Curriculum

	Project Option		Thesis Option	
Program Component	Courses	Credit Hours	Courses	Credit Hours
Program Core	8	24	8	21
Program Electives	2	6	1	3
Capstone / Thesis	1	3	1	6
Total	11	33	10	33

COURSE CODE	COURSE TITLE	COURSE CODE	COURSE TITLE	COURSE CODE	COURSE TITLE
Core Courses					
ECE 500	Integrated Circuit Design	ECE 501	Advanced Embedded System Design	MEM 501	Project Management
ECE 510	Advanced Communication Systems	ECE 512	Smart Grids and Renewable Energy	ECE 520	Advanced Power System Analysis
ECE 611	Advanced Mixed-Mode Integrated Circuit Design	ECE 621	Computer and Machine Vision	ECE 690 Or ECE 691	Electrical and Computer Engineering Project Thesis in ECE

COURSE CODE	COURSE TITLE	COURSE CODE	COURSE TITLE	COURSE CODE	COURSE TITLE
Elective Courses					
ECE 630	Advanced Low-Power Integrated Circuit Design	ECE 632	Computer Based Power System Planning and Design	ECE 622	Embedded Signal Processing
ECE 638	Nano-Optical Devices	ECE 634	Optoelectronic Devices and Circuits	ECE 635	Special Topics in ECE
ITE 500	Rich Internet Application	ITE 510	Advanced Data Communication and Networks	ITE 520	Mobile Application Development

MASTER OF SCIENCE IN

ELECTRICAL AND COMPUTER ENGINEERING

جامعة أبوظبي
Abu Dhabi University
College of Engineering

Program Overview

The College of Engineering (CoE) offers the Master of Science in Electrical and Computer Engineering (MSECE) program at Abu Dhabi University. The college also offers a Master of Engineering in Electrical and Computer Engineering program (MEngECE). The MSECE program offers students opportunities for advanced education in the field of Electrical and Computer Engineering, thus producing engineers with state-of-the-art specialized technical knowledge and skills that are ready to serve as experts in their fields and/or to pursue Ph.D. degrees in ECE. The MEngECE, on the other hand, responds to regional and international market demand for engineers with a blend of advanced Electrical and Computer Engineering and Engineering Management backgrounds, thus preparing the ECE project managers and industrial leaders of tomorrow. The MSECE program has a coursework option and a thesis option. In the coursework option, students are required to complete 10 graduate-level courses (30 credit hours) in addition to a capstone project (3 credit hours). For the thesis option, students complete 9 graduate-level courses (27 credit hours) and a thesis (6 credit hours). The program accepts students with bachelor's degrees in Electrical Engineering, Computer Engineering, or related fields. Students who lack the necessary background in certain topics, as per their undergraduate transcript, may be admitted conditionally. Such students will need to take some undergraduate-level courses as remedial courses or pass challenge exams as determined by the Program Director.

The Master's degree in Electrical and Computer Engineering paves the way for advancement in professional practice. Graduates of the program are ready to tackle complex problems in the areas of microelectronics, communications and networking, power and renewable energy, embedded systems, robotics, the Internet of Things, machine learning, signal processing, and information technology. The graduates achieve the breadth and depth of knowledge and skills needed to innovate in today and tomorrow's world where innovation, technology, communication, and energy are the driving forces for economic growth and prosperity. The program is designed with a schedule that minimizes disruption of work commitments.

Student's Testimonial

Ala'a Harb - Senior Master's student in Electrical & Computer Engineering

As an ADU graduate, I was able to land my first job as soon as I graduated. Moreover, the quality of education and the rich knowledge I obtained allowed me to maximize my performance at work and grow faster. Therefore, when I decided to take my masters, I chose ADU once again. The quality I like most about the program is how fundamentally they have prepared me for my next step in life, regardless of whether I choose employment or graduate studies. Besides, the faculty willingness to help us, not only in the areas pertinent to their class but also our endeavors outside of the classroom, makes the department unique. Throughout my study at Abu Dhabi University, Electrical & Computer Engineering Department, I gained an intensive knowledge in different cutting-edge technologies such as computer vision, machine learning and artificial intelligence.

Career Prospects

- Senior electrical engineers working in the area of smart, sustainable, and renewable energy systems for the government or private sector
- Senior power engineers working on the generation, transmission, and the distribution of electrical power for consultants, contractors, power plants, factories, airports, or the oil and gas industry.
- Senior microelectronics engineers who deal with design and micro-fabrication of tiny electronic circuit components
- Senior telecommunications engineers for international communication companies such as Etisalat, DU, Atlas, ... etc.