Software Engineering

September 2020 *(for students who started first year in 2018 or 2019)*

Year 2:
Term A
AM 2270a	Applied Mathematics for Engineering II
ECE 2277a	Digital Logic Systems
SE 2205a	Algorithms and Data Structures
Math 2151a	Discrete Structures for Engineering
SE 2202a	Scripting Programming Language Fundamentals
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 2203b	Software Design
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.

ECE 4460A/B	Real-Time and Embedded Systems
ECE 3389A/B	Computer System Design
ECE 3390A/B	Hardware/Software Co-Design
SE 4460A/B	Machine Learning & Design
CS 3346A/B	Artificial Intelligence I
CS 4442A/B	Artificial Intelligence II
CS 3388A/B	Computer Graphics I
CS 4482A/B	Game Engine Development
CS 4483A/B	Game Design
CS 3342A/B	Organization of programming languages