

## Civil: Structural Engineering (Option A)

September 2021 (students who entered *first year* in September 2016 or earlier)

<p><b>Year 2:</b></p> <p><b>Term A</b></p> <p>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</p> <p><b>Term B</b></p> <p>AM 2277b Applied Math for Chemical and Civil Engineering II          CEE 2224 Engineering Fluid Mechanics          CEE 2219b Computation Tools for Civil Engineers          CEE 2221b Structural Theory and Design          Earth Sc. 2281b Geology for Engineers          Writing 2130g Building Better (Communication) Bridges: Rhetoric &amp; Professional Communication for Engineers</p> <p><i>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.</i></p> <p><b>Year 3:</b></p> <p><b>Term A</b></p> <p>CEE 3321a Soil Mechanics and Hydrogeologic Engineering          CEE 3340a Analysis of Indeterminate Structures          CEE 3344a Structural Dynamics I          CEE 3347a Reinforced Concrete Design          CEE 3348a Project Management and Engineering Cases          One 0.5 Non-technical elective taken from the approved list</p> <p><b>Term B</b></p> <p>CEE 3322b Introduction to Geotechnical Engineering          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</p> <p><b>Year 4:</b></p> <p><b>Term A</b></p> <p>CEE 4441 Civil Engineering Design Project          CEE 4426a Geotechnical Engineering Design          CEE 4491a Structural Dynamics II          One 0.5 Non-technical elective taken from approved list          One 0.5 Technical elective</p> <p><b>Term B</b></p> <p>CEE 4441 Civil Engineering Design Project          CEE 4478b Case Studies in Civil Engineering          ES 4498g Engineering Ethics, Sustainable Development and the Law          One 0.5 Non-technical elective taken from approved list          Two 0.5 Technical electives</p>	<p><b>NOTES:</b></p> <p><b>Important:</b>          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.</p> <p><b>Non-technical Electives:</b>          Please choose a maximum of 1.0 credits (one 1.0 credit course or two 0.5 credit courses) from the 1000 level and a minimum of one 0.5 credit from the 2000 (or higher) level.  <a href="http://www.eng.uwo.ca/undergraduate/upper_year/electives.html">http://www.eng.uwo.ca/undergraduate/upper_year/electives.html</a></p> <p><b>Technical Elective List:</b>          Some technical electives may not be offered in a given academic year. Consult the Academic Timetable for a current listing.</p> <table border="1"> <tr><td>CEE 3355a/b</td><td>Municipal Engineering Design</td></tr> <tr><td>CEE 4401 a/b</td><td>Principles of Transportation Engineering</td></tr> <tr><td>CEE 4418a/b</td><td>Systems Approach for Civil and Environmental Engineering</td></tr> <tr><td>CEE 4424a/b</td><td>Earth Structures Engineering</td></tr> <tr><td>CEE 4428a/b</td><td>Selected Topics in Civil Engineering I</td></tr> <tr><td>CEE 4429a/b</td><td>Selected Topics in Civil Engineering II</td></tr> <tr><td>CEE 4438a/b</td><td>Introduction to Wood Design</td></tr> <tr><td>CEE 4440</td><td>Civil Engineering Thesis (full year course - counts as two technical electives)</td></tr> <tr><td>CEE 4458a/b</td><td>Risk Analysis and Decision Making in Engineering</td></tr> <tr><td>CEE 4459a/b</td><td>Design of Lateral Load Structural Systems</td></tr> <tr><td>CEE 4465a/b</td><td>Environmental Design for Waste Disposal</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></tr> <tr><td>CEE 4485a/b</td><td>Cities: Resilience and Sustainability</td></tr> <tr><td>CBE 4405a/b</td><td>Air Pollution</td></tr> <tr><td>Earth Sc. 3340a/b</td><td>Watershed Hydrology</td></tr> </table>	CEE 3355a/b	Municipal Engineering Design	CEE 4401 a/b	Principles of Transportation Engineering	CEE 4418a/b	Systems Approach for Civil and Environmental Engineering	CEE 4424a/b	Earth Structures Engineering	CEE 4428a/b	Selected Topics in Civil Engineering I	CEE 4429a/b	Selected Topics in Civil Engineering II	CEE 4438a/b	Introduction to Wood Design	CEE 4440	Civil Engineering Thesis (full year course - counts as two technical electives)	CEE 4458a/b	Risk Analysis and Decision Making in Engineering	CEE 4459a/b	Design of Lateral Load Structural Systems	CEE 4465a/b	Environmental Design for Waste Disposal	CEE 4476a/b	Environmental Hydraulics Design	CEE 4480a/b	Wind Engineering: Modelling, Assessment and Mitigation	CEE 4485a/b	Cities: Resilience and Sustainability	CBE 4405a/b	Air Pollution	Earth Sc. 3340a/b	Watershed Hydrology
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