

DEGREE CHECKLIST 2020-2021

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/ | | | | | | | |
|---|--|-------------------|---|--------|--------|--|--|
| CDEDITE | | | | | | | |
| | | | COURSES | EARNED | GRADE | | |
| First Year Courses | | | | | | | |
| | | SC/CHEM 1100 4.00 | Chemistry and Materials Science for Engineers | | | | |
| | | LE/EECS 1011 3.00 | Computational Thinking Through Mechatronics | | | | |
| | | 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 Year 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 | | | | |
| | | 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 | | |
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| Third Year Courses | | | | | | | |
| | | LE/CIVL 3110 3.00 | Soil Mechanics | | | | |
| | 0 | LE/CIVL 3120 4.00 | Hydraulics | | | | |
| | 0 | 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 | | | | |
| | | ES/ENVS 2150 3.00 or | Environment, Technology and Sustainable Society I or | | | | |
| | | LE/ESSE 2210 3.00 | Engineering and the Environment | | | | |
| | | Fourth Ye | ear Courses | | | | |
| | | LE/CIVL 4110 3.00 | Civil Engineering Project Management | | | | |
| | | LE/CIVL 4210 3.00 | Civil Engineering for a Sustainable Future | | | | |
| | | LE/CIVL 4000 6.00 | Civil Engineering Capstone Design Project | | | | |
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| Complementary Studies (12 credits) | | | | | | | |
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| Technical Electives | | | | | | | |
| Four Technical | Electives | from Group A to E, with a | n maximum 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 4011 3.00 | Geotechnical Modelling | | | | |
| Group B - Geotechnical | | LE/CIVL 4012 3.00 | Mechanics of Unsaturated Soils | | | | |
| | | LE/CIVL 4013 3.00 | Hydrogeology | | | | |
| | | LE/CIVL 4015 3.00 | Frozen Ground Engineering | | | | |
| | | LE/CIVL 4016 3.00 | Geological Engineering 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 | | | | |
| Group D - Transportation | _ | LE/CIVL 4031 3.00 | Pavement Materials and Design | | | | |
| | | LE/CIVL 4033 3.00 | Traffic Simulation Modelling | | | | |
| | | LE/CIVL 4034 3.00 | Freight Transportation | | | | |
| Group E - Environmental | _ | LE/CIVL 4041 3.00 | Landfill Design | | | | |
| | | LE/CIVL 4042 3.00 | Environmental Impact Assessment and Sustainability | | | | |
| | | LE/CIVL 4043 3.00 | Advanced Sanitary and Environmental Engineering | | | | |
| | | LE/CIVL 4044 3.00 | Environmental Geotechnics | | | | |
| TOTAL CREDITS & C | CGPA (m | inimum 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. | | | | | | | |
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