

**Course Sequence**  
**Electrical Engineering (Electronics), engineering management and entrepreneurship option**

**1<sup>st</sup> YEAR (30 credits)**

		<b><u>Session</u></b>	<b><u>Prerequisite</u></b>
CHM1311	Principles of Chemistry	Fall	4U chemistry or OAC Chemistry or equivalent.
GNG1105	Engineering Mechanics	Fall	Physics 4U, advanced functions and Introductory Calculus 4U or equivalent
GNG1106	Fundamentals of Engineering Computation	Fall	
MAT1320	Calculus I	Fall	One of MAT1339, Ontario 4U Calculus and Vectors MCV4U) or an equivalent.
MAT1341	Introduction to Linear Algebra	Fall	MAT1339 or Ontario 4U Calculus and Vectors (MCV4U), or an equivalent.
ECO1192	Engineering Economics	Winter	
ITI1100	Digital systems I	Winter	
MAT1322	Calculus II	Winter	MAT1320
MAT1348	Discrete Mathematics for Computing	Winter	
PHY1124	Fundamentals of Physics for Engineers	Winter	OAC or 4U Physics, MAT1320

**2<sup>nd</sup> YEAR (36 credits)**

		<b><u>Session</u></b>	<b><u>Prerequisite</u></b>
<b>ADM1100</b>	<b>Introduction to Business Management</b>	<b>Fall</b>	
CEG2136	Computer architecture I	Fall	ITI1100
ELG2138	Circuit Theory I	Fall	ITI1100, MAT1341, MAT1322
ENG1112	Technical Report Writing	Fall	
MAT2322	Calculus III for Engineers	Fall	(MAT1322 or MAT1325 or MAT1332), (MAT1341 or CEGEP linear algebra)
MAT2384	Ordinary Differential Equations and Numerical Methods	Fall	MAT1341, (MAT1322 or MAT1325 or MAT1322)
<b>ADM1340</b>	<b>Financial Accounting</b>	<b>Winter</b>	<b>ADM1100 or ADM1300. Previously ADM2340</b>
ELG2911	Professional Practice in Information Technology and Engineering	Winter	
ELG2136	Electronics I	Winter	ELG2138, MAT2384
ELG2137	Circuit Theory II	Winter	ELG2138, MAT2384
PHY2323	Electricity and Magnetism	Winter	(MAT2121 or MAT2122 or MAT2322), (PHY1124 or {PHY1121, PHY1122} or {PHY1321, PHY1322} or {PHY1331, PHY1322}).
HIS2129 or PHI2394	Technology, Society and Environment since 1800 / Scientific Thought and Social Value	Winter (HIS2129) Fall (PHI2394)	

### 3<sup>rd</sup> YEAR (36 credits)

		<u>Session</u>	<u>Prerequisite</u>
ADM3313	<b>Entrepreneurial Mind: New Venture Creation</b>	Fall	ADM1100 or ADM1300
ELG3106	Electromagnetic Engineering	Fall	MAT2322, MAT2384, PHY2323
ELG3125	Signal and System Analysis	Fall	ELG2138
ELG3136	Electronics II	Fall	ELG2136
ELG3316	Electric Machines and Power Systems	Fall	ELG2138, ELG2136
<b>Complementary Studies from ADM</b>		<b>Fall</b>	
<b>ADM2320</b>	<b>Marketing</b>	<b>Winter</b>	<b>ADM1100 or ADM1300</b>
ELG3126	Random Signals and Systems	Winter	ELG3125
ELG3155	Introduction to Control Systems	Winter	ELG3125
ELG3175	Introduction to Communication Systems	Winter	ELG3125. Corequisite: ELG3126
CEG3185	Introduction to Data Communications and Networking	Winter	MAT2377 or (MAT2371, MAT2375), or corequisite:
GNG4170	<b>Engineering Law</b>	<b>Winter</b>	

### 4<sup>th</sup> YEAR – ELECTRONICS (30 credits)

		<u>Session</u>	<u>Prerequisite</u>
ELG4117	Optoelectronics and Optical Components	Fall	ELG3106, ELG3136
ELG4139	Electronics III	Fall	ELG3136, ELG3155
ELG4176	Communication Systems	Fall	ELG3175, ELG3126
ELG4912	Electrical Engineering Design Project: Part I	Fall	ELG3106, ELG3136, ELG3175, ELG3155
Technical elective		Fall/Winter	
ELG4115	Microwave Circuits	Winter	ELG3106, ELG3136
ELG4137	Principles and Applications of VLSI Design	Winter	ELG2136
ELG4177	Digital Signal Processing	Winter	ELG3125
ELG4913	Electrical Engineering Design Project: Part II	Winter	ELG4912
PHY2361	Modern physics	Winter	MAT1341, (MAT1322 or MAT1325 or MAT1332), (PHY1124 or (PHY1121, PHY1122) or (PHY1321, PHY1322) or (PHY1331, PHY1322))