



**DEGREE CHECKLIST
2021-2022**

**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/ENG 2003 3.00	Effective Engineering Communication		
	<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/ESSE 3330 3.00	Materials for Space Applications		
	<input type="checkbox"/>	LE/ESSE 2210 3.00 or ES/ENVS 2150 3.00	Engineering and the Environment or Environment, Technology and Sustainable Society I		
	<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/ESSE 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 OR LE/ESSE 3320 3.0, 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)					
Participation in the Co-Op Program is highly recommended for all engineering students, but is not a degree requirement.					
Notes					
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