

## Student Outcomes (SOs):

- a** an ability to apply knowledge of mathematics, science, and engineering.
- b** an ability to design and conduct experiments, as well as to analyze and interpret data.
- c** an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
- d** an ability to function on multidisciplinary teams.
- e** an ability to identify, formulate, and solve engineering problems.
- f** an understanding of professional and ethical responsibility.
- g** an ability to communicate effectively.
- h** the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.
- i** a recognition of the need for, and an ability to engage in life-long learning.
- j** a knowledge of contemporary issues.
- k** an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.
- l** Make measurements on and interpret data from living systems.
- m** Address problems associated with the interaction between living and non-living materials and systems.

Relationship between PEOs & SOs

PEOs	ME SOs												
	a	b	c	d	e	f	g	h	i	j	k	l	m
1	√				√			√		√	√		
2		√	√	√			√		√	√		√	√
3			√			√		√	√				
4					√				√	√		√	√



جامعة عمان الأهلية  
Al-Ahliyya Amman University



## Faculty of Engineering

Department of

# Medical Engineering



## Contact Information

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## Introduction:

The Medical Engineering Department was founded in 2000 to supply the local and regional markets with qualified graduates who are able to keep up with the global advances and modern developments in the Medical Engineering fields. The Department which started with 24 candidates in 2000, expanded gradually to reach 250 in 2016/2017. More than 500 students have graduated since its inception. According to the Department's records, some graduates have pursued the post graduate studies and many others have obtained decent positions inside and outside Jordan.

## Study Plan:

The study plan covers varieties of Medical Engineering core subjects such as: Medical and Laboratory Instrumentation, Medical Rehabilitation and Biotelemetry, Artificial Organs and Prosthetics, in addition to other supporting engineering subjects in Electrical, Electronics, and Computing Engineering. The total number of academic hours to obtain the B.Sc. degree in Medical Engineering is 160 credits.

## Lecturing and Teaching Staff:

Members of the Medical Engineering Department have the experience, qualifications, and commitment which enable them to deliver a quality B.Sc. program in medical engineering. There is sufficient faculty expertise to cover all the major technical teaching areas offered in the department. The size of the Medical Engineering Department is currently adequate to offer a quality program.

The department comprises four specialized and modern Laboratories: Medical Instrumentation, Medical Sensors, Biomechanics / Rehab Engineering, and Medical Simulation. In addition to this, the Department possesses illustrative facilities such as: MRI, CT-Scan, Gait Analysis System, and Ultrasonic Sonar system. All of them are available as teaching supporting facilities.



## Mission:

Our mission is to achieve excellence in our educational program by qualifying and equipping the graduates with the necessary skills and tools that would enable them to compete in the labor markets locally and regionally; keep up with the technological developments; provide the required technical services for the health sector and encourage scientific research.

## Program Educational Objectives (PEOs):

Graduates of the medical engineering program are expected within a few years of graduation to be able to:

- PEO1:** Apply modern mathematics, science, engineering and technology to solve a wide variety of engineering problems related to health and wellbeing.
- PEO2:** Demonstrate leadership skills, work collaboratively; communicate effectively; think creatively in the design and analysis of biomedical systems.
- PEO3:** Integrate actively ethical and social codes, relevant regulations and safety issues into medical engineering professional careers locally and regionally.
- PEO4:** Participate in identifying contemporary challenges and/or propose a plan of action to tackle them.