

THE PEOPLE'S DEMOCRATIC REPUBLIC OF ALGERIA
MINISTRY OF HIGHER EDUCATION AND SCIENTIFIC RESEARCH

ACADEMIC MASTER S DEGREE
PROGRAM OFFER

Establishment	Faculty/Institute	Department
University of Hassiba Benbouali Chlef	Faculty of Natural and Life Sciences	Agronomic Sciences and Biotechnologies

Domain : Natural and Life Sciences

Program : Biotechnology

Specialty : Plant Biotechnology

Semester Teaching Organization Sheet

1- Semester 1 :

Teaching Unit	SHV	Weekly Hours				Coeff	Credits	Assessment Method	
	14-16 week	C	TD	TP	Others			Continuo (40%)	Exam (60%)
Fundamentals T Unit									
FTU1(O/P)									
Subject 1 : Structural, Functional, Genomics and Proteomics	45h	1h30	1h30		55h	2	4	(40%)	(60%)
Subject 2 : Cellular and Molecular Aspects of Plant Differentiation	45h	1h30		1h30	55h	2	4	(40%)	(60%)
FU2(O/P)									
Subject 1 : Cell signaling and Gene Regulation	67h30	1h30	1h30	1h30	82h30	3	6	(40%)	(60%)
Subject 2 : Introduction to Marker-Assisted Selection (MAS)	45h	1h30	1h30		55h	2	4	(40%)	(60%)
Methodology T Unit									
MTU1(O/P)									
Subject 1 : Methodes et Techniques of Analysis	60h	1h30	1h	1h30	65h	3	5	(40%)	(60%)
Subject 2 : Biostatistics	45h	1h30	1h30		55h	2	4	(40%)	(60%)
Discovery T Unit									
DTU1(O/P)									
Subject 1 : Enzymology	22h30	1h30			2h30	1	1		100%
Transversal T Unit									
T T U 1(O/P)									
Subject 1 : English	22h30	1h30			2h30	1	1		100%
Subject 2 : Communication	22h30	1h30			2h30	1	1		100%
Total Semester 1	375h	13h30	7h	4h30	375h	17	30		

2- Semester 2 :

Teaching unit	SHV	weekly hours				Coeff	Credits	Assessment Method	
	14-16 week	C	TD	TP	Others			Continuo (40%)	Exam (60%)
Fundamentals T U									
FTU1(O/P)									
Subject 1 : Integration of biotechnology in plant breeding	67h30	3h		1h30	82h30	3	6	(40%)	(60%)
Subject 2 : plant-Microorganism interaction	67h30	1h30	1h30	1h30	82h30	3	6	(40%)	(60%)
FTU2(O/P)									
Subject1 : In vitro plant multiplication	67h30	1h30	1h30	1h30	82h30	3	6	(40%)	(60%)
MTU1(O/P)									
Subject 1 : Phytochemistry 1	60h	1h30	1h30	1h	65h	3	5	(40%)	(60%)
Subject 2 : Bioinformatic	45h	1h30		1h30	55h	2	4	(40%)	(60%)
Discovery T U									
DTU1(O/P)									
Subject 1: Plant Biotechnology and natural products	22h30	1h30			2h30	1	1		100%
Subject 2: Biosafety and et sustainable management of plant biotechnology	22h30	1h30			2h30	1	1		100%
Transversal T U									
TTU1(O/P)									
Subject 1 : Legislation	22h30	1h30			2h30	1	1		100%
Total Semester 2	375h	13h30	4h30	7h	375	17	30		

3- Semester 3 :

Teaching Unit	SHV	weekly hours				Coeff	Credits	Assessment Method	
	14-16 week	C	TD	TP	others			Continuo (40%)	Exam (60%)
Fundamental T U									
FTU1(O/P)									
Subject 1 : Valorization of plant natural substances in industry	45h	1h30		1h30	55h	2	4	(40%)	(60%)
Subject 2 : Dietary supplements and funtional foods based on natural ingredients	45h	1h30	1h30		55h	2	4	(40%)	(60%)
FTU2(O/P)									
Subject 1 : Applied plant physiology and biochemistry	67h30	1h30	1h30	1h30	82h30	3	6	(40%)	(60%)
Subject 2 : Plant Adaptation to environmental stresses	45h	1h30		1h30	55h	2	4	(40%)	(60%)
Methodology T U									
MTU1(O/P)									
Matière 1 : Phytochemistry 2	60h	1h30	1h30	1h	65h	3	5	(40%)	(60%)
MTU2(O/P)									
Subject 1 : Ethics and biotechnology	45h	1h30	1h30		55h	2	4	(40%)	(60%)
Discovery T U									
DTU1(O/P)									
Subject 1 :Laboratory hygiene and safety	22h30	1h30			2h30	1	1		100%
Subject 2 : Bibliographic Research Method	22h30	1h30			2h30	1	1		100%
Transversals T U									
TTU1(O/P)									
subject 1 :Entrepreneurship	22h30	1h30			2h30	1	1		100%
Total Semester 3	375h	13h30	6h00	5h30	375h	17	30		

4- Semester 4 :

Domain : Life and natural sciences

Prog: Biotechnology

Speciality :Pant Biotechnology

Internship in a company validated by a dissertation and a defence.

	SHV	Coeff	Credits
Individual work	200	02	15
Intership	100	02	15
Seminar			
Others			
Total Semester 4	300	04	30

5- Global overview of the program :

HV \ TU	FTU	MTU	DTU	TTU	Total
Course	270	135	90	90	585
TD	199.5	97.5	-	-	297
TP	138	75	22.5	-	235.5
Individual work	942.5	360	10	10	1322.5
Others	100	-	-	-	100
Total	1650	667.5	122.5	100	2540
Credits	84	27	5	4	120
% en credits for each TU	70%	22.5%	4.17%	3.33%	100%