FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR		Notes
FALL	WINTER	FALL	WINTER	FALL	WINTER	FALL	WINTER	

First Year

FALL
- MATH 1004 — Calculus for Eng. Students
- CHEM 1101 — Chemistry for Eng. Students
- Elective — Complementary Studies Elective
- ECOR 1031 — Programming & Data Management
- ECOR 1032 — Circuits & Mechatronics
- ECOR 1055 — Introduction to Engineering Disciplines I (0.0 credit)
- ECOR 1057 — Engineering Profession (0.0 credit)

WINTER
- MATH 1104 — Linear Algebra for Eng. Students
- PHYS 1004 — Introductory Electromagnetism & Wave Motion
- SYSC 1006 — Foundation of Imperative Programming
- ECOR 1033 — Statics
- ECOR 1034 — Dynamics
- ECOR 1056 — Introduction to Engineering Disciplines II (0.0 credit)

IMPORTANT: A minimum grade of C- (C minus) is required in SYSC 1006 for degree progression.

Second Year

FALL
- MATH 1005 — Differential Equations & Infinite Series for Eng. Students
- SYSC 2004 (2nd) — O.O. Software Development
- SYSC 2100 (2nd) — Algorithms & Data Structures (note a)
- SYSC 2310 (2nd) — Introduction to Digital Systems
- ELEC 2501 (2nd) — Circuits & Signals

WINTER
- MATH 2004 — Multivariable Calculus for Eng. Students
- CCDP 2100 — Communication Skills for Eng. Students
- SYSC 2510 (2nd) — Probability, Statistics & Random Processes
- SYSC 2320 (2nd) — Computer Organization & Architecture
- ELEC 2507 (2nd) — Electronics I
- Elective — Science Elective (note b)

Third Year

FALL
- SYSC 3020 — Software to Software Engineering
- SYSC 3310 (3rd) — Introduction to Real-Time Systems (note a)
- SYSC 3600 (2nd) — Systems & Simulation
- SYSC 4001 (2nd) — Operating Systems (note a)
- ECOR 2050 (2nd) — Design & Analysis of Engineering Experiments
- Elective — Complementary Studies Elective

WINTER
- SYSC 3010 — Computer Systems Development Project
- SYSC 3313 (3rd) — Real-Time Embedded Systems
- SYSC 3320 (3rd) — Computer Systems Design
- SYSC 3501 — Communication Theory
- ECOR 3800 (3rd) — Engineering Economics

Fourth Year

FALL
- SYSC 4907 / ELEC 4907 / ECOR 4907 (4th) — Engineering Project (note e) (1.0 credit)
- SYSC 4310 — Computer Systems Architecture
- SYSC 4602 (3rd) — Computer Communications
- SYSC 4805 — Computer Systems Design Lab
- SYSC 4810 (4th) — Introduction to Network & Software Security

WINTER
- Elective — Engineering Elective (note c)
- Elective — Engineering Elective (note c)
- Elective — Engineering Elective (note c)
- ECOR 4995 (4th) — Professional Practice (note d)

ECOR 2995 Engineering Portfolio (note f) (0.0 credit)

Notes

Course Prerequisites and Year Status Requirements

The Faculty of Engineering and Design strictly upholds course prerequisites. Course prerequisites are found in the Undergraduate Calendar course descriptions, and are indicated by arrows* between courses in this program map.

Year status in Engineering prerequisites (as noted by 2nd, 3rd, or 4th above the course box) vary year to year, please carefully review requirements for your catalog year.

Academic Advising

Obtaining regular academic advising and support for course planning is essential for engineering students who are "off-pattern" from their program map. Contact your program advisor:

First year students (new and returning): ECORSupport@carleton.ca
Second year and higher students: https://ughelp.sce.carleton.ca/

Notes

(a) Requires C- (C minus) grade or better in SYSC 1006.

(b) 0.5 credit in BIOL 1103, BIOL 1104, CHEM 2302, CHEM 2800, PHYS 1001, or PHYS 1003.

(c) 1.5 credits in Electronics (ELEC) or Systems and Computer (SYSC) at the 3000- or 4000-level (may include up to 1.0 credits in SYSC at the 5000-level) or MECH 4503.

(d) ECOR 4995 can be taken in Winter term, if required due to limited elective options in Winter term.

(e) Register in SYSC 4907 if your project supervisor is in SCE; register in ELEC 4907 if your project supervisor is in DOE.

(f) Please review Engineering Portfolio submission and registration instructions. Students register for ECOR 2995 once 4th year status is achieved, either before or concurrent with ECOR 4995.

*Arrow Legend

→ Required prerequisite
⤍ Concurrent prerequisite

Kindly note: this program map has been designed to ease course planning and registration for engineering students; information is accurate at the time this document is produced. Prerequisites, course titles, course offerings, and course schedule patterns are based on the academic year in which this map was prepared and are subject to change. Please contact EngAcadSupport@carleton.ca for inquiries regarding this program map.

**Please run your audit after making any registration changes to verify they have been applied successfully