



2020 Suggested Courses for General Engineering (GENE) 2020 – 2021 Catalog

1) Major course options:

- **May already be fulfilled with transfer credit; check prerequisites**
- ME 211 (3)^: Engineering Statics
or ME 212 (3)^: Engineering Dynamics
or ME 302 (3): Thermodynamics I
or/and ME 341 (3): Fluid Mechanics I
- CE 204 (3)*: Mechanics of Materials I
or CE 207 (2)*: Mechanics of Materials II (this course is required for the General Curriculum Concentration; see notes below)
- EE 201 (3) & EE 251 (1): Electric Circuit Theory and Laboratory
- MATE 210 (3) & MATE 215 (1): Materials Engineering and Materials Laboratory I
- CPE/CSC 101 (4): Fundamentals of Computer Science I
- IME 144 (4): Introduction to Design and Manufacturing
- IME 314 (3): Engineering Economics
or IME 315 (3): Financial Decision Making for Engineers

2) Support course options:

- **May already be fulfilled with transfer credit; check prerequisites**
- MATH 344 (4): Linear Analysis II
or STAT 312 (4): Statistical Methods for Engineers
or STAT 350 (4): Probability and Random Processes for Engineers
- BIO 213 (2) & BMED 213 (2): Life Science for Engineers & Bioengineering Fundamentals
- [Physical Science Electives](#)

Concentration course options (General Curriculum Only):

- CE 204 (3)*: Mechanics of Materials I
or CE 207 (2)*: Mechanics of Materials II
 - If you have taken equivalent to CE 204 but not CE 207, enroll in CE 207.
 - If you still need CE 204 and CE 207, you can take them separately over two quarters OR enroll in CE 208 (5): Mechanics of Materials, which is designed specifically for transfers students this fall quarter. This course combines CE 204 and CE 207.
- CPE/EE 133 (4): Digital Design
- CSC 202 (4): Data Structures
- EE 321 (3) & EE 361 (1): Electronics and Laboratory

***Course is required or strongly recommended in fall due to course availability or prerequisites**

^Course should be taken as soon as possible

3) General Education (GE) course options

- **May already be fulfilled with transfer credit; check prerequisites**
- Any remaining lower division GE course(s).
- GE C4
- The [Graduation Writing Requirement \(GWR\)](#) must be fulfilled before graduation by either enrolling in a GWR-approved, upper-division English course (which can double-count with the Upper-Division C) OR by registering for the Writing Proficiency Examination (WPE). GWR courses are searchable on Schedule Builder.
- The [United States Cultural Pluralism \(USCP\)](#) requirement must be satisfied before graduation. USCP courses may double-count with a remaining GE requirement and are searchable on Schedule Builder.

4) Additional notes:

- Recommended that you enroll in 12 – 16 units.
- Transfer students should not take ENGR 110. Two units of an engineering introduction course from a previous institution may substitute for ENGR 110; talk to the GENE Director about an appropriate substitution. For the Individualized Course of Study (ICS) Concentration, the substitution must be noted on your ICS form. For the General Curriculum, a course substitution petition is required (available at Engineering Student Services).
- Meet with the GENE Director (who also serves your faculty advisor) to discuss your concentration choice during fall quarter and to guide your future course selection.
- Concentrations: we encourage you to declare your concentration during your first year.
[Concentration options for your major](#)
[Instructions for declaring your concentration](#)

5) Engineering Student Services:

Engineering Advising | Multicultural Engineering Program | International Exchange Program
Location: Building 40, Room 115
Phone: 805-756-1461

[Email](#)

[Website](#)

6) GENE Department:

Location: Building 13, Room 263
Phone: 805-756-6339

[Email](#)

[Website](#)

Permission Numbers for Major and Support Courses

- Departments may issue [permission numbers](#) which are special codes used for students to enroll in classes that have seats reserved for majors, or to override registration errors. For assistance with permission numbers, Dr. Jansen (GENE Program Director) recommends sending an email to the department that offers the course you want, specifically the department's administrative coordinator with the section number you want and a brief description, please also copy Dr. Jansen (djansen@calpoly.edu) on the email.