

ORANGE COAST COLLEGE

TRANSFER CURRICULUM GUIDE

ENGINEERING

Civil Engineering

LOWER DIVISION MAJOR REQUIREMENTS FOR TRANSFER

The following courses should be taken at OCC prior to transfer. Courses not offered at OCC will need to be taken after transfer unless otherwise noted. Four-year colleges and universities often make changes in their requirements for majors. The information contained in this guide is based on the most recent information available from the four-year school and does not constitute an official agreement.

Recent updates to this guide can be found on the Transfer Center Website at:

www.occ.cccd.edu/departments/studentsvcs/transferctr

UNIVERSITY OF CALIFORNIA, BERKELEY

Notes: Admission to the College of Engineering is highly competitive. Selection is based on the completeness of lower division preparation, GPA and the applicant essay. The college reviews the essay for evidence of interest in the chosen field and a thoughtful match between the academic program and the academic and career objectives. You must complete all of the required lower division courses by the end of the spring term prior to fall enrollment to be eligible for admission. Summer coursework is not considered to be “work in progress” for fall selection. English 100 & 101(or 101H) must be completed with a letter grade and is a prerequisite for admission. IGETC is not acceptable for this major. When courses are listed as a series, you must complete entire series. No partial credit is given. All required and strongly recommended courses must be taken for a letter grade.

Breadth Requirements:

1. ENGL 100 & 101(or 101H)
2. **Two 3-unit GE breadth courses from:** Arts & Literature, Historical Studies, International Studies, Philosophy & Values or Social & Behavioral Sciences
3. Two additional upper division courses taken after transfer.

AP Credit for Engineering Majors:

Course	Score
Biology	score of 4 or 5 = BIOL 1A/AL & 1B
Chemistry	score of 3, 4 or 5 = CHEM 1A/1AL
English	score of 4 or 5 = ENGL R1A only
Calculus (AB/BC Exam)	score of 4 or 5 = MATH 1A
Calculus (BC Exam)	score of 5 = MATH 1AB
Physics (Mechanics C Exam)	score of 5 = PHYS 7A

BACHELOR OF SCIENCE CIVIL ENGINEERING

UCB	OCC	(3/15:A16-17)
Required Courses		
CHEM 1A/AL	CHEM 180	
CHEM 1B <u>or</u> PHYSICS 7C	CHEM 185 <u>or</u> PHYS 285	
MATH 1A	MATH 180(or 180H)*	
MATH 1B	MATH 185(or 185H)*	
MATH 53	MATH 280(or 280H)	
MATH 54	MATH 285(or 285H)	
PHYS 7A	PHYS 185	
PHYS 7B	PHYS 280	Continued

UCB	OCC	(3/15:A16-17)
ENGL R1AB	ENGL 100 & 101(or 101H)	
Strongly Recommended Courses		
BIOL 1B	BIOL 185 & 183/183L	
CIV ENG C30	No Equivalent Course	
CIV ENG 60	No Equivalent Course	
CIV ENG 11 or 70	No Equivalent Courses	
CIV ENG 93	No Equivalent Course	
ENGIN 7	No Equivalent Course	
*MATH 182H is also equivalent to MATH 1AB.		

UNIVERSITY OF CALIFORNIA, IRVINE

BACHELOR OF SCIENCE IN CIVIL ENGINEERING

UCI	OCC	(3/15:A16-17)
Required Courses		
MATH 2AB	MATH 180(or 180H) & 185(or 185H)*	
MATH 2D or 2E	MATH 280(or 280H)	
MATH 3A	MATH 235 or 2805(or 285H)	
MATH 3D	MATH 285(or 285H)	
PHYS 7CD, LC/LD	PHYS 185 & 280	
CHEM 1ABC, LC	CHEM 180 & 185**	
ENGRCEE 20	No Equivalent Course	
ENGRCEE 21	No Equivalent Course	
ENGRCEE 30	ENGR 280	
ENGRCEE 81AB	No Equivalent Courses	
ENGRCEE 11	No Equivalent Course	
ECON 20A	ECON 170	
ECON 20B	ECON 175	
ENGRCEE 60 or SOCECOL E8	No Equivalent Course or ECOL 100	
Additional Electives		
EECS 70A	ENGR 285	
BIO SCI 93	BIOL 180	
*MATH 182H will also satisfy this requirement.		
**Articulation based on entire sequence - complete entire year.		
Important Note: Preference is given to students with the highest grades overall who have completed the required courses with a grade of "C" or better by the end of the spring term prior to transfer.		

UNIVERSITY OF CALIFORNIA, LOS ANGELES

Requirements for Admission:

Admission to an engineering major as a junior level transfer is very competitive. All courses must be taken for a letter grade. The most important selection criteria are completion of required prep courses and academic performance. A minimum transferable cumulative GPA of 3.4 is required for consideration. Prep courses should be completed by the end of the spring term prior to fall enrollment. Alternate major applicants will not be considered. Breadth and GE requirements may be fulfilled by completion of IGETC. Although not required to complete the HSSEAS GE requirements for admission, it is beneficial for students to complete one course from each of the following areas: arts, humanities, social sciences and life sciences. Partial IGETC is not accepted. Visit the listed websites for further information: <http://www.engineer.ucla.edu> and <http://www.admissions.ucla.edu>

BACHELOR OF SCIENCE IN CIVIL ENGINEERING

UCLA	OCC	(3/15:A16-17)
Courses required for admission:		
CHEM 20AB, 20L	CHEM 180 & 185	
MATH 31AB	MATH 180(or 180H) & 185(or 185H)*	Continued

UCLA	OCC	(3/15:A16-17)
MATH 32AB	MATH 280(or 280H)	
MATH 33AB	MATH 285(or 285H)	
PHYS 1ABC, 4AL	PHYS 185, 280 & 285**	
ENGLCOMP 3	ENGL 100	
Computer Programming	CS 250	
A second course in English composition from: ENGL 101, 101H, 102, 102H, PHIL 150		
Additional Requirements (Strongly Recommended):		
COM SCI 31 <u>or</u> C&EE M20	CS 150 <u>or</u> No Equivalent Course	
C&EE 101	No Equivalent Course	
C&EE 108	No Equivalent Course	
MAT SCI 104	No Equivalent Course	
*MATH 182H is also equivalent to MATH 31AB.		
**Entire physics sequence should be completed at OCC.		

CALIFORNIA STATE UNIVERSITY, LONG BEACH

BACHELOR OF SCIENCE IN CIVIL ENGINEERING

CSULB	OCC	(3/15:A16-17)
CHEM 111A	CHEM 180	
C E 101	No Equivalent Course	
C E 130/130L	No Equivalent Courses	
C E 200/200L	No Equivalent Courses	
C E 205	ENGR 280	
C E 206/206L	No Equivalent Courses	
ENGR 101	No Equivalent Course**	
ENGR 102	No Equivalent Course**	
MATH 122	MATH 180(or 180H)*	
MATH 123	MATH 185(or 185H)*	
MATH 224	MATH 280(or 280H)	
MAE 172	ENGR 180 <u>or</u> MACH 152	
PHYS 151	PHYS 185+	
BIOL 200 <u>or</u> BIOL 201	BIOL 100(or 100H)@ <u>or</u> BIOL 210	
E E 210/210L <u>or</u> PHYS 152	No Equivalent Courses@ <u>or</u> PHYS 280	
*MATH 182H is also equivalent to MATH 122 & 123.		
**Waived for transfer students who have taken 3 units of CSU GE Area E.		
Note: This major is impacted. See CSULB catalog for supplemental major specific admission criteria. Transfer students must complete 60 units or more and the CSU GE requirements in Written and Oral Communication, Critical Thinking and Mathematics/Quantitative Reasoning with a grade of "C" or better by the end of the prior spring term for fall admission or by the end of the prior summer for spring admission. Critical thinking may be waived as this is integrated throughout the engineering baccalaureate programs. Students are encouraged to take as many of these courses prior to transfer as possible. A grade of "C" or better must be achieved in all required major courses.		

CALIFORNIA STATE UNIVERSITY, FULLERTON

General Education Requirements for All Degrees:
A.1 CMST 100 <u>or</u> 110
A.2 ENGL 100
A.3 ENGL 101(or 101H), 102(or 102H), 109, MATH 220, PHIL 150, 155, 220, <u>or</u> CMST 220, 240
B.1/B.3 & B.4 Part of Math & Science Foundation Course Requirement
B.2 Waived for engineering majors
C.1 Any approved CSU GE Area C1 course
C.2 Any approved CSU GE Area C2 course
C.3. Upper division courses
C.4 HIST 161(or 161H) <u>or</u> 162(or 162H)
D.1 Upper division course

General Education Requirements for All Degrees:

D.3 HIST 170(or 170H), 175(or 175H)

D.4 PSCI 180(or 180H)

D.5 Not applicable for engineering majors

E. Waived for engineering majors

Z. Asterisked course from C.3

BACHELOR OF SCIENCE IN CIVIL ENGINEERING

CSUF	OCC	(3/15:A15-16)
Required Core Courses		
BIOL 101/101L <u>or</u> GEOL 101 <u>or</u> GEOL 140	BIOL 100 <u>or</u> GEOL A105(or 105H) <u>or</u> No Equivalent Course	
CHEM 123	No Equivalent Course	
MATH 150AB	MATH 180(or 180H) & 185(or 185H)	
MATH 250AB	MATH 280(or 280H) & 285(or 285H)	
PHYS 225/225L	PHYS 185	
PHYS 226/226L	PHYS 280	
EGCE 201	ENGR 280	
EGCE 206	No Equivalent Course	
EGCE 214/214L	No Equivalent Courses	
CHEM 125	CHEM 185	
EGEE 203/203L	ENGR 285	
EGGN 100	No Equivalent Course	
Note: All math and physical science courses must be completed with at least a "C" grade. A GPA of 2.0 or better is required for the major. Major courses must be taken for a letter grade.		

CAL POLY, SAN LUIS OBISPO

BACHELOR OF SCIENCE IN CIVIL ENGINEERING

CPSLO	OCC	(9/12:A16-17)
Major Courses		
CE 111	No Equivalent Course	
CE 112	No Equivalent Course	
CE 113	No Equivalent Course	
CE 204 & 207	No Equivalent Courses	
CE 251	No Equivalent Course	
CE 259	No Equivalent Course	
Support Courses		
BIO 213 <u>or</u> BRAE 213	No Equivalent Courses	
BRAE 239	No Equivalent Course	
CHEM 124 & 125	CHEM 180 & 185	
ENGL 149	ENGL 105*	
GEOL 201	GEOL 105(or 105H)	
MATE 210 & 215	No Equivalent Courses	
MATH 141, 142, 143, 241	MATH 180(or 180H) & 185(or 185H) & 280(or 280H)**	
MATH 244	MATH 285(or 285H)	
ME 211	ENGR 280	
ME 212	No Equivalent Course	
PHYS 132, 133 & 141	PHYS 185 & 280 & 285	
EE 201	ENGR 285	
*Credit only when additional GE Area A3 course is completed.		
**MATH 182H & 280H is also equivalent to MATH 141, 142, 143 & 241.		
Note: Selection criteria for transfer students can be found at: http://admissions.calpoly.edu/applicants/transfer/criteria.html		

BACHELOR OF SCIENCE IN CIVIL ENGINEERING

CPP		OCC	(3/15:A16-17)
Required Core Courses			
CE 122		No Equivalent Course	
CE 127/127L, 128L		No Equivalent Courses	
CE 134/134L		No Equivalent Courses	
CE 221/221L		No Equivalent Courses	
MAT 114, 115, 116		MATH 180(or 180H) & 185(or 185H)*	
MAT 214, 215		MATH 280(or 280H)	
MAT 224		MATH 285(or 285H)	
ME 214/224L		ENGR 280	
ME 215		No Equivalent Course	
ME 218		No Equivalent Course	
CE 220/220L		No Equivalent Courses	
CE 222/222L		No Equivalent Courses	
CE 223/223L		No Equivalent Courses	
Required Support Courses			
CHM 121/L, 122/L, 123/L		CHEM 180 & 185**	
PHYS 131/L, 132/L, 133/L		PHYS 185, 280, 285 <u>or</u> 130, 135 & 285	
*MATH 182H is also equivalent to MAT 114, 115, 116.			
**May not be required if you have accumulated transfer units articulated with the College of Engineering or Science. Contact the department for additional information.			
Note: This program is impacted and requires a supplementary admissions process. Major specific admissions requirements: http://www.cpp.edu/~admissions/undergraduate/transfer/before/impacted-majors.shtml			

BACHELOR OF SCIENCE IN CIVIL ENGINEERING – Geospatial Engineering

CPP		OCC	(3/15:A16-17)
Required Core Courses			
CE 127/127L, 128L		No Equivalent Courses	
CE 134/134L		No Equivalent Courses	
CE 221/221L		No Equivalent Courses	
MAT 114, 115, 116		MATH 180(or 180H) & 185(or 185H)*	
MAT 214, 215		MATH 280(or 280H)	
MAT 224		MATH 285(or 285H)	
ME 214/224L		ENGR 280	
ME 215		No Equivalent Course	
ME 218		No Equivalent Course	
CE 220/220L		No Equivalent Courses	
CE 222/222L		No Equivalent Courses	
CE 240		No Equivalent Course	
Required Support Courses			
CHM 121/L, 122/L, 123/L		CHEM 180 & 185**	
PHYS 131/L, 132/L, 133/L		PHYS 185, 280, 285 <u>or</u> 130, 135 & 285	
*MATH 182H is also equivalent to MAT 114, 115, 116.			
**May not be required if you have accumulated transfer units articulated with the College of Engineering or Science. Contact the department for additional information.			
Note: This program is impacted and requires a supplementary admissions process. Major specific admissions requirements: http://www.cpp.edu/~admissions/undergraduate/transfer/before/impacted-majors.shtml			

UNIVERSITY OF SOUTHERN CALIFORNIA

Note: Students may fulfill four of the six required GE requirements with transfer courses taken before starting USC (see USC GE requirements). Credit for courses is not granted if (1) the course is taken before high school graduation, (2) the grade is lower than C-, (3) is a lab science or foreign language course and is not taken in a traditional classroom setting, (4) is offered through “study abroad”, (5) repeats credit from another college course or from an AP or IB exam.

BACHELOR OF SCIENCE IN CIVIL ENGINEERING – Structural Engineering

USC	OCC	(3/15:A16-17)
WRIT 130	ENG 101 (or 101H) <u>or</u> 102 (102H)*	
Global Perspectives	ANTH 150 <u>or</u> PSCI 110 <u>or</u> SOC 150	
Traditions & Historical	One course from: ARCH 290(or 290H), 296(or 296H), ART 100(or 100H), 101(or 101H), 103, ENGL 176(or 176H), HIST 141, 161(or 161H), 162(or 162H), 170(or 170H), 175(or 175H), 180(or 180H), 185(or 185H), PHIL 125, PSCI 188, RLST 110, 140, 150, THEA 101	
CHEM 105A	CHEM 180	
PHYS 151 & 152	PHYS 185, 280 & 285	
MATH 125 & 126	MATH 180(or 180H) & 185(or 185H)**	
MATH 226	MATH 280(or 280H)	
MATH 245	MATH 285(or 285H)	
ENGR 102	No Equivalent Course	
*Course must be taken for a letter grade.		
**MATH 182H is equivalent to MATH 126.		

BACHELOR OF SCIENCE IN CIVIL ENGINEERING – Building Science

USC	OCC	(03/15:A16-17)
WRIT 130	ENG 101 (or 101H) <u>or</u> 102 (102H)*	
Global Perspectives	ANTH 150 <u>or</u> PSCI 110 <u>or</u> SOC 150	
Traditions & Historical	One course from: ARCH 290(or 290H), 296(or 296H), ART 100(or 100H), 101(or 101H), 103, ENGL 176(or 176H), HIST 141, 161(or 161H), 162(or 162H), 170(or 170H), 175(or 175H), 180(or 180H), 185(or 185H), PHIL 125, PSCI 188, RLST 110, 140, 150, THEA 101	
CHEM 105A	CHEM 180	
MATH 125 & 126	MATH 180(or 180H) & 185(or 185H)**+	
MATH 226	MATH 280(or 280H)	
MATH 245	MATH 285(or 285H)	
PHYS 151 & 152	PHYS 185, 280 & 285	
*Course must be taken for a letter grade.		
**MATH 182H is also equivalent to MATH 126.		
+Subject credit for MATH 180(or 180H) can be earned by successful completion of MATH 185(or 185H).		

ADDITIONAL AGREEMENTS ARE AVAILABLE ON THE INTERNET FOR THE FOLLOWING SCHOOLS AT:

www.assist.org

Campus	Campus
UC Davis	CSU Chico
CSU Los Angeles	CSU Northridge
San Diego State	San Francisco State
San Jose State	