

DEGREE CHECKLIST 2023-2024

BACHELOR OF ENGINEERING (BEng) CIVIL ENGINEERING

NAME

STUDENT #

			COURSES	CREDITS EARNED	GRADE
		First Year	Courses		
		SC/CHEM 1100 4.00	Chemistry and Materials Science for Engineers		
	0	LE/EECS 1011 3.00	Computational Thinking Through Mechatronics		
	0	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/CIVL 2000 3.00	Civil Engineering Design Project		
		LE/CIVL 2120 3.00	Civil Engineering Materials		
		LE/CIVL 2150 3.00	Civil Engineering Graphics		
		LE/CIVL 2160 3.00	Geological Processes		
		LE/CIVL 2210 4.00	Fluid Mechanics		
		LE/CIVL 2220 4.00	Mechanics of Materials		
		LE/CIVL 2240 3.00	Introduction to Environmental Engineering		
		LE/ENG 2001 3.00	Engineering Projects: Management, Economics & Safety		
		LE/ENG 2003 3.00	Effective Engineering Communication		
Two-week survey course should be completed in the summer after 2nd year in order to meet 3rd year pre- requisites.		LE/ESSE 2635 3.00	Land Surveying for Civil Engineers		
		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		
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			COURSES	CREDITS EARNED	GRADE
		Third Year	Courses		
		LE/CIVL 3110 3.00	Soil Mechanics		
		LE/CIVL 3120 4.00	Hydraulics		
		LE/CIVL 3130 4.00	Structural Analysis		
		LE/CIVL 3140 3.00	Civil Engineering Computational Methods		
		LE/CIVL 3160 3.00	Transportation Engineering		
		LE/CIVL 3210 3.00	Geotechnical Engineering		
		LE/CIVL 3220 3.00	Hydrology		
		LE/CIVL 3230 4.00	Introduction to Structural Design		
		LE/CIVL 3240 3.00	Sanitary and Environmental Engineering		
		LE/CIVL 3260 3.00	Transportation Planning & Evaluation		
		LE/ENG 3000 3.00	Professional Engineering Practice		
		LE/ESSE 2210 3.00	Engineering and the Environment		
		Fourth Yea	r Courses		
		LE/CIVL 4110 3.00	Civil Engineering Project Management		
		LE/CIVL 4210 3.00	Civil Engineering for a Sustainable Future		
Prerequisites: LE/ENG 2003 3.00, LE/ENG 3000 3.00, All LE/CIVL 2XXX & 3XXX-level courses.		LE/CIVL 4000 6.00	Civil Engineering Capstone Design Project		
Complementary Studies (12 credits)					
		Technical E	Electives		
Four Technical Elect	ives fro	om Group A to E, with a m	naximum of three Electives from the same Group:		
		LE/CIVL 4001 3.00	Advanced Structural Analysis		
Group A - Structures		LE/CIVL 4002 3.00	Reinforced Concrete Design		
		LE/CIVL 4003 3.00	Structural Steel Design		
		LE/CIVL 4004 3.00	Structural Dynamics and Earthquake Engineering		
		LE/CIVL 4005 3.00	Wood Engineering		
		LE/CIVL 4011 3.00	Geotechnical Modelling		
		LE/CIVL 4012 3.00	Mechanics of Unsaturated Soils		
Group B - Geotechnical		LE/CIVL 4013 3.00	Hydrogeology		
C. Cap D Geolechinean		LE/CIVL 4015 3.00	Frozen Ground Engineering		
		LE/CIVL 4016 3.00	Geological Engineering and Design		
		LE/CIVL 4031 3.00	Pavement Materials and Design		
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			COURSES	CREDITS EARNED	GRADE
Group C - Hydrotechnical		LE/CIVL 4021 3.00	Hydraulic Structures		
		LE/CIVL 4022 3.00	Water Resources Engineering		
		LE/CIVL 4023 3.00	Advanced Techniques in Hydrotechnical Engineering		
		LE/CIVL 4024 3.00	Environmental Fluid Mechanics		
Group D - Transportation		LE/CIVL 4033 3.00	Traffic Simulation Modelling		
		LE/CIVL 4034 3.00	Freight Transportation		
		LE/CIVL 4041 3.00	Landfill Design		
		LE/CIVL 4042 3.00	Environmental Impact Assessment and Sustainability		
Group E - Environmental		LE/CIVL 4043 3.00	Advanced Sanitary and Environmental Engineering		
		LE/CIVL 4044 3.00	Environmental Geotechnics		
TOTAL CREDITS	& CGPA	(minimum overall GPA of	5.00 required to graduate in the BEng program)		
			r all engineering students, but is not a degree requirement tps://lassonde.yorku.ca/co-op/		