



**DEGREE CHECKLIST
2019-2020**

**BACHELOR OF ENGINEERING (BEng)
SPACE 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				
	<input type="checkbox"/>	SC/CHEM 1100 4.00 Chemistry and Materials Science for Engineers		
	<input type="checkbox"/>	LE/EECS 1011 3.00 Computational Thinking Through Mechatronics		
	<input type="checkbox"/>	LE/EECS 1021 3.00 Object Oriented Programming from Sensors to Actuators		
	<input type="checkbox"/>	LE/ENG 1101 4.00 Renaissance Engineer 1: Ethics, Communication and Problem Solving		
	<input type="checkbox"/>	LE/ENG 1102 4.00 Renaissance Engineer 2: Engineering Design Principles		
	<input type="checkbox"/>	LE/ESSE 1012 3.00 The Earth Environment		
	<input type="checkbox"/>	SC/MATH 1013 3.00 Applied Calculus I		
	<input type="checkbox"/>	SC/MATH 1014 3.00 Applied Calculus II		
	<input type="checkbox"/>	SC/MATH 1025 3.00 Applied Linear Algebra		
	<input type="checkbox"/>	SC/PHYS 1800 3.00 Engineering Mechanics		
	<input type="checkbox"/>	SC/PHYS 1801 3.00 Electricity, Magnetism and Optics for Engineers		
Second Year Courses				
	<input type="checkbox"/>	LE/ENG 2001 3.00 Engineering Projects: Management, Economics & Safety		
	<input type="checkbox"/>	LE/ESSE 2030 3.00 Geophysics and Space Science		
	<input type="checkbox"/>	LE/ESSE 2220 3.00 Algorithmic and Computational methods for Geomatics and Space Engineering		
	<input type="checkbox"/>	LE/ESSE 2361 3.00 Space Systems Engineering		
	<input type="checkbox"/>	LE/ESSE 2470 3.00 Introduction to Continuum Mechanics		
	<input type="checkbox"/>	LE/MECH 2302 3.00 Dynamics		
	<input type="checkbox"/>	LE/MECH 2401 3.00 Engineering Graphics & CAD Modelling		
	<input type="checkbox"/>	SC/MATH 2015 3.00 Applied Multivariate and Vector Calculus		
	<input type="checkbox"/>	SC/MATH 2271 3.00 Differential Equations for Scientists and Engineers		
	<input type="checkbox"/>	SC/MATH 2930 3.00 Introduction to Probability and Statistics		
	<input type="checkbox"/>	SC/PHYS 2020 3.00 Electricity and Magnetism		
Complementary Studies (3 credits)	<input type="checkbox"/>			
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	COURSES		CREDITS EARNED	GRADE
Third Year Courses				
	<input type="checkbox"/>	LE/ENG 3000 3.00 Professional Engineering Practice		
	<input type="checkbox"/>	LE/ENG 3330 3.00 Materials for Space Applications		
	<input type="checkbox"/>	ES/ENVS 2150 3.00 Environment, Technology and Sustainable Society I or LE/ESSE 2210 3.00 Engineering and the Environment		
	<input type="checkbox"/>	LE/ESSE 3280 3.00 Physics of the Space Environment		
	<input type="checkbox"/>	LE/ESSE 3360 3.00 Heat Transfer and Thermal Design		
	<input type="checkbox"/>	LE/ESSE 4110 3.00 Dynamics of Space Vehicles		
	<input type="checkbox"/>	LE/MECH 3302 3.00 Mechanisms for Mechanical Systems		
	<input type="checkbox"/>	SC/PHYS 2030 3.00 Computational Methods for Physicists and Engineers		
	<input type="checkbox"/>	SC/PHYS 3050 3.00 Electronics I		
	<input type="checkbox"/>	SC/PHYS 3150 3.00 Electronics II		
	<input type="checkbox"/>	SC/PHYS 3250 3.00 Introduction to Space Communications		
Complementary Studies (3 credits)	<input type="checkbox"/>			
Fourth Year Courses				
	<input type="checkbox"/>	LE/ENG 4000 6.00 Engineering Project		
	<input type="checkbox"/>	LE/ESSE 4020 3.00 Time Series and Spectral Analysis		
	<input type="checkbox"/>	LE/ENG 4350 6.00 Space Hardware		
	<input type="checkbox"/>	LE/ESSE 4360 3.00 Payload Design		
	<input type="checkbox"/>	LE/ESSE 4361 3.00 Space Mission Design		
	<input type="checkbox"/>	LE/ESSE 4370 3.00 Finite Element Methods in Engineering Design		
	<input type="checkbox"/>	LE/ENG 4550 3.00 Introduction to Control Systems		
Two of: LE/EECS 4421 3.00, LE/ENG 3320 3.00, LE/ENG 4330 3.00, LE/ENG 4650 3.00, LE/ESSE 3020 3.00, LE/ESSE 3670 3.00, LE/ESSE 4220 3.00, LE/ESSE 4230 3.00, SC/PHYS 3070 3.00, SC/PHYS 4120 3.00	<input type="checkbox"/>			
	<input type="checkbox"/>			
Complementary Studies (6 credits)	<input type="checkbox"/>			
	<input type="checkbox"/>			
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				
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