

# Mechanical Engineering Bridge

## Camosun College to UBC Okanagan

### Registration

- You will be eligible to register for the 2023/24 Winter session, not for 2023 Summer session
- Pay registration deposit when admitted. Please ensure that your email address is current in the Student Service Centre (SSC).
- You will receive an email approximately 2 weeks before registration with your [registration date](#) and time. Use this advising sheet to build your Worklist (your draft schedule of which courses and sections you want to take) before your registration opens.
- Course descriptions can be accessed [here](#).
- Once your registration has opened, please contact the Engineering Advising office at [soe.advising@ubc.ca](mailto:soe.advising@ubc.ca) with your name, UBC student number and your Worklist. Include that you are in the Camosun Bridge program. Your registration will be manually performed by the Engineering Advising office within 48 hours of your registration date and time.
- The suggested course registration schedule is subject to change. Students are advised to meet with the Engineering Advising office on an annual basis to ensure they are meeting degree requirements.
- School of Engineering enrolment policy restricts enrolment to a maximum of 36 credits per academic year unless a Credit Limit Increase is approved. No course conflicts are permitted.

### Other Information

- For other questions regarding studying at UBC Okanagan please see the following website: <http://students.ok.ubc.ca/newtoubc/welcome.html>
- **Engineering Advising:** This should be your first point of call if you aren't sure who to ask or want to make an appointment to speak to an advisor <https://soeadvising.ok.ubc.ca/>
- **Clubs:** To get the most of your university experience we recommend joining one or more clubs. Some are specific to engineering students (<https://engineering.ok.ubc.ca/student-resources/clubs-associations/>), some are university-wide (<https://www.suo.ca/student-associations/>).
- **Co-op:** Bridge students are eligible to sign up for co-op (optional), contact [eng.coop@ubc.ca](mailto:eng.coop@ubc.ca) for further information.
- **Minors:** Bridge students are eligible to apply for the [Minor in Arts](#), [Minor in Management](#), [Minor in Computer Science](#) and [Master of Management Dual Degree](#). These optional components are in addition to the BASc degree and will add courses to your degree length if selected.
- **Options:** Mechanical Bridge students are eligible to apply for the Aerospace Option, [Biomedical Option](#), or [Mechatronics Option](#) (optional specialized sets of 4<sup>th</sup> year electives). The Mechatronics Option will require two additional programming courses in addition to degree requirements.

Review the below list of exemptions and required courses and the recommended schedule for program completion. Deviating from this recommended schedule is not advised without speaking to an Engineering Advisor first.

**Degree Requirements:**

EX denotes exemption from course based on prior studies. **These are the ONLY exemptions students will receive based on work completed in their technical diploma and Bridge program.** Transfer credits *may* be granted for Humanities credits completed outside of the Bridge and diploma programs if sufficient content coverage can be demonstrated. Please contact the Engineering Advising Office for more information

<b>First Year</b>	<b>Credits</b>
APSC 169 Fundamentals of Sustainable Engineering Design	3 (EX)
APSC 171 Engineering Drawing and CAD/CAM	3 (EX)
APSC 172 Engineering Analysis I	3 (EX)
APSC 173 Engineering Analysis II	3 (EX)
APSC 176 Engineering Communication	3 (EX)
APSC 177 Engineering Computation and Instrumentation	3 (EX)
APSC 178 Electricity, Magnetism, and Waves	4 (EX)
APSC 179 Linear Algebra for Engineers	2 (EX)
APSC 180 Statics	3 (EX)
APSC 181 Dynamics	3 (EX)
APSC 182 Matter and Energy I	3 (EX)
APSC 183 Matter and Energy II	3 (EX)
<b>Total Credits</b>	<b>0</b>

<b>Second Year</b>	<b>Credits</b>
APSC 201 Technical Communication	3 (EX)
APSC 246 System Dynamics	3 (EX)
APSC 248 Engineering Analysis III	3 (EX)
APSC 252 Thermodynamics	3 (EX)
APSC 253 Fluid Mechanics I	3 (EX)
APSC 254 Instrumentation and Data Analysis	3 (EX)
APSC 255 Electric Circuits and Power	3 (EX)
APSC 256 Numerical Methods for Analysis	3
APSC 258 Applications of Engineering Design	3
APSC 259 Materials Science I	3 (EX)
APSC 260 Mechanics of Materials I	3 (EX)
Humanities/Social Sciences Elective <sup>1</sup>	3
<b>Total Credits</b>	<b>9</b>

<sup>1</sup>In general, scientific geography courses, statistical courses, and studio/performance courses in fine arts, music, and theatre will not satisfy this requirement. Courses that teach language skills are not acceptable. See [Humanities Elective Courses](#)

<b>Third Year - Mechanical Engineering</b>	<b>Credits</b>
ENGR 303 Engineering Project Management	3
ENGR 305 Engineering Economic Analysis	3
ENGR 310 Fluid Mechanics II	3
ENGR 315 Systems and Control	3
ENGR 320 Electromechanical Devices	3
ENGR 375 Energy System Design	3
ENGR 376 Materials Science II	3
ENGR 377/ MANF 377 Manufacturing Processes	3
ENGR 380 Design of Machine Elements	3
ENGR 381 Kinematics and Dynamics of Machinery	3
ENGR 385 Heat Transfer Applications	3
ENGR 387 Vibration of Mechanical Systems	3
<b>Total Credits</b>	<b>36</b>

<b>Fourth Year - Mechanical Engineering</b>	<b>Credits</b>
ENGR 413 Law and Ethics for Engineers	3
ENGR 476 Mechanics of Materials II	3
ENGR 499 Engineering Capstone Design Project	6
Design Electives <sup>1</sup>	15
Technical Electives <sup>1</sup>	9
<b>Total Credits</b>	<b>36</b>

<sup>1</sup> See the Mechanical Engineering [4<sup>th</sup> year advising sheet](#) for elective options and requirements. **Bridge students must take at least 15 credits of design electives.**

*Academic schedule for completion of the Mechanical Engineering degree will require five terms of study:*

### ***Recommended Schedule - Graduate June 2025***

	<b>Term 1</b>	<b>Term 2</b>	<b>Summer</b>
<b>1<sup>st</sup> year at UBCO</b>	ENGR 303, 310, 376, 377, 381, 387	APSC 258, 315, 320, 375, 380, 385	APSC 256, ENGR 305 & Humanities Elective
<b>2<sup>nd</sup> year at UBCO</b>	Year 4 Term 1	Year 4 Term 2	

**Camosun Bridge students with any questions or concerns should contact the Mechanical Program Coordinator or [soe.advising@ubc.ca](mailto:soe.advising@ubc.ca).**