



Dual Majoring With CS-Eng

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Computer Science in the College of Engineering is a contemporary and exciting major—and it is flexible enough to consider a dual major with another CoE department. Students considering adding a second major should be mindful of the following policies and potential opportunities for double-counting.

Course Double-Counting and Overlap Restrictions

1. **14 ADDITIONAL CREDITS:** Dual majors must complete an additional 14 credits of technical coursework beyond what's shared between two majors. See the next page for instructions on how to count these credits.
2. **MAJOR DESIGN EXPERIENCE:** Students must take a CS-Eng MDE course and achieve the minimum C grade. Note that this may be in addition to any senior design course required by the other major. Students must also complete full Technical Communications requirements for at least one major. All students must complete EECS 496 unless noted below.
3. **FLEXIBLE TECHNICAL ELECTIVES:** Flex Techs may be taken through the student's other major if the course is listed as approved on the CS-Eng Flex Tech Electives list:
<http://eecs.umich.edu/eecs/undergraduate/computer-science/electives.html>

Approved Exceptions By Program

Biomedical Engineering

- BIOMEDE 241 satisfies Statistics requirement.

Chemical Engineering

- CHE 360 & CHE 460 together satisfy Statistics requirement.

Civil & Environmental Engineering

- CEE 270 satisfies Statistics requirement.

Industrial & Operations Engineering

- IOE 265 satisfies Statistics requirement.
- TCHNCLCM 380 satisfies TCHNCLCM 300 requirement.

Engineering Global Leadership (EGL)

- ENGR 480 (or MFG 504) satisfies TCHNCLCM 300, and TCHNCLCM 497.

Mechanical Engineering

- ME 401 satisfies Statistics requirement.
- ME 395 and ME 495 satisfy TCHNCLCM 300 and TCHNCLCM 497 requirements.

Ross School of Business BBA

- TO 301 satisfies Statistics requirement.
- BCOM 250 & BCOM 350 together satisfy TCHNCLCM 300 requirement.
- ACC 301 **and** BL 305 (*BL 300 for those in the new BBA curriculum*) **and** MO 300 **and** STRAT 390 together satisfy EECS 496 requirement.

Counting the 14 Credits of Additional Technical Coursework

In the College of Engineering, dual majors must account for 14 credits of additional technical coursework, above and beyond any credits that are being shared between the two majors. The following guidelines govern the counting of such credits. Further information and clarification can be sought during an advising appointment.

1. Courses cannot be used to satisfy any requirement for the CS-Eng major, the Engineering Common Requirements, or Intellectual Breadth. Eligible courses typically appear in the General Electives category on the CS-Eng degree audit.
2. Courses must qualify as Flexible Technical Electives, according to the approved list in the CS-Eng Program Guide, found at eecs.umich.edu/eecs/undergraduate/computer-science/. *(Keep in mind—courses being used for the Flexible Technical Elective requirement for CS-Eng are not eligible. They must be above and beyond the total needed to satisfy this or any other requirement.)*
3. Courses must be taken for a grade, and passed with a C or higher. Pass/Fail courses are not permitted to count for this requirement.
4. Courses are subject to the 4-credit limit on Independent/Directed Study courses. Students who have exhausted this limit already within the CS-Eng Flex Tech requirement may not use any Independent/Directed study courses toward the 14 additional technical credits.

The chart below may be used as a planning tool to identify eligible courses for the requirement.

Course Subject (i.e. EECS)	Course Number (i.e. 405)	Credits	Found on approved Flex Tech list?	Not used for any other requirement?