

**ENGINEERING**

**Thinking about a Career in Engineering?**

**Orientation: Tuesday, August 22, 6PM–8PM, STEM Center, Room 834**

Attend the Orientation to get an overview about careers in engineering and learn about Cabrillo's engineering program and the required courses to complete prior to transferring to public and private universities.

For more information about the engineering program:  
[www.cabrillo.edu/academics/engineering](http://www.cabrillo.edu/academics/engineering).

For course sequences and flowchart, visit:  
[www.cabrillo.edu/academics/engineering/](http://www.cabrillo.edu/academics/engineering/)

**ENGR 1A Surveying**

Applies theory and principles of plane surveying: office computations and design; operation of surveying field equipment; and production of engineering plans/maps. Fall semester only. Prerequisite: MATH 3 or high school trigonometry or MATH 4 or equivalent skills. Recommended Preparation: ENGR 25 (may be taken concurrently); Eligibility for ENGL 1A/1AH/1AMC/1AMCH and READ 100. Transfer Credit: Transfers to CSU;UC

Section	Days	Times	Units	Instructor	Room
98585	M	6:00PM-9:05PM	4.00	P.Campbell	810
&	M	9:15PM-10:05PM		P.Campbell	810
&	Arr.	Arr.		P.Campbell	810

Meets 36 hr field lab arranged over seven Saturdays: 9/23, 10/7, 10/21, 11/4, 11/18, 12/2, and 12/9 from 9:30AM-4:00PM.

**ENGR 5 Engineering as a Profession**

Provides information to evaluate the engineering profession as a personal career choice. Recommended Preparation: ENGL 100 or ESL 100 and ENGL 100L or Assessment into ENGL 1A; READ 100. Transfer Credit: Transfers to CSU;UC

Section	Days	Times	Units	Instructor	Room
98589	TH	11:00AM-2:05PM	2.00	J.Panzardi	810
Meets 11 weeks 8/31-11/9.					
98588	TH	2:30PM-5:35PM	2.00	J.Panzardi	810
Meets 11 weeks 8/31-11/9.					

**ENGR 10 Engineering Communication**

Develops written, computer and oral communication skills in analyzing and presenting data in solving engineering problems. Prerequisite: ENGL 1A/1AH/1AMC/1AMCH. Recommended Preparation: READ 100. Transfer Credit: CSU; UC, WITH CONDITIONS: In order for transfer credit to be granted for ENGR 10, ENGR 5 must also be taken.

Section	Days	Times	Units	Instructor	Room
98583	T	2:30PM-4:35PM	2.00	K.Groppi/E.Weeks	810
&	T	4:45PM-5:35PM		K.Groppi/E.Weeks	810

**ENGR 12 Machining Processes**

Provides hands-on experience with fabrication of mechanical components and assemblies using conventional, automatic, and numerical control tools. Recommended Preparation: ENGL 100 or ESL 100 and ENGL 100L or Assessment into ENGL 1A; READ 100. Transfer Credit: Transfers to CSU

Section	Days	Times	Units	Instructor	Room
99528	T	6:00PM-6:50PM	1.50	Staff	810
&	T	7:00PM-9:05PM		Staff	810

Due to safety concerns caused by the use of potentially hazardous equipment, students must be 18 years of age or older to enroll in ENGR 12.

**ENGR 25 Graphics and Design**

Applies principles of engineering drawing in visually communicating engineering designs using freehand sketching, instrument drawing, and computer-aided drafting/design using AutoCAD. Prerequisite: MATH 153 or MATH 3 or MATH 4 or high school geometry. Recommended Preparation: ENGL 100 or ESL 100 and ENGL 100L or Assessment into ENGL 1A; READ 100. Transfer Credit: Transfers to CSU;UC

Section	Days	Times	Units	Instructor	Room
98586	MW	2:30PM-3:50PM	4.00	K.Groppi	810
&	MW	4:00PM-5:20PM		K.Groppi	810

**ENGR 45 Engineering Materials**

Presents the properties and performance of engineering materials and their relationship to the internal structure of materials. Fall semester only. Prerequisites: PHYS 4A and CHEM 1A and ENGL 1A/1AH/1AMC/1AMCH. Recommended Preparation: ENGR 10 and CHEM 1B and READ 100. Transfer Credit: Transfers to CSU;UC

Section	Days	Times	Units	Instructor	Room
98587	TTH	9:30AM-10:50AM	4.00	K.Ewald	801
&	F	9:30AM-12:35PM		K.Ewald	810

Due to safety concerns caused by the use of potentially hazardous equipment, students must be 18 years of age or older to enroll in ENGR 45.