

# **Software Engineering**

**September 2024** (for students who started first year in 2022 or later)

## Year 2:

## Term A

NMM 2270a Applied Mathematics for Engineering II

ECE 2277a **Digital Logic Systems** 

SE 2202a **Scripting Programming Language Fundamentals** 

SE 2205a Algorithms and Data Structures Discrete Structures for Engineering Math 2151a SS 2141a **Applied Probability and Statistics** 

Term B

NMM 2276b Applied Mathematics for Elec & Mech Eng III

ECE 2238b Introduction to Electrical Engineering

SE 2203b Software Design **Software Construction** SF 2250b

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 3351a	Software Project and Process Management
SE 3316a	Web Technologies
SE 3352a	Software Requirements & Analysis
SE 3310a	Theoretical Foundations of Software Engineering

#### Term B

ECE 3375b	Microprocessors and Microcomputers
Physics 2300	Quantum Computation and Information
SE 3314b	Computer Networks Applications
SE 3313b	Operating Systems for Software Engineering

SE 3353b **Human-Computer Interaction** SE 3350b Software Engineering Design I

# Year 4:

## Term A

SE 4450 Software Engineering Design II SF 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 Engineering Ethics, Sustainable Development and the Law ELI 4110g

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

#### **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 B.E.Sc degree. All courses outside the SE technical elective list *must* be approved by the ECE Department.

# **List of Approved Technical Electives:**

Some technical electives may not be offered in a given academic year. Consult the department for accurate listing.

ECE 3389A/B	Computer System Design
ECE 3390A/B	Hardware/Software Co-Design
ECE 4460A/B	Real-Time and Embedded Systems
DS 3000A/B	Intro to Machine Learning
SE 4470A/B	Selected Topics in Software Engineering I
SE 4471A/B	Selected Topics in Software Engineering II
CS 3342A/B	Organization of Programming Languages
CS 3346A/B	Artificial Intelligence I
CS 3388A/B	Computer Graphics I
CS 4442A/B	Artificial Intelligence II
CS 4482A/B	Game Engine Development
CS 4483A/B	Game Design
CS 4463A/B	Computational Biology (!)
CS 4459A/B	Selected Topics in Distributed Systems (!)
CS 4417A/B	Unstructured Data (!)