



**DEGREE CHECKLIST
2024-2025**

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

NAME

STUDENT #

Students are strongly advised to refer to online Academic Calendars before enrolling into courses:
<https://calendars.students.yorku.ca/academic-calendar#/programs>

			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/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		
Two-week survey course should be completed in the Summer after 2nd year in order to meet 3rd year pre-requisites.	<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
Third Year Courses					
	<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"/>	LE/ESSE 2210 3.00	Engineering and the Environment		
Fourth Year Courses					
	<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		
Prerequisites: LE/ENG 2003 3.00, LE/ENG 3000 3.00, and all LE/CIVL 2XXX & 3XXX-level courses	<input type="checkbox"/>	LE/CIVL 4000 6.00	Civil Engineering Capstone Design Project		
Complementary Studies (12.00 credits)	<input type="checkbox"/>				
	<input type="checkbox"/>				
	<input type="checkbox"/>				
	<input type="checkbox"/>				
Technical Electives					
Four Technical Electives from Group A to E, with a maximum of three electives from the same Group:					
Group A - Structures	<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		
	<input type="checkbox"/>	LE/CIVL 4005 3.00	Wood Engineering		
Group B - Geotechnical	<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		
	<input type="checkbox"/>	LE/CIVL 4031 3.00	Pavement Materials and Design		
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Technical Electives Continued			CREDITS EARNED	GRADE	
Group C - Hydrotechnical	<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		
Group D - Transportation	<input type="checkbox"/>	LE/CIVL 4033 3.00	Traffic Simulation Modelling		
	<input type="checkbox"/>	LE/CIVL 4034 3.00	Freight Transportation		
Group E - Environmental	<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		
TOTAL CGPA (minimum cumulative GPA of 5.00 (C+) required to graduate with an Honours degree)					
Participation in Co-op is highly recommended, but is not a degree requirement.					
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Complementary Studies - BEng General Education

Essentials

- You need to pass a total of 12 credits to satisfy this requirement
- These credits are typically completed throughout **second, third, and fourth year**
- You need to pass **at least 3** credits from approved humanities/social science subject areas
- The remaining 9 credits must be completed from the humanities/social science subject areas listed on page 1 or the specified courses listed on page 2
- If you wish, you may complete all 12 credits in the approved humanities/social science subject areas

Restrictions & Reminders

- Unless specified with an asterisk (*), Faculty of Science (SC) courses and courses cross-listed to Faculty of Science, **do not** count towards the humanities/social science component (e.g. AP/HIST 2810 3.00 History of Modern Science is cross-listed to SC/STS 2010 3.00 and therefore **does not** count towards Complementary Studies)
- Courses with a focus on math or statistics **do not** count (e.g. MODR 1650)
- PHIL 2100 3.00 Introduction to Logic **does not** count.

Approved Humanities/Social Science Subject Areas:

Students must **complete at least 3 credits** from the subject areas listed below:

Anthropology (ANTH)	English (EN)	Indigenous Studies (INDG)	Philosophy (PHIL)
Canadian Studies (CDNS)	Gender & Women's Studies (GWST)	Linguistics (LING, LIN)	Political Science (POLS)
Children, Childhood & Youth Studies (CCY)	History (HIST)	Modes of Reasoning (MODR)	Religious Studies (RLST)
Communications (COMS, CMDS)	Human Rights and Equity Studies (HREQ)	Multicultural and Indigenous Studies (MIST)	Social Science (SOSC)
Culture (CLTR)	Humanities (HUMA)		Sociology (SOCI)
			Writing (WRIT)

Languages:

American Sign Language (ASL)	Modern Greek (GKM)	German (GR)	Korean (KOR)
Arabic (ARB)	English as a Second Language (ESL)	Hebrew (HEB)Hindi (HND)	Latin (LA)
Catalan (CAT)	French as a Second Language (FSL)	Italian (IT)	Persian (PERS)
Chinese (CH)	French (FR, FRAN)	Jamaican Creole (JC)	Portuguese (POR)
Greek (GK)		Japanese (JP)	Spanish (SP)
			Swahili (SWAH)

The remaining 9 credits must be completed from the humanities/social science subject areas listed on page 1 or the specified courses listed below:

AP/ADMS 1000 3.00	EU/ENVS 3230 3.00	EU/GEOG 2110 3.00	FA/THEA 1500 6.00
AP/ADMS 1010 3.00	EU/ENVS 3320 3.00	EU/GEOG 2220 3.00	FA/THEA1520 3.00
AP/DEMS 1701 3.00	EU/ENVS 3340 3.00	EU/GEOG 2310 6.00	FA/THEA 1900 3.00
AP/DEMS 2700 3.00	EU/ENVS 3410 3.00	EU/GEOG 3070 3.00	FA/THEA 2060 3.00
AP/DEMS 3706 3.00	EU/ENVS 3420 3.00	EU/GEOG 3150 3.00	FA/YSDN 1900 3.00
AP/DEMS 3707 3.00	EU/ENVS 3430 3.00	EU/GEOG 3230 3.00	HH/IHST 1020 6.00
AP/DEMS 3708 3.00	EU/ENVS 3505 3.00	FA/ARTH 1900 3.00	HH/PSYC1010 6.00
AP/DLLL 1000 6.00	EU/ENVS 3520 3.00	FA/ARTH 2350 3.00	LE/TECL1000 3.00
AP/ECON 1000 3.00	EU/ENVS 3740 3.00	FA/ARTH 2390 3.00	LE/TECL3033 3.00
AP/ECON 1010 3.00	EU/ENVS 4011 3.00	FA/ARTH 2620 3.00	LE/TECL 3099 3.00
AP/HUMA 3226 3.00*	EU/ENVS 4140 3.00	FA/CMA 1401 6.00	LW/LAW 3591 3.00
AP/LLS 1000 6.00	EU/ENVS 4161 3.00	FA/CMA 1701 3.00	SB/ENTR 3400 3.00
AP/PPAS 2110 3.00	EU/ENVS 4210 3.00	FA/CMA 1900 3.00	SB/ENTR 3600 3.00
AP/PPAS 2200 3.00	EU/ENVS 4220 3.00	FA/CMA 2401 6.00	SB/ENTR 4500 3.00
AP/PPAS 3000 3.00	EU/ENVS 4225 3.00	FA/DANC 1340 3.00	SC/BC 3010 3.00
AP/PPAS 3120 3.00	EU/ENVS 4230 3.00	FA/DANC 1900 3.00	SC/STS 1411 3.00
AP/PPAS 3122 3.00	EU/ENVS 4400 3.00	FA/DANC 2340 3.00	SC/STS 2110 3.00*
AP/PPAS 3135 3.00	EU/ENVS 4401 3.00	FA/DATT 1900 3.00	SC/STS 2210 3.00
AP/PPAS 3136 3.00	EU/ENVS4402 3.00	FA/MUSI 1500 6.00	SC/STS 2222 3.00
AP/PPAS 3190 6.00	EU/ENVS4420 3.00	FA/MUSI 1510 3.00	SC/STS 2333 3.00
EU/ENVS 3122 3.00	EU/ENVS4430 3.00	FA/MUSI 1520 6.00	SC/STS 2411 3.00
EU/ENVS 3130 3.00	EU/ENVS4440 3.00	FA/MUSI 1530 3.00	SC/STS 3170 3.00*
EU/ENVS 3150 3.00	EU/ENVS4442 3.00	FA/MUSI 1540 6.00	SC/STS 3500 3.00
EU/ENVS 3151 3.00	EU/ENVS4446 3.00	FA/MUSI 1550 6.00	SC/STS 3561 3.00*
EU/ENVS 3160 3.00	EU/ENVS4520 3.00	FA/MUSI 1556 3.00	SC/STS 3600 3.00
EU/ENVS 3170 3.00	EU/ENVS4523 3.00	FA/MUSI 1580 6.00	SC/STS 3725 3.00*
EU/ENVS 3222 3.00	EU/ENVS4800Q 3.00	FA/MUSI 1900 3.00	SC/STS 3726 3.00
EU/ENVS 3226 3.00	EU/GEOG1000 6.00	FA/MUSI 2520 6.00	SC/STS 3765 3.00
			SC/STS 3790 3.00

***AP/HUMA 3226 3.00, SC/STS 2110 3.00, SC/STS 3170 3.00, SC/STS 3561 3.00, and SC/STS 3725 3.00 count as approved humanities/social science credits.**

The following sample combinations demonstrate how complementary studies can be satisfied:

