#### **PRESENTATION OF THE UNIVERSITY**

M'Hamed Bougara University of Boumerdes was created in 1998 by Executive Decree No 98-189 of June 02, 1998 on the basis of the consolidation of six national institutes whose creation dates back to the 60s-70s and 80s.

The LMD system introduced since the 2004-2005 academic year, has nine (09) areas: (ST), (SM), (MC), (NLS), (EMTS), Law and Political Sciences (LPS), (LFL), (STPSA), (ALL).

A new state engineer course, introduced from the year 2022-2023, and medical training for the year 2023-2024. A bachelor's degree course in Automotive Construction Engineering is added from the year 2024/2025.

M'Hamed Bougara University of Boumerdes includes six (06) faculties, two (02) institutes and a Medical annex.

**GRADUATION TRAINING** 

## A-TRAINING IN LMD SYSTEM

### FACULTY OF SCIENCES (FS)

Training	Branch	Specialties (Options)		
areas	Branch	Degree	Master	
ce tter )	Physics	<ul> <li>Material Physics (A)</li> <li>Radiation Physics (A)</li> <li>Energetic Physics (A)</li> <li>Fundamental Physics (A)</li> </ul>	<ul> <li>Materials Physics (A)</li> <li>Energy Physics and Renewable Energies (A)</li> <li>Medical Physics (P)</li> </ul>	
Science of Matter (SM)	Chemistry	- Materials Chemistry (A) - Organic Chemistry (A) - Analytical Chemistry (A)	<ul> <li>Materials Chemistry (A)</li> <li>Pharmaceutical Chemistry (A)</li> <li>Environmental Chemistry (A)</li> <li>Analytical Chemistry (A)</li> <li>Organic Chemistry (A)</li> </ul>	
	Mathematics	- Mathematics (A)	- Mathematical Analysis (A)	
Mathematics and Computing (MC)	Applied Mathematics	-Applied Mathematics (A) - Data Science (national recruitment specialty) (P)	<ul> <li>Financial Mathematics (A)</li> <li>Stochastic and Statistical Modeling (A)</li> <li>Operational Research: Optimization and Strategic</li> <li>Management (A)</li> <li>Cryptography and Cyber Security (P)</li> </ul>	
Mathe Coi	Computing	<ul> <li>Engineering of Information Systems and Software (A)</li> <li>Computer Systems (A)</li> <li>Web Development and Computer Graphics (national recruitment specialty) (P)</li> </ul>	<ul> <li>Software Engineering and Data Processing</li> <li>(A)</li> <li>Distributed Information Systems (P)</li> <li>Information Technology (P)</li> <li>Applied artificial intelligence (P)</li> </ul>	
۵	Agricultural Sciences	- Plant Protection (A) - Vegetable Production (A) - Animal Production (A)	<ul> <li>Phytopharmacy and Plant Protection (A)</li> <li>Animal Production and Nutrition (A)</li> <li>Vegetable Production (A)</li> <li>Phytopathology (A)</li> </ul>	
fe Science	Biotechnology	<ul> <li>Biotechnology and Health (A)</li> <li>Microbial Biotechnology (A)</li> <li>Plant Biotechnology and Improvement of Plants (A)</li> </ul>	<ul> <li>Biotechnology and Molecular Pathology (A)</li> <li>Microbial Biotechnology (A)</li> <li>Plant Biotechnology (A)</li> </ul>	
nd Life (NLS)	Food Science	- Food Technology and Food Control Quality (A)	- Nutrition and Food Sciences (A)	
Nature and Life Science (NLS)	Biological Sciences	- Biochemistry (A) - Biology of Organisms (A) - Biology and Animal Physiology (A) - Molecular Biology (A)	<ul> <li>Applied Biochemistry (A)</li> <li>Biology of Populations and Organisms (A)</li> <li>Genetics (A)</li> <li>Cell Physiology and Physiopathology (A)</li> <li>Molecular and Cellular Biology (A)</li> </ul>	
	Ecology and Environment	- Agroecology (A) - Ecology and Environment (A)	<ul> <li>Agroenvironment and Bio-Indicators (A)</li> <li>Biodiversity and Environment (A)</li> <li>Ecology and Microbial (A)</li> </ul>	
Sciences and Techniques	Physical Education and Sport Activities	- Education and Motricity (A)	- School Physical and Sports Activity (A)	
of Physical and Sports' Activities (STPSA)	Sport Training	- Competitive Sports Training (A)	- Elite Sports Training (A)	

## FACULTY OF TECHNOLOGY (FT)

Training Area	Branch		Specialty (Option)		
Training Area			Degree	Master	
	Automatic	- Automatic (A)		- Automation and Industrial Computing (A)	
	Electronic	- Electron	ic (A)	- Electronic of Embedded Systems (A)	
	Electrotechnic	- Electrote	echnic (A)	- Electric machines (A)	
Sciences and Technology (ST)	Mechanical Engineering	- Electrotechnic (A)     - Mechanical Construction (A)     - Energetic (A)     - Materials Engineering (A)     - Automotive engineering (National     recruitment specialty) (A)		<ul> <li>Mechanical Construction (A)</li> <li>Energetics (A)</li> <li>Mechanical and Production Manufacturing (A)</li> <li>Materials Engineering (A)</li> <li>Energy Installations and Turbo machinery (A)</li> <li>Metal and boiler installations (P)</li> <li>Maintenance Engineering (P)</li> <li>Renewable Energies in Mechanics (A)</li> </ul>	
S.	Civil Engineering	- Civil Engineering (A)		<ul> <li>Geotechnic (A)</li> <li>Materials in Civil Engineering (A)</li> <li>Structures (A)</li> <li>Structures and Buildings (P)</li> </ul>	
	Industrial Engineering	- Industria	al Engineering (A)	- Industrial Engineering (A)	

Process Engineering	- Process Engineering (A)	<ul> <li>Food Engineering (A)</li> <li>Chemical Engineering (A)</li> <li>Polymer Engineering (A)</li> <li>Materials Process Engineering (A)</li> <li>Environmental Engineering (A)</li> <li>Engineering and Water Management (A)</li> </ul>
Electromechanical	- Electromechanic (A) - Industrial Maintenance (A)	<ul> <li>Electromechanics (A)</li> <li>Industrial Maintenance (A)</li> <li>Mechatronics(A)</li> </ul>
Industrial hygiene and safety	<ul> <li>Industrial hygiene and safety(A)</li> </ul>	- Industrial hygiene and safety (A)
Biomedical Engineering	- Biomedical Engineering(A)	- Biomedical Instruments (A)
Telecommunications	- Telecommunications(A)	- Networks and Telecommunications (A)

## MASTER WITH INTEGRATED BACHELOR'S DEGREE CURRICULUM (MIDC)

Training Area	Branch	Training Sector
Sciences and Technology (ST)	Automatique	- Automatic(MIDC)
Sciences and Technology (ST)	Electromechanical	<ul> <li>Mechatronic Engineering (MIDC)</li> </ul>

# FACULTY OF HYDROCARBONS AND CHEMISTRY (FHC)

Training Area	Branch	Specialty (Option)	
Training Area	Dianch	Degree	Master
Sciences and Technology (ST)	Hydrocarbons (National recruitment field)	<ul> <li>-Mechanical Engineering:</li> <li>Mechanics of Petrochemical Units (A)</li> <li>Oil field Mechanic (A)</li> <li>Transportation of Hydrocarbons (A)</li> <li>- Geophysics:</li> <li>Seismic Geophysics (A)</li> <li>Petroleum Engineering:</li> <li>Production of Hydrocarbons (A)</li> <li>Drilling of Hydrocarbon Wells (A)</li> <li>- Applied Geosciences:</li> <li>Mineral and Energy Resources (A)</li> <li>- Economy of Hydrocarbons:</li> <li>Petroleum Economics (A)</li> <li>- Automatisation of Industrial Processes:</li> <li>- Automatic Command (A)</li> <li>- Electrical Engineering:</li> <li>- Industrial Electricity (A)</li> <li>- Technologies and Processing of Oil and Gas (P)</li> </ul>	Mechanical Engineering: • Transportation and Distribution of Hydrocarbons (A) • Mechanic Oilfield (A) • Mechanics of Petrochemical Units (A) • Petroleum Geology (A) • Petroleum Geophysics (A) • Economy of Hydrocarbons (A) • Petroleum Engineering: • Hydrocarbons Production (A) • Wells Drilling (A) • Automation of Industrial Processes • Automatic Command (A) • Electrical Engineering: • Industrial Electricity (A) • Process Engineering • Refining (A) • Petrochemical Technology (A) • Instrumentation in the Petrochemical Industry (A) • Health Safety Environment (A)

# FACULTY OF ECONOMIC, TRADE AND MANAGEMENT SCIENCES

Training	Branch	Specialties (Options)	
Area	Dranch	Degree	Master
	Trade Sciences	- Marketing (A) - Digital Marketing (A) - Finance and International Trade (A)	-Finance and International Trade (A) -Service Marketing (A) -Digital Marketing(A)
	Management Sciences	-Entrepreneurship (A) -Management (A) -Financial Management (A)	-Management (A) -Public Management (A) -Financial Management (P)
Economics, Management and Trade Sciences (EMTS)	Economics Sciences	-Quantitative Economics (A) -Monetary and financial Economics (A) -Economics and Business Management (A)	-Quantitative Economics (A) -International Economy (A) -Economics and Management of Companies (A) -Monetary and Financial Economy (A)
	Financial Sciences and Accounting	-Accounting (A) -Finance (A)	-Accounting and Audit (A) - Accounting and Taxation (A) -Banking and Insurance finance (A) - Corporation finances (A)

# FACULTY OF LAW AND POLITICAL SCIENCE (FLPS)

Training	Branch	Specialties (Options)		
Area		Degree	Master	
Law and Political Sciences	Law	- Public Law (A) - Private Law (A)	- Public Law (A) - Private Law (A) - Business Law (A)	
(LPS)	Political Sciences	- International Relations (A) - Political and Administrative Organizations(A)	- Local Administration (A) - International Cooperation (A)	

## FACULTY OF LETTERS AND LANGUAGES (FLL)

Training	Bronch	Specialties (Options)	
Area	Branch	Degree	Master
	Critical Studies	- Critic and Methods (A)	-Modern and Contemporary Criticism (A)

Arabic Language and Linguistic Literature (ALL) Studies		-General linguistics (A)	- General linguistics (A)	
	Literary Studies	- Arabic Literature (A)	- Ancient Arabic Literature (A)	
	English Language	- English language (A)	- Literature and Civilizations (A) - Language Sciences(A)	
Letters and Foreign Languages (LFL)	French Language	- French language A)	- Literature and Civilizations (A)     - Language Sciences (A)     - Didactics of Foreign Languages (A)	

## INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERING (IEEE) (TEACHING IN ENGLISH)

Training Area	Branch	Specialty (Option)		
Training Area	Branch	Degree	Master	
	Electronics (National recruitment field)	-Electrical and Electronic Engineering (A)	/	
Sciences and Technology (ST)	Automatic	1	- Automatics (A)	
	Electrotechnic	1	- Electrotechnic (A)	
	Electronic	1	- Computer Engineering (A)	
	Telecommunications	1	- Telecommunications (A)	

## **INSTITUTE OF APPLIED SCIENCE AND TECHNOLOGY (IAST)**

Ĩ	Training	Brench	Specialty(Option)	
	Area	Branch	Degree	Master
ľ	Sciences and	Optics and Precision Mechanics	- Measurements, Metrology	Motrology and Quality (P)
	Technology (ST)	(National Recruitment field)	and Quality (P)	- Metrology and Quality (P)

(A): Academic; (P): Professional

## **<u>B-STATE ENGINEER TRAINING</u>**

Faculty	Training areas	Branch	Speciality (Option)
Faculty of Hydrocarbons and	Sciences and Technologies (ST)	Hydrocarbons	Reservoir Engineering
Chemistry (FHC)	Sciences and recimologies (31)	Process Engineering	Formulation Engineering
			Design Of Mechanical Systems And
		Mechanical Engineering	Structures
Exactly of Technology	Coise and Taska alerias (CT)		Mechanical Engineering
Faculty of Technology	Sciences and Technologies (ST)	Process Engineering	
		Civil Engineering	
		Electrical Engineering	
Ecoulty of Sciences	Mathématics Computing	Computing	Software Engineering
Faculty of Sciences	Natural and Life Sciences	Agricultural Sciences	Agricultural Sciences

## **C- TRAINING IN MEDICAL SCIENCES**

Boumerdes Annex	Branch	Speciality (Option)
	Medicine	Medicine

### **POST- GRADUATION TRAINING (3rd Cycle Doctorate)**

#### **Faculty of Sciences**

Computer Science, Chemistry, Physics, Educational Physical and Sports Activity, Sports Training, Biology, Biological Sciences, Agricultural Sciences, Biotechnology, Mathematics.

#### Faculty of Hydrocarbons and Chemistry

Hydrocarbons (Mechanical Engineering, Mechanical Engineering: Transport and Distribution of Hydrocarbons, Petroleum Geophysics, Petroleum Geosciences, Geophysics, Automatic Control, Industrial Electricity, Well Drilling, Petroleum Engineering Hydrocarbon Production, Process Engineering: refining, Process Engineering: Petrochemical Technology, Petroleum Geology), Electrical Engineering,

Process Engineering, Petrochemical Industries.

#### Faculty of Law and Political Sciences Law, Political Science.

#### Faculty of Technology

Process Engineering, Mechanical Engineering, Materials Science and Engineering, Environmental Engineering, Renewable Energy, Civil Engineering, Electromechanics, Biomedical Engineering, Energy, Telecommunications, Electronics, Industrial Engineering.

#### Faculty of Economic, Trade and Management Sciences

- Economics Sciences, Management Sciences, Commercial Sciences, Financial Sciences and Accounting.

#### Faculty of Letters and Languages

Literary Linguistic Studies, Linguistic Studies, Literary Studies, French, English, English Language, Critical Studies.

# Institute of Electrical and Electronic Engineering (Teaching in English)

- Electrical Engineering, Automation, Electronics, Electrotechnics, Telecommunications.

Post-graduation is based on 28 research laboratories (including a laboratory of Excellence- Signals and Systems) and a research unit - Materials, Processes and Environment, in which doctoral students, researchers and teacher-researchers work.

## JOB PROSPECTS BY FIELD OF TRAINING

Technologies : Assembly and manufacture of vehicules Chemical and petrochemical industries Hydraulic sector Agri –food industries

Computing Web designer Graphic designer Computing developer Web master, teaching. Field of electronics and automation ((Condor, Mobilis, Algérie Télécom, etc...) Medical imaging Building, public works and civil engineering structures. Mathématics

Research center, teaching Polling and forecasting office National statistics office Banking and insurances.

Administrator, teaching, lawyer, notary, bailiff and judge.

#### Economics, Management And Trade Sciences

Law

Public administration Economic and commercial companies

Design office ,banks, insurance and the stock market, expert, accountant

Natural and Life Sciences

Food analysis laboratories, medicals, etc... Expert in the fields of ecological systems. Researchger in the field of medicinal plants. *Physics and Chemistry* 

Research centers, nuclear, renewable energies etc...) Chemical and petrochemical industries Pharmaceutical industries, teaching.

# Letters and Languages

Interpreter, translator, journalism and teaching, administration management, proofreading, culture and tourism. Sports Coach, physical trainer (coaching), teaching. Medical sciences

Medicine

# UNIVERSITY OF M'HAMED BOUGARA BOUMERDES



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