

CORE Curriculum Requirements for CENG Majors

All SCU students must complete the University's CORE Curriculum. This thematic set of courses aims to instill the knowledge, habits of thought and action, and an orientation to society that the University believes will best prepare its graduates for personal and professional life after Santa Clara. Key components include the capacity for critical judgment, clear expression, ethical decision-making, and the concern for others; all of these being characteristic traits of a Jesuit education. The CORE Curriculum requirements listed below must be followed by all students entering the University as first-year students.

There are normally ten required humanities courses in the CORE Curriculum that all SCU students must complete. These courses satisfy the categorical requirements shown below. The CORE Curriculum web site and the CORE Curriculum Guide identify classes that fulfill each categorical requirement. Engineering students can complete one course that satisfies two of these requirements ("double-dip") as long as the course has been approved (visit <https://www.scu.edu/apps/courseavail/?p=schedule>, click on the "advanced" hyperlink) for both CORE categories.

- o Critical Thinking and Writing I and II (CTW1 and CTW2)
- o Cultures and Ideas I, II, and III (C&I-I, C&I-II, and C&I-III)
- o Religion, Theology, and Culture I, II, and III (RTC-I, RTC-II, and RTC-III)
- o Ethics
- o Diversity

CORE Curriculum requirements for Mathematics, Natural Science (with lab), and Advanced Writing for all engineering students are satisfied by completing required civil engineering major coursework. In addition to the base requirements, students also must complete coursework that satisfies five additional learning outcomes. To finish the civil engineering major in a four-year period, these learning outcomes should be satisfied using either strategically selected base CORE courses (from the list above), pre-approved required or elective major courses, or a pre-approved combination of courses.

The following table indicates the additional learning outcome topics and provides a listing of the pre-approved courses that can be used to satisfy each outcome.

Course Options for Specific, Supplemental Required CORE Curriculum Learning Outcomes				
Science, Technology And Society	Civic Engagement	Social Science	Arts	Experiential Learning
ENGL 181 & CENG 193	ENGR 1 & CENG 193	Various	ENGL 181 & CENG 193	Various

The SCU CORE Curriculum also requires that engineering students complete an approved three-course (12-unit) Pathway or cluster of thematically linked courses. Students will take these courses from a pre-approved Pathway that is administered by an associated group of faculty members. The pre-approved Pathways will offer many more than three course offerings; it is up to each individual student and his/her faculty advisor to select the most appropriate courses for a particular major. The table provided below lists Pathway options and recommendations for civil engineering students. All courses must be taken within the same Pathway; no mixing and matching is allowed.

Students must declare the Pathway that they intend to complete by the end of their sophomore year. Engineering students must take at least one Pathway course (minimum of four units) from outside their major department and any non-major Pathway course(s) should, where possible, satisfy other (base) CORE Curriculum requirements.

	Pre-approved Pathway Course Options/Recommendations for Civil Engineering Students			
	Digital Age	Sustainability	Values in Science & Technology	Design Thinking
Course #1	CENG 7	Two from CENG 20, 115, 119, 140, 143, 144, or 161	Two from CENG 115, 119, 140, 143, 144, or 161	8 units from CENG 119, 128, 148, 192A, or 193
Course #2	CENG 15			
Course #3 ^a	PHIL 22 or ENGR 19	PHIL 29 or RSOC 64	PHIL 29 or CHEM 11	PHIL 22 or ENGR 19

^a Departments occasionally change course numbers. Student should verify course numbers.

As part of the documentation (portfolio) requirements for the CORE Curriculum, students must submit a composite reflection paper during their senior year and three Pathway course-based papers that detail course projects. Formatting requirements and submission information are made available to students at the appropriate time.