Course Advising Sheet

Civil / Electrical / Mechanical Engineering - MEng Program, 2022-23

Eligibility to register in 2022 Winter term 1 (Sept – Dec 2022) and term 2 (January – April 2023) only

Version 5

Masters of Engineering (MEng) Program requires

- Successful completion of 30 credits of coursework
  - 24 credits must be Graduate level courses (ENGR 5**, APSC 5**, MANF 5**)
  - 12 credits must be within your preferred discipline (CIVIL, ELEC, OR MECH)
  - A maximum of 6 credits may be undergraduate courses (ENGR 3**, ENGR 4** or MANF 4**). Students can only take one undergraduate course during the winter terms and one undergraduate course during the summer terms. All ENGR 4** are preapproved as non-discipline specific courses, but ENGR 413 can only be taken in the summer terms. For courses with undergraduate prerequisites, Meng students must wait to request course registration until the first week of August by emailing engineering.graduate@ubc.ca and including your student number and course number.

- Courses from preferred disciplines are only offered during the Winter terms 1 and 2
- Over the Summer terms 1 and 2, a minimum of four common courses will be offered.
- Students are asked to enroll in three courses each Winter term, and two courses each Summer term. Registering in more course will block seats for other students.

<table>
<thead>
<tr>
<th>2022 Winter</th>
<th>2023 Summer</th>
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<tbody>
<tr>
<td>Term 1</td>
<td>Term 2</td>
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<td>3 courses</td>
<td>3 courses</td>
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- The courses listed on this advising sheet do not require approval by the program coordinator. Any other courses (including ENGR 3**, MANF 3**, and MANF 4** courses) that are not individually approved in writing by the program coordinator Dr. Rudolf Seethaler (Rudolf.seethaler@ubc.ca) may not be counted towards your degree.

Courses Not Assigned to a Specific Discipline

**Winter, Term 1**

- ENGR 4**, other than ENGR 413
- ENGR 589 Multicriteria Optimization and Design of Experim.
- MANF 450 Life Cycle Analysis and Sustainability

**Winter, Term 2**

- ENGR 4**, other than ENGR 413
- ENGR 511 Technology Entrepreneurship for Engineer
- MANF 486, Mechatronic Systems Laboratory

Civil Engineering Courses

**Winter, Term 1**

- APSC 514 Precast Concrete Structures
- APSC 530 Earth Dams and Dikes
- ENGR 523 Seismic Design of Buildings
- ENGR 525 Bridge Engineering
- ENGR 528 Earthquake Engineering
- ENGR 533 Construction Engineering and Management
- ENGR 536 Sustainable Land Use and Transportation
- ENGR 537 Railway Systems Engineering
- ENGR 548 Engineering Microbiology

**Winter, Term 2**

- ENGR 522 Advanced Design of Steel Structures
- ENGR 527 Prestressed Concrete
- ENGR 529 Rehabilitation of Concrete Structures
- ENGR 532 Project Planning and Control
- ENGR 534 Road Safety Planning and Engineering
- ENGR 538 Rock Engineering
- ENGR 546 Biological Treatment Processes
- ENGR 5985 Point Clouds

Electrical Engineering Courses

**Winter, Term 1**

- ENGR 512 Signals, Systems, and Inference
- ENGR 518 Applied Machine Learning for Engineers
- ENGR 558 Power Electronics
- ENGR 580 Modern Control
- ENGR 573 Quantum Photonics
- ENGR 574 Antennas and Propagation

**Winter, Term 2**

- APSC 504 Solar Cell Engineering
- APSC 541 Distributed Power Generation
- ENGR 501 Deep and Reinforcement Learning for Engineers
- ENGR 509 Intelligent Wireless Robotics
- ENGR 551 High Power Electronic Converters for Power System Applications
- ENGR 571 Radio Frequency Integrated Circuits
- ENGR 572 Fiber Optics and Photonics
- ENGR 587 Digital Control

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**Mechanical Engineering Courses**

**Winter, Term 1**
- ENGR 516 Advanced Manufacturing
- ENGR 518 Applied Machine Learning for Engineers
- ENGR 580 Modern Control
- ENGR 581 Mechatronics
- ENGR 586 Robot Modelling and Control
- MANF 555 Factory Planning

**Winter, Term 2**
- APSC 504 Solar Cell Engineering
- ENGR 513 Nanomaterials and Nanomanufacturing
- ENGR 535 Autonomous Vehicle Technology
- ENGR 563 Advanced Polymer Science and Engineering
- ENGR 582 Finite Element Method
- ENGR 585 Turbulence
- ENGR 587 Digital Control
- MANF 560 Supply Chain Tactics and Strategies

**Notes**

- The MEng advising sheet changes annually. Courses offered this year may not be offered in subsequent years. If a course switches between programs between years, the student should refer to the sheet from the year the course was taken to know how it will be used to fulfill their degree requirements.

- 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. Check the UBC Student Service Centre to see the course availability.

- Course descriptions, can be found on the Academic Calendar: [http://www.calendar.ubc.ca/okanagan/courses.cfm](http://www.calendar.ubc.ca/okanagan/courses.cfm)

- **Graduate Policy - Grades Required**
  
  Only 6 credits of courses with grades in the C to C+ range (60-67%) may be counted toward a master’s program. For all other courses, students must obtain a minimum of 68%. For master’s students registered in the College of Graduate Studies, Fail (F) for individual courses is defined as below 60%.

- Registration starts in the week of **June 13th, 2022**

- Term dates can be found on the Academic Calendar: [Dates and Deadlines - Okanagan Academic Calendar 2022/23 - UBC Student Services](http://www.calendar.ubc.ca/okanagan/courses.cfm)
  
  - **Add/drop date for 2022 Winter term 1:** **September 19, 2022** – last day to drop a registered course for term 1 and have the course removed from your academic record without a W (withdrawal)