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

**September 2022 (for students who entered first year in September 2020)**

## Year 2

### Term A
- NMM 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>
</tbody>
</table>

**Maximum one of:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<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>
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</tbody>
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## 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)