Civil Engineering

*students in the 2006-2008 catalog have the choice to follow the 2009-2010 catalog – no petition is required.

2006-2008 Catalog Requirements	*2009-2010 Catalog Requirements
Undergraduate Study	**Undergraduate Study**
Civil Engineering B.S.	**Civil Engineering B.S.**
Preparation for the Major	**Preparation for the Major**
Required: 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.	*Required:* 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.
The Major	**The Major**
Required: Chemical Engineering 102A or Mechanical and Aerospace Engineering 105A, Civil and Environmental Engineering 101, 103, 108, 110, 120, 135A, 151, 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: *Environmental Engineering:* ~~One laboratory course from~~ Civil and Environmental Engineering 156A or 156B or M166L ~~and one major project design course from 157B or 157C~~; recommended: courses 154, 155, 163, 164, M166 *Geotechnical Engineering:* Civil and Environmental Engineering 121 ~~and 128L~~; recommended: courses 123, 125, ~~135B, 137, 142~~ *Structural Engineering and Mechanics:* Civil and Environmental Engineering 135B, one lecture course from 130, M135C, 137, 141, or 142, ~~one laboratory course from 130L, 135L, 137L, or 142L (must select 130L or 137L or 142L if 135L is selected from structures major project design list)~~, and one structures major project design course from 135L or 144 or 147 ~~(must select 144 or 147 if 135L is selected from laboratory list)~~; recommended: courses 121, 125, 130, 130L, 135L, 137, 137L, 141, 142, 142L, 143, 144, 147 *Water Resources Engineering:* Civil and Environmental Engineering 150 and 157L; recommended: courses 154, 156A, 157A, 157M *Additional Elective Options:* Civil and Environmental Engineering 105, 106A, 180, 181, Earth and Space Sciences 100, ~~139~~, Mechanical and Aerospace Engineering 166C, M168	*Required:* Chemical Engineering 102A or Mechanical and Aerospace Engineering 105A, Civil and Environmental Engineering 101, 103, 108, 110, 120, 135A, 151, 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 <u>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.</u> *Environmental Engineering:* Civil and Environmental Engineering <u>157B or 157C</u>; recommended: courses 154, 155, 163, 164, M166; <u>laboratory courses: 156A, 156B, 157C, M166L</u> *Geotechnical Engineering:* Civil and Environmental Engineering 121; recommended: courses 123, 125<u>, Earth and Space Science 139; laboratory courses: 128L, 129</u> *Structural Engineering and Mechanics:* Civil and Environmental Engineering 135B, one lecture course from 130, M135C, 137, 141, or 142, and one structures major project design course from 135L <u>or 142L</u>*<u>(if taken Fall 2009 or later)</u>* or 144 or 147; recommended: courses 121, 125, 130, 137, 141, 142, 143, 144, 147; <u>laboratory courses: 130L, 135L, 137L, 142L</u> *Water Resources Engineering:* Civil and Environmental Engineering 150 and 157L; recommended: courses 154, 156A, 157A*; <u>laboratory courses: 157L, 157M</u>* *Additional Elective Options:* Civil and Environmental Engineering 105,106A, 180, 181, Earth and Space Sciences 100, Mechanical and Aerospace Engineering 166C, M168