

## Academic Requirements Worksheet: Civil Engineering (CE)

Effective Fall 2018 Catalog and Beyond

To help you complete your degree in a timely manner and not take more units than absolutely necessary, there are ways to use single courses to meet more than one requirement (overlap). There is no way to list all possible overlaps, so please complete this form with a professional advisor. We can help you identify the best course of action.

<b>Graduation Requirements</b>	<b>√</b>
<i>Items with * require C- or better</i>	
<b>Total Unit Requirements:</b>	
# Total units required for a CE BS	<b>124 units</b>
# Total major-related units	<b>94 units</b>
# Total units outside of major	<b>30 units</b>
<b>American Institutions:</b>	
# US History: <i>Recommend HIST 17A or HIST 17B</i>	
# US Constitution: <i>Recommend POLS 1</i>	
# CA State & Local Government: <i>Recommend POLS 1</i>	
Race & Ethnicity in American Society (R+E): _____	
<b>English Composition &amp; GWAR:</b>	
1. Written Communication: ENGL 5(M) or 10/11(M)*	
2. Second Semester Composition: ENGL 20(M)*	
3. Writing Portfolio, WPJ Exam, or ENGL 109W(M)	
4. Writing Intensive (WI) Course*: _____	
Foreign Language (FL)	<b>EXEMPT</b>

√

<b>Next Semester Course Options</b>	<b>(Units)</b>
1. _____	( )
2. _____	( )
3. _____	( )
4. _____	( )
5. _____	( )
6. _____	( )
<b>Total Units: _____</b>	
<b>To Do:</b>	
_____	
_____	
_____	

**\*\*GR/GE may change if you change your major\*\***

<b>General Education for Engineering</b> <i>Items with * require C- or better</i>				
Area A: Basic Subjects (6 units)	Suggestion or Requirement	Course	Semester	Grade
A1. Oral Communication*	COMS 4 or COMS 5			
A2. Written Communication*	ENGL 5(M) or ENGL 11(M)			
Area B: Physical Universe & Its Life Forms (12 units)				
B1. Physical Science & B3. Lab*	Met by major: PHYS 11A/CHEM 1E			
B2. Life Forms	<i>Recommend: ENV 10</i>			
B4. Quantitative Reasoning*	Met by major: MATH 30			
B5. Upper Division GE*	Met by major: CE 160 and CE 160L			
Area C: Arts & Humanities (12 units)				
C1. Arts				
C2. Humanities				
Second Semester Composition*	ENGL 20(M)			
Any Area C Upper Division Course*	<i>Recommend: Writing Intensive</i>			
Area D: The Individual & Society (12 units)				
U.S. History	<i>Recommend: HIST 17A or HIST 17B</i>			
U.S. Constit., CA State, & Local Govt	<i>Recommend: POLS 1</i>			
Any Area D Course				
Upper Division Area D Major Course*	Met by major: CE 190A			
Area E: Understanding Personal Development (3 units)				
3 units of Area E Major Courses*	Met by major: CE 1 & CE 4			

# Civil Engineering Course Check List

## Fall 2020-Spring 2021 Catalog

**\*\*Disclaimer\*\***

The below list is not to be used to plan out your courses. It is only used as a check list to reflect your progress within your program. For course planning assistance, please speak with an academic advisor or faculty member to assist you.

All the courses on this list must be passed with a **C-** or better.

### Lower Division Requirements

Code	Title	Pre-req	Units	<input checked="" type="checkbox"/>
CE 1	Civil Engineering Seminar		1	
CE 4	Engineering Graphics and CAD		2	
CE 9/L	Plane and Topographic Surveying	MATH 30 (concurrently) & CE 9/L (concurrently)	3	
CHEM 1E	General Chemistry for Engineering	Chemistry Diagnostic Exam & MATH 30 eligibility	4	
ENGR 30	Analytic Mechanics: Statics	MATH 31 & PHYS 11A	3	
ENGR 45	Engineering Materials	MATH 30 & CHEM 1E (concurrently)	3	
MATH 30	Calculus I	ALESK PPL: Score of 76 or MATH 29 or AP Credit	4	
MATH 31	Calculus II	MATH 30	4	
MATH 45	Differential Equations	MATH 31	3	
MATH 35 or MATH 100	Introduction to Linear Algebra Applied Linear Algebra	MATH 30 MATH 31	3 3	
PHYS 11A	Mechanics	MATH 30 & MATH 31 (concurrently)	4	
PHYS 11C	Electricity and Magnetism	PHYS 11A & MATH 31	4	

### Upper Division Requirements

ENGR 110	Analytic Mechanics – Dynamics	ENGR 30, MATH 45, & Math 35/100	3	
ENGR 112	Mechanics Of Materials	ENGR 30, ENGR 45, Math 45, & CE 4 (concurrently)	3	
ENGR 115	Statistics For Engineers	MATH 31 (concurrently)	3	
ENGR 132	Fluid Mechanics	ENGR 110 (concurrently)	3	
CE 100	Engineering Geology	ENGR 112 (concurrently)	2	
CE 101	Computer Applications in CE	ENGR 30, CE 4 (concurrently)	3	
CE 130/L	Water Resources Engineering	CE 1, CE 101, ENGR 115, ENGR 132, CE 130/L & WPJ	4	
CE 140/L	Transportation Engineering	CE 1, CE 9/L, CE 101, ENGR 115, CE 140/L & WPJ	4	
CE 150/L	Principles of Environmental Engr	CHEM 1E, ENGR 115, CE 1, CE 101 (concurrently) & CE 150/L	3	
CE 150B (151)	Environmental Engineering Practice	CE 150	2	
CE 160	Introduction to Structural Analysis	CE 1, CE 101, ENGR 112, & MATH 35/100	3	
CE 160L	Structural Lab	CE 101, ENGR 112 & WPJ	1	
CE 170C (170)/L	Soil Mechanics	CE 1, CE 100, CE 101, ENGR 112, CE 170C/L & WPJ	4	
CE 190A (190)	Civil Engineering Project Skills	CE 137 or CE 147 or CE 161 or CE 170A or CE 171A	3	
CE 191	Senior Project	CE 190A (190); final semester	3	

### Major Electives

CE Elective	Design Elective	Please see a Faculty Advisor	3	
CE Elective	Design Elective	Please see a Faculty Advisor	3	
CE Elective	Design or Non-Design Elective	Please see a Faculty Advisor	3	
CE Elective	Design or Non-Design Elective	Please see a Faculty Advisor	3	
<b>Total Units: 94</b>				

### Any Questions?

**Please visit the ECS Student Success Center – Advising, Counseling, and Tutoring Center in Santa Clara 1213**

**Or the Civil Engineering Department in Riverside 4024**

Hub for online student resources including major roadmaps, catalogs, Academic Advising Worksheets, Placement exams, and online resources: <https://www.csus.edu/college/engineering-computer-science/student-success/student-resources.html>