# Civil Engineering (Building Science)

<table>
<thead>
<tr>
<th>First Year</th>
<th>Second Year</th>
<th>Third Year</th>
<th>Fourth Year</th>
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<tbody>
<tr>
<td><strong>Fall</strong></td>
<td><strong>Spring</strong></td>
<td><strong>Fall</strong></td>
<td><strong>Spring</strong></td>
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<tr>
<td>CHEM 105aL (GE D)*</td>
<td>GESM (GE B)#</td>
<td>PHYS 152L, PHYS 151L (MATH 226)</td>
<td>MATH 226 or MATH 229, MATH 126 or MATH 129</td>
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<tr>
<td>WRIT 150</td>
<td>GE C</td>
<td>ARCH 205aL, ARCH 205bL</td>
<td>ARCH 305aL, ARCH 305bL</td>
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<tr>
<td>MATH 126 or MATH 129*</td>
<td>MATH 226 or MATH 229, MATH 126 or MATH 129</td>
<td>MATH 245, MATH 226 or MATH 229</td>
<td>MATH 358, MATH 225</td>
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<tr>
<td>CE 106</td>
<td>CE 108</td>
<td>CE 215, PHYS 115Lg</td>
<td>CE 456</td>
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<td>ENGR 102</td>
<td>PHYS 151L (GE E), MATH 126 or MATH 226</td>
<td>CE 119, (CE 108, MATH 245)</td>
<td>ARCH 214ag</td>
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<th>Optional Elective</th>
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<tr>
<td><strong>Fall</strong></td>
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<td>CE 215, PHYS 115Lg</td>
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<td>CE 119, (CE 108, MATH 245)</td>
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**Mathematics (12 Units)**
- MATH 126 or MATH 129: Calculus II*
- MATH 226 or MATH 229: Calculus III
- MATH 245: Mathematics of Phys. and Engr.

**Physics (8 Units)**
- PHYS 151L: Mechanics and Thermodynamics
- PHYS 152L: Electricity and Magnetism

**Other Science (8 Units)**
- CHEM 105aL: General Chemistry*
- GEOL 305L: Intro. to Engineering Geology

**General Education (32 Units)**
- GE A: The Arts (1 Course)*
- GE B: Humanistic Inquiry (2 Courses)
- GE C: Social Analysis (2 Courses)
- GE D: Life Sciences (1 Course)*
- GE E: Physical Sciences (1 Course)*
- GE F: Quantitative Reasoning (1 Course)*
- GE G,H: Global Perspectives (2 Courses)*
- GESM: General Education Seminar (1 Course)

**Writing (8 Units)**
- WRIT 150: Writing and Critical Reasoning
- WRIT 340: Advanced Writing

**Architecture (30 Units)**
- ARCH 214ag: World History of Architecture
- ARCH 214b: History of Architecture
- ARCH 205aL: Building Science I

**Engineering (52 Units)**
- CE 106: Introduction to Civil Engineering
- CE 108: Intro. to CE Computer Methods
- CE 119: Probability Concepts and Civil Engineering
- CE 215: Statics & Dynamics
- CE 225: Mechanics of Deformable Bodies
- CE 309: Fluid Mechanics
- CE 330: Computational Methods in ENGR
- CE 334L: Mechanical Behavior of Materials
- CE 358: Elementary Theory of Structures
- CE 408: Risk & Decision Analysis in Civil Engr.
- CE 456: Structural Design I
- CE 457: Structural Design II
- CE 458: Computational Structural Analysis
- CE 460: Construction Engineering
- CE 467L: Geotechnical Engineering
- ENGR 102: Engineering Freshman Academy

**Special Notes**
Courses with the * symbol may be satisfied with AP, IB or A-Level exams. See page 18 for more information.

**GESM#**: GESM can be taken from GE categories:
- A, B, C, or D. Courses listed in the guide are options for a four-year course plan.
- GE: Engineering students are encouraged to satisfy GE G and GE H with a course that also satisfies a Core Literacy. GE H may be satisfied by AP/IB. Additionally, your GESM course should be taken in categories A, B, C, or D only. See page 17 for more information and consult your advisor for detailed assistance.

**Optional Electives**: Consult with your academic advisor to explore optional elective courses. These courses are not required.

**Advanced Computing Electives**: CE 423 or ENE 440

**Math 125**: For students starting with Calculus 1, Advanced Computing Elective will be waived for your requirements.