



**DEGREE CHECKLIST  
2024-2025**

**BACHELOR OF ENGINEERING (BEng)  
MECHANICAL 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<br/>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/ENG 2001 3.00  | Engineering Projects: Management, Economics & Safety              |  |                           |              |
| <input type="checkbox"/>                 | LE/ENG 2003 3.00  | Effective Engineering Communication                               |  |                           |              |
| <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"/>                 | LE/MECH 2201 3.00 | Thermodynamics  |  |                           |              |
| <input type="checkbox"/>                 | LE/MECH 2202 3.00 | Heat and Flow Engineering Principles                              |  |                           |              |
| <input type="checkbox"/>                 | LE/MECH 2301 3.00 | Mechanics of Materials 1  |  |                           |              |
| <input type="checkbox"/>                 | LE/MECH 2302 3.00 | Dynamics  |  |                           |              |
| <input type="checkbox"/>                 | LE/MECH 2401 3.00 | Engineering Graphics & CAD Modelling                              |  |                           |              |
| <input type="checkbox"/>                 | LE/MECH 2412 3.00 | Mini Design Project 1   |  |                           |              |
| <input type="checkbox"/>                 | LE/MECH 2502 3.00 | Modern Instrumentation and Measurement Techniques                 |  |                           |              |
| <b>Complementary Studies (3 credits)</b> |                   | <input type="checkbox"/>  |  |                           |              |

|  | COURSES                  |                   | CREDITS<br>EARNED                                   | GRADE |
|--|--------------------------|-------------------|---|-------|
| <b>Third Year Courses</b>  |                          |                   |   |       |
|  | <input type="checkbox"/> | LE/EECS 3505 3.00 | Electrical Systems for Mechanical Engineers         |       |
|  | <input type="checkbox"/> | LE/ESSE 2210 3.00 | Engineering and the Environment                     |       |
|  | <input type="checkbox"/> | LE/MECH 2112 3.00 | Mechanical Engineering: Professionalism and Society |       |
|  | <input type="checkbox"/> | LE/MECH 3201 3.00 | Engineering Thermodynamics                          |       |
|  | <input type="checkbox"/> | LE/MECH 3202 3.00 | Fluid Dynamics                                      |       |
|  | <input type="checkbox"/> | LE/MECH 3203 3.00 | Heat Transfer                                       |       |
|  | <input type="checkbox"/> | LE/MECH 3302 3.00 | Mechanisms for Mechanical Systems                   |       |
|  | <input type="checkbox"/> | LE/MECH 3401 3.00 | Mini Design Project 2                               |       |
|  | <input type="checkbox"/> | LE/MECH 3409 3.00 | Machine Elements Design                             |       |
|  | <input type="checkbox"/> | LE/MECH 3502 3.00 | Solid Mechanics and Materials Laboratory            |       |
|  | <input type="checkbox"/> | LE/MECH 3503 3.00 | Macro- and Micro-Manufacturing Methods              |       |
|  | <input type="checkbox"/> | LE/MECH 3504 3.00 | Thermofluid Laboratory                              |       |
| <b>Complementary Studies (3 credits)</b>   | <input type="checkbox"/> |                   |   |       |
| <b>Fourth Year Courses</b>   |                          |                   |   |       |
|  | <input type="checkbox"/> | LE/ENG 3000 3.00  | Professional Engineering Practice                   |       |
|  | <input type="checkbox"/> | LE/ENG 4000 6.00  | Engineering Project                                 |       |
|  | <input type="checkbox"/> | LE/ENG 4550 3.00  | Introduction to Control Systems                     |       |
|  | <input type="checkbox"/> | LE/MECH 4402 4.00 | Simulation Tools for Design & Analysis              |       |
|  | <input type="checkbox"/> | LE/MECH 4502 3.00 | Vibrations and Actuators                            |       |
|  | <input type="checkbox"/> | LE/MECH 4411 3.00 | Life Cycle and System Design                        |       |
| <b>9 credits from:</b><br>LE/MECH 4201 3.00, LE/MECH 4202 3.00,<br>LE/MECH 4203 3.00, LE/MECH 4301 3.00,<br>LE/MECH 4403 3.00, LE/MECH 4510 3.00,<br>LE/MECH 4511 3.00, LE/MECH 4512 3.00,<br>LE/ENG 4650 3.00   | <input type="checkbox"/> |                   |   |       |
|  | <input type="checkbox"/> |                   |   |       |
|  | <input type="checkbox"/> |                   |   |       |
| <b>Complementary Studies (6 credits)</b>   | <input type="checkbox"/> |                   |   |       |
|  | <input type="checkbox"/> |                   |   |       |
| <b>TOTAL CREDITS &amp; CGPA</b> (minimum 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.  |                          |                   |   |       |
| <b>Notes</b>   |                          |                   |   |       |

