SOFTWARE ENGINEERING MINOR (B.ENG.) (18 CREDITS)

Offered by: Electrical & Computer Engr (Faculty of Engineering)
Degree: Bachelor of Engineering
Program credit weight: 18

Program Description

The Software Engineering Minor provides a foundation in basic computer science, computer programming, and software engineering practice.

The Minor program does not carry professional recognition.

Students must complete 18 credits (six courses) as follows. Up to 6 credits (two courses) may be double-counted towards a degree program.

Note: For information about Fall 2025 and Winter 2026 course offerings, please check back on May 8, 2025. Until then, the "Terms offered" field will appear blank for most courses while the class schedule is being finalized.

Required Courses (9 credits)

Expand allContract all

Course	Title	Credits
ECSE 223	Model-Based Programming.	3
ECSE 321	Introduction to Software Engineering.	3
ECSE 428	Software Engineering Practice.	3

Complementary Courses

3 credits from the following:

Expand allContract all

Course	Title	Credits
COMP 250	Introduction to Computer Science.[1]	3
ECSE 250	Fundamentals of Software Development.[1]	3

[1] Students may choose only one course in each of the following sets:

- COMP 250 Introduction to Computer Science. and ECSE 250 Fundamentals of Software Development.
- COMP 424 Artificial Intelligence. and ECSE 526 Artificial Intelligence.
- ECSE 439 Software Language Engineering. and ECSE 539 Advanced Software Language Engineering.
- ECSE 446 Realistic Image Synthesis. and ECSE 546 Advanced Image Synthesis.

6 credits from the following:

Expand allContract all

Course	Title	Credits
COMP 302	Programming Languages and Paradigms.	3
COMP 307	Principles of Web Development.	3
COMP 409	Concurrent Programming.	3
COMP 421	Database Systems.	3
COMP 424	Artificial Intelligence.[1]	3
COMP 512	Distributed Systems.	4
COMP 527	Logic and Computation.	3
ECSE 326	Software Requirements Engineering.	3
ECSE 420	Parallel Computing.	3
ECSE 421	Embedded Systems.	3
ECSE 422	Fault Tolerant Computing.	3
ECSE 424	Human-Computer Interaction.	3
ECSE 425	Computer Architecture.	3
ECSE 427	Operating Systems.	3
ECSE 429	Software Validation.	3
ECSE 437	Software Delivery.	3
ECSE 439	Software Language Engineering.[1]	3
ECSE 446	Realistic Image Synthesis.[1, 2]	3
ECSE 526	Artificial Intelligence.[1, 2]	3
ECSE 539	Advanced Software Language Engineering.[1, 2]	4
ECSE 546	Advanced Image Synthesis.[1, 2]	4

[1] Students may choose only one course in each of the following sets:

- COMP 250 Introduction to Computer Science. and ECSE 250 Fundamentals of Software Development.
- COMP 424 Artificial Intelligence. and ECSE 526 Artificial Intelligence.
- ECSE 439 Software Language Engineering. and ECSE 539 Advanced Software Language Engineering.
- ECSE 446 Realistic Image Synthesis. and ECSE 546 Advanced Image Synthesis.

[2] Restricted to Honours students or Computer Engineering or Electrical Engineering students with CGPA of at least 3.0 and B+ or better in prerequisites