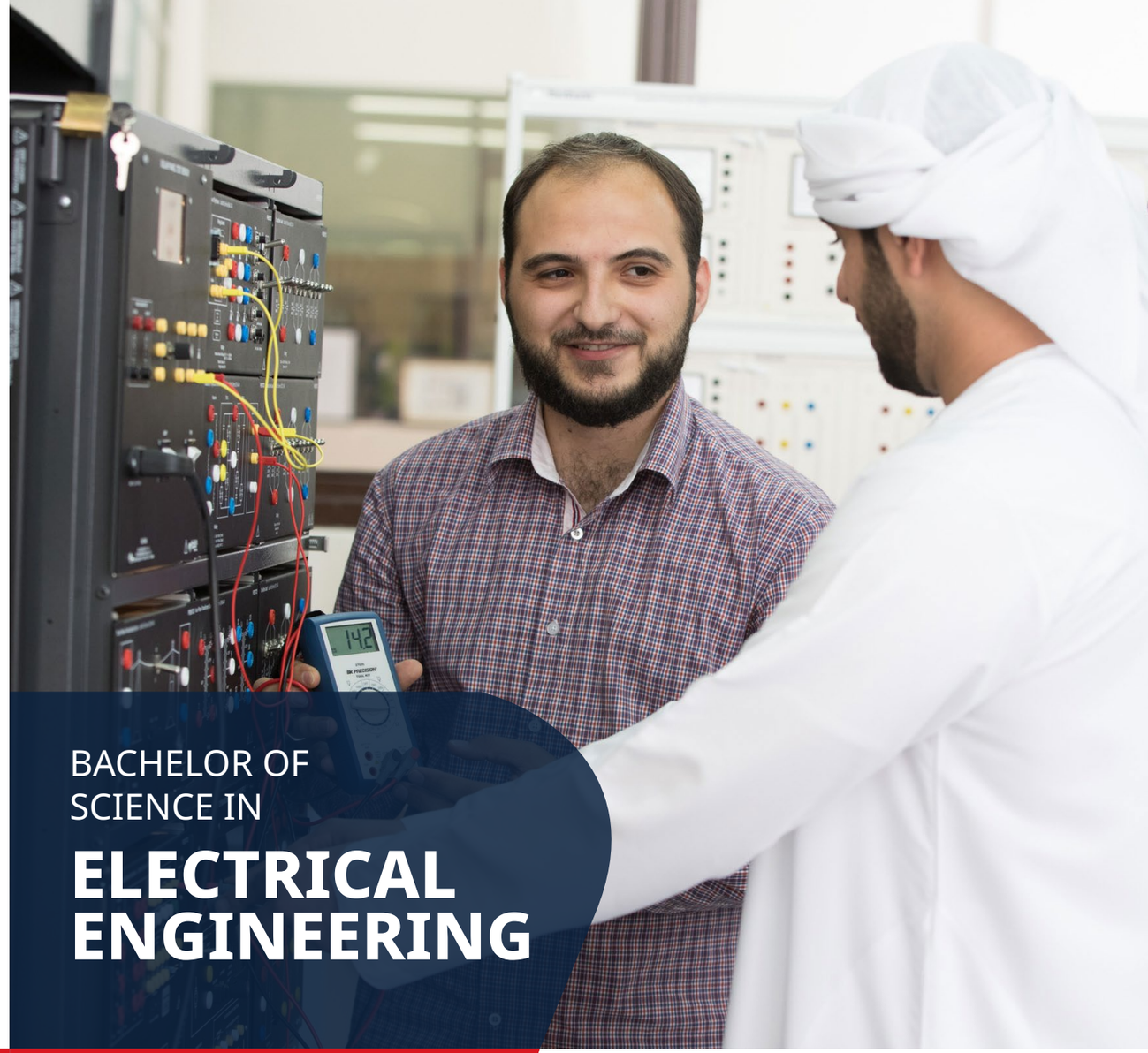
Curriculum

COURSE CODE	COURSE TITLE	COURSE CODE	COURSE TITLE	COURSE CODE	COURSE TITLE
General Education Requirements: 21 Credit Hours					
ARL 100	Communication Skills in Arabic I	ENG 200	English II	FWS 205	UAE and GCC Society
FWS 305	Technical Communications for Work Place	FWS 310	Fundamentals of Innovation and Entrepreneurship	ISL 100	Islamic Culture
MTT 102	Calculus I	STT 100	General Statistics		
Degree Requirements: 42 Credit Hours					
ECS 200	Introduction to Engineering and Computing	MTT 200	Calculus II	MTT 201	Calculus III
MTT 204	Introducation to Linear Algebra	MTT 205	Differential Equations	PHY 102	Physics and Engineering Applications I
PHY 102L	Physics and Engineering Applications I Lab	PHY 201	Physics and Engineering Applications II	PHY 201L	Physics and Engineering Applications II Lab
CSC 201	Computer Programming I	CHE 205	General Chemistry I	CHE 201L	Chemistry lab
COE101	Introductory Artificial Intelligence	COE 202	Engineering Ethics, Economy, and Law		
Major Requirements: 69 Credit Hours					
CEN 333	Cross-platform Mobile Application Development	EEN210	Digital Circuits	EEN210L	Digital Circuits Lab
CSC305	Data Communications and Networks	CEN330	Probability and Stochastic Processes	CEN201	Electric Circuits I
EEN220	Electric Circuits II	CEN304	Electronic Devices and Circuits	CEN324	Digital and Analog Electronics
CEN325	Internet of Things: Foundations and Design	CEN425	Internet of Things: Application and Networking	CEN401L	Embedded and IoT Lab
EEN337	Analog and Digital Communications	EEN339	Communication Systems	EEN399i	Internship in Electrical Engineering I
EEN399ii	Internship in Electrical Engineering II	CEN320	Signals and Systems	CEN464	Digital Signal Processing
CEN464L	Signal Processing Lab	EEN338	Electromagnetic Fields and Waves	EEN448	Electrical Installation and Design
EEN451	Electrical Engineering Design Project I	EEN452	Electrical Engineering Design Project II	EEN340	Energy Conversion
EEN345	Power Systems	EEN449	Renewable Energy		
Major and Open Electives: 15 Credit Hours					
ME1	Major Elective I	ME2	Major Elective II	ME3	Major Elective III
OE1	Open Elective I	OE2	Open Elective II		
Major Electives: 6 Credit Hours					
Communications					
EEN 430	Radiowave Propagation	EEN 444	Optical Communication and Laser Technologies	EEN 435	Wireless Communication
EEN 455	Satellite and Space Communication Systems				
Power Systems and Renewable Energy					
EEN 447	Batteries & Fuel Cells Fundamentals	EEN 441	Photovoltaics	EEN 443	Power Distribution
EEN 445	Power Systems Protection	CEN 435	Low Power Operation of Embedded Systems		
Robotics and Instrumentation					
EEN 310	Instumentation and Measurment	EEN 413	Sensors and Transducers	CEN454	Computer Vision and Image Processing
EEN 366	Introducation to Robotics	EEN365	Control Systems		

- Students may also take EEN490 Special Topics in Electrical Engineering or CEN490 Special Topics in Computer Engineering based on the recommendation and approval of the program director.
- Students may take their major elective courses from one option or multiple options.



BACHELOR OF SCIENCE IN

ELECTRICAL ENGINEERING

جامعة أبوظبي
Abu Dhabi University
College of Engineering

HUAWEI ICT Academy · EUROPRACTICE · Networking Academy · ABET Engineering Accreditation Commission

Program Overview

Electrical engineering is concerned with electrical and electronic devices and systems essential to contemporary life. It is a rapidly advancing field that has a significant impact on shaping modern societies. Electrical Engineering includes signal processing, control, electrical power and renewable energy, communications, and electronics. It is concerned with the way electrical energy is produced and used in homes, communities and the industry.

Electrical engineers design and build the systems and machines that generate, transmit, measure, control and use electrical energy. They work with various types of equipment ranging from heavy power generators to tiny computer chips, and their work contributes to almost every sector of the society. For example, they may work on the design of communication systems, the operation of electric power stations, the lighting and wiring of buildings, the design of household appliances or the electrical control of industrial machinery or in designing and fabricating integrated circuits.

Abu Dhabi University is accredited by the Western Association of Schools and Colleges (WASC) in the United States of America. Moreover, the Bachelor of Science in Electrical Engineering program at Abu Dhabi University is accredited by the Engineering Accreditation Commission of ABET. The Electrical Engineering program at Abu Dhabi University has been developed according to the standards of international professional bodies such as the Institute of Electrical and Electronic Engineering (IEEE). This ensures that graduates of the program will be uniquely qualified to design, analyze, and test wide-ranging solutions for state-of-the-art electrical and electronic systems.

Student's Testimonial

Marah Talal Alhalabi - BSc. in Electrical Engineering Alumni – 2017

They take your passion and talent and push you even further.
I applied to quite a few universities initially, but ADU gave me a full scholarship based on a score of 99% in my high school certificate. I'm happy that they saw my potential.
My experience in the Electrical & Computer Engineering department has been incredible. The professors' doors are always open, they make you love the courses they're teaching, and they are exceptionally supportive of working students. My professors still encourage me to compete in my field. If you're hard-working, they take your passion and talent and push you even further.

Career Prospects

- Electrical Engineers working in the area of smart, sustainable, and renewable energy systems for the government or private sector
- 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
- Microelectronics Engineers who deal with design and micro-fabrication of tiny electronic circuit components
- Control Engineer working in the retail product manufacturing, biochemical engineering, and software development
- Communications Engineers for international communication companies such as Etisalat, DU, Atlas, etc
- Instrumentation Engineer who design measuring devices for pressure, flow and temperature can be employed by manufacturing firms, defense contractors, or biomedical companies
- Research and development engineers in laboratories to design, build and test various types of electrical systems