

BS Civil Engineering

2019/20 curriculum	Proposed 2020/21 curriculum
<b>Civil Engineering B.S.</b>	<b>Civil Engineering B.S.</b>
Preparation for the Major	Preparation for the Major
<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 (or Mechanical and Aerospace Engineering 82); Physics 1A, 1B, 1C, 4AL; one natural science course selected from Civil and Environmental Engineering 58SL, Earth, Planetary, and Space Sciences 3, 15, 16, 17, 20, Environment 12, Life Sciences 1, 2, 7A, Microbiology, Immunology, and Molecular Genetics 5, 6, or Neuroscience 10.</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 (or Mechanical and Aerospace Engineering 82); Physics 1A, 1B, 1C, 4AL; one natural science course selected from Civil and Environmental Engineering 58SL, Earth, Planetary, and Space Sciences 3, 15, 16, 17, 20, Environment 12, Life Sciences 1, 2, 7A, Microbiology, Immunology, and Molecular Genetics 5, 6, or Neuroscience 10.</p>
The Major	The Major
<p>Required: Chemical Engineering 102A or Mechanical and Aerospace Engineering 105A, Civil and Environmental Engineering 91, 102, 103, C104 (or Materials Science and Engineering 104), 108, 110, 120, 135A, 150, 153, Mechanical and Aerospace Engineering 103; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; and at least eight major field elective courses (32 units) from the lists below with at least two design courses, one of which must be a capstone design course and two of which must be laboratory courses. The laboratory courses must be taken from two distinct areas. 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, C105, C182; laboratory course: 108L.</p> <p>Environmental Engineering: Civil and Environmental Engineering 154, 155, 164, M165, M166; laboratory courses: 156A, 156B; capstone design courses: 157B, 157C.</p> <p>Geotechnical Engineering: Civil and Environmental Engineering 125; laboratory courses: 128L, 129L; design courses: 121, 123 (capstone).</p> <p>Hydrology and Water Resources Engineering: Civil and Environmental Engineering 157A; laboratory course: 157L; design courses: 151, 152 (capstone).</p>	<p>Required: Chemical Engineering 102A or Mechanical and Aerospace Engineering 105A, Civil and Environmental Engineering 91 <u>(or Mechanical and Aerospace Engineering 101)</u>, 102, 103, C104 (or Materials Science and Engineering 104), 108, 110, 120, 135A, 150, 153, <u>190</u>, Mechanical and Aerospace Engineering 103; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; and at least eight major field elective courses (32 units) from the lists below with at least two design courses, one of which must be a capstone design course and two of which must be laboratory courses. The laboratory courses must be taken from two distinct areas. 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, C105, C182; laboratory course: 108L.</p> <p>Environmental Engineering: Civil and Environmental Engineering 154, 155, 164, M165, M166; laboratory courses: 156A, 156B; capstone design courses: 157B, 157C.</p> <p>Geotechnical Engineering: Civil and Environmental Engineering 125; laboratory courses: 128L, 129L; design courses: 121, 123 (capstone).</p> <p>Hydrology and Water Resources Engineering: Civil and Environmental Engineering 157A;</p>

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<p>Structural Engineering and Mechanics: Civil and Environmental Engineering 125, 130, 135B, M135C, C137, 142; laboratory courses: 108L, 135L, 140L; design courses: 141, 143, 144 (capstone), 147 (capstone).</p> <p>Transportation Engineering: Civil and Environmental Engineering 180, 181, C182.</p> <p>Additional Elective Options: Courses selected from an approved list available in the UCLA Samueli Office of Academic and Student Affairs. Note: both 128L and 129L may be taken to satisfy the two-laboratory-course requirement.</p> <p>For information on UC, school, and general education requirements, see Requirements for B.S. Degrees on page 22 or the Registrar's <a href="#">GE Requirement</a> web page.</p>	<p>laboratory course: 157L; design courses: 151, 152 (capstone).</p> <p>Structural Engineering and Mechanics: Civil and Environmental Engineering 125, 130, 135B, M135C, C137, 142; laboratory courses: 108L, 135L, 140L; design courses: 141, 143, 144 (capstone), 147 (capstone).</p> <p>Transportation Engineering: Civil and Environmental Engineering 180, 181, C182.</p> <p>Additional Elective Options: Courses selected from an approved list available in the UCLA Samueli Office of Academic and Student Affairs. Note: both 128L and 129L may be taken to satisfy the two-laboratory-course requirement.</p> <p>For information on UC, school, and general education requirements, see Requirements for B.S. Degrees on page 22 or the Registrar's <a href="#">GE Requirement</a> web page.</p>