Master of Engineering (MEng) Course Advising Sheet for

Civil / Electrical / Mechanical Engineering

September 2025 Cohort

This document summarizes the courses required to obtain a Master of Engineering degree. Successful completion of the degree includes 30 credits of coursework, of which at least 24 credits must be Graduate level courses from the School of Engineering (ENGR 5XX, APSC 5XX, MANF 5XX) and at least 12 credits must be graduate level courses (5XX-level) within your discipline.

As of 2025/2026, the electrical discipline has been expanded to include courses allowing students to focus on computer engineering. Additionally, the mechanical discipline will include courses allowing students to focus on industrial & manufacturing engineering.

The advising sheet is subject to changes. For questions please contact:

Shannon Hohl – Graduate Advisor shannon.hohl@ubc.ca or engineering.graduate@ubc.ca.

2025 Winter 1 (September – December)

Core/Mandatory: Students must take **APSC 501** Professional Communication for Engineering Leaders

Electives: Students must choose 2 courses from their discipline specific electives shown below

Civil	Electrical	Mechanical
ENGR 533 Construction Engineering and Management **APSC 509** Construction Digitalization and Informatics **ENGR 528** Earthquake Engineering **ENGR 518** Machine Learning	**General:** **ENGR 558** Power Electronics **ENGR 571** Radio Frequency Integrated Circuits **ENGR 574** Antennas and Propagation **ENGR 573** Quantum Photonics **Computer Eng focus:** **ENGR 518 Applied** Machine Learning for Engineers **ENGR 580** Modern Control	**General:** **ENGR 582** Finite Element Methods **ENGR 584** Heat and Mass transfer **ENGR 518** Machine Learning **Industrial & Mfg. focus:** **MANF 560** Supply Chain Tactics and Strategies **ENGR 598** – Systems Analysis, Strategy, and Design

2025 Winter 2 (January – April)

Core/Mandatory: Students must take **ENGR 532** Project Planning and Control

Electives: Students must choose 2 courses from their discipline specific electives shown below

Civil	Electrical	Mechanical
ENGR 523 Seismic Design of Buildings **ENGR 534** Road Safety Planning and Engineering **ENGR 541** Water Resource Modelling **ENGR 529** Rehabilitation of Concrete Structures	**General:** **ENGR 535** Autonomous Vehicle Technology **ENGR 551** High power electronic converters for Power Systems Applications **ENGR 581** Mechatronics **APSC 519** System Identification **Computer Eng focus:** **ENGR 501** Deep and Reinforcement Learning for Engineers **ENGR 566** Advanced Communication Networks **ENGR 587** Digital Control **ENGR 598** Topics in Cloud Security	**General:** **ENGR 598** Applied HVAC **ENGR 598** Transport Phenomena **Industrial & Mfg. focus:** **ENGR 511** Technology Entrepreneurship **ENGR 581** Mechatronics **ENGR 598** Facility Planning

2026 Summer 1 (May- June)

Core/Mandatory:

APSC 513 Law and Ethics for Engineers

ENGR 589 Multicriteria Optimization and Design of Experiments

2026 Summer 2 (July - August)

Core/Mandatory:

APSC 505 Engineering Leadership

ENGR 544 Life Cycle Assessment and Management

2026 Winter 1 Optional Internship

The internship stream is an optional program available to all students in the MEng Okanagan program. Following your academic terms, you may participate in an internship for 4, 8, or 12 months. The internship is facilitated by the UBC Applied Science Co-op Program.

ENGR 597 (3) Engineering Project

ENGR 597 provides an opportunity for MEng students to work on research/industry projects with an academic supervisor. Admission to this course is not guaranteed and depends on the number of projects available. This course may eligible to replace one technical elective course.

Advising notes:

- The **MEng Course Advising Sheet** changes annually. Courses offered this year may not be offered in subsequent years.
- For cross-listed courses where there is an undergraduate course and graduate course offered at the same time, students must enroll in the graduate version of the course.
- Students who have credit for a mandatory course may take a replacement course that must be approved by the MENG Advisor before registration.
- Substitutions of any mandatory or elective course requirements must be approved in writing by the School of Engineering. Students interested in making a substitution must make their request to the Graduate Advisor (engineering.graduate@ubc.ca), including a rationale with any extenuating circumstances. Substitutions must be approved by the MENG Advisor before registration.
    - Students may take up to 6 credits of undergraduate courses (4XX).
    - Students may take up to 6 credits of courses outside of Engineering.
- A grade over 60% is a passing grade. Students may have up to 6 credits with grades between 60% and 67% inclusive. If you have 6 credits of coursework in the 60 -67% range, all other grades must be a minimum of 68%.
- Courses are subject to minimum and maximum enrolments. The School of Engineering reserves the right to cancel a course if the minimum enrolment is not met. If a course is cancelled, you will be notified via e-mail.
- Course descriptions, can be found in the Academic Calendar. Not all courses listed in the Academic Calendar are offered each year.
- Term dates can be found on the Academic Calendar.