

# ELECTRONIC ENGINEERING



▶▶ LEVELS OF ACHIEVEMENT ■■■■■■■■ 1 = BEGINNER ■■■■■■■■ 2 = INTERMEDIATE ■■■■■■■■ 3 = ADVANCED

▶▶ CORE CREDITS 35 ▶▶ MANDATORY PROGRAM CREDITS 147 ▶▶ ELECTIVE CREDITS 18

COURSE NAME	CREDITS	COURSE TYPE	CORE COMPETENCIES										SPECIFIC COMPETENCIES										REQUIREMENTS
			Written Communication	Oral Communication	Critical Thinking	Quantitative Reasoning	Information Literacy	Civility	Innovative Thinking	A: Science Knowledge Application	B: Experimentation, Planning and Conducting	C: Process and System Design	D: Multidisciplinary Teamwork	E: Engineering Problem Solving	F: Ethical and Professional Responsibility	G: Effective Communication	H: Engineering Solution Impact Assessment	I: Continuous and Independent Learning	K: Use of Modern Engineering Tools				
<b>▶▶ TERM 1 CRD 19</b>																							
Introduction to Electronics	4	PROGRAM			1	1																	MA393 Leveling: Math or have approved Maths PDN (level definition test)
Creativity Workshop	3	CORE																					Does not have requirements
Language Comprehension and Production 1	4	CORE	1																				HU24 Leveling of language or have approved Language PDN (level definition test)
Basic Mathematics	6	CORE			1																		MA393 Leveling: Math or have approved Maths PDN (level definition test)
Ethics and Citizenship	2	CORE																					HU24 Leveling of language or have approved Language PDN (level definition test)
<b>▶▶ TERM 2 CRD 18</b>																							
Language Comprehension and Production 2	4	CORE	2	1																			HU03 Language Comprehension and Production 1
Engineering Drawing I	3	PROGRAM			1																		MA420 Basic Mathematics
Software for Engineering	3	PROGRAM			1	1																	EL166 Introduction to Electronics and MA420 Basic Mathematics
Academic Research Seminar 1	2	CORE	1	1		1																	HU03 Language Comprehension and Production 1
Calculus 1	6	CORE				1																	MA420 Basic Mathematics
<b>▶▶ TERM 3 CRD 22</b>																							
Digital Logical Circuits	4	PROGRAM																					EL167 Software for Engineering
Statistics	4	CORE																					MA262 Calculus 1
Physics 1	4	CORE			1	1																	MA262 Calculus 1 and MA95 Leveling of Physics or have approved Physics PDN (level definition test)
Analytic Mathematics 3	6	PROGRAM																					MA262 Calculus 1
Communications Networks 1	4	PROGRAM																					EL167 Software for Engineering
<b>▶▶ TERM 4 CRD 23</b>																							
Electric Circuits Analysis 1	4	PROGRAM			1	2																	MA337 Analytic Mathematics 3
Physics II	6	PROGRAM			2	2																	MA466 Physics I
Digital Systems	4	PROGRAM	2	1																			EL169 Digital Logical Circuits and EL167 Software for Engineering
Computer Programming	4	PROGRAM	2	1																			EL169 Digital Logical Circuits
Analytic Mathematics 4	5	PROGRAM																					MA337 Analytic Mathematics 3
<b>▶▶ TERM 5 CRD 22</b>																							
Electric Circuits Analysis 2	4	PROGRAM																					EL168 Electric Circuits Analysis 1
Physics 3	6	PROGRAM																					MA462 Physics II y MA337 Analytic Mathematics 3
Analogical Devices and Circuits	4	PROGRAM	2	2																			EL168 Electric Circuits Analysis 1
Microcontrollers	4	PROGRAM																					EL170 Digital Systems
Analytic Mathematics 5	4	PROGRAM																					MA463 Analytic Mathematics 4
<b>▶▶ TERM 6 CRD 23</b>																							
Electromagnetism	4	PROGRAM			2	3																	MA468 Physics III y MA463 Analytic Mathematics 4
Signals and Systems	4	PROGRAM																					MA467 Analytic Mathematics 5
Communications Networks 2	4	PROGRAM	2	2																			EL190 Communications Networks 1
Sensors and Actuators	4	PROGRAM			2	3																	EL171 Electric Circuits Analysis 2 and MA468 Physics III
Control Engineering 1	4	PROGRAM			2	3																	MA468 Physics III y MA467 Analytic Mathematics 5
Advanced Computer Programming	3	PROGRAM																					EL172 Computer Programming
<b>▶▶ TERM 7 CRD 22</b>																							
Electronic Circuits Design	4	PROGRAM			2	3																	EL173 Analogical Devices and Circuits
Bioengineering	3	PROGRAM																					EL175 Sensors y Actuadores and EL178 Signals and Systems
Communication Engineering	4	PROGRAM	2	2																			EL176 Electromagnetism and EL178 Signals and Systems
Digital Processing of Signals	4	PROGRAM			3	3																	EL178 Signals and Systems
Project Management in Engineering	3	PROGRAM	3	3																			140 approved credits
Control Engineering 2	4	PROGRAM			2	3																	EL177 Control Engineering 1
<b>▶▶ TERM 8 CRD 21</b>																							
Academic Research Seminar II (Engineering)	3	PROGRAM	2	2																			HU159 Academic Research Seminar 1 and 120 approved credits
Embedded Systems	4	PROGRAM																					EL174 Microcontrollers and EL181 Electronic Circuits Design
Advanced Processing of Signals and Images	4	PROGRAM			3	3																	EL183 Digital Processing of Signals
Digital Telecommunications	4	PROGRAM																					EL182 Communication Engineering
Elective	3	ELECTIVE																					-
Elective	3	ELECTIVE																					-
<b>▶▶ TERM 9 CRD 20</b>																							
Industrial Automation Systems	3	PROGRAM																					EL179 Control Engineering 2 and EL175 Sensors and Actuators
Real-Time Operating Systems	3	PROGRAM																					EL185 Embedded Systems
Electronic Project 1	4	PROGRAM	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	EL115 Advanced Processing of Signals and Images, N210 Academic Research Seminar II (Engineering) and EL185 Embedded Systems
Robotics and Artificial Intelligence	4	PROGRAM																					EL179 Control Engineering 2
Elective	3	ELECTIVE																					-
<b>▶▶ TERM 10 CRD 22</b>																							
Electronic Project 2	4	PROGRAM	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	EL188 Electronic Project 1
Elective	3	ELECTIVE																					-
Elective	3	ELECTIVE																					-
Elective	3	ELECTIVE																					-

▶▶ COURSES 58 ▶▶ TOTAL CREDITS 200