

Faculty of Engineering Electrical Engineering Department



### About the EE Department

The Electrical Engineering department Was one of the first departments established in the Faculty of Engineering of The Hashemite University. The infrastructure and facilities, both supports professional engineering education and research in important areas of applied sciences and technologies. Currently, the department has (15) faculty members, including experts in their respected fields. The number of BSc students has reached (620) this term (fall 2016/2017).

The department is well equipped with facilities including labs ,e-learning Lecture halls and computer labs. The department strives to be distinguished on the research and development scale.

The department is aiming to bridge the gap with local industry as this will enrich (R&D) and serve the local community.

We have established collaboration links with leading universities and Research centers around the world. Active research areas includes:

Wireless communication, Digital signal Processing, Energy Conversion, Renewable energy Technologies, Power Line Communication, and Electrical Power Engineering. The department aims to establish a center for renewable and clean energy.

#### **EE Mission**

The Electrical Engineering Department is committed to providing the students with up-to-date knowledge and practices towards advancing Jordan and the region in the fields of electrical engineering technologies. The department is also committed to research that leads to better solutions for industrial and governmental sectors in engineering-related problems

#### **EE Vision**

The Electrical Engineering department is dedicated to provide Electrical Engineers who are able to compete within and beyond the national labor market.

# **Program Educational Objectives (PEOs)**

The program educational objectives (PEOs) of the Electrical Engineering program at HU are to produce graduate who:

1. Apply breadth and depth of knowledge, critical thinking, and problem solving skills to excel in professional careers, and address contemporary issues related to electrical engineering.

2. Pursue postgraduate studies and excel in academic research.

3. Communicate and work effectively in a multidisciplinary team environment with diversity and challenges, and demonstrate commitment to the professional and ethical standards of engineering.

4. Demonstrate commitment and progress in a continuous learning, professional development, and leadership.

### **Undergraduate Program in Electrical Engineering**

The Electrical Engineering department offers a five years general program that leads to the B.Sc. in electrical engineering. During his study the student takes several courses in engineering, science and computer in addition to courses in other fields that help him in his professional life. The number of credit hours in the offered program is 160 distribution as shown in the table below:

	Compulsory	Elective	Total
University Requirements	12	15	27
Faculty Requirements	33	-	33
Department Requirements	82	15	97
Free Electives	-	3	3
Total	127	33	160



### **Department Research Areas of Interests**

- Energy Conversion
- Electrical Power Engineering
- Renewable Energy Technology
- Fiber Optics Communications
- Optical signal processing
- Digital Signal Processing
- Wireless Communications
- Digital Communications and Coding
- Power Line Communications

# **Top 10 Benefits of Being an Electrical Engineer**

- job Satisfaction.
- Variety of career opportunities
- Challenging Work
- Intelligent development
- Potential to benefit society
- Financial security
- Professional environment
- Technological and scientific Discovery
- Innovation and creative thinking
- Leadership with Top Management Skills

## What is the Importance of Electrical Engineering ?

- The importance of EE is to design, develop , and test of electrical and electronic components and equipment for commercial, industry, military, and scientific use.
- Electrical engineers are responsible for wide range of technologies from portable music players to the global positioning System (GPS) ,Power generation and delivery. Various new wireless and cellular communication systems.
- Continuing education is very critical for electrical engineers as technology evolves.

Department of EE The Hashemite University Zarqa, Jordan Tel: +962(05)3903333 - 4456 Fax: +962(05)3826613 Email: ece@hu.edu.jo