Department of Electrical Engineering

College of Engineering — Qatar University

ROADMAP TO YOUR GRADUATION
Electrical Engineering Program - 2021

Total Credit Hours = (131)
Total No. of Courses = (49)

Qatar University

Year 1		Year 2		Year 3			Year 4	
Fall (16 hrs)	Spring (16 hrs)	Fall (16 hrs)	Spring (17 hrs)	Fall (17 hrs)	Spring (16 hrs)	Summer (3 hrs)	Fall (15 hrs)	Spring (15 hrs)

Course Listing

Fall (16 hrs):
- Engineering Skills & Ethics GENG 107 (3)
- Calculus I MATH 101 (3)
- General Chemistry I CHEM 101 (3)
- Experimental General Chemistry I CHEM 103 (1)
- English Language I - Post Foundation ENGL 202 (3)
- Arabic Language I ARAB 100 (3)

Spring (16 hrs):
- Calculus II MATH 102 (3)
- General Physics for Engineering I PHYS 191 (3)
- Experimental General Physics for Engineering I PHYS 192 (1)
- Linear Algebra MATH 231 (3)
- English Language II - Post Foundation ENGL 203 (3)
- Computer Programming GENG 106 (3)

Fall (16 hrs):
- Calculus III MATH 211 (3)
- General Physics for Engineering II PHYS 193 (3)
- Experimental General Physics for Engineering II PHYS 194 (1)
- Mathematics for EE (MATH 285) (3)
- Electric Circuits ELEC 201 (3)
- Islamic Culture DAWA 111 (3) **

Spring (17 hrs):
- Probabilities & Statistics for Engineers GENG 200 (3)
- Numerical Methods GENG 300 (3)
- Electric Circuits II ELEC 202 (3)
- Electric Circuits II Laboratory ELEC 203 (1)
- Fundamentals of Electronics ELEC 231 (3)
- Digital Systems Design ELEC 261 (3)
- Digital Systems Design Laboratory ELEC 262 (1)

Fall (17 hrs):
- Electromagnetics ELEC 311 (3)
- Signals and Systems ELEC 351 (3)
- Electric Machines ELEC 312 (3)
- Electric Machines Laboratory ELEC 313 (1)
- Sensors and Instrumentation ELEC 371 (3)
- Embedded Systems ELEC 366 (3)
- Embedded Systems Laboratory ELEC 367 (1)

Spring (16 hrs):
- Communication Engineering ELEC 341 (3)
- Communication Engineering Lab. ELEC 342 (1)
- Signal Analysis & Filtering ELEC 353 (3)
- Control systems ELEC 352 (3)
- Power Electronics ELEC 325 (3)
- Power Systems Analysis ELEC 321 (3)

Summer (3 hrs):
- Practical Training ELEC 399 (3) *

Fall (15 hrs):
- Engineering Economics GENG 360 (3)
- Major Elective I (3)
- Major Elective II (3)
- Senior Design Project I ELEC 498 (3)
- Electrical Engineering Design ELEC 428 (3) *

Spring (15 hrs):
- Major Elective III (3)
- Major Elective IV (3)
- Senior Design Project II ELEC 499 (3)
- Social/Behavioral Sciences package (3) ++
- History of Qatar HIST 121 (3) **

Notes

* Departmental approval
** Offered both in Arabic and English
++ Student must complete a minimum of 3 credit hours from Social/Behavioral Sciences package

Legend

	Credit hrs	Courses
Core Curriculum Requirements	33	13
College Requirements	27	9
Major Core Requirements	59	23
Major Electives	12	4

Co-requisite: A co-requisite is a course which must be taken in the same term as the course to which it is a co-requisite. If two (or more) courses must absolutely be taken in the same term, co-requisites should be used.

Pre-requisite: A prerequisite is a course which must usually be completed in a term earlier than the course for which registration is attempted and prerequisites are being checked.

Concurrent Pre-requisites: The Concurrency Indicator is used to modify a prerequisite requirement and indicate that the prerequisite course can be taken either in an earlier term or in the same term as the course in which registration is attempted.