

Civil Engineering Curriculum Requirement Update as of 2/3/2016

For information on University and general education requirements, refer to <http://www.seasoas.ucla.edu/ge-for-students-who-entered-fall-2005-and-thereafter/>
Students in the 2010-2015 catalog who wish to follow the 2015-2016 catalog will need to petition for this in 6426 Boelter Hall.

2010-2013 Catalog	2013-14 Catalog Requirements	2014-2015 Catalog Requirements	2015-2016 Catalog Requirements
Civil Engineering in B.S.	Civil Engineering in B.S.	Civil Engineering in B.S.	Civil Engineering in B.S.
Preparation for the Major	Preparation for the Major	Preparation for the Major	Preparation for the Major
<p><i>Required:</i> Chemistry and Biochemistry 20A, 20B, 20L; Civil and Environmental Engineering 1, 15; Computer Science 31 (or another programming course approved by the Faculty Executive Committee); Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C (or Electrical Engineering 1), 4AL.</p>	<p><i>Required:</i> Chemistry and Biochemistry 20A, 20B, 20L; Civil and Environmental Engineering 1, 15; Computer Science 31 (or another programming course approved by the Faculty Executive Committee); Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C (or Electrical Engineering 1), 4AL.</p>	<p><i>Required:</i> Chemistry and Biochemistry 20A, 20B, 20L; Civil and Environmental Engineering 1, 45; Computer Science 31 or (another programming course approved by the Faculty Executive Committee) Civil and Environmental Engineering M20; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C, 4AL. *One natural science course from Civil and Environmental Engineering 58SL, Earth, Planetary, and Space Sciences 3, 15, 16, 17, 20, Environment 12, Life Sciences 1, 2, Microbiology, Immunology, and Molecular</p>	<p><i>Required:</i> Chemistry and Biochemistry 20A, 20B, 20L; Civil and Environmental Engineering 1, M20 (or Computer Science 31); Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C, 4AL; one natural science course from Civil and Environmental Engineering 58SL, Earth, Planetary, and Space Sciences 3, 15, 16, 17, 20, Environment 12, Life Sciences 1, 2, Microbiology, Immunology, and Molecular Genetics 5, 6, or</p>
The Major	The Major	The Major	The Major
<p><i>Required:</i> Chemical Engineering 102A or Mechanical and Aerospace Engineering 105A, Civil and Environmental Engineering 101, 103, 108, 110, 120, 135A, 150, 153, Materials Science and Engineering 104, Mechanical and Aerospace Engineering 103, 182A; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; and at least nine major field elective courses (36 units) that must include the required courses in two of the following tracks and at least two laboratory courses, one of which must be from one of the two chosen tracks and the other from any separate track.</p> <p><i>Environmental Engineering:</i> Required: Civil and Environmental Engineering 157B or 157C; recommended: courses 154, 155, 163, 164, M166; laboratory courses: 156A, 156B, *157C (only if taken before Fall '10), M166L.</p> <p><i>Geotechnical Engineering:</i> Required: Civil and Environmental Engineering 121; recommended: courses C104, 123, 125, Earth and Space Science 139; laboratory courses: 128L, **129</p> <p><i>Structural Engineering and Mechanics:</i> Required: Civil and Environmental Engineering 135B, one lecture course from 130, M135C, 137, +141, or 142, and one structures major project design course from 135L or 142L (if taken Fall 2009 or later, not offered after Sp10) or 140L (only if taken PRIOR to Fall 11 will 140L satisfy design course) one capstone design course from +141 or 143 and *one capstone design course from 123, 144, 147, 151, 157B, or 157C; recommended courses: C104, 121, 125, 130, 137, 141, 142, 143, 144, 147, C182; laboratory courses: 130L, 135L, 137L, 140L, 142L</p> <p><i>Hydrology and Water Resources Engineering:</i> *One capstone design course from Civil and Environmental Engineering 151 (if taken Winter 2011 or later) or 157L; and *one capstone design course from 123, 144, 147, 152, 157B, or 157C; recommended courses: 454, 152, 157A, 157M; <i>laboratory courses:</i> 157L, 157M</p> <p><i>Additional Elective Options:</i> Atmospheric and Oceanic Sciences 141, Civil and Environmental Engineering 105, 106A, 180, 181, laboratory course: 129L (not open to students with credit for 129), ****Earth and Space Sciences 100, 101, Environment 157, Mechanical and Aerospace Engineering 166C, M168</p> <p>*C&EE 123, 144, 147, 151, 157B, & 157C can be double-counted as capstone design courses in multiple tracks. **Prior to Fall 2011, C&EE 129 was a two-unit course which satisfied a full lab, but counted as 1/2 an elective toward the 9-course elective requirement. Beginning Fall 2011, C&EE 129 became four-units, satisfies a full lab, and counts as 1 elective toward the 9-course elective requirement. *** Beginning Fall '10, C&EE 157C no longer satisfies a lab requirement. ****Starting Winter '14, department name changed to Earth, Planetary, and Space Sciences. + C&EE 141 can be double-counted as a structures-lecture and capstone design course. (Note: students will still need to complete at least 7 electives and 2 labs to satisfy the major field elective section requirements as indicated above.)</p>	<p><i>Required:</i> Chemical Engineering 102A or Mechanical and Aerospace Engineering 105A, Civil and Environmental Engineering 101, 103, 108, 110, 120, 135A, 150, 153; Materials Science and Engineering 104, Mechanical and Aerospace Engineering 103, 182A; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; and at least nine major field elective courses (36 units) that must include one capstone design course from Civil and Environmental Engineering 123, 144, 147, 152, **157B, **157C; the required courses in two of the following tracks and at least two laboratory courses, one of which must be from one of the two chosen tracks and the other from any separate track or a laboratory course from the list of additional elective options.</p> <p><i>Environmental Engineering:</i> Required: Civil and Environmental Engineering 155, one capstone design course from Civil and Environmental Engineering **157B or **157C; recommended courses: 154, 163, 164, M165, M166; laboratory courses: 156A, 156B.</p> <p><i>Geotechnical Engineering:</i> Required: One capstone design course (Civil and Environmental Engineering 121); recommended courses: C104, 123, 125, C182, Earth, Planetary, and Space Sciences 139; laboratory course: Civil and Environmental Engineering 128L.</p> <p><i>Structural Engineering and Mechanics:</i> Required: Civil and Environmental Engineering 135B; one lecture course from 130, M135C, 137, +141, or 142; one capstone design course from +141 or 143; recommended courses: C104, 121, 125, 130, 137, 141, 142, 143, 144, 147, C182; laboratory courses: 130L, 135L, 137L, 140L, 142L.</p> <p><i>Hydrology and Water Resources Engineering:</i> Required: One capstone design course (Civil and Environmental Engineering 151); recommended courses: 152, 157A; laboratory course: 157L.</p> <p><i>Additional Elective Options:</i> Atmospheric and Oceanic Sciences 141, Civil and Environmental Engineering 180, 181, Earth, Planetary, and Space Sciences 100, 101, Environment 157, Mechanical and Aerospace Engineering 166C, M168; laboratory course: Civil and Environmental Engineering 129L.</p> <p>*Course also satisfies a life science general education course. **C&EE 157B or 157 can double count as satisfying the the "one capstone design course from Civil and Environmental Engineering 123, 144, 147, 152, 157B, 157C;" AS WELL as satisfy the required capstone design for Environmental Engineering ((Note: students will still need to complete at least 7 electives and 2 labs to satisfy the major field elective section requirements).) + C&EE 141 can be double-counted as a structures lecture and capstone design course. (Note: students will still need to complete at least 7 electives and 2 labs to satisfy the major field elective section requirements.)</p>	<p><i>Required:</i> Chemical Engineering 102A or Mechanical and Aerospace Engineering 105A, Civil and Environmental Engineering 101, 103, 108, 110, 120, 135A, 150, 153, Civil and Environmental Engineering C104 or Materials Science and Engineering 104, Mechanical and Aerospace Engineering 103, 182A; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; and at least nine major field elective courses (36 units) from the list below with at least two design courses, one of which must be a capstone design course, and two of which must be laboratory courses. Courses applied toward the required course requirement may not also be applied toward the major field elective requirement.</p> <p>Civil Engineering Materials: Civil and Environmental Engineering C104, C182.</p> <p><i>Environmental Engineering: Civil and Environmental Engineering 154, 155, 163, 164, M165, M166. laboratory courses: 156A, 156B, capstone design courses: 157B, 157C</i></p> <p><i>Geotechnical Engineering: Civil and Environmental Engineering 125, laboratory courses: 128L, 129L, design courses: 121 and 123 (capstone).</i></p> <p><i>Hydrology and Water Resources Engineering: Civil and Environmental Engineering 157A. laboratory courses: 157L. design courses: 151, 152 (capstone).</i></p> <p><i>Structural Engineering and Mechanics: Civil and Environmental Engineering 125, 130, 135B, M135C, 137, 142, laboratory courses: 130L, 135L, 140L, design Courses: 141, 143, 144 (capstone), 147 (capstone).</i></p> <p>Transportation Engineering: Civil and Environmental Engineering 180, 181, 182.</p> <p><i>Additional Elective Options:</i> Atmospheric and Oceanic Sciences 141, Earth, Planetary, and Space Sciences 100, 101, Environment 157, Mechanical and Aerospace Engineering 166C, M168;</p>	