



**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:
<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/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 | | |
| Complementary Studies (3.00 credits) | <input type="checkbox"/> | | | |
| Notes | | | | |
| | | | | |
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| COURSES | | | | CREDITS EARNED | GRADE |
|---|--------------------------|-------------------|---|--------------------|-------|
| Third Year Courses | | | | | |
| | <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 | | |
| Complementary Studies (3.00 credits) | <input type="checkbox"/> | | | | |
| Fourth Year Courses | | | | | |
| | <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 | | |
| 9.00 credits from: LE/MECH 4201 3.00, LE/MECH 4202 3.00, LE/MECH 4203 3.00, LE/MECH 4301 3.00, LE/MECH 4403 3.00, LE/MECH 4510 3.00, LE/MECH 4511 3.00, LE/MECH 4512 3.00, LE/ENG 4650 3.00 | <input type="checkbox"/> | | | | |
| | <input type="checkbox"/> | | | | |
| | <input type="checkbox"/> | | | | |
| Complementary Studies (6.00 credits) | <input type="checkbox"/> | | | | |
| | <input type="checkbox"/> | | | | |
| TOTAL CGPA (minimum cumulative GPA of 5.00 (C+) required to graduate with an Honours degree) | | | | | |
| EECS GPA Prerequisite: | | | | | |
| Most 2000-, 3000-, and 4000-level EECS courses require a cumulative GPA of 4.5 or better over all EECS major courses in addition to other course-specific prerequisites. "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 Co-op is highly recommended, but is not a degree requirement. | | | | | |
| Notes | | | | | |
| | | | | | |
| BEng, Mechanical Engineering | | | | Page 2 of 2 | |

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:

