to assist you in choosing a career direction and in increasing your marketability upon graduation. Early in your freshman year, you may use the Offices of Assessment and Career Planning to take a career interest inventory, research possible majors and careers, visit the career library, or see a career counselor to plan your future.



In your sophomore and junior years you will want to take advantage of the opportunities for career-related work experience. As you approach your senior year, the placement office offers seminars on resume writing, interviewing, and job search, as well as orientation seminars that are designed to inform you about employment and graduate school opportunities after graduation.

Hundreds of employers including Fortune 500 companies, federal and state governmental agencies, school districts, regional and local businesses, and graduate schools recruit USC graduates every year. The average starting salary in 1992 for graduates with a bachelor's degree in Computer Science was over $28,000 per year. For additional information, call the University Career Center at 777-7280.

Plan A Visit

Plan a visit to the Department of Computer Science and the USC campus. Take some time to explore the Department and the University. You will find our community open to your inquiries. To schedule a visit, or for further information, contact: Department of Computer Science, Director of Undergraduate Studies, University of South Carolina, Columbia, S.C. 29208. Telephone (803) 777-7849.

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