## Software Engineering

**September 2021 (for students who started first year in 2018 or later)**

### Year 2:

#### Term A
- NMM 2270a Applied Mathematics for Engineering II (Formerly AM 2270A)
- ECE 2277a Digital Logic Systems
- SE 2202a Scripting Programming Language Fundamentals
- SE 2205a Algorithms and Data Structures
- Math 2151a Discrete Structures for Engineering
- SS 2141a Applied Probability and Statistics

#### Term B
- NMM 2276b Applied Mathematics for Elec & Mech Eng III (Formerly AM 2276B)
- ECE 2238b Introduction to Electrical Engineering
- SE 2203b Software Design
- SE 2250b Software Construction
- Writing 2130f/g Building Better (Communication) Bridges: Rhetoric & Professional Communication for Engineers
- One 0.5 non-technical elective from the approved list

### Year 3:

#### Term A
- ECE 4436a Networking: Principles, Protocols, and Architecture
- SE 3309a Database Management Systems
- SE 3313a Operating Systems for Software Engineering
- SE 3316a Web Technologies
- SE 3352a Software Requirements & Analysis

#### Term B
- ECE 3375b Microprocessors and Microcomputers
- SE 3310b Theoretical Foundations of Software Engineering
- SE 3314b Computer Networks Applications
- SE 3351b Software Project and Process Management
- SE 3353b Human-Computer Interaction
- SE 3350b Software Engineering Design I

### Year 4:

#### Term A
- SE 4450 Software Engineering Design II
- SE 4452a Software Testing and Maintenance
- SE 4472a Information Security
- Two 0.5 Technical Electives
- One 0.5 Non-Technical Elective from the approved list

#### Term B
- SE 4450 Software Engineering Design II
- SE 4455b Cloud computing: concepts, technologies, and applications
- ELI 4110g Engineering Ethics, Sustainable Development, and the Law
- Two 0.5 Technical Electives
- One 0.5 Non-Technical Elective from the approved list

### 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.

**Non-technical electives:**
Please choose a maximum of 1.0 credits from the 1000 level and a minimum of one 0.5 credit from the 2000 (or higher) level. [http://www.eng.uwo.ca/undergraduate/upper_year/electives.html](http://www.eng.uwo.ca/undergraduate/upper_year/electives.html)

**Technical electives:**
Students may elect to substitute technical electives from other engineering disciplines or from the Faculty of Science, provided they have the required prerequisites, and provided at least half of their technical electives be from the list below. A maximum of two 0.5-credit courses may be taken from the Faculty of Science and used towards the BESc degree. All courses outside the SE technical elective list must be approved by the ECE Department.

#### Technical Elective 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 Name</th>
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<tbody>
<tr>
<td>ECE 3389A/B</td>
<td>Computer System Design</td>
</tr>
<tr>
<td>ECE 3390A/B</td>
<td>Hardware/Software Co-Design</td>
</tr>
<tr>
<td>ECE 4460A/B</td>
<td>Real-Time and Embedded Systems</td>
</tr>
<tr>
<td>SE 4460A/B</td>
<td>Machine Learning and Design</td>
</tr>
<tr>
<td>CS 3342A/B</td>
<td>Organization of Programming Languages</td>
</tr>
<tr>
<td>CS 3346A/B</td>
<td>Artificial Intelligence I</td>
</tr>
<tr>
<td>CS 3388A/B</td>
<td>Computer Graphics I</td>
</tr>
<tr>
<td>CS 4442A/B</td>
<td>Artificial Intelligence II</td>
</tr>
<tr>
<td>CE 4463A/B</td>
<td>Computational Biology</td>
</tr>
<tr>
<td>CS 4482A/B</td>
<td>Game Programming</td>
</tr>
<tr>
<td>CS 4483A/B</td>
<td>Game Design</td>
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