Course sequence <u>Mechanical Engineering, Engineering Management and Entrepreneurship option</u>

1st YEAR (30 credits)

| | | Session | Prerequisite |
|---------|--------------------------------|----------|---|
| CHM1311 | Principles of Chemistry | Fall | 4U chemistry or OAC Chemistry or equivalent. |
| ENG1112 | Technical Report Writing | Fall | |
| GNG1105 | Engineering Mechanics | Fall | Physics 4U, advanced functions and Introductory |
| | | | Calculus 4U or equivalent. |
| GNG1106 | Fundamentals of Engineering | Fall | |
| | Computation | | |
| MAT1320 | Calculus I | Fall | One of MAT1339, Ontario 4U Calculus and Vectors |
| | | | MCV4U) or an equivalent. |
| ECO1192 | Engineering Economics | Winter | |
| MAT1322 | Calculus II | Winter | MAT1320 |
| MAT1341 | Introduction to Linear Algebra | Winter ` | MAT1339 or Ontario 4U Calculus and |
| | | | Vectors (MCV4U), or an equivalent. |
| MCG1100 | Introduction to Mechanical | Winter | Corequisite: GNG1105 |
| | Engineering | | • |
| PHY1122 | Fundamentals of Physics II | Winter | OAC or 4U Physics; corequisite: MAT1320 |
| | · | | (preferred) or MAT1330. |
| | | | |

2nd YEAR (36 credits)

| | Session | <u>Prerequisite</u> |
|---|---|---|
| Introduction to Business Management | | |
| Calculus III for Engineers | Fall | (MAT1322 or MAT1325 or MAT1332), (MAT1341 or CEGEP linear algebra) |
| Ordinary Differential Equations and Numerical Methods | Fall | MAT1341, (MAT1322 or MAT1325 or MAT1332) |
| Mechanics II | Fall | GNG1105; corequisite: MAT2322 |
| Thermodynamics I | Fall | CHM1311 or equivalent |
| Engineering Materials I | Fall | CHM1311 or equivalent |
| Mechanics of Materials | Winter | GNG1105 |
| Electric Circuits and Machines for Mechanical Engineering | Winter | PHY1122; corequisite: MAT2384 |
| Probability and Statistics for Engineers | Winter | MAT1320 or MAT1330; corequisite: MAT1322 or MAT1325 or MAT1332 |
| Introduction to Design | Winter | MCG1100, MCG2108, (MCG2360 or MCG2141) |
| Thermodynamics II | Winter | MCG2130 |
| Engineering Materials II | Winter | MCG2360 |
| | Calculus III for Engineers Ordinary Differential Equations and Numerical Methods Mechanics II Thermodynamics I Engineering Materials I Mechanics of Materials Electric Circuits and Machines for Mechanical Engineering Probability and Statistics for Engineers Introduction to Design Thermodynamics II | Ordinary Differential Equations and Numerical Methods Mechanics II Fall Thermodynamics I Fall Engineering Materials I Fall Mechanics of Materials Winter Electric Circuits and Machines for Winter Mechanical Engineering Probability and Statistics for Winter Engineers Introduction to Design Winter Thermodynamics II Winter |

3rd YEAR (36 credits)

| | | Session | Prerequisite |
|---------|---|---------|--|
| ADM2320 | Marketing | Fall | ADM1100 or ADM1300 |
| ELG3336 | Electronics for Mechanical Engineers | Fall | ELG2336 |
| MAT3320 | Mathematics for Engineers | Fall | (MAT2121 or MAT2322), (MAT2324 or MAT2384) |
| MCG3130 | Dynamics of Machinery | Fall | MCG2108 |
| MCG3306 | Control Systems I | Fall | MAT2384, MCG2108 |
| MCG3340 | Fluid Mechanics I | Fall | MCG2108, MCG2130 |
| GNG4170 | Engineering Law | Winter | |
| MCG3110 | Heat Transfer | Winter | MCG3340 |
| MCG3131 | Machine Design | Winter | CVG2140, MCG2101, (MCG2361 or |
| | | | MCG2142) |
| MCG3145 | Advanced Strength of Materials | Winter | CVG2140, MCG2108 |
| MCG3307 | Control Systems II | Winter | MAT3320, MCG3130, MCG3306, MCG3340, ELG3336. Corequisite: MCG3110. |
| MCG3341 | Fluid Mechanics II | Winter | MCG3340 |

4th YEAR (30 credits)

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|---------------------------------|-----------------------------------|------------------|--|
| | | <u>Session</u> | <u>Prerequisite</u> |
| ADM1340 | Financial Accounting | Fall | ADM1100 or ADM1300. Previously ADM2340 |
| MCG4322 | Computer-Aided Design | Fall | 24 MCG credits at the 3000 level |
| MCG4328 | Manufacturing | Fall | MCG3110, MCG3340, (MCG2361 or |
| | | | MCG2142) |
| Management and Entrepreneurship | | Fall | |
| ADM3313 | Entrepreneurial Mind: New Venture | Winter | ADM1100 or ADM1300 |
| | Creation | | |
| HIS2129 or | Technology, Society and | Winter (HIS2129) | |
| PHI2394 | Environment since 1800 / | Fall (PHI2394) | |
| | Scientific Thought and Social | | |
| | Value | | |
| MCG4308 | Mechanical Vibration Analysis | Winter | MAT3320, MCG3130 |
| MCG4340 | Mechanical Engineering | Winter | MCG3110, MCG3131, (MCG3145 or |
| | Laboratory | | MCG3141), (MCG3307 or MCG3142), |
| | • | | (MCG3341 or MCG3143) |
| Technical elective | | Winter | |