People's Democratic Republic of Algeria Ministry of Higher Education and Scientific Research University of ABBES Laghrour-Khenchela



Training description form

Domain: Natural and life sciences Stream: Biotechnology Cycle: L2 Common Core Reporting structure: Faculty of Natural and Life Sciences Department of Common Core

1 - Training objectives

According to the FAO, biotechnology has two complementary definitions: "The use of biological processes or living organisms for the production of materials and services of benefit to mankind. Biotechnology involves the use of techniques that increase the economic value of plants and animals and develop microorganisms to act in the environment". "Biotechnology involves the manipulation, on a scientific basis, of living organisms, particularly on a genetic scale, in order to produce new products such as hormones, vaccines, monoclonal antibodies, etc." The multidisciplinary nature of biotechnology and its vast fields of application make it difficult to give a single, practical definition to this promising discipline. What's more, this definition changes over time due to the rapid development of new techniques and discoveries in the field of molecular biology, both of which constantly open up new perspectives.

The biotechnology specialization is designed to provide scientific and technological training in biology for second-year students. The pedagogical and scientific objective of the "Biotechnologies" pathway is to train senior managers in processes applied to life sciences, and more specifically to the agri-food and industrial biotechnology sectors, as well as pharmaceuticals and cosmetics.

We currently have a young, dynamic, and multi-disciplinary teaching and research staff, guided by our most senior staff.

Our aim is not only to produce teachable knowledge (higher education: master's and doctorate for the best elements) but also to train managers capable of intervening on real problems affecting the fields of biotechnology.

2. Profiles and skills targeted:

Biotechnology is a clearly multidisciplinary field involving biochemistry, molecular biology, genetics, immunology, microbiology, pharmacology, fermentation, and agriculture, to name but a few.

Students should have a solid grounding in general biology, biochemistry, genetics, and molecular biology.

Semester 3

Teaching units	Materials	Credits	Coefficients	Volume hourlyweekl y			VHS (15weeks)	Others	Assessment mode			
	Titled			Course	TD	TP		Other	CC*		Exam	
UEFundamental Code: UEF 2.1.1 Credits :6 Coefficients :3	Introduction toBiotechnologies	6	3	3h:00	1h30	-	67h30	82h30	x	40%	x	60%
U E Fundamental Code: UEF 2.1.2	Biochemistry	6	3	3h:00	1h30	-	67h30	82h30	x	40%	x	60%
Credits :12 Coefficients :6	Genetic	6	3	3h00	1h30	-	67h30	82h30	x	40%	x	60%
U E Methodology Code: UEM 2.1.1 Credits :4 Coefficients:2	Techniquesof Communication and Expression (in English)	4	2	1h30	1h30	-	45h00	55h00	x	40%	x	60%
U E Methodology Code: UEM 2.1.2 Credits :5 Coefficients:3	Biophysics	5	3	1h30	1h30	1h00	60h00	65h00	x	40%	x	60%
UE Discovery Code: UED 2.1.1 Credits :2 Coefficients :2	Environment and Sustainable Development	2	2	1h30	1h30	-	45h00	5:00 a.m.	x	40%	x	60%
U E Transversal Code: UET 2.1.1 Credits :1 Coefficients :1	Ethics And EthicsUniversity	1	1	1h30	-	-	10:30 p.m.	2h30	-	-	x	100%
Total Half3		30	17	15	9	1h00	375h00	375h00				

Semester 4

Teaching units	Materials	edits	efficie Its	Weekly hourly volume			VHS (15 weeks)	Other*	Assessment mode			
	Titled	ວັ	S	Course	TD	TP			CC*		Exam	
Fundamental EU Code: UEF 2.2.1 Credits: 6 Coefficients: 3	Biotechnologies and applications	6	3	3h:00	1h30	-	67h30	82h30	x	40%	x	60%
Fundamental EU Code: UEF 2.2.2 Credits: 12 Coefficients: 6	Microbiology	8	4	3h:00	1h30	1h30	90:00	110:00 a.m.	x	40%	X	60%
	Immunology	4	2	1h30	1h30	-	45h00	55h00	x	40%	x	60%
EU Methodology Code: UEM 2.2.1 Credits: 4 Coefficients: 2	Scientific methodology and techniques for studying living things	4	2	1h30	-	1h30	45h00	55h00	x	40%	x	60%
EU Methodology Code: UEM 2.2.2 Credits: 5 Coefficients: 3	Biostatistics	5	3	1h30	1h30	1h00	60h00	65h00	x	40%	x	60%
EU Discovery Code: UED 2.2.1 Credits: 2 Coefficients: 2	General ecology	2	2	1h30	1h30	-	45h00	5:00 a.m.	x	40%	x	60%
Transversal EU Code: UET 2.2.1 Credits: 1 Coefficients: 1	Computer tools	1	1	1h30	-	-	10:30 p.m.	2h30	-	-	x	100%
Total Semester 4		30	17	13h30	7:30	4:00	375h	375h				