

# ACADEMIC LICENSE

<b>Establishment</b>	<b>Faculty</b>	<b>Department</b>
<b>Djilali Bounaama University of Khemis Miliana</b>	<b>Faculty of Natural and Life Sciences and Earth Sciences</b>	<b>Biology</b>

<b>Field</b>	<b>Branch</b>	<b>Specialty</b>
<b>Natural and Life Sciences</b>	<b>Biological Sciences</b>	<b>Animal Biology and Physiology</b>

**Common base « Natural and Life Sciences » domain**

**Semester 1**

Teaching units	Matter		Credits	Coefficients	Hourly volume weekly			VHS (15 weeks)	Other *	Evaluation method			
	Code	Title			Course	DW	PW			CC*		Examination	
<b>U E Fundamental</b> Code: UEF 1. 1 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	4	2	1h30	1h30	-	45h00	55h00	x	40%	x	60%
<b>U E Methodology</b> Code: UEM 1.1 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%
<b>U E Discovery</b> Code : UED 1.1 Credits: 2 Coefficients: 2	D 1.1.1	Working Methods and Terminology 1	2	2	1h30	1h30		45h00	5h00	x	40%	x	60%
<b>U E Transversal</b> Code: UET 1.1 Credits: 1 Coefficients: 1	T 1.1.1	Universal History of Biological Sciences	1	1	1h30	-	-	22h30	2h30	-	-	x	100
<b>Total Semester 1</b>			<b>30</b>	<b>17</b>	<b>10h30</b>	<b>9h00</b>	<b>5h30</b>	<b>375h00</b>	<b>375h00</b>				

Other\* = Additional work in semester consultation; CC\* = Continuous control.

**Common base « Natural and Life Sciences » domain**

**Semester 2**

Teaching units	Matter		Credits	Coefficients	Hourly volume weekly			VHS (15 weeks)	Other *	Evaluation method			
	Code	Title			Course	DW	PW			CC*		Examination	
<b>U E Fundamental</b> <b>Code: UEF 2. 1</b> <b>Credits: 18</b> <b>Coefficients: 9</b>	F 2.1.1	Thermodynamics and solution chemistry	6	3	1h30	1h30	1h30	67h30	82h30	x	40%	x	60%
	F 2.1.2	Plant 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%
<b>U E Methodology</b> <b>Code: UEM 2.1</b> <b>Credits: 9</b> <b>Coefficients: 5</b>	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%
<b>U E Discovery</b> <b>Code : UED 2.1</b> <b>Credits: 2</b> <b>Coefficients: 2</b>	D 2.1.1	Life Sciences and Socio-Economic Impact	2	2	1h30	1h30	-	45h00	5h00	x	40%	x	60%
<b>U E Transversal</b> <b>Code: UET 2.1</b> <b>Credits: 1</b> <b>Coefficients: 1</b>	T 2.1.1	Working Methods and Terminology 2	1	1	1h30	-	-	22h30	2h30	-	-	x	100%
<b>Total Semester 2</b>			<b>30</b>	<b>17</b>	<b>10h30</b>	<b>6h00</b>	<b>8h30</b>	<b>375h00</b>	<b>375h00</b>				

Other\* = Additional work in semester consultation; CC\* = Continuous control.

**Annex of the second year Bachelor's degree program  
Natural and life sciences field « Biological Sciences » field**

**Semester 3**

Teaching units	Matter	Credits	Coefficients	Hourly volume weekly			VHS (15 weeks)	Other *	Evaluation method			
	Title			Course	DW	PW			CC*		Examination	
<b>U E Fundamental</b> Code: UEF 2.1.1 Credits: 6 Coefficients: 3	Zoology	6	3	3h00	-	1h30	67h30	82h30	x	40%	x	60%
<b>U E Fundamental</b> 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%
<b>U E Methodology</b> 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%
<b>U E Methodology</b> Code: UEM 2.1.2 Credits: 5 Coefficients: 3	Biophysics	5	3	1h30	1h30	1h00	60h00	65h00	x	40%	x	60%
<b>U E Discovery</b> Code : UED 2.1 Credits: 2 Coefficients: 2	Environment and Sustainable Development	2	2	1h30	1h30	-	45h00	5h00	x	40%	x	60%
<b>U E Transversal</b> Code: UET 2.1 Credits: 1 Coefficients: 1	University Ethics and Deontology	1	1	1h30	-	-	22h30	2h30	-	-	x	100%
<b>Total Semester 3</b>		<b>30</b>	<b>17</b>	<b>15h00</b>	<b>7h30</b>	<b>2h30</b>	<b>375h00</b>	<b>375h00</b>				

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**Annex of the second year Bachelor's degree program  
Natural and life sciences field « Biological Sciences » field**

**Semester 4**

Teaching units	Matter	Credits	Coefficients	Hourly volume weekly			VHS (15 weeks)	Other *	Evaluation method			
	Title			Course	DW	PW			CC*		Examination	
<b>U E Fundamental Code: UEF 2.2.1 Credits: 6 Coefficients: 3</b>	Botany	6	3	3h00	-	1h30	67h30	82h30	x	40%	x	60%
<b>U E Fundamental Code: UEF 2.2.2 Credits: 12 Coefficients: 6</b>	Microbiology	8	4	3h00	1h30	1h30	90h00	110h00	x	40%	x	60%
	Immunology	4	2	1h30	1h30	-	45h00	55h00	x	40%	x	60%
<b>U E Methodology Code: UEM 2.2.1 Credits: 4 Coefficients: 2</b>	Scientific methodology and techniques for studying life	4	2	1h30	-	1h30	45h00	55h00	x	40%	x	60%
<b>U E Methodology Code: UEM 2.2.2 Credits: 5 Coefficients: 3</b>	Biostatistics	5	3	1h30	1h30	1h00	60h00	65h00	x	40%	x	60%
<b>U E Discovery Code : UED 2.2.1 Credits: 2 Coefficients: 2</b>	General ecology	2	2	1h30	1h30	-	45h00	5h00	x	40%	x	60%
<b>U E Transversal Code: UET 2.2.1 Credits: 1 Coefficients: 1</b>	Computer tools	1	1	1h30	-	-	22h30	2h30	-	-	x	100%
<b>Total Semester 4</b>		<b>30</b>	<b>17</b>	<b>13h30</b>	<b>6h00</b>	<b>5h30</b>	<b>375h00</b>	<b>375h00</b>				

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Annex of the teaching program of the third year of the licence  
Licence « Biology and Animal Physiology »

Semester 5

Teaching units		VHS (15 weeks)	Hourly volume weekly				Coefficients	Credits	Evaluation method			
			Course	DW	PW	Other *			CC*	Examination		
<b>UE Fundamental: UEF 3.2</b>												
<b>UEF 3.2.1(O/P) : General physiology</b>												
<b>Matter 1</b>	Embryonic development	90h00	3h00	-	3h00	110h00	<b>4</b>	<b>8</b>	X	<b>40%</b>	X	<b>60%</b>
<b>Matter 2</b>	Functional histology	45h00	1h30	-	1h30	55h00	<b>2</b>	<b>4</b>	X	<b>40%</b>	X	<b>60%</b>
<b>Matter 3</b>	Comparative Anatomy of Vertebrates	67h30	1h30	-	3h00	82h30	<b>3</b>	<b>6</b>	X	<b>40%</b>	X	<b>60%</b>
<b>UE Methodology: UEM 3.2</b>												
<b>Matter 1</b>	Reproductive physiology	60h00	1h30	1h30	1h00	65h00	<b>3</b>	<b>5</b>	X	<b>40%</b>	X	<b>60%</b>
<b>Matter 2</b>	Structure and function of biological complexes	45h00	1h30	1h30	-	55h00	<b>2</b>	<b>4</b>	X	<b>40%</b>	X	<b>60%</b>
<b>UE Discovery: UED 3.2</b>												
<b>Matter 1</b>	Biostatistics	45h00	1h30	1h30	-	5h00	<b>2</b>	<b>2</b>	X	<b>40%</b>	X	<b>60%</b>
<b>UE Transversal: UET 3.2</b>												
<b>Matter 1</b>	Scientific English	22h30	1h30	-	-	2h30	<b>1</b>	<b>1</b>	-	-	X	<b>100%</b>
<b>Total Semester 5</b>		<b>375h</b>	<b>12h</b>	<b>4h30</b>	<b>8h30</b>	<b>375h</b>	<b>17</b>	<b>30</b>				

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Annex of the teaching program of the third year of the licence  
Licence « Biology and Animal Physiology »

Semester 6

Teaching units		VHS (15 weeks)	Hourly volume weekly				Coefficients	Credits	Evaluation method			
			Course	DW	PW	Other *			CC*	Examination		
<b>UE Fundamental: UEF 3.2</b>												
<b>UEF 3.2.1(O/P) : General physiology</b>												
<b>Matter 1</b>	Physiology of major functions	67h30	3h00	-	1h30	82h30	<b>3</b>	<b>6</b>	X	<b>40%</b>	X	<b>60%</b>
<b>Matter 2</b>	Functional Endocrinology	67h30	3h00	-	1h30	82h30	<b>3</b>	<b>6</b>	X	<b>40%</b>	X	<b>60%</b>
<b>Matter 3</b>	Cellular and molecular physiology	67h30	3h00	-	1h30	82h30	<b>3</b>	<b>6</b>	X	<b>40%</b>	X	<b>60%</b>
<b>UE Methodology: UEM 3.2</b>												
<b>Matter 1</b>	Nerve Physiology	60h00	1h30	1h30	1h00	65h00	<b>3</b>	<b>5</b>	X	<b>40%</b>	X	<b>60%</b>
<b>Matter 2</b>	Molecular Biology	45h00	1h30	1h30	-	55h00	<b>2</b>	<b>4</b>	X	<b>40%</b>	X	<b>60%</b>
<b>UE Discovery: UED 3.2</b>												
<b>Matter 1</b>	Bioinformatics	45h00	1h30	-	1h30	5h00	<b>2</b>	<b>2</b>	X	<b>40%</b>	X	<b>60%</b>
<b>UE Transversal: UET 3.2</b>												
<b>Matter 1</b>	Article Analysis	22h30	1h30	-	-	2h30	<b>1</b>	<b>1</b>	-	-	X	<b>100%</b>
<b>Total Semester 6</b>		<b>375h</b>	<b>15h</b>	<b>3h</b>	<b>7h</b>	<b>375h</b>	<b>17</b>	<b>30</b>				

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**5- Global summary of the training: (the global VH separated in courses, Dw, for the 06 semesters of teaching, for the various types of UE)**

<b>Hourly volume</b> \ <b>UE</b>	<b>UEF</b>	<b>UEM</b>	<b>UED</b>	<b>UET</b>	<b>Total</b>
<b>course</b>	607h30	270h	135h00	135h00	1147h30
<b>DW</b>	180h00	225h	112h30	/	517h30
<b>PW</b>	427h30	135h	22h30	/	585h00
<b>Other personal work</b>	1485h00	720h	30h00	15h00	<b>2250h00</b>
<b>Memory</b>	/	/	/	/	/
<b>Total</b>	2700h00	1350h00	300h00	150h00	<b>4500h00</b>
<b>Credits</b>	108	54	12	6	<b>180</b>
<b>% in credits for each EU</b>	60	30	6.67	3.33	<b>100%</b>