College of Engineering and Computing

Hossein Haj-Hariri, Dean
Abel M. Bayoumi, Associate Dean for Corporate Relations
M. Hanif Chaudhry, Associate Dean for International Programs and Continuing Education
Csilla Farkas, Associate Dean for Diversity, Engagement, and Inclusion
Jed S. Lyons, Senior Associate Dean for Academic Affairs
Michael A. Matthews, Senior Associate Dean for Research and Graduate Studies
Ruth B. Patterson, Assistant Dean for Student Services
Paul H. Ziehl, Associate Dean for Research

Baccalaureate Degrees

The College of Engineering and Computing offers the following baccalaureate degrees:

- Aerospace Engineering, B.S.E. (https://academicbulletins.sc.edu/undergraduate/engineering-computing/mechanical-engineering/aerospace-engineering-bse/)
- Biomedical Engineering, B.S. (https://academicbulletins.sc.edu/undergraduate/engineering-computing/biomedical-engineering/biomedical-engineering-bs/)
- Chemical Engineering, B.S.E. (https://academicbulletins.sc.edu/undergraduate/engineering-computing/chemical-engineering/chemical-engineering-bse/)
- Civil Engineering, B.S.E. (https://academicbulletins.sc.edu/undergraduate/engineering-computing/civil-environmental-engineering/civil-engineering-bse/)
- Computer Engineering, B.S.E. (https://academicbulletins.sc.edu/undergraduate/engineering-computing/computer-science-engineering/computer-engineering-bse/)
- Computer Information Systems, B.S. (https://academicbulletins.sc.edu/undergraduate/engineering-computing/computer-science-engineering/computer-information-systems-bs/)
- Computer Science, B.S.C.S. (https://academicbulletins.sc.edu/undergraduate/engineering-computing/computer-science-engineering/computer-science-bscs/)
- Electrical Engineering, B.S.E. (https://academicbulletins.sc.edu/undergraduate/engineering-computing/electrical-engineering/electrical-engineering-bse/)
- Integrated Information Technology, B.S. (https://academicbulletins.sc.edu/undergraduate/engineering-computing/integrated-information-technology/integrated-information-technology-bs/)
- Mechanical Engineering, B.S.E. (https://academicbulletins.sc.edu/undergraduate/engineering-computing/mechanical-engineering/mechanical-engineering-bse/)
- Nuclear Engineering Minor (https://academicbulletins.sc.edu/undergraduate/engineering-computing/mechanical-engineering/nuclear-engineering-minor/)

Minors

The College of Engineering and Computing offers the following minors for qualified students:

- Aerospace Engineering Minor (https://academicbulletins.sc.edu/undergraduate/engineering-computing/mechanical-engineering/aerospace-engineering-minor/)
- Applied Computing Minor (https://academicbulletins.sc.edu/undergraduate/engineering-computing/computer-science-engineering/applied-computing-minor/)
- Chemical Engineering Minor (https://academicbulletins.sc.edu/undergraduate/engineering-computing/computer-science-engineering/chemical-engineering-minor/)
- Computer Science Minor (https://academicbulletins.sc.edu/undergraduate/engineering-computing/computer-science-engineering/computer-science-minor/)
- Data Science Minor (https://academicbulletins.sc.edu/undergraduate/engineering-computing/computer-science-engineering/data-science-minor/)
- Electrical Engineering Minor (https://academicbulletins.sc.edu/undergraduate/engineering-computing/electrical-engineering/electrical-engineering-minor/)
- Integrated Information Technology Minor (https://academicbulletins.sc.edu/undergraduate/engineering-computing/integrated-information-technology/integrated-information-technology-minor/)

A student in the College of Engineering and Computing may add to his or her program of study any minor listed in the Academic Programs A-Z (https://academicbulletins.sc.edu/undergraduate/programs-a-z/) section of this bulletin, provided the minor field of study is distinctly different from the major. Students completing the Computer Information Systems bachelor’s degree program automatically earn a minor in Business Information Systems. In most other cases, additional coursework is required to add a minor to a program of study.

Second Baccalaureate Degree

In accordance with the university’s Second Baccalaureate Degree, students may apply for two undergraduate degrees from the College of Engineering and Computing. In addition, the College of Engineering and Computing cooperates with other colleges in the awarding of two degrees. Often, coursework beyond the policy-specified minimum semester hour difference is required to complete the second degree.

Second Major

In accordance with the university’s Second Major policy, qualified students may apply for graduation with double majors in Computer Science and in Mathematics.
Accelerated Graduate Degrees

Accelerated Engineering and Computing Programs

Certain majors within the College of Engineering and Computing offer accelerated bachelor's/graduate degree programs in accordance with the procedures given under the “Academic Regulations” section of this bulletin. In such programs, undergraduate students may take coursework for graduate credit. The graduate credits may be applied to the student’s baccalaureate program. The number of such credits that may be applied towards an undergraduate degree and a graduate degree are determined by the associated degree programs.

Eligible undergraduate students must have completed at least 90 hours of undergraduate course work, must have both a cumulative and major GPA of 3.4 or better, and have the approval of their undergraduate advisor, the Graduate Director of the relevant graduate program, the Dean of Graduate Studies, and the instructor for each course to be taken. The credits must be earned during the student’s senior year. Interested students should complete the Application for Admission to an Accelerated Bachelor’s/Graduate Study Plan (http://gradschool.sc.edu/forms/G-BGCA.pdf), available from The Graduate School.

Accelerated International Masters in Business Administration

The College of Engineering and Computing and the Moore School of Business support the BS/IMBA program for undergraduate students in the College of Engineering and Computing. Under this program, undergraduate students with appropriate co-op or work experience and a GPA of 3.40, both overall and in their major field of study, may first submit an Application for Admission to an Accelerated Bachelor’s/Graduate Study Plan to the Graduate School for acceptance to the accelerated program during the semester in which they will have 90 undergraduate credit hours.

Students must also apply to the Moore School of Business for acceptance to the IMBA program. Satisfactory scores on the GMAT are required. Generally, the equivalent of at least one year of full-time professional experience is required for admission to the accelerated BS/IMBA program. Students will generally officially start taking IMBA core courses during the summer after they are within 30 hours of completing the undergraduate degree. The following year will be spent taking elective courses in the IMBA program. The first year of the IMBA program is tightly structured and provides little flexibility in scheduling, including the required internship. Courses remaining to complete the requirements for both programs will be taken during the second year of the IMBA program. Up to 9 hours of graduate courses may be used for dual credit in both programs. The specific courses must be approved by both programs for dual credit.

Cooperative Education

The Cooperative Education Program is an optional program designed to provide career-related work experiences, which can either alternate, or run concurrently with academic semesters. The purpose of the co-op experience is to give direction and enrichment to the student’s education, to help the student in career decision making, to improve after-graduation job prospects, and to enable students to pay for a significant portion of their college expenses.

To qualify for the co-op program, students must have completed 30 semester hours and have at least a 2.50 grade point average. The program requires that students participate in at least two work experiences, each equal to one academic semester, and maintain at least a 2.50 grade point average. Students are encouraged to enroll with the Engineering and Computing Career Services Office during their freshman year. More information is available from the Career Center’s co-op website (http://sc.edu/about/offices_and_divisions/career_center).
• Electrical Engineering, B.S.E. (https://academicbulletins.sc.edu/undergraduate/engineering-computing/electrical-engineering/electrical-engineering-bse/)
• Integrated Information Technology, B.S. (https://academicbulletins.sc.edu/undergraduate/engineering-computing/integrated-information-technology/integrated-information-technology-bs/)
• Mechanical Engineering, B.S.E. (https://academicbulletins.sc.edu/undergraduate/engineering-computing/mechanical-engineering/mechanical-engineering-bse/)

**Repetition of Coursework**

A student cannot repeat courses from the College of Engineering and Computing in which they earned a grade of C or better. In addition, a student cannot repeat any course from the College a second time. For this purpose, withdrawal from a course with a grade of W is not regarded as enrollment in that course. A student that does not satisfactorily complete a degree-required College course within two attempts must change major or transfer out of the College of Engineering and Computing.

A student can repeat no more than four courses from the College of Engineering and Computing in order to satisfy the requirements for any degree from the College, regardless of satisfactory work. For this purpose, withdrawal from a course with a grade of W is not regarded as enrollment in that course. A student not meeting these requirements must change major or transfer out of the College of Engineering and Computing.

**Departments**

• Biomedical Engineering (https://academicbulletins.sc.edu/undergraduate/engineering-computing/biomedical-engineering/)
• Chemical Engineering (https://academicbulletins.sc.edu/undergraduate/engineering-computing/chemical-engineering/)
• Civil and Environmental Engineering (https://academicbulletins.sc.edu/undergraduate/engineering-computing/civil-environmental-engineering/)
• Computer Science and Engineering (https://academicbulletins.sc.edu/undergraduate/engineering-computing/computer-science-engineering/)
• Electrical Engineering (https://academicbulletins.sc.edu/undergraduate/engineering-computing/electrical-engineering/)
• Integrated Information Technology (https://academicbulletins.sc.edu/undergraduate/engineering-computing/integrated-information-technology/)
• Mechanical Engineering (https://academicbulletins.sc.edu/undergraduate/engineering-computing/mechanical-engineering/)