

## DEPARTMENT OF INDUSTRIAL ENGINEERING

قسم الهندسة الصناعية

## DEPARTMENT OF MECHANICAL AND MAINTENANCE ENGINEERING

قسم هندسة الميكانيك والصيانة

## DEPARTMENT OF MECHATRONICS AND ARTIFICIAL INTELLIGENCE ENGINEERING

قسم هندسة الميكاترونكس والذكاء الاصطناعي

### TESTIMONIALS

» "The Department of Industrial Engineering prepares system engineers to manage various working systems in service and manufacturing organizations. It helps engineers become effective change agents and performance managers. The Industrial Engineering Department at the German Jordanian University is one of the best Engineering Departments in Jordan and the area, equipped with the best educators and engineers working hand in hand to always excel to new performance levels".  
- Dr. Abdallah Abdallah

» "The new Mechatronics and AI Engineering Program provides students with essential skills required for the digital era and the 4th industrial revolution. Students will be prepared to effectively participate in the rapidly occurring digital transformation in industry and businesses. Engineering applications of big data, AI, and robotics are a major focus in our courses and capstone projects. Our graduates are among the most desired in local and German markets due to the vast number of hard and soft skills we equip them with during their studies."  
- Dr. Hisham ElMoaqet

### OUR FEATURES

- » State of the art labs and workshops.
- » Interdisciplinary educational foundation with a system engineering perspective, steering students to meet local needs.
- » Strong theoretical and practical experience obtained through hands-on learning technologies.
- » Faculty members with excellent academic credentials and industrial experience.
- » Wide national and international network of academic and industrial partners.
- » High employment rate of graduates.

# SATS

School of  
Applied  
Technical  
Sciences

كلية العلوم التقنية التطبيقية

GERMAN JORDANIAN UNIVERSITY



الجامعة الألمانية الأردنية  
German Jordanian University

Amman-Madaba Western Highway | P.O.Box 3524,  
Amman 11180, Jordan | Tel: +962 6 4294444 |  
info@gju.edu.jo | www.gju.edu.jo



## BACHELOR PROGRAMS

### DEPARTMENT OF MECHATRONICS AND ARTIFICIAL INTELLIGENCE ENGINEERING

- » MECHATRONICS AND ARTIFICIAL INTELLIGENCE ENGINEERING 173CH

### DEPARTMENT OF INDUSTRIAL ENGINEERING

- » INDUSTRIAL ENGINEERING 169CH

### DEPARTMENT OF MECHANICAL AND MAINTENANCE ENGINEERING

- » MECHANICAL AND MAINTENANCE ENGINEERING 174CH

## MASTER PROGRAMS

- » Master of Science in Engineering Management 34 CH



## MECHATRONICS AND ARTIFICIAL INTELLIGENCE ENGINEERING

### Job Opportunities

- » Mechatronics Engineer
- » Software Engineer
- » Electromechanical Engineer
- » Validation Engineer
- » Process Control Engineer
- » Systems Engineer
- » Data Scientist
- » Controls Systems Engineer
- » Interfacing Engineer
- » Simulation Engineer

### Core Courses

Basic Sciences, Basic Engineering Math and Mechanics, Basic Electrical and Electronic Circuits, Software Engineering and Artificial Intelligence, Mechatronic Systems Design and Integration, Hydraulic and Pneumatic Systems, Industrial Automation, Industry 4.0 and Internet of Things (IOT), Advanced Control Systems, Robotics, Sensors and Actuators, Modeling of complex systems

### Labs

- » Computer Aided Math for ME
- » Sensors and Actuators Lab
- » Electrical Machines and Control Lab
- » Automation and Industry 4.0 Lab
- » Vibration and Control Lab
- » Hydraulics and Pneumatics Lab
- » Programmable Logic Controllers Lab
- » Microcontroller and IOT Lab

## INDUSTRIAL ENGINEERING

### Job Opportunities

- » Industrial Production Manager
- » Occupational Health and Safety Manager
- » Management, Data, Investment Analyst
- » Quality Control, Sales Engineer
- » Automation Engineer
- » Project Manager
- » Optimization, Performance Analyst
- » Manufacturing Engineer

### Core Courses

Basic Sciences, Engineering Materials, Manufacturing Processes, Production and Operations Management, Statistics and Quality Engineer, Simulation and Optimization, Ergonomics, Engineer, Economics, Supply Chain Engineer

### Labs

- » Computer Aided MATH For IE
- » Modern Manufacturing Technology Lab
- » Computing Fundamentals Lab
- » Materials Science and Engineering Lab
- » Instrumentation and Measurements Lab
- » Automation and Industry 4.0 Lab
- » Computer Aided Engineering Drawing
- » Manufacturing Processes Lab
- » Simulation Lab
- » Operations Research Lab
- » Quality Engineering Lab
- » Ergonomics Lab
- » General Physics Lab

## MECHANICAL AND MAINTENANCE ENGINEERING

### Job Opportunities

- » Design Engineer
- » HVAC Engineer, R&D Engineer
- » Power Plant Engineer
- » Measurement Systems Engineer
- » Project Engineer
- » Maintenance engineer
- » Sales Engineer
- » Manufacturing Engineer
- » Heat Transfer Engineer
- » Development Engineer

### Core Courses

Theory of Machines, Power and Refrigeration, Applied Mechanics, Machine Design, Mechanical Vibrations, HVAC, Internal Combustion Engines, Management and Maintenance Systems, Reliability and Quality Control, Heat Transfer, Fluid Mechanics.

### Labs

- » Machine Design Lab
- » Applied Thermal Systems, Thermal-fluids Lab
- » Vibration Lab