SP23  ● FA23  ● SP24

## Department of Electrical Engineering and Computer Science
## Computer Engineering Catalog 2022

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| **Fall**<br>14 hours | **Math 132 or 141 or 147 (3-4) (QR) FA,SP,SU**<br>Prereq- Math 141 is ACT Math 28 or SAT Math 660<br>Prereq-Math 132 is Math 131; C or better grades | **EF 142 or 151 or 157 (4) (EI) FA, SP**<br>Coreq- Math 132/141/147 or higher<br>and EF 105 or CS 101 or CS 102 | **COSC 101* (3) FA, SP** | **English 101/118 or 198 or 131 (3) FA, SP, SU**<br>101 Regular; 118 Honors; 198 Chancellor Honors Only;<br>131 English as Second Language | |
| **Spring**<br>15 hours | **Math 142 or 148 (4) (QR) FA, SP, SU**<br>Prereq- Math 132 or 141 or 147 with C or better | **EF 152 or 158 (4) (EI and NS) FA, SP, SU**<br>Prereq- EF 142/151/157 with C or higher<br>Coreq- Math 142 or 148 with C or higher | **COSC 102 (4) FA, SP, SU**<br>Prereq- COSC 101 with C or better<br>Coreq- Math 132 or 141 or 147 with C or better | **English 102 or 290 or 298 or 132 (3) FA, SP, SU**<br>102 Prereq 101 or 118; 290 Prereq AP 101 credit<br>298 Prereq Chancellor Honors only & 198; 132 Prereq 131 ESL | |
| **Fall**<br>16 hours | **Math 231 or 237 (3) FA, SP, SU**<br>Prereq- Math 142 or 148 grade of C or<br>better | **ECE 201 (3) FA, SP**<br>Prereq- EF 152/158 and Math 142/148 grades C<br>or better, consent of Assoc. Dept. Head | **COSC 202 (4) FA, SP**<br>Prereq- COSC 102 with grade of C or better | **Physics 231 (3) FA, SP, SU**<br>Prereq- Math 135 or EF151 and 152<br>Coreq- Math 142 or 148 | **ECE 255 (3) FA, SP**<br>Prereq- COSC 102 with grade of C or<br>better |
| **Spring**<br>17 hours | **Math 241 or 247 (4) FA, SP, SU**<br>Prereq- Math 142 or 148 grade of C or<br>better | **ECE 202 (3) FA,SP, SU**<br>Prereq- ECE 201 with grade of C or better | **Math 251 or 257 (3) FA, SP, SU**<br>Prereq- Math 142 or 148 grade of C or<br>better | **ECE 256 (3) FA, SP**<br>Prereq- ECE 255 with grade of<br>C or better | **Chem 122 (3) and 123(1) or 128 (4) (NS) FA, SP, SU**<br>Prereq-Math 131 recommended<br>background in Math 131 |
| **Fall**<br>17 hours | **ECE 351 or 357 (3) FA, SP**<br>Prereq-ECE 255 with grade of C or better | **ECE 335 (3) FA, SP**<br>Prereq- ECE 202 with grade of C or better | **COSC 302 or 307 (4) FA, SP**<br>Prereq- COSC 202 with grade of C or better | **ECE 313 or 317 (3) FA, SP**<br>Prereq- Math 142 or 148 with<br>grade of C or better | **ECE 395 (1) (WC) FA, SP**<br>Prereq- ECE 202 with grade of C or<br>better and English 102, 132, 290 or 298 |
| | | | | | **Vol Core (3) FA, SP, SU**<br>Global Citizenship United States (GCUS) |
| **Spring**<br>16 hours | **ECE 315 (3) FA, SP**<br>Prereq- ECE 202 with grade of C or better | **COSC 311 or 317 (3) FA, SP**<br>Prereq- COSC 202 and Math 142 or 148 with<br>grades of C or better | **COSC 360 or 367 (4) FA, SP**<br>Prereq- COSC 302 or 307 with C or better; and<br>COSC 230 or ECE 256 with C or better | **ECE 356 or 358 (3) FA, SP**<br>Prereq-ECE 256 or COSC 230<br>with grade of C or better | **Vol Core (3) FA, SP, SU**<br>Arts and Humanities (AH) |
| **Fall**<br>17 hours | **ECE 401 (2) (OC) FA**<br>Prereq- ECE 315 or 351 or 357 with<br>grades of C or better | **Core Elective (3) FA, SP**\*\* | **Senior Elective (3) FA, SP**\*\*\* | **Senior Elective (3) FA, SP** | **Vol Core (3) FA, SP, SU**<br>Expanded Perspectives- choose from<br>AH, AAH, GCUS, GCI, or SS |
| | | | | | **Vol Core (3) FA, SP, SU**<br>Social Science (SS) |
| **Spring**<br>15-18 hours | **ECE 402 (3) (AOC) SP**<br>Prereq- ECE 401; ENGL 102, 132, 290,298<br>with grades of C or better | **Core Elective (3) FA, SP, SU** \*\* | **Senior Elective (3) FA, SP, SU** \*\*\* | **Vol Core (3) FA, SP, SU**<br>Global Citizenship International (GCI) | **Vol Core (3) FA, SP, SU**<br>Expanded Perspectives- choose from<br>AH, AAH, GCUS, GCI, or SS |
| | | | | | **Vol Core (0-3) (EI)***** FA, SP, SU**<br>Engaged Inquiry (EI) students will try to overlap<br>with Expanded Perspectives AND Engaged Inquiry |

\*Beginning students who have had high school computer science and/or who have had significant programming experience (e.g. summer institute study, special research projects, home laboratory) are invited to apply during the summer to the head of the EECS department for permission to take a proficiency exam for COSC 101. The EECS department also gives credit in COSC 101 to students who receive a score of 3 or better on the Computer Science A AP Exam.

\*\* Core electives, you must choose 2 courses from within the following list: COSC 340, COSC 361, COSC 366, ECE 433, ECE 453, ECE 455. Other courses not currently listed may count as core electives only with departmental approval.
500 level courses are mentioned as suggestions to students admitted into the Five Year BA/MS program. Up to 2 (two) COSC 5XX or ECE 5XX courses may count as core and/or senior electives.

\*\*\*Senior Electives, you choose 9 credit hours of computer engineering senior electives with your advisor's consent. Acceptable senior electives are ECE 4XX and COSC 4XX courses that are not otherwise required, with exception of COSC 422 that is not allowed.
500 level courses are mentioned as suggestions to students admitted into the Five Year BA/MS program. Up to 2 (two) COSC 5XX or ECE 5XX courses may count as core and/or senior electives.

**Progression**
**The department requires at least a C in every computer engineering, computer science, electrical engineering, and mathematics course used for the undergraduate degrees. ECE 201 requires a C or better in EF 152/158 and Math 142/148.**

Progression of departmental undergraduate students to the upper-division programs of the department is competitive and is based on the space available in the department. Factors considered in the decision include
overall grade point average, grades earned in courses required in the lower division curricula of the department and College of Engineering, and seriousness of purpose and interest in departmental programs as
exemplified by regular and orderly progress through the prescribed curriculum without abuse of withdrawal and course repeat privileges.

Students also have opportunities for an Honors Concentration and/or a five year BS/MS program. See the Undergraduate Catalog for details and requirements.

Volunteer Core courses highlighted in light orange.