



University of Oum El Bouaghi

Bachelor's degree in Engineering - Mechanical

1. Program Description:

The objective of the Mechanical Construction License is to give students all the knowledge necessary to understand and solve problems related to mechanical systems. This training allows students to acquire a broad scientific culture in the field of engineering sciences, with solid foundations in mechanics, mathematics and scientific computing. It consists of: - Train students in methods of synthesis, analysis and understanding of laws and fundamental phenomena within the field of mechanical sciences. - Provide the essential complements to the applications of mathematics and computer science. - Prepare students for the acquisition of theoretical and practical methods for applications in various fields in general and in the field of mechanical industries in particular.

2. Modules

Semester 1

Teaching unit	Title of the Subject
Fundamentalteaching unit	Mathematics 1
	Physics 1
	Structure of the material
Methodologyteaching unit	TP Physics 1
	TP Chemistry 1
	Informatics 1
	Writingmethodology
Discoveryteaching unit	Careers in science and technology 1
Transversal teaching unit	ForeignLanguage 1 (English)

Semester 2

Teaching unit	Title of the Subject
Fundamentalteaching unit	Mathematics 2
	Physics 2
	Thermodynamics
Methodologyteaching unit	TP Physics 2
	TP Chemistry 2
	Informatics 2
	Methodology of the presentation
Discoveryteaching unit	Careers in science and technology 2
Transversal teaching unit	ForeignLanguage2 (English)

Semester 3

Teaching unit	Title of the Subject
Fundamental teaching unit	Mathematics 3
	Waves and vibrations
	Fluid mechanics
	Rational mechanics
Methodology teaching unit	Probability and statistics
	Informatics 3
	Technical design
	TP Waves and vibrations
Discovery teaching unit	Basic technology
	Metrology
Transversal teaching unit	Technical English

Semester 4

Teaching unit	Title of the Subject
Fundamental teaching unit	Thermodynamics 2
	Mechanical Manufacturing
	Mathematics 4
	Numerical methods
	Strength of materials
Methodology teaching unit	Computer Aided Design
	TP Fluid Mechanics
	TP Numerical Methods
	TP Strength of Materials
	TP Mechanical Manufacturing
Discovery teaching unit	Industrial electricity
	Materials Science
Transversal teaching unit	Entrepreneurship and business management

Semester 5

Teaching unit	Title of the Subject
Fundamental teaching unit	Analytical mechanics
	Mechanical Engineering 1
	Strength of Materials 2
	Elasticity
Methodology teaching unit	Industrial Design
	Computer Aided Design and Manufacturing
	TP Metrology
Discovery teaching unit	Control and regulation
	Maintenance
Transversal teaching unit	Environment and sustainable development

Semester 6

Teaching unit	Title of the Subject
Fundamental teaching unit	Mechanical Engineering 2
	Mechanism theory
	Heat transfer
	Structural dynamics
Methodology teaching unit	End of Cycle Project
	Internal combustion engine
	T P Thermal Transfers
Discovery teaching unit	Hydraulic and pneumatic systems
	Non-metallic materials
Transversal teaching unit	Professional project and business management