

3. Program (Taught modules)

Semester 1

Teaching unit	Subject		Credits	Coefficients	Hours per week			Hours per semester (15 Weeks)	others *	Assessment method			
	Code	Name			Course	Tutorials	Practical work			Continuous assessment		Exam	
FTU Credits : 18 Coefficients : 9	F 1.1.1	General and organic chemistry	6	3	1h30	1h30	1h30	67h30	82h30	x	40%	x	60%
	F 1.1.2	Cellular biology	8	4	1h30	1h30	3h00	90h00	110h00	x	40%	x	60%
	F 1.1.3	Mathematics Statistics and informatics	4	2	1h30	1h30	-	45h00	55h00	x	40%	x	60%
MTU Credits : 9 Coefficients: 5	M 1.1.1	Geology	5	3	1h30	1h30	1h00	60h00	65h00	x	40%	x	60%
	M 1.1.2	Communication and Expression Techniques 1 (in French)	4	2	1h30	1h30	-	45h00	55h00	x	40%	x	60%
DTU Credits : 2 Coefficients : 2	D 1.1.1	Working Method and Terminology 1	2	2	1h30	1h30		45h00	5h00	x	40%	x	60%
TTU Credits : 2 Coefficients : 1	T 1.1.1	Universal History of Biological Sciences	1	1	1h30	-	-	22h30	2h30	-	-	x	100
Total Semester 1			30	17	10h30	9h00	5h30	375h00	375h00				

Semester 2

Teaching unit	Subject		Credits	Coefficients	Hours per week			Hours per semester (15 Weeks)	others *	Assessment method			
	Code	Name			Course	Tutorials	Practical work			Continuous assessment		Exam	
FTU Crédits : 18 Coefficients : 9	F 2.1.1	Thermodynamics and chemistry of solutions	6	3	1h30	1h30	1h30	67h30	82h30	x	40%	x	60%
	F 2.1.2	Vegetable Biology	6	3	1h30	-	3h00	67h30	82h30	x	40%	x	60%
	F 2.1.3	Animal Biology	6	3	1h30	-	3h00	67h30	82h30	x	40%	x	60%
MTU Crédits : 9 Coefficients: 5	M 2.1.1	Physics	5	3	1h30	1h30	1h00	60h00	65h00	x	40%	x	60%
	M 2.1.2	Communication and Expression Techniques 2 (in English)	4	2	1h30	1h30	-	45h00	55h00	x	40%	x	60%
DTU Crédits : 2 Coefficients : 2	D 2.1.1	Biotechnology	2	2	1h30	1h30	-	45h00	5h00	x	40%	x	60%
TTU Crédits : 2 Coefficients : 1	T 2.1.1	Working Method and Terminology 2	1	1	1h30	-	-	22h30	2h30	-	-	x	100%
Total Semester 2			30	17	10h30	6h00	8h30	375h00	375h00				

Semester 3

Teaching unit	Subject	Credits	Coefficients	Hours per week			Hours per semester (15 Weeks)	others *	Assessment method			
	Name			Course	Tutorials	Practical work			Continuous assessment		Exam	
FTU Code : UEF 2.1.1 Credits : 6 Coefficients : 3	Zoology	6	3	3h00	-	1h30	67h30	82h30	x	40%	x	60%
FTU Code : UEF 2.1.2 Credits : 12 Coefficients : 6	Biochemistry	6	3	3h00	1h30	-	67h30	82h30	x	40%	x	60%
	Genetics	6	3	3h00	1h30	-	67h30	82h30	x	40%	x	60%
MTU Code : UEM 2.1.1 Credits : 4 Coefficients: 2	Communication and Expression Techniques (In English)	4	2	1h30	1h30	-	45h00	55h00	x	40%	x	60%
MTU Code : UEM 2.1.2 Credits : 5 Coefficients: 3	Biophysics	5	3	1h30	1h30	1h00	60h00	65h00	x	40%	x	60%
DTU Code : UED 2.1.1 Credits : 2 Coefficients : 2	Environment and Sustainable Development	2	2	1h30	1h30	-	45h00	5h00	x	40%	x	60%
TTU Code : UET 2.1.1 Credits : 1 Coefficients : 1	Ethics and University Deontology	1	1	1h30	-	-	22h30	2h30	-	-	x	100%
Total Semester 3		30	17	15h00	7h30	2h30	375h00	375h00				

Semester 4

Teaching unit	Subject	Credits	Coefficients	Hours per week			Hours per semester (15 Weeks)	others *	Assessment method			
	Name			Course	Tutorials	Practical work			Continuous assessment		Practical work	
FTU Code : UEF 2.1.1 Crédits : 6 Coefficients : 3	Botanics	6	3	3h00	-	1h30	67h30	82h30	x	40%	x	60%
FTU Code : UEF 2.1.2 Crédits : 12 Coefficients : 6	Microbiology	8	4	3h00	1h30	1h30	90h00	110h00	x	40%	x	60%
	Immunology	4	2	1h30	1h30	-	45h00	55h00	x	40%	x	60%
MTU Code : UEM 2.1.1 Crédits : 4 Coefficients: 2	Vegetal Physiology	4	2	1h30	-	1h30	45h00	55h00	x	40%	x	60%
MTU Code : UEM 2.1.2 Crédits : 5 Coefficients: 3	Biostatistics	5	3	1h30	1h30	1h00	60h00	65h00	x	40%	x	60%
DTU Code : UED 2.1.1 Crédits : 2 Coefficients : 2	General Ecology	2	2	1h30	1h30	-	45h00	5h00	x	40%	x	60%
TTU Code : UET 2.1.1 Crédits : 1 Coefficients : 1	Informatics tools	1	1	1h30	-	-	22h30	2h30	-	-	x	100%
Total Semester 4		30	17	13h30	6h00	5h30	375h00	375h00				

Semester 5

Teaching unit	Hours per semester	Hours per week				Coeff.	Credits	Assessment method	
	15 weeks	Course	Tutorials	Practical work	others			Continuous assessment	Practical work
FTU									
UEF 3.1.1 : Microbial taxonomy									
Subject 1 : Systematics of prokaryotes (Bacteria and Archaea)	67h30	3h00	-	1h 30	82h30	3	6	40%	60%
Subject 2 : Mycology-Algology-Virology	67h30	3h00	-	1h 30	82h30	3	6	40%	60%
UEF 3.1.2: Microbial genetics									
Subject 1 : Microbial genetics	67h30	3h00	1h30		82h30	3	6	40%	60%
MTU									
Subject 1 : Microbiological Control Techniques	60h00	1h30	-	2h30	65h00	3	5	40%	60%
Subject 2 : Pharmacotoxicology	45h00	1h30	-	1h30	55h00	2	4	40%	60%
DTU:									
Subject 1 : Biostatistics	45h00	1h30		1h30	5h	2	2	40%	60%
TTU:									
Subject 1 : English	22h30	1h30	-	-	2h30	1	1		100%
Total Semester 5	375h	15h00	1h30	8h30	375h	17	30		

Semester 6

Teaching unit	Hours per semester	Hours per week				Coeff.	Credits	Assessment method	
	15 weeks	Course	Tutorials	Practical work	others			Continuous assessment	Exam
Fundamental									
FTU : Applied Microbiology									
Subject 1: Industrial Microbiology	67h30	3h00	-	1h30	82h30	3	6	40%	60%
Subject 2: Environmental Microbiology	67h30	3h00	-	1h30	82h30	3	6	40%	60%
Subject 3: Food microbiology	67h30	3h00	-	1h30	82h30	3	6	40%	60%
MTU									
Subject 1: Microbial biochemistry	60h	1h30	-	2h30	65h	3	5	40%	60%
Subject 2: Genetic engineering	45h	1h30	1h30	-	55h	2	4	40%	60%
DTU									
Subject 1 : Bioinformatics	45h	1h30	-	1h30	5h	2	2	40%	60%
TTU									
Subject 1 : Entrepreneurship	22h30	1h30	-	-	2h30	1	1		100%
Total Semester 6	375h	15h00	1h30	8h30	375h	17	30		