## Civil: Structural Engineering with International Development (Option G)

**September 2019** (students who entered *first year* in September 2015 or earlier)

### Year 2:

#### Term A

- AM 2270a Applied Math for Engineering II
- CEE 2224 Engineering Fluid Mechanics
- CEE 2202a Mechanics of Materials
- CEE 2217a Introduction to Environmental Engineering
- CEE 2220a Introduction to Structural Engineering
- SS 2141a Applied Probability and Statistics for Engineers

#### Term B

- AM 2277b Applied Math for Civil and Chemical Engineering II
- CEE 2224 Engineering Fluid Mechanics
- CEE 2219b Computational Tools for Civil Engineers
- CEE 2221b Structural Theory and Design
- Earth Sc. 2281b Geology for Engineers
- ES 2211G Engineering Communications

*Note: CEE 3324a (Surveying). This course is available each summer (15 days) and must be completed before a student may graduate from the Civil Engineering program.*

### Year 3:

#### Term A

- CEE 3321a Soil Mechanics and Hydrogeologic Engineering
- CEE 3327a International Development for Civil Engineers
- CEE 3340a Analysis of Indeterminate Structures
- CEE 3344a Structural Dynamics I
- CEE 3347a Reinforced Concrete Design
- CEE 3348a Project Management and Engineering Cases

#### Term B

- CEE 3322b Introduction to Geotechnical Engineering
- CEE 3328b Appropriate Technologies for International Development
- CEE 3343b Finite Element Methods and Application to Lateral Analysis of Buildings
- CEE 3346b Steel Design
- CEE 3358b Reinforced and Prestressed Concrete Design
- CEE 3369b Materials for Civil Engineering

### Year 4:

#### Term A

- CEE 4441 Civil Engineering Design Project (International Community Development)
- CEE 4426a Geotechnical Engineering Design
- CEE 4491b Structural Dynamics II
- Bus 2299E Business for Engineers
- One 0.5 Technical elective

#### Term B

- CEE 4441 Civil Engineering Design Project (International Community Development)
- CEE 4404b Advanced Topics in International Development for Engineers
- CEE 4478b Case Studies in Civil Engineering
- ES 4498G Engineering Ethics, Sustainable Development and the Law
- Bus 2299E Business for Engineers
- One 0.5 Technical Elective

### NOTES:

**Important:**

Students are responsible for ensuring they have the correct courses required for their degree. If you are unsure which courses you still need or if you see courses listed on the progression sheet that are no longer offered or are not offered in the term you see listed here, please contact your Academic Counsellor.

**Technical Electives List:**

Some technical electives may not be offered in a given academic year. Consult the Department for accurate listing.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CEE 4401a/b</td>
<td>Principles of Transportation Engineering</td>
</tr>
<tr>
<td>CEE 445a/b</td>
<td>Air Pollution</td>
</tr>
<tr>
<td>CEE 4418a/b</td>
<td>Systems Approach for Civil and Environmental</td>
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<tr>
<td>CEE 4427a/b</td>
<td>Selected Topics in International Development</td>
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<tr>
<td>CEE 4428a/b</td>
<td>Selected Topics in Civil Engineering I</td>
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<tr>
<td>CEE 4429a/b</td>
<td>Selected Topics in Civil Engineering II</td>
</tr>
<tr>
<td>CEE 4458a/b</td>
<td>Risk Analysis and Decision Making in Engineering</td>
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<tr>
<td>CEE 4459a/b</td>
<td>Design of Lateral Load Structural Systems</td>
</tr>
<tr>
<td>CEE 4476a/b</td>
<td>Environmental Hydraulics Design</td>
</tr>
<tr>
<td>CEE 4480a/b</td>
<td>Wind Engineering: Modelling, Assessment and Mitigation</td>
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<tr>
<td>CEE 4485a/b</td>
<td>Cities: Resilience and Sustainability</td>
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<tr>
<td>CEE 4440</td>
<td>Civil Engineering Thesis (full year course – counts as two technical electives)</td>
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<tr>
<td>Geog. 2020a</td>
<td>Latin America and the Caribbean</td>
</tr>
<tr>
<td>Geog. 2030a</td>
<td>Africa South of the Sahara</td>
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<tr>
<td>CGS 2002 F/G</td>
<td>Problems of Global Development</td>
</tr>
<tr>
<td>CGS 3004 a/b</td>
<td>Critique of Capitalism</td>
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