

# Computer Engineering

Catalog Year 2024-2025

*Note: This is a recommended sequence and shifts are likely to occur due to prerequisite completion and course availability.*

Semester One	Semester Two
CSE 1010: Intro to Computing for Engineers (3 credits)	CSE 2050: Data Structures & O. O. Design (3 credits)
MATH 1131Q: Calculus I (4 credits)	MATH 1132Q: Calculus II (4 credits)
CHEM 1127Q: General Chemistry I (4 credits)	PHYS 1501Q: Physics for Engineers I (4 credits)
ENGL 1007: Writing and Composition (4 credits)	Gen Ed (3 credits)
UNIV 18XX (1 credit)	Gen Ed (3 credits)
<b>16 credits</b>	<b>17 credits</b>

Semester Three	Semester Four
CSE 2301: Prin. & Prac. Of Digital Logic Des. (4 credits)	CSE 2500: Intro to Discrete Systems (3 credits)
CSE 3100: Systems Programming (3 credits)	ECE 2001: Electrical Circuits (4 credits)
MATH 2110Q: Multivariable Calculus (4 credits)	MATH 2410Q: Elem. Differential Equations (3 credits)
PHYS 1502Q: Physics for Engineers II (4 credits)	PHIL 1104: Philosophy & Social Ethics (CA 1) (3 credits)
	Gen Ed (3 credits)
<b>15 credits</b>	<b>16 credits</b>

Semester Five	Semester Six
CSE 3150: C++ Essen. <b>or</b> CSE 3160: Funct. Prog. Fund.	CSE 4300: Operating Systems (3 credits)
CSE 3666: Intro to Computer Architecture (3 credits)	ECE 3401: Digital Systems Design (3 credits)
ECE 3101: Signals & Systems (3 credits)	ECE 3411: Microproc. App. Lab <b>or</b> CSE 4903: Microproc. Lab (3 credits)
ECE 3201: Electronic Circuit Des. & Analys. (4 credits)	STAT 3345Q: Probability Models for Engin. (3 credits)
MATH 2210Q: Applied Linear Algebra (3 credits)	Gen Ed (3 credits)
<b>16 credits</b>	<b>15 credits</b>

Semester Seven	Semester Eight
CSE 4302: Adv. Computer Architecture (3 credits)	ECE 3421: VLSI Design & Simulation (4 credits)
ECE 4901: ECE Design I (2 credits)	ECE 4902: ECE Design II (3 credits)
ECE 4900W: Communic. Engineer. Solutions (1 credit)	Professional Requirement (3 credits)
Professional Requirement (3 credits)	Professional Requirement (3 credits)
Design Laboratory (3 credits)	Free Elective* (3 credits)
Gen Ed/Free Elective (3 credits)	
<b>15 credits</b>	<b>16 credits</b>

\*as needed to reach total degree credits

*See reverse for important general education and major specific information.*

**Computer Engineering**  
**(BSE)**

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Qualifying MPE Score: \_\_\_\_ \*22+ need to register for MATH 1131Q and MATH 1132Q

**Competencies:**

- Language (waived; or complete through Elementary II; or Intermediate I if 2 years of same language in HS): \_\_\_\_
- ENGL 1007 or 1010 or 1011
- Writing (W course in major): ECE4900W
- Writing (W course): \_\_\_\_\_
- Environmental Literacy (E course): \_\_\_\_\_

\*W's and E's may also count at CA1, CA2, CA4 - Not considered "double dipping"

**Content Area One: Arts and Humanities:**

- PHIL 1104
- CA1 (not a PHIL course): \_\_\_\_\_

**Content Area Two: Social Sciences:**

- C A 2: \_\_\_\_\_
- Second CA2 (different department): \_\_\_\_\_

**Content Area 4: Diversity and Multiculturalism:**

- CA4 International: \_\_\_\_\_
- One additional CA4 course: \_\_\_\_\_

**Important Gen Ed/Competency Notes:**

- Appropriate courses may be [found here](#)
- Can search by general education requirement in College Scheduler found in Student Admin
- Content Area 3 met by lab sciences required for your major

**CSE Major Requirements:**

- CHEM 1127Q*
- Physics Lab Sequence: \_\_\_\_\_ + \_\_\_\_\_  
*Options: PHYS 1501Q+1502Q or PHYS 1201Q+1202Q+1230 or PHYS 1401Q+1402Q*
- Probability & Statistics Course: \_\_\_\_\_  
*Options: MATH 3160, STAT 3025Q, STAT 3345Q, STAT 3375Q*
- 9 credits of professional requirements: \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_  
*Options: CSE 2102, CSE 3300, CSE 3400, CSE 3500, CSE 3504, CSE 3802/ECE 3431, CSE 4400, CSE 4709, ECE 3111, ECE 3221, ECE 4112, ECE 4121, ECE 4131, ECE 4451*
- At least one of ECE 4112 or CSE 3504: \_\_\_\_\_
- Design Laboratory: \_\_\_\_\_  
*Options: CSE 3350/ECE 4401, ECE 4402, ECE 4414, ECE 4132*

**Double Dipping**

- Single course counts as a CA1&CA4 OR CA2&CA4
- Only allowed to double dip ONCE
- Double dipping is not required
- If double dipping, you are responsible for taking an additional 3 credit free elective

Double Dipped course: \_\_\_\_\_