

# COLLEGE OF ENGINEERING AND COMPUTING

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## 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/>)

The curricula for all baccalaureate degree programs include a set of courses that fulfill the general education requirements of the University and a set of courses that are specific to the major. Students have the opportunity to pursue specializations within these basic programs.

## 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/chemical-engineering/chemical-engineering-minor/>)
- Computer Science Minor (<https://academicbulletins.sc.edu/undergraduate/engineering-computing/computer-science-engineering/computer-science-minor/>)
- Cybersecurity Operations, Minor (<https://academicbulletins.sc.edu/undergraduate/engineering-computing/integrated-information-technology/cybersecurity-operations-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/>)
- Environmental and Sustainable Engineering Minor (<https://academicbulletins.sc.edu/undergraduate/engineering-computing/civil-environmental-engineering/environmental-sustainable-engineering-minor/>)
- Integrated Information Technology Minor (<https://academicbulletins.sc.edu/undergraduate/engineering-computing/integrated-information-technology/integrated-information-technology-minor/>)
- Mechanical Engineering Minor (<https://academicbulletins.sc.edu/undergraduate/engineering-computing/mechanical-engineering/mechanical-engineering-minor/>)
- Nuclear Engineering Minor (<https://academicbulletins.sc.edu/undergraduate/engineering-computing/mechanical-engineering/nuclear-engineering-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-az/>) 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.

## Multiple Baccalaureate Degree

Qualified students may pursue more than one degree from the College of Engineering and Computing either simultaneously or in subsequent terms in accordance with the university policy on Additional Majors and Baccalaureate Degrees. The College of Engineering and Computing also cooperates with other colleges in the awarding of multiple degrees. Students receive a diploma for each degree awarded.

Students must petition the undergraduate dean in the College of Engineering and Computing for approval to simultaneously pursue

multiple baccalaureate degrees involving an engineering and computing degree. Approval of such petitions is not guaranteed. If approved, the student accepts risk that timely graduation with multiple simultaneous degrees may be thwarted by progression requirements, course prerequisites, scheduling conflicts, max hours limits, and other circumstances. It is generally not possible to simultaneously complete the requirements of an engineering and computing degree and the requirements of another degree in four years (eight semesters) of full-time (18 credits per semester) study.

Students pursuing multiple simultaneous degrees must designate and be advised for one engineering and computing degree as the primary degree.

## One Degree with Multiple Majors

Qualified students may pursue the Bachelor of Science in Computer Science degree with double majors in Computer Science and Mathematics. In accordance with the university policy on Additional Majors (<https://academicbulletins.sc.edu/undergraduate/policies-regulations/undergraduate-academic-regulations/>) and Baccalaureate Degrees, students completing these requirements receive a single diploma. Students interested in other combinations of disciplinary credentials should consider a minor or multiple baccalaureate degrees, described above.

## Course Sharing Restrictions

The major requirements of a degree program are defined in category 4 of the program of study in the respective section of this bulletin.

A student may not use any course to satisfy both a major requirement and a minor requirement. In the case of multiple majors and degrees, a student may not use any course to satisfy both the requirements of one engineering and computing major and the major requirements of any other major or degree.

## Accelerated Graduate Degrees

College of Engineering and Computing students may pursue accelerated bachelors/graduate degree programs in accordance with the procedures given under the "Academic Regulations (<https://academicbulletins.sc.edu/undergraduate/policies-regulations/undergraduate-academic-regulations/>)" section of this bulletin. Eligible graduate programs include certificates, master's degrees, and doctoral degrees. The undergraduate and graduate programs need not necessarily be in the same major, but the specific courses must be approved by both programs for credit.

Interested students should complete the Application for Admission to an Accelerated Bachelor's/Graduate Study Plan, available from The Graduate School.

## 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/](http://sc.edu/about/offices_and_divisions/career_center/)).

## Program GPA Requirement

The College of Engineering and Computing requires that students have a Program GPA of 2.00 or better. A listing of courses included in the Program GPA for each degree program is maintained in the respective academic program section of this bulletin. The Program GPA computation will include all repeated grades, with the exception of those for which the university approved grade forgiveness has been applied. A student not meeting these requirements must change major or transfer out of the College of Engineering and Computing. Click the program link below for specific *Program GPA* information.

- 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/>)

## 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.

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/>)