

MECHANICAL ENGINEERING, B.SC.

Degree Requirements

Mechanical Engineering Departmental Program

| Course | Title | Hours |
|---|--|----------------|
| Students must complete the Preliminary Engineering Program requirements for graduation. | | |
| CHEM 1110 | Introductory Chemistry 2: Interaction, Reactivity, and Chemical Properties | 3 |
| CHEM 1126 | Introduction to Chemistry Techniques for Engineering 2 | 1.5 |
| ENG 3000 | Engineering Economics | 3 |
| ENG 3020 | Technology, Society and the Future | 3 |
| ECE 3010 | Elements of Electric Machines and Digital Systems | 4 |
| ENG 2030 | Engineering Communication: Strategies for the Profession | 3 |
| or ENG 2040 | Engineering Communication: Strategies, Practice and Design | |
| MATH 2130 | Engineering Mathematical Analysis 1 | 3 |
| MATH 2132 | Engineering Mathematical Analysis 2 | 3 |
| MATH 3132 | Engineering Mathematical Analysis 3 | 3 |
| MECH 2112 | Fundamentals of Mechanical and Computer Aided Design | 5 |
| MECH 2150 | Mechanical Engineering Modelling and Numerical Methods | 4 |
| MECH 2202 | Thermodynamics | 4 |
| MECH 2222 | Mechanics of Materials | 4 |
| MECH 2262 | Fundamentals of Fluid Mechanics | 4 |
| MECH 2272 | Engineering Materials 1 | 4 |
| MECH 3170 | Project Management | 4 |
| MECH 3420 | Vibrations and Acoustics | 4 |
| MECH 3430 | Measurements and Control | 4 |
| MECH 3460 | Heat Transfer | 4 |
| MECH 3482 | Kinematics and Dynamics | 4 |
| MECH 3492 | Fluid Mechanics and Applications | 4 |
| MECH 3502 | Stress Analysis and Design | 4 |
| MECH 3542 | Engineering Materials 2 | 4 |
| MECH 3652 | Machine Design | 4 |
| MECH 3982 | Mechanical Laboratories in Solid Mechanics | 2 |
| MECH 3992 | Mechanical Laboratories in Thermofluids | 2 |
| MECH 4860 | Engineering Design | 5 |
| PHYS 1070 | Physics 2: Waves and Modern Physics | 3 |
| STAT 2220 | Contemporary Statistics for Engineers | 3 |
| Five Technical Electives (TE) ^{1, 2} | | 20-22 |
| One Course from the list of Indigenous Knowledge Courses ³ | | 3 |
| Total Hours | | 163-165 |

Note: The former CHEM 1310 may be used in lieu of the combination of CHEM 1110 and CHEM 1126.

Indigenous Knowledge Courses⁴

| Course | Title | Hours |
|-----------|--|-------|
| INDG 1200 | Indigenous Peoples in Canada | 6 |
| INDG 1220 | Indigenous Peoples in Canada, Part 1 | 3 |
| INDG 1240 | Indigenous Peoples in Canada, Part 2 | 3 |
| INDG 2012 | Indigenous History in Canada | 6 |
| INDG 2020 | The Métis in Canada | 3 |
| POLS 2802 | Introduction to Indigenous Politics | 3 |
| POLS 3870 | Politics of Indigenous-Settler Relations | 3 |

- 1 A minimum of 20 credit hours of technical electives is required with 18 hours required if completing MECH 4162 (5 courses at 4 credit hours each or 3 courses at 4 credit hours each plus MECH 4162 at 6 credit hours).
- 2 For courses continuing through both terms, credit is given on completion of course
- 3 Students admitted to Mechanical Engineering in Fall 2021 who have completed two complementary studies elective courses prior to admission to the program, may use one of those courses in place of the Indigenous knowledge course. A complementary studies course is any course from the Faculty of Arts or the Faculty of Management at the 1000 level or above, with the exception of ARTS 1110 Introduction to the University which may not be used for credit in the Faculty of Engineering.
- 4 Student must select one course from the list of Indigenous Knowledge Courses