

MECHANICAL ENGINEERING, B.SC.

Degree Requirements

Mechanical Engineering Departmental Program

Course	Title	Hours
Students must complete the Preliminary Engineering Program requirements for graduation.		37.5
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

- 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