



**DEGREE CHECKLIST  
2021-2022**

**BACHELOR OF ENGINEERING (BEng)  
CIVIL ENGINEERING**

**NAME**

**STUDENT #**

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

		<b>COURSES</b>		<b>CREDITS EARNED</b>	<b>GRADE</b>
<b>First Year Courses</b>					
	<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		
<b>Second Year Courses</b>					
	<input type="checkbox"/>	LE/CIVL 2000 3.00	Civil Engineering Design Project		
	<input type="checkbox"/>	LE/CIVL 2120 3.00	Civil Engineering Materials		
	<input type="checkbox"/>	LE/CIVL 2150 3.00	Civil Engineering Graphics		
	<input type="checkbox"/>	LE/CIVL 2160 3.00	Geological Processes		
	<input type="checkbox"/>	LE/CIVL 2210 4.00	Fluid Mechanics		
	<input type="checkbox"/>	LE/CIVL 2220 4.00	Mechanics of Materials		
	<input type="checkbox"/>	LE/CIVL 2240 3.00	Introduction to Environmental Engineering		
	<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 2635 3.00	Land Surveying for Civil Engineers		
	<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		
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		COURSES		CREDITS EARNED	GRADE
<b>Third Year Courses</b>					
	<input type="checkbox"/>	LE/CIVL 3110 3.00	Soil Mechanics		
	<input type="checkbox"/>	LE/CIVL 3120 4.00	Hydraulics		
	<input type="checkbox"/>	LE/CIVL 3130 4.00	Structural Analysis		
	<input type="checkbox"/>	LE/CIVL 3140 3.00	Civil Engineering Computational Methods		
	<input type="checkbox"/>	LE/CIVL 3160 3.00	Transportation Engineering		
	<input type="checkbox"/>	LE/CIVL 3210 3.00	Geotechnical Engineering		
	<input type="checkbox"/>	LE/CIVL 3220 3.00	Hydrology		
	<input type="checkbox"/>	LE/CIVL 3230 4.00	Introduction to Structural Design		
	<input type="checkbox"/>	LE/CIVL 3240 3.00	Sanitary and Environmental Engineering		
	<input type="checkbox"/>	LE/CIVL 3260 3.00	Transportation Planning & Evaluation		
	<input type="checkbox"/>	LE/ENG 3000 3.00	Professional Engineering Practice		
	<input type="checkbox"/>	ES/ENVS 2150 3.00 or LE/ESSE 2210 3.00	Environment, Technology and Sustainable Society I or Engineering and the Environment		
<b>Fourth Year Courses</b>					
	<input type="checkbox"/>	LE/CIVL 4110 3.00	Civil Engineering Project Management		
	<input type="checkbox"/>	LE/CIVL 4210 3.00	Civil Engineering for a Sustainable Future		
	<input type="checkbox"/>	LE/CIVL 4000 6.00	Civil Engineering Capstone Design Project		
<b>Complementary Studies (12 credits)</b>	<input type="checkbox"/>				
	<input type="checkbox"/>				
	<input type="checkbox"/>				
	<input type="checkbox"/>				
<b>Technical Electives</b>					
<b>Four Technical Electives from Group A to E, with a maximum of three Electives from the same Group:</b>					
<b>Group A - Structures</b>	<input type="checkbox"/>	LE/CIVL 4001 3.00	Advanced Structural Analysis		
	<input type="checkbox"/>	LE/CIVL 4002 3.00	Reinforced Concrete Design		
	<input type="checkbox"/>	LE/CIVL 4003 3.00	Structural Steel Design		
	<input type="checkbox"/>	LE/CIVL 4004 3.00	Structural Dynamics and Earthquake Engineering		
<b>Group B - Geotechnical</b>	<input type="checkbox"/>	LE/CIVL 4011 3.00	Geotechnical Modelling		
	<input type="checkbox"/>	LE/CIVL 4012 3.00	Mechanics of Unsaturated Soils		
	<input type="checkbox"/>	LE/CIVL 4013 3.00	Hydrogeology		
	<input type="checkbox"/>	LE/CIVL 4015 3.00	Frozen Ground Engineering		
	<input type="checkbox"/>	LE/CIVL 4016 3.00	Geological Engineering and Design		
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	COURSES			CREDITS EARNED	GRADE
<b>Group C - Hydrotechnical</b>	<input type="checkbox"/>	LE/CIVL 4021 3.00	Hydraulic Structures		
	<input type="checkbox"/>	LE/CIVL 4022 3.00	Water Resources Engineering		
	<input type="checkbox"/>	LE/CIVL 4023 3.00	Advanced Techniques in Hydrotechnical Engineering		
	<input type="checkbox"/>	LE/CIVL 4024 3.00	Environmental Fluid Mechanics *new addition 2021/2022*		
<b>Group D - Transportation</b>	<input type="checkbox"/>	LE/CIVL 4031 3.00	Pavement Materials and Design		
	<input type="checkbox"/>	LE/CIVL 4033 3.00	Traffic Simulation Modelling		
	<input type="checkbox"/>	LE/CIVL 4034 3.00	Freight Transportation		
<b>Group E - Environmental</b>	<input type="checkbox"/>	LE/CIVL 4041 3.00	Landfill Design		
	<input type="checkbox"/>	LE/CIVL 4042 3.00	Environmental Impact Assessment and Sustainability		
	<input type="checkbox"/>	LE/CIVL 4043 3.00	Advanced Sanitary and Environmental Engineering		
	<input type="checkbox"/>	LE/CIVL 4044 3.00	Environmental Geotechnics		
<b>TOTAL CREDITS &amp; CGPA (minimum overall GPA of 5.00 required to graduate in the BEng program)</b>					
<p>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).</p>					
Participation in the Co-Op Program is highly recommended for all engineering students, but is not a degree requirement.					
<b>Notes</b>					
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