

## DEGREE CHECKLIST 2023-2024

## BACHELOR OF ENGINEERING (BEng) MECHANICAL ENGINEERING

NAME

STUDENT #

Students are strongly advised to refer to online Academic Calendars before enrolling into courses: http://calendars.registrar.yorku.ca/

			COURSES	CREDITS EARNED	GRADE				
First Year Courses									
		SC/CHEM 1100 4.00	Chemistry and Materials Science for Engineers						
		LE/EECS 1011 3.00	Computational Thinking Through Mechatronics						
		LE/EECS 1021 3.00	Object Oriented Programming from Sensors to Actuators						
		LE/ENG 1101 4.00	Renaissance Engineer 1: Ethics, Communication and Problem Solving						
		LE/ENG 1102 4.00	Renaissance Engineer 2: Engineering Design Principles						
		LE/ESSE 1012 3.00	The Earth Environment						
		SC/MATH 1013 3.00	Applied Calculus I						
		SC/MATH 1014 3.00	Applied Calculus II						
		SC/MATH 1025 3.00	Applied Linear Algebra						
		SC/PHYS 1800 3.00	Engineering Mechanics						
		SC/PHYS 1801 3.00	Electricity, Magnetism and Optics for Engineers						
		Second Yea	r Courses						
		LE/ENG 2001 3.00	Engineering Projects: Management, Economics & Safety						
		LE/ENG 2003 3.00	Effective Engineering Communication						
		SC/MATH 2015 3.00	Applied Multivariate and Vector Calculus						
		SC/MATH 2271 3.00	Differential Equations for Scientists and Engineers						
		SC/MATH 2930 3.00	Introduction to Probability and Statistics						
		LE/MECH 2201 3.00	Thermodynamics						
		LE/MECH 2202 3.00	Heat and Flow Engineering Principles						
		LE/MECH 2301 3.00	Mechanics of Materials 1						
		LE/MECH 2302 3.00	Dynamics						
		LE/MECH 2401 3.00	Engineering Graphics & CAD Modelling						
		LE/MECH 2412 3.00	Mini Design Project 1						
		LE/MECH 2502 3.00	Instrumentation and Measurement Techniques						
Complementary Studies (3 credits)									
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	COURSES CREDITS EARNED									
Third Year Courses										
		LE/EECS 3505 3.00	Electrical Systems for Mechanical Engineers							
		LE/ESSE 2210 3.00	Engineering and the Environment							
		LE/MECH 2112 3.00	Mechanical Engineering: Professionalism and Society							
		LE/MECH 3201 3.00	Engineering Thermodynamics							
		LE/MECH 3202 3.00	Fluid Dynamics							
		LE/MECH 3203 3.00	Heat Transfer							
		LE/MECH 3302 3.00	Mechanisms for Mechanical Systems							
		LE/MECH 3401 3.00	Mini Design Project 2							
		LE/MECH 3409 3.00	Machine Elements Design							
		LE/MECH 3502 3.00	Solid Mechanics and Materials Laboratory							
		LE/MECH 3503 3.00	Macro- and Micro-Manufacturing Methods							
		LE/MECH 3504 3.00	Thermofluid Laboratory							
Complementary Studies (3 credits)										
		Fourth Year	r Courses							
		LE/ENG 3000 3.00	Professional Engineering Practice							
		LE/ENG 4000 6.00	Engineering Project							
		LE/ENG 4550 3.00	Introduction to Control Systems							
		LE/MECH 4401 3.00	System Level Engineering							
		LE/MECH 4402 4.00	Simulation Tools for Design & Analysis							
		LE/MECH 4502 3.00	Vibrations and Actuators							
		LE/MECH 4504 3.00	Life Cycle Analysis and Sustainability							
6 credits from: LE/MECH 4201 3.00, LE/MECH 4202 3.00, LE/MECH 4203 3.00, LE/MECH 4301 3.00, LE/MECH 4510 3.00, LE/MECH 4511 3.00, LE/MECH 4512 3.00, LE/ENG 4650 3.00										
Complementary Studies (6 credits)										
TOTAL CREDITS & CGPA (minimum overall GPA of 5.00 required to graduate in the BEng program)										
General Prerequisite: Most 2000-, 3000-, and 4000-level EECS courses require the following general (that is, common) prerequisites, in addition to other course-specific prerequisites: a cumulative grade point average of 4.50 or better over all completed major EECS courses. Note: "Major" courses are all EECS courses with second digit other than 5 and include LE/EECS 1028 3.00 (cross-listed to: SC/MATH 1028 3.00) and LE/EECS 1019 3.00 (cross-listed to: SC/MATH 1019 3.00).										
Participation in the Co-Op Program is highly recommended for all engineering students, but is not a degree requirement.										
Notes										
BEng, Mechanical Engineering Page 2 of 2										