

ORANGE COAST COLLEGE

TRANSFER CURRICULUM GUIDE

ENGINEERING

Environmental 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, 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
Calculus (AB/BC Exam)	score of 3 = MATH 1A
Calculus (BC Exam)	score of 4 or 5 = MATH 1AB
Physics (Mechanics C Exam)	score of 5 = PHYS 7A

BACHELOR OF SCIENCE ENVIRONMENTAL ENGINEERING (College of Engineering)

UCB	OCC	(9/17:A16-17)
Required for admission		
CHEM 1A/AL	CHEM 180	
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	Continued

UCB	OCC	(9/17:A16-17)
PHYS 7B	PHYS 280	
ENGL R1AB	ENGL 100 & 101(or 101H)	
Three courses from:	Three courses from:	
BIOL 1A/AL	BIOL 180 & 185	
BIOL 1B	BIOL 185 & 183/183L	
CHEM 1B	CHEM 185	
CHEM 3A/AL	CHEM 220 & 220L	
CHEM 3B/BL	CHEM 225 & 225L	
EPS 50	GEOL 110	
PHYSICS 7C	PHYS 285	
Strongly Recommended Courses		
CIV ENG C30 <u>or</u> MEC ENG C85	No Equivalent Courses	
ENGIN 7	No Equivalent Course	
MEC ENG 40	No Equivalent Course	
CIV ENG 11	No Equivalent Course	
*MATH 182H is also equivalent to MATH 1AB.		

UNIVERSITY OF CALIFORNIA, IRVINE

BACHELOR OF SCIENCE IN ENVIRONMENTAL ENGINEERING

UCI	OCC	(09/17:A16-17)
Required Courses		
MATH 2AB	MATH 180(or 180H) & 185(or 185H)*	
MATH 2D <u>or</u> 2E	MATH 280(or 280H)	
MATH 3A	MATH 235 <u>or</u> 285(or 285H)	
MATH 3D	MATH 285(or 285H)	
PHYS 7CDE, LC/LD	PHYS 185 & 280 & 285	
CHEM 1ABC, 1LB/LC	CHEM 180 & 185**	
ENGRCEE 20	No Equivalent Course	
ENGRCEE 30	ENGR 280	
ENGRCEE 81A	No Equivalent Course	
ENGRCEE 11	No Equivalent Course	
CHEM 51A	CHEM 220/220L	
ENGRCEE 21	No Equivalent Course	
ENGRCEE 81B	No Equivalent Course	
ENGRMAE 91	No Equivalent Course	
ECON 20AB	ECON 170 & 175	
ENGRCEE 60 <u>or</u> SOCECOL E8	No Equivalent Course <u>or</u> ECOL 100	
Basic Science Elective		
BIOL SCI 93	BIOL 180	
Lower Division Engineering Elective Course		
EECS 70A	ENGR 285	
*MATH 182H & 280(or 280H) will also satisfy this requirement.		
** Complete entire sequence.		
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, RIVERSIDE

General Education Requirements for All Degrees

UCR	OCC	
ENGL 1ABC	ENGL 100 & either 101(or 101H) <u>or</u> 102(or 102H) or ENGL 109 <u>or</u> PHIL 150	
Humanities	HIST 161(or 161H) <u>or</u> 162(or 162H)	Continued

General Education Requirements for All Degrees

	One course from: ART 100, 100H, 101, 101H, 102, 103, ENGL 150, 150H, 160, 160H, 161, 161H, 170, 170H, 176, 176H, 181, 181H, 270, 270H, 275, 275H, MATH 220, MUS 100, PHIL 100, 120, 220, RLST 120, 150
Social Sciences	One course from: ECON 170, 175, PSCI 110, 180, 180H, 185
Ethnicity	One course from: ANTH 100, 100H, 102*, 185, 280, ETHS 100*, 150*, HIST 101*, PSYC 100, 100H, SOC 100, 100H, 185, 185H
Natural Sciences & Mathematics	Satisfied by lower division courses required for the major.
*The following courses will satisfy both the Social Science Area and campus graduation requirement in Ethnicity.	

BACHELOR OF SCIENCE IN ENVIRONMENTAL ENGINEERING

UCR	OCC	(09/17:A16-17)
Courses for Admission:		
CHEM 1ABC w/labs	CHEM 180 & 185	
MATH 9ABC	MATH 180(or 180H) & 185(or 185H)*	
PHYS 40ABC	PHYS 185, 280, 285	
BIOL 5A/5AL	BIOL 180	
Courses strongly recommended prior to transfer		
CS 10	CS 122 <u>or</u> 131 <u>or</u> 140 <u>or</u> 150 <u>or</u> 170	
MATH 10AB	MATH 280(or 280H)	
MATH 46	MATH 285(or 285H)	
ME 10	ENGR 280	
Four Humanities or Social Science breadth courses listed in GE requirements for all degrees.		
Courses to be completed after transfer:		
CEE 10	No Equivalent Course	
**MATH 182H is also equivalent to MATH 9ABC		
Note: This major is selective. Students are admitted Fall quarter only. Take all courses for a letter grade except for Humanities and Social Sciences. Students are strongly encouraged to focus on preparatory course work for the major rather than IGETC. Students must attain a GPA of at least 2.8 in all UC transferable courses. Also required is a 2.5 GPA in the calculus sequence and in at least one additional sequence (chemistry, physics, second year calculus or biology). AP credit can be accepted in lieu of some college course work. Consult the College of Engineering at: (951) 827-3647.		

SAN DIEGO STATE UNIVERSITY

BACHELOR OF SCIENCE IN ENVIRONMENTAL ENGINEERING

SDSU	OCC	(09/17:A16-17)
ENV E 101	No Equivalent Course	
A E 280	MATH 285(or 285H)	
A E 200 <u>or</u> M E 200	ENGR 280	
A E 220 <u>or</u> M E 220	No Equivalent Courses	
BIOL 204/204L	BIOL 182/182L & 183/183L@	
CHEM 130	No Equivalent Course	
CHEM 200	CHEM 180	
CIV E 121	No Equivalent Course	
CIV E 160 <u>or</u> STAT 250	No Equivalent Course <u>or</u> MATH 160(or 160H)	
CIV E 220	No Equivalent Course	
MATH 150 & 151	MATH 180(or 180H) & 185(or 185H)*	
MATH 252	MATH 280(or 280H)	
PHYS 195/195L	PHYS 185	
PHYS 196	PHYS 280	
PHYS 197	PHYS 285	
*MATH 182H is also equivalent to MATH 150 & 151.		Continued

@Complete entire sequence.

Note: This program is impacted and requires a minimum 2.7 GPA. May not be taken CR/NC.

CAL POLY, SAN LUIS OBISPO

BACHELOR OF SCIENCE IN ENVIRONMENTAL ENGINEERING

CPSLO	OCC	(09/17:A16-17)
Major Courses		
CE 113	No Equivalent Course	
CE 204/207	No Equivalent Courses	
ENVE 111	No Equivalent Course	
ENVE 264	No Equivalent Course	
Support Courses		
CHEM 124 & 125	CHEM 180 & 185	
CHEM 126	No Equivalent Course	
CHEM 212	CHEM 220/220L*	
CSC 231	No Equivalent Course	
ENGL 149	ENGL 105*	
MATH 141, 142, 143, 241	MATH 180(or 180H) & 185(or 185H) & 280(or 280H)+	
MATH 244	MATH 285(or 285H)	
MCRO 221 <u>or</u> 224	BIOL 210	
ME 211	ENGR 280	
PHYS 132, 133 & 141	PHYS 185 & 280 & 285	
*No upper division credit		
**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		

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 ENVIRONMENTAL ENGINEERING

USC	OCC	(09/17: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	
MATH 125	MATH 180(or 180H)+	
MATH 126	MATH 185(or 185H or 182H)+	
MATH 226	MATH 280(or 280H)	
MATH 245	MATH 285(or 285H)	
CHEM 105AB	CHEM 180 & 185	
CHEM 151 & 152	PHYS 185, 280 & 285	
BISC 220	BIOL 180(or 180H) & 182/182L & 183/183L <u>or</u> 180(or 180H) & 185	
*Course must be taken for a letter grade.		
+Subject credit for MATH 180(or 180H) can be earned by successful completion of MATH 185(or 185H). Subject credit for MATH 180(or 180H) & 185(or 185H) can be earned by successful completion of MATH 280(or 280H).		

BACHELOR OF SCIENCE IN CIVIL ENGINEERING – Environmental Engineering

USC	OCC	(09/17:A16-17)
WRIT 130	ENG 101 (or 101H) or 102 (102H)*	
Global Perspectives	ANTH 150 or PSCI 110 or 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 105AB	CHEM 180 & 185	
MATH 125	MATH 180(or 180H)+	
MATH 126	MATH 185(or 185H or 182H)+	
MATH 226	MATH 280(or 280H)	
MATH 245	MATH 285(or 285H)	
CHEM 151 & 152	PHYS 185, 280 & 285	
BISC 220	BIOL 180(or 180H) & 182/182L & 183/183L or 180(or 180H) & 185	
*Course must be taken for a letter grade. +Subject credit for MATH 180(or 180H) can be earned by successful completion of MATH 185(or 185H). Subject credit for MATH 180(or 180H) & 185(or 185H) can be earned by successful completion of MATH 280(or 280H).		

BACHELOR OF SCIENCE IN CHEMICAL ENGINEERING – Environmental Engineering

USC	OCC	(09/17:A16-17)
WRIT 130	ENG 101 (or 101H) or 102 (102H)*	
Global Perspectives	ANTH 150 or PSCI 110 or 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	
MATH 125 & 126	MATH 180(or 180H) & 185(or 185H or 182H)	
MATH 226	MATH 280(or 280H)	
MATH 245	MATH 285(or 285H)	
CHEM 105AB	CHEM 180 & 185	
CHEM 322A	CHEM 220 & 220L	
PHYS 151 & 152	PHYS 185, 280 & 285	
*Course must be taken for a letter grade.		

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

www.assist.org

Campus	Campus
UC Merced	UC San Diego