## Software Engineering

**September 2020 (for students who started first year in 2016 or 2017)**

### Year 2:

#### Term A
- AM 2270a  Applied Mathematics for Engineering II
- ECE 2277a  Digital Logic Systems
- SE 2203a  Software Design
- Math 2151a  Discrete Structures for Engineering
- CS 1037a  Computer Science Fundamentals II
- SS 2141a  Applied Probability and Statistics

#### Term B
- AM 2276b  Applied Mathematics for Elec & Mech Eng III
- ECE 2238b  Introduction to Electrical Engineering
- SE 2250b  Software Construction
- SE 2205b  Algorithms and Data Structures
- 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
- ES 4498G  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 1.0 credits (one 1.0-credit or two 0.5-credit courses) from the 1000 level and one 0.5-credit course from the 2000 (or higher) level.

**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</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 4460A/B</td>
<td>Real-Time and Embedded Systems</td>
</tr>
<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>SE 4460A/B</td>
<td>Machine Learning &amp; Co-Design</td>
</tr>
<tr>
<td>CS 3346A/B</td>
<td>Artificial Intelligence I</td>
</tr>
<tr>
<td>CS 4442A/B</td>
<td>Artificial Intelligence II</td>
</tr>
<tr>
<td>CS 3388A/B</td>
<td>Computer Graphics I</td>
</tr>
<tr>
<td>CS 4482A/B</td>
<td>Game Engine Development</td>
</tr>
<tr>
<td>CS 4483A/B</td>
<td>Game Design</td>
</tr>
<tr>
<td>CS 3342A/B</td>
<td>Organization of programming languages</td>
</tr>
</tbody>
</table>

The official version of the academic calendar can be found at: www.westerncalendar.uwo.ca