

## BIOLOGY DEGREE

ACADEMIC YEAR 2007/2008

Degree	Biology
Centre	Faculty of Sciences C/ Darwin, 2 Campus de Cantoblanco 28049 – Madrid Phone: 914978264 <a href="#">Web Page</a>
Academic Credits	300
1 <sup>st</sup> and 2 <sup>nd</sup> cycle	

Total Credits	Compulsory Credits	Optional Credits	Free Election Credits	Total
First Cycle	150	12	18	180
Second Cycle	45	63	12	120
Total	195	75	30	300

### Access to Second Cycle

Code	Subject	Credits
13761	Plant and Animal Cytology and Histology	12
13763	Biochemistry	12
13764	Microbiology	12
13765	Botany	12
13766	Zoology	12
13767	Animal Physiology	12
13768	Plant Physiology	12
13769	Genetics	12

## FIRST CYCLE

First Course	Compulsory Credits	Optional Credits	Free Election Credits
	48	*	**

Code	Subject	Type	Credits	Semester
13757	Physics of Biological Processes	(Tr)	6	1
13755	Chemistry	(Tr)	6	1
13756	Mathematics	(Tr)	4,5	1
13760	Introduction to Geology	(Ob)	9	Annual
13761	Plant and Animal Cytology and Histology	(Tr)	12	Annual
13758	Chemistry of Organic Compounds	(Ob)	6	2
13759	Mathematical Models in Biology	(Ob)	4,5	2

Second Course	Compulsory Credits	Optional Credits	Free Election Credits
	54	*	**

Code	Subject	Type	Credits	Semester
13762	Biostatistics	(Tr)	6	1
13763	Biochemistry	(Tr)	12	Annual
13766	Zoology	(Tr)	12	Annual
13764	Microbiology	(Tr)	12	Annual
13765	Botany	(Tr)	12	Annual

Third Course	Compulsory Credits	Optional Credits	Free Election Credits
	48	*	**

Code	Subject	Type	Credits	Semester
13767	Animal Physiology	(Tr)	12	Annual
13768	Plant Physiology	(Tr)	12	Annual
13770	Ecology	(Tr)	12	Annual
13769	Genetics	(Tr)	12	Annual

### Optional Subjects Offer in the First Cycle \*

Code	Subject	Type	Credits	Semester
13776	Basic Embriology	(Op)	6	1
13777	Principles of Anthropology	(Op)	6	1
13779	Principles of Paleontology	(Op)	6	1
13778	Principles of Animal Behaviour	(Op)	6	2
13780	Introduction to the Iberian Flora	(Op)	6	2

## SECOND CYCLE

Fourth Course	Compulsory Credits 18	Optional Credits *	Free Election Credits **
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Code	Subject	Type	Credits	Semester
13772	Statistical Methods	(Tr)	4,5	1
13773	Advanced Methods and Techniques in Biology	(Tr)	9	(1)
13771	Data Analyses	(Tr)	4,5	2

Fifth course	Compulsory Credits 27	Optional Credits *	Free Election Credits **
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Code	Subject	Type	Credits	Semester
13774	Integrated Methods and Techniques in Biology	(Tr)	9	(1)
13775	Graduation Project	(Tr)	18	Annual

(Tr): Troncal = Compulsory Credits  
(Ob): Obligatorio = Compulsory Credits  
(Op): Optativo = Optional Credits

## Optional Subjects Offer in the Second Cycle \*

### RECOMMENDED SUBJECTS FOR ROUTE A:

Code	Subject	Recommended Course	Credits	Semester
13781	Arthropoda	4º	9	1
13782	Biogeography	5º	6	1
13785	Marine Biology	5º	9	2
13786	Biology of Human Populations and Society	4º	9	1
13788	Conservation Biology	5º	6	2
13789	Cryptogamy (Algae and Archegoniate)	4º	6	1
13790	Didactics in Biology	5º	6	1
13793	Human Ecology: Present Human Populations	5º	6	2
13796	Phanerogamy	4º	6	2
13797	Plant Phylogeny and Evolution	5º	6	1
13798	Systematic Philosophies and Phylogenetic Reconstruction	4º	4,5	2
13799	Environmental Animal Physiology	4º	6	2
13800	Environmental Plant Physiology	4º	6	1
13803	Population Genetics	5º	9	2
13804	Geobotany	4º	6	1
13805	Non Arthropod Invertebrates	4º	9	1
13808	Models and Processes in Evolution	5º	6	2

Code	Subject	Recommended Course	Credits	Semester
13809	Animal Organography	4º	9	2
13810	Origin and Evolution of the Cells	5º	4,5	2
13811	Human Origin and Evolution	5º	6	1
13812	Paleozoology	4º	6	1
13814	Vertebrates	5º	9	2

RECOMMENDED SUBJECTS FOR ROUTE B:

Code	Subject	Recommended Course	Credits	Semester
13782	Biogeography	5º	6	1
13785	Marine Biology	5º	9	2
13788	Conservation Biology	5º	6	2
13790	Didactics in Biology	5º	6	1
13791	Quantitative Ecology	5º	6	2
13792	Human Ecology: Biohistory	5º	6	1
13793	Human Ecology: Present Human Populations	5º	6	2
13794	Microbial Ecology	4º	9	2
13795	Ecology of Natural Resources	4º	9	1
13799	Environmental Animal Physiology	4º	6	2
13800	Environmental Plant Physiology	4º	6	1
13803	Population Genetics	5º	9	2
13804	Geobotany	4º	6	1
13806	Limnology	4º	9	1
13808	Models and Processes in Evolution	5º	6	2
13813	Environmental Systems	4º	9	2

RECOMMENDED SUBJECTS FOR ROUTE C:

Code	Subject	Recommended Course	Credits	Semester
13783	Cell Biology	4º	9	1
13784	Developmental Biology	5º	6	2
13787	Cytogenetics	4º	9	2
13790	Didactics in Biology	5º	6	1
13801	Human Genetics	5º	9	1
13802	Molecular Genetics	4º	9	1
13803	Population Genetics	5º	9	2
13808	Models and Processes in Evolution	5º	6	2
13809	Animal Organography	4º	9	2
13810	Origin and Evolution of the Cells	5º	4,5	2
13811	Human Origin and Evolution	5º	6	1