Bachelor of Engineering (Civil)

**Year 1**

**Autumn**
- ENGG100 Engineering analysis and Computing
- ENGG102 Fundamentals of Engineering Mechanics
- ENGG103 Materials in Design
- ENGG104 Electrical Systems
- MATH141 Fundamentals of Engineering Mathematics
- PHYS143 Physics for Engineers
- MATH283 Advanced Engineering Mathematics and Statistics

**Spring**
- ENGG105 Engineering Design for Sustainability
- ENGG251 Mechanics of Solids
- CHEM103 Chemistry for Engineers (Not offered in 2015)
- EESC252 Geology for Engineers 1
- CIVL245 Construction Materials
- MATH142 Essential of Engineering Mathematics
- PHYS143 Physics for Engineers
- MATH283 Advanced Engineering Mathematics and Statistics

**Year 2**

**Autumn**
- ENGG252 Fluid Mechanics
- CIVL201 Structures 1
- CIVL361 Geomechanics
- CIVL272 Surveying
- CIVL311 Structural Design 1
- CIVL322 Hydraulics and Hydrology

**Spring**
- CIVL245 Construction Materials
- CIVL201 Structures 1
- CIVL361 Geomechanics
- CIVL272 Surveying
- CIVL311 Structural Design 1
- CIVL322 Hydraulics and Hydrology

**Year 3**

**Autumn**
- CIVL352 Structures 2
- Elective-2
- Elective-3
- CIVL322 Hydraulics and Hydrology
- Elective-3
- Elective-3

**Spring**
- CIVL394 Construction
- CIVL314 Structural Design 2
- Elective-4
- CIVL394 Construction
- CIVL314 Structural Design 2
- Elective-4

**Year 4**

**Autumn**
- ENGG451 Managing Projects
- ENGG452/453
- Elective-5
- CIVL452 Principles of Foundation Engineering
- CIVL454 Engineering Design
- ENGG456

**Spring**
- CIVL454 Structures 2
- ENGG453
- Elective-5
- CIVL454 Structures 2
- ENGG453
- Elective-5

Pre-requisite:

Co-requisite:

All students must complete ENGG454 Professional Experience (0 cp)
For students in ENGG452/456: Any 3 electives from List A and 2 electives from List A or B
For students in ENGG453: Any 2 electives from List A and 2 electives from List A or B
<table>
<thead>
<tr>
<th><strong>List A electives</strong></th>
<th><strong>List B electives</strong></th>
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<tbody>
<tr>
<td>CIVL463 Applied Geotechnical Engineering</td>
<td>Spring</td>
</tr>
<tr>
<td>CIVL489 Roads Engineering</td>
<td>Spring</td>
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<tr>
<td>CIVL491 Applied Finite Element Analysis for Civil Engineers</td>
<td>Autumn</td>
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<tr>
<td>CIVL458 Fundamentals of Construction Management</td>
<td>Spring</td>
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<tr>
<td>ENVE220 Water Quality and Ecological Engineering</td>
<td>Spring</td>
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<tr>
<td>ENVE221 Air and Noise Pollution Control Engineering</td>
<td>Spring</td>
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<tr>
<td>ENVE320 Environmental Engineering Design for Sustainability</td>
<td>Spring</td>
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<tr>
<td>ENVE377 Membrane Science and Technology</td>
<td>Autumn</td>
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<tr>
<td>ENVE410 Site Remediation Engineering</td>
<td>Spring</td>
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<tr>
<td>ENVE420 Water Engineering</td>
<td>Autumn</td>
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<tr>
<td>MINE220 Underground Mining</td>
<td>Spring</td>
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<tr>
<td>MINE211 Surface Mining Methods</td>
<td>Autumn</td>
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<tr>
<td>ENGG477 Ocean Engineering</td>
<td>Not offered</td>
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</tbody>
</table>

**or other approved Engineering or General Electives**