## Computer Engineering: Software Systems for Ubiquitous Computing (Option B)

### September 2022 (for students who entered first year in September 2019)

### Year 2

#### Term A
- AM 2270A  Applied Mathematics for Engineering II
- SE 2202A  Scripting Programming Language Fundamentals
- ECE 2205A  Electric Circuits I
- ECE 2277A  Digital Logic Systems
- Math 2151A  Discrete Structures for Engineering
- SE 2205A  Algorithms and Data Structures for Object-Oriented Design

#### Term B
- ECE 3375B  Microprocessors and Microcomputers
- ECE 3380B  Advanced Digital Systems
- MSE 2233B  Circuits and Systems
- SE 2203B  Software Design
- SS 2143B  Applied Statistics and Data Analysis for Engineers

### Year 3

#### Term A
- ECE 3330A  Control Systems
- ECE 3389A  Computer System Design
- ECE 4436A  Networking: Principles, Protocols & Architecture
- SE 3313A  Operating Systems for Software Engineering
- SE 3316A  Web Technologies
- SE 3352A  Software Requirements and Analysis

#### Term B
- ECE 3331B  Introduction to Signal Processing
- ECE 3390B  Hardware/Software Co-Design
- ECE 4460B  Real-Time and Embedded Systems
- SE 3314B  Design and Implementation of Computer Networks
- SE 3353B  Human-Computer Interface Design
- Writ 2130G  Building Better (Communication) Bridges: Rhetoric & Professional Communication for Engineers

### Year 4

#### Term A
- ECE 4415  Computer Engineering Design Project
- ECE 4437A  Communications Theory
- SE 4452A  Software Verification and Validation
- One 0.5-credit non-technical elective from approved list
- Two 0.5-credit technical electives

#### Term B
- ECE 4415  Computer Engineering Design Project
- ELI 4110G  Engineering Ethics, Sustainable Development & the Law
- SE 4455B  Cloud Computing: Concepts, Technologies and Applications
- One 0.5-credit technical elective
- Two 0.5-credit non-technical electives from approved list

### Technical Electives

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>ECE 4429A/B</td>
<td>Advanced Digital Signal Processing</td>
</tr>
<tr>
<td>ECE 4438A/B</td>
<td>Advanced Image Processing and Analysis</td>
</tr>
<tr>
<td>ECE 4445A/B</td>
<td>Introduction to Digital Image Processing</td>
</tr>
<tr>
<td>ECE 4455A/B</td>
<td>Biomedical Systems Analysis</td>
</tr>
<tr>
<td>ECE 4469A/B</td>
<td>Applied Control Systems</td>
</tr>
<tr>
<td>SE 3309A/B</td>
<td>Database Management Systems</td>
</tr>
<tr>
<td>SE 3310A/B</td>
<td>Theoretical Foundations of Software Engineering</td>
</tr>
<tr>
<td>SE 3351A/B</td>
<td>Software Project and Process Management</td>
</tr>
<tr>
<td>SE 4460 A/B</td>
<td>Machine Learning &amp; Design</td>
</tr>
<tr>
<td>SE 4472A/B</td>
<td>Information Security</td>
</tr>
</tbody>
</table>

### NOTES:

**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:**

The official version of the academic calendar can be found at: [www.westerncalendar.uwo.ca](http://www.westerncalendar.uwo.ca)