

ORANGE COAST COLLEGE

TRANSFER CURRICULUM GUIDE

ENGINEERING

Aerospace 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, IRVINE

BACHELOR OF SCIENCE IN AEROSPACE ENGINEERING

UCI	OCC	(12/14:A15-16)
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> 2805(or 285H)+	
MATH 3D	MATH 285(or 285H)+	
PHYS 7CDE/LC/LD	PHYS 185 & 280 & 285+	
CHEM 1A/LE	CHEM 180+	
ENGR 54	No Equivalent Course	
EECS 70A	ENGR 285	
ENGRMAE 10	CS 150+	
ENGRMAE 30	ENGR 280+	
PHYS 52A	PHYS 285	
One course <u>or</u> lecture/lab combination from: ANTH 185/185L, ASTR 100(or 100H)/100L, 101, 102, 103, BIOL 100, 101, 125, 180, 182/182L, 183/183L, 185, 210, 220, 221, 225, CHEM 100, 110, 130, 180, 185, 220/220L, 225/225L, ECOL 100, GEOL 180(or 180H)/180L, 105(or 105H)/105L(or 105M), 110, 160, 185/185L, MRSC 100(100H)/100L(or 100M), 180/180L, 185/185L, PHYS 110/111, 120, 130, 185, PSYC 250		
*MATH 182H & 280(or 280H) will also satisfy this requirement.		
+Required courses - must have a cumulative GPA of 3.0 in required courses.		
Important Note: Preference is given to students with the highest grades overall who have completed the required courses. Listed requirements apply to students entering for fall 2017. For fall 2016 admissions, refer to 14/15 articulation agreements.		

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 University requires applicants to have completed a minimum of 60 transferable semester units (90 quarter units) and two transferable English composition courses. Applicants must have a minimum transferable cumulative GPA of 3.4. Excellent grades, especially for courses in preparation for the major, are expected. Applicants are expected to have completed the courses required in preparation for the major by the spring prior to fall enrollment. The most important selection criteria is the completion of the required prep courses and academic performance. Breadth and GE requirements may be fulfilled by completion of IGETC. Although

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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 these websites for further information: <http://www.engineer.ucla.edu> and <http://www.admissions.ucla.edu>

BACHELOR OF SCIENCE IN AEROSPACE ENGINEERING

UCLA	OCC	(12/14:A16-17)
Preparation Courses Required for Admission:		
CHEM 20AB, 20L	CHEM 180 & 185	
MATH 31AB	MATH 180(or 180H)+ & 185(or 185H)*	
MATH 32AB	MATH 280(or 280H)	
MATH 33AB	MATH 285(or 285H)	
PHYS 1ABC, 4AL, 4BL	PHYS 185 & 280 & 285**	
ENGLCOMP 3	ENGL 100	
Computer Programming	CS 250+	
A second course in English composition (ENGL 101, 101H, 102, 102H, PHIL 150) is also required for admission.		
Additional Requirements (strongly recommended):		
COM SCI 31	CS 150	
C&EE M20	No Equivalent Course	
EL ENGR 100	No Equivalent Course	
MECH&AE 101	No Equivalent Course	
MECH&AE 102	No Equivalent Course	
MAT SCI 104	No Equivalent Course	
*MATH 182H is also equivalent to MATH 31AB.		
**Articulated as a series and should be completed at one institution.		

CALIFORNIA STATE UNIVERSITY, LONG BEACH

BACHELOR OF SCIENCE IN AEROSPACE ENGINEERING

CSULB	OCC	(12/14:A16-17)
CHEM 111A	CHEM 180	
MATH 122 & 123	MATH 180(or 180H) & MATH 185(or 185H)+*	
MATH 224	MATH 280(or 280H)	
PHYS 151	PHYS 185+	
PHYS 152 <u>or</u> E E 210/210L	PHYS 280 <u>or</u> No Equivalent Courses	
ENGR 101 & 102	No Equivalent Courses**	
MAE 101A	No Equivalent Course	
MAE 172	ENGR 180 <u>or</u> MACH 152	
MAE 205	No Equivalent Course	
CE 205	ENGR 280	
*MATH 182H is also equivalent to MATH 122 & 123.		
**Requirement waived for transfer students who have completed 3 units in CSU GE Area E.		
+Must be completed with a grade of "C" or better within one calendar year of declaring the major.		
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.		

CAL POLY, POMONA

BACHELOR OF SCIENCE IN COMPUTER SCIENCE

CPP	OCC	(12/14:A16-17)
Required Core Courses		
ARO 102L, 103L	No Equivalent Courses	
ARO 201L, 202L, 203L	No Equivalent Courses	
Required Support Courses		
ARO 101L	No Equivalent Course	
ECE 231/231L	ENGR 285	
MAT 114, 115, 116	MATH 180(or 180H) & 185(or 185H)*	
MAT 214 & 215	MATH 280(or 280H)	
MAT 224	MATH 285(or 285H)	
MTE 207	No Equivalent Course	
PHYS 131/L, 132/L, 133/L	PHYS 185, 280, 285 <u>or</u> 130, 135 & 285	
ME 214/224L	ENGR 280	
ME 215	No Equivalent Course	
CHM 121/121L/122L	CHEM 180	
*MATH 182H is also equivalent to MAT 114, 115, 116.		
Note: This major is impacted. See CPP catalog for supplemental major specific admission criteria.		

SAN DIEGO STATE UNIVERSITY

BACHELOR OF SCIENCE IN AEROSPACE ENGINEERING

SDSU	OCC	(12/14:A16-17)
CHEM 200 <u>or</u> CHEM 202	CHEM 180 <u>or</u> No Equivalent Course	
E E 204	No Equivalent Course	
MATH 150 & 151	MATH 180(or 180H) & 185(or 185H)*	
MATH 252	MATH 280(or 280H)	
PHYS 195/L	PHYS 185	
PHYS 196	PHYS 280	
PHYS 197	PHYS 285	
A E 123	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	
E E 204	No Equivalent Course	
BIOL 100 <u>or</u> BIOL 101	BIOL 100(or 100H) <u>or</u> No Equivalent Course	
M E 101	No Equivalent Course	
M E 202	No Equivalent Course	
M E 240	No Equivalent Course	
*Complete sequence. MATH 182H is also equivalent to MATH 150 & 151.		
Note: San Diego State University is an impacted campus.		

CAL POLY, SAN LUIS OBISPO

BACHELOR OF SCIENCE IN AEROSPACE ENGINEERING

Options: Aeronautics, Astronautics

CPSLO	OCC	(12/14:A16-17)
Major Courses		
AERO 121	No Equivalent Course	
AERO 215	No Equivalent Course	
CE 204	No Equivalent Course	Continued

CPSLO	OCC	(12/14:A16-17)
CE 207	No Equivalent Course	
EE 201 & 251	ENGR 285	
Support Courses		
BIO 213 & BRAE 213	No Equivalent Courses	
CHEM 124	CHEM 180	
ENGL 149	ENGL 105*	
IME 144	No Equivalent Course	
MATE 210	No Equivalent Course	
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 131, 132, 133	PHYS 185 & 280 & 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/admiss/undergrad/transfer-models/1011.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 AEROSPACE ENGINEERING

USC	OCC	(12/14: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 105A	CHEM 180	
PHYS 151, 152, 153	PHYS 185, 280 & 285	
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 300 – 499	CHEM 220/220L or 225/225L	
*Course must be taken for a letter grade. **MATH 182H is equivalent to MATH 126. +Subject credit for MATH 180(or 180H) can be earned by successful completion of MATH 185(or 185H) or 182H. Subject credit for MATH 185(or 185H) can be earned by successful completion of MATH 280(or 280H).		

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

www.assist.org

Campus	Campus
UC Davis	San Jose State