



**UNIVERSITÉ  
FRANÇAISE  
D'ÉGYPTE**

## **BACHELOR OF MECHANICAL ENGINEERING**

School of Engineering

### **Overview**

*The bachelor's in mechanical engineering is a 4-year program that awards an Egyptian Engineering degree and a French Master's degree after 1 additional year of study, in partnership with Université de Haute Alsace (UHA). The program is taught in English. Students have the opportunity to engage in semester exchanges and summer internships at any of our partner French universities, or to extend their studies by one year to obtain the master's degree. The bachelor's in mechanical engineering is recognized by the Egyptian and French Ministries of Higher Education and the Egyptian Engineering Syndicate. The French Master's degree in Mechanics and Mechatronics of Vehicles can be conducted either in France or Egypt.*

**French Partner**



Egyptian bachelor degree &  
French Master degree  
(+ 1 year)

### **WHY STUDY MECHANICAL ENGINEERING AT UFE?**

- Dual degree: Egyptian bachelor's in 4 years and a French master's in 1 extra year.
- Study Mechatronics, Energy, and Manufacturing in 1 bachelor's degree.
- Eligible for PhD studies worldwide after earning the French master's degree.
- Two summer internships are required.



### **POSSIBLE CAREERS PATHS**

- Mechanical engineer.
- Mechatronics engineer.
- Automotive engineer.
- Aerospace engineer.
- Robotics engineer.
- Energy system engineer.
- Automation engineer.
- Manufacturing engineer.
- Control and instrumentation engineer.
- Materials engineer.
- Industrial engineer.

# STUDY COURSES

## YEAR 1 - SEMESTER 1

Mathematics 1.  
Physical Mechanics.  
Waves and Electromagnetism.  
Introduction to Programming.  
Eco design.  
French Language.  
English Language.

## YEAR 2 - SEMESTER 1

Technical Drawing.  
Introduction to Applied Mathematics.  
Project.  
Elective 1.  
Languages Fr & En.  
Mechanical Manufacturing.  
Stress Analysis.

## YEAR 3 - SEMESTER 1

Electrical Power Engineering.  
Sensors & Measurements.  
Fluid Mechanics.  
Heat Transfer.  
Mechanics of Machines.  
Materials Selection.  
Languages Fr & En.

## YEAR 4 - SEMESTER 1

Introduction to Mechatronics.  
Internal Combustion Engines.  
Design 2.  
Graduation Project 1.  
Elective 1.  
Elective 2.

## YEAR 1 - SEMESTER 2

Mathematics 2.  
Chemistry.  
Geometrical Optics.  
Logic Design.  
Information Retrieval Techniques for Engineers.  
Professional Project.  
Languages Fr & En.

## YEAR 2 - SEMESTER 2

Statistics and Probabilities.  
Structure and Physical Properties of Materials.  
Thermodynamics.  
Project.  
Elective 2.  
Dynamics of Systems and Solids.

## YEAR 3 - SEMESTER 2

Control 1.  
Thermodynamics 2.  
Design 1.  
Mechanical Manufacturing 2.  
Production Planning & Maintenance.  
Languages FR&EN.  
Summer Internship.

## YEAR 4 - SEMESTER 2

Control 2.  
Thermal Power Plants.  
Operation Research and Management.  
Graduation Project 2.  
Elective 3.  
Legislation.



**UNIVERSITÉ  
FRANÇAISE  
D'ÉGYPTÉ**

**APPLY NOW**

37 Cairo Ismailia Road, Al Shorouk City, Cairo, Egypt.

[admission@ufe.edu.eg](mailto:admission@ufe.edu.eg)

[www.ufe.edu.eg](http://www.ufe.edu.eg)

**17054**