Plan of Study Requirement: You must complete and have approved a Plan of Study for your six senior electives. Your Plan must include at least two design-designated (D) electives and may include no more than two (none are required) professional-practice (P) electives. Any non-CE course taken as part of your Plan of Study is considered professional practice. The remainder of the approved plan may be general technical (G) courses.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE 411/511</td>
<td>Rock Mechanics</td>
<td>G</td>
</tr>
<tr>
<td>CE 414/514</td>
<td>Information Systems Design</td>
<td>P</td>
</tr>
<tr>
<td>CE 415/515</td>
<td>Advanced Engineering Economics</td>
<td>P</td>
</tr>
<tr>
<td>CE 416/516</td>
<td>Advanced Information Systems Design</td>
<td>P</td>
</tr>
<tr>
<td>CE 417/517</td>
<td>Advanced Project Management</td>
<td>P</td>
</tr>
<tr>
<td>CE 418/518</td>
<td>Engineering Management</td>
<td>P</td>
</tr>
<tr>
<td>CE 422/522</td>
<td>Solid and Hazardous Waste Management</td>
<td>G</td>
</tr>
<tr>
<td>CE 423/523</td>
<td>Effects &amp; Fate of Hazardous Chemicals</td>
<td>G</td>
</tr>
<tr>
<td>CE 424/524</td>
<td>Water and Wastewater Treatment</td>
<td>D</td>
</tr>
<tr>
<td>CE 425/525</td>
<td>Air Pollution Engineering</td>
<td>G</td>
</tr>
<tr>
<td>CE 427/527</td>
<td>Storm Water Management</td>
<td>D</td>
</tr>
<tr>
<td>CE 432/532</td>
<td>Advanced Structural Analysis I</td>
<td>G</td>
</tr>
<tr>
<td>CE 433</td>
<td>Reinforced Concrete Structures I</td>
<td>D</td>
</tr>
<tr>
<td>CE 434</td>
<td>Structural Steel Design I</td>
<td>D</td>
</tr>
<tr>
<td>CE 436/536</td>
<td>Wood Structural Design</td>
<td>D</td>
</tr>
<tr>
<td>CE 437/537</td>
<td>Reinforced Concrete Structures II</td>
<td>D</td>
</tr>
<tr>
<td>CE 438/538</td>
<td>Structural Steel Design II</td>
<td>D</td>
</tr>
<tr>
<td>CE 439/539</td>
<td>Design of Masonry Structures</td>
<td>D</td>
</tr>
<tr>
<td>CE 442/542</td>
<td>Waste Containment Facilities</td>
<td>D</td>
</tr>
<tr>
<td>CE 444/544</td>
<td>Foundation Engineering</td>
<td>D</td>
</tr>
<tr>
<td>CE 451/551</td>
<td>Geometric Design of Roadways</td>
<td>D</td>
</tr>
<tr>
<td>CE 452/552</td>
<td>Traffic Safety/Transp. Security</td>
<td>G</td>
</tr>
<tr>
<td>CE 453/553</td>
<td>Intelligent Transportation Systems</td>
<td>G</td>
</tr>
<tr>
<td>CE 454/554</td>
<td>Urban Transportation Planning</td>
<td>G</td>
</tr>
<tr>
<td>CE 457/557</td>
<td>Pavement Design &amp; Construction</td>
<td>D</td>
</tr>
<tr>
<td>CE 458/558</td>
<td>Traffic Engineering</td>
<td>G</td>
</tr>
<tr>
<td>CE 459/559</td>
<td>Pavement Rehabilitation</td>
<td>D</td>
</tr>
<tr>
<td>CE 460/560</td>
<td>Front End Planning</td>
<td>P</td>
</tr>
<tr>
<td>CE 461/561</td>
<td>Horizontal Construction Methods</td>
<td>D</td>
</tr>
<tr>
<td>CE 462/562</td>
<td>Vertical Construction Methods</td>
<td>D</td>
</tr>
<tr>
<td>CE 463/563</td>
<td>Construction Cost Estimating</td>
<td>P</td>
</tr>
<tr>
<td>CE 464/564</td>
<td>Safety Engineering</td>
<td>G</td>
</tr>
<tr>
<td>CE 465/565</td>
<td>Blasting Engineering</td>
<td>G</td>
</tr>
<tr>
<td>CE 466/567</td>
<td>Construction Accounting and Finance</td>
<td>P</td>
</tr>
<tr>
<td>CE 468/568</td>
<td>Construction Scheduling</td>
<td>P</td>
</tr>
<tr>
<td>CE 469/569</td>
<td>Construction Internship</td>
<td>N/A</td>
</tr>
<tr>
<td>CE 475/575</td>
<td>Hydrology</td>
<td>D</td>
</tr>
<tr>
<td>CE 480/580</td>
<td>Forensic Engineering</td>
<td>D</td>
</tr>
<tr>
<td>CE 481/581</td>
<td>Legal Aspects of Engineering &amp; Construction</td>
<td>P</td>
</tr>
<tr>
<td>CE 482/582</td>
<td>Geological Engineering</td>
<td>G</td>
</tr>
<tr>
<td>CE 484/584</td>
<td>Experimental Design &amp; Field Sampling</td>
<td>G</td>
</tr>
<tr>
<td>CE 485/585</td>
<td>Construction Site Erosion Control</td>
<td>D</td>
</tr>
<tr>
<td>CE 491/591</td>
<td>Special Problems</td>
<td>G</td>
</tr>
<tr>
<td>CE 498</td>
<td>Undergraduate Research Experience</td>
<td>G</td>
</tr>
<tr>
<td>CE 499</td>
<td>Honors Thesis</td>
<td>G</td>
</tr>
<tr>
<td>CE 534</td>
<td>Advanced Structural Mechanics</td>
<td>G</td>
</tr>
<tr>
<td>CE 570</td>
<td>Open Channel Flow</td>
<td>G</td>
</tr>
<tr>
<td>CE 573</td>
<td>Statistical Applications</td>
<td>G</td>
</tr>
</tbody>
</table>

Note: CE 491/591, CE 498, and CE 499 are designated as general technical electives (G) unless approved otherwise.

Prerequisites for CE 401 Civil Engineering Project – Site Development: CE 320, CE 350, CE 366, CE 378, and at least one of the following: CE 424, CE 427, CE 451, CE 454, CE 458, CE 461 or CE 485.

Prerequisites for CE 403 Civil Engineering Project – Building Design: CE 331, CE 340, CE 366, either CE 433 or CE 434, and at least one of the following: CE 432, CE 436, CE 437, CE 438, CE 439, CE 444, or CE 462.

Minor in Architectural Engineering: 22 hours. CE 331, CE 366, CE 403, and four approved electives with a minimum of one elective from at least two areas: (A) Structural Engineering and Design – CE 432, CE 433, CE 434, CE 436, CE 437, CE 438, CE 444, CE 439; (B) Building Mechanical/Electrical Systems – ME 309, ME 407, ME 416, ECE 350; (C) Construction Engineering and Management – CE 467, CE 468, CE 417, CE 418.

Minor in Construction Engineering: 18 hours. CE 366, CE 464, CE 461\* or CE 462\*, CE 463\* or CE 468\*, and two of the following: CE 414, CE 415, CE 416, CE 417, CE 418, CE 461\*, CE 462\*, CE 463\*, CE 468, CE 480, CE 481, CE 485, GES 401, ME 425, ME 407, ME 416, LGS 408, FI 432; ‘Students may take both CE 461 and CE 462, and/or both CE 463 and CE 466 to satisfy the requirements of the minor.

Minor in Environmental and Water Resources Engineering: 18 hours. CE 320, CE 378, CE 422, CE 425, and two of the following: CE 220, CE 423, CE 424, CE 427, CE 442, CE 444, CE 475, CE 485, CE 486, CE 519.

Minor in Structural Engineering: 15 hours. CE 331, CE 432, CE 433, CE 434, and one of the following: CE 436, CE 437, CE 438, CE 439, CE 444, CE 534.

Minor in Transportation Engineering: 15 hours. CE 350, CE 458, and three of the following: CE 417, CE 418, CE 451, CE 452, CE 453, CE 454, CE 457, CE 459, CE 481, CE 573, GES 401, GES 585, KY 458, KY 465, KY 466, OM 517, ME 461.

Note: A minimum 2.0 GPA for all courses is required for the above minors.

University Scholars Program: Students with a 3.3 or higher GPA who apply and are admitted to graduate school may take up to three elective courses (9 hours) at the graduate level (500- or 600-level) and have these count towards both their BSCE and MSCE degree. Students must be admitted into the program prior to taking any graduate-level courses. Scholars courses may also be used towards any of the above minors.