Curriculum Flow Chart for the Computer Science in Engineering Major

1. A total of eight electives are required: Six course that total 18hrs of CS Technical, one of the six must satisfy the team project requirement and three from one focus area. Two Advanced courses at the 400-level in any field (CS 397 will count towards advanced courses but not Tech electives). See department website for up to date listings.

2. One Science elective. Check the CS website or check with a CS advisor for most up to date list.

3. CS 210 may be taken during semester 3 or later. (CS 225 does not need to be completed first)

4. If credit is earned for CS 225 and not yet taken CS 126, students must take CS 242 to meet degree requirements.
## Curriculum Plan: Engineering Computer Science (students who entered Fall 2018 or after)

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### General Education Requirements
- **Composition 1**
- **Advanced Composition**
- **3rd Level Language**

Those listed below must equal 18 total separate hours:
- **3hrs Humanities and the Arts**
- **3hrs Humanities and the Arts**
- **3hrs Social and Beh. Science**
- **3hrs Social and Beh. Science**
- **3hrs Western**
- **3hrs Non-Western**
- **3hrs US Minority (FA18 & after)**

### Math & Science
- **MATH 221 CALC I 4hrs or MATH 220 CALC 4hrs max for ENG degrees**
- **MATH 231 3hrs, CALC II**
- **MATH 241 4hrs, CALC III**
- **MATH 415 3hrs, Applied Linear Algebra**
- **PHYS 211 4hrs, Univ. Physics: Mechanics**
- **PHYS 212 4hrs, Univ Physics: Elec & Mag**
- **Science Elective—Check CS departmental website for complete list**

### Computer Science Courses
- **CS 100 1hr, Freshman Orientation**
- **CS 125 4hrs, Intro to Computer Science**
- **CS 126 3hrs, Software Design Studio**
  (Prereq CS 125) transfer students with 225 credit must take CS 242 to meet degree requirements
- **CS 173 3hrs, Discrete Structures**
  (Prereq CS 125 and CALC)
- **CS 210 2hrs, Ethical & Professional Issues**
  (Prereq CS 225)
- **CS 225 4hrs, Data Structures**
  (Prereq CS 125 and CS 173)
  - **CS 233 4hrs, Computer Architecture**
    (Prereq CS 125 and CS 173; CS 225 or concurrent)
- **CS 241 4hrs, System Programming**
  (Prereq CS 225; CS 233)
- **CS 357 3hrs, Numerical Methods I**
  (Prereq 1-- CS course, MATH 241; MATH 225 or 415)
- **CS 361 3hrs, Probability and Stats for CS**
  (Prereq Math 220 or 221; MATH 225 or 415)
- **CS 374 4hrs, Algorithms and Models of Comp**
  (Prereq CS 173 and CS 225)
- **CS 421 3hrs, Programming Languages and Compilers**
  (Prereq CS 233 and CS 374)

### 18hrs CS Tech Electives & Advanced Electives
(Minimum six CS courses, three must be from one focus area & one must satisfy the team project)
- **CS tech electives**
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- **CS tech electives**
- **CS tech electives**
- **CS tech electives/team project**

Check CS departmental website to determine if a course falls into a focus area.

### Advanced Electives (six hrs of 400 level credit from any area and can be additional CS courses, CS 397 may be used here)
- **400 level in ANY Department**
- **400 level in ANY Department**

### Additional Notes
- **128 hours required for graduation**

Working ahead in your CS coursework does not guarantee entrance into the next CS course.

Prerequisites means you need to have a successful grade earned before continuing.