

Modification to the Computer Engineering Category F Requirement

Background Information

1. CP students are currently required to complete 22 credits of electives.
2. These credits are divided into seven categories, viz., A-F and the Free Electives.
3. Students must take a minimum number of credits from each of the six categories A-F with the courses selected from pre-approved lists:
 - Category A: minimum 6 credits (least 3 at the 300/400-level)
 - Category B: minimum 3 credits
 - Category C: minimum 3 credits
 - Category D: minimum 2 credits
 - Category E: minimum 3 credits
 - Category F: minimum 3 credits
4. If a student takes the minimum number of credits from list A-F this comes to 20 credits.
5. The remaining 2 credits for CP Technical Electives are referred to as Free Electives.
6. The Free Electives can be satisfied by with courses from categories A-F.
7. Category F was recently modified to allow students to take a broad range of courses to satisfy the requirement, specifically:
 - a. Any 300 or 400-level course which uses the following prefixes and is not on a list of prohibited classes can be used to fulfill this requirement, provided it has at least one 200-level prerequisite in mathematics, science, or engineering.

AMSC, BCHM, BIOE, BSCI, CHEM, CMSC, ENAE, ENBE, ENCE, ENCH, ENEE, ENES, ENFP, ENMA, ENME, ENNU, ENRE, MATH, PHYS, and STAT.
8. This change to Category F was modeled on the EE General Technical Electives (GTEs).
9. However, under the EE GTEs, the Associate Chair can approve courses that do not begin one of the above prefixes if such courses are determined to be connected by a theme which is consistent with the student's stated professional goals.
 - a. One example of such an exception is the 300/400 level Gemstone courses, which have been approved for EE students. However, CP students are currently not allowed to use these courses to satisfy elective requirements.

Proposed Modification & Implications

- A. To make the elective requirement for CP students more equitable, it is proposed that the Associate Chair for Undergraduate Education be allowed to make the same exception for the Category F requirement as is currently the case for the General Technical Electives.
- B. The exception would be for a maximum of five credits.
 - Three credits for Category F proper and possibly the two remaining credits required to reach the necessary 22 elective credits.
 - This is four credits less than the maximum exception allowed for EE students.
- C. If approved, CP students would still be required to complete 17 total credits of elective coursework in engineering, mathematics, and/or the basic science.
 - For EE majors, the minimum requirement for elective coursework in these areas is 16 credits.

D. The proposed change will have no effect on the ABET required distribution of coursework between (i) mathematics & basic science and (ii) engineering.

- The current distribution, which will remain unchanged, for CP is:
 - Math/Basics Science: 31 credits
 - Engineering Topics: 62 credits
 - Total: 93 credits
- The current distribution for EE is:
 - Math/Basics Science: 32 credits
 - Engineering Topics: 55 credits
 - Total: 87 credits