UNIVERSITY OF CRETE

Department of Biology

School of Sciences and Engineering

Study Guide

Organization of the Department

Establishment of the Department

The Department of Biology of the School of Sciences and Engineering at the University of Crete, has launched a Postgraduate Program of Studies since 1983 and an Undergraduate Program of Studies since 1987. The Department is recognized internationally as a center of up-to-date university education and active research in various fields of current Biology.

Chairperson: George Chalepakis, Professor

2810-394359, 394427

E-mail: chalepak@biology.uoc.gr

Vice Chairperson: Despina Alexandraki, Associate Professor

2810-391161

E-mail: alexandr@imbb.forth.gr

Department's Secretariat:	Fax: 2810-394404	
Maria Smyrnaki	2810-394401,	smyrnaki@biology.uoc.gr
Ioanna Vlataki	2810-394409,	tvlataki@biology.uoc.gr
Helen Maraveya	2810-394403, 394025,	maraveya@biology.uoc.gr
Efrossini Bervanaki	2810-394402,	bervan@biology.uoc.gr
Georgia Papadaki	2810-394400,	geopap@biology.uoc.gr

General Description of the Department

Teaching staff and laboratory units of the Department are organized in distinct Research Sections. Each Section coordinates teaching and research of particular subject areas, corresponding to specific scientific fields. In accordance with the Decree 103/83, FEK (Government Gazette Issue) 48 of the relevant Article, currently there are three (3) Divisions at the Department of Biology:

SECTION OF BIOCHEMISTRY, MOLECULAR BIOLOGY, CELLULAR AND DEVELOPMENTAL BIOLOGY

This Division covers topics of Biochemistry, Molecular Biology, Cellular and Developmental Biology, Genetics and Immunology, with main focus on the study of cells as a functional unit and on cellular functions in relation to their environment.

SECTION OF BIOLOGY OF ORGANISMS, POPULATIONS, ENVIRONMENT AND MARINE BIOLOGY

This Division covers topics of Zoology, Botany, Ecology, Physiology, Marine Biology and it mainly studies the biology of organisms, populations and environment.

SECTION OF BIOTECHNOLOGY AND APPLIED BIOLOGY

This Division covers various applications of biology and biological processes in mechanics, technology, environment and medicine.

Faculty staff- Fields of teaching and research activities

SECTION OF BIOCHEMISTRY, MOLECULAR BIOLOGY, CELLULAR AND DEVELOPMENTAL BIOLOGY

Irene Athanasakis,
Professor, PhD 1988, University of Alberta.
Immunology.

Despina Alexandraki,
Associate Professor, PhD 1982, Harvard University
Cellular and Developmental biology, Molecular genetics, Gene function and regulation in yeast.

George Garinis,
Associate Professor, PhD 2001,National and Kapodistrian University of Athens
Molecular genetics of mice – Senescence, Cancer and Longevity.

Christos Delidakis,
Professor, PhD 1988, Harvard University.
Molecular Biology of Drosophila -Neurogenetics.

George Zachos,
Assistant Professor, PhD1997, University of Crete.
Cellular Biology, Cell cycle and Division, Mechanisms of Carcinogenesis, Checkpoints.

Michael Kokkinidis,
Professor, PhD 1981, Max Planck Institut fur Biochemie.
Macromolecular Crystallography, Macromolecular Structures, Protein Structures, Molecular Graphics,

Computational Biology and Bioinformatics, Applications of computers in biology.

Josef Papamattheakis,
Professor, PhD 1975, National and Kapodistrian University of Athens
Gene Expression and control in mammals and humans, Molecular control of genetic and virus diseases in humans.

Charalampos Spilianakis,
Assistant Professor, PhD 2003, University of Crete.
Biochemistry, Molecular Immunology, Transcriptional regulation in the Immune System, Nuclear Organization of Chromosomes.

Dimitris Tzamarias,
Associate Professor, PhD 1990, University of Crete.
Biochemistry, Molecular Biology, Chromatin Structure, Transcriptional regulation, Epigenetic Inheritance

Efthymia Tsagri,
Assistant Professor, PhD 1987, University of Giessen.
Molecular Plant Biology, Plant Virology.

George Chalepakis,
Professor, PhD 1988, University of Marburg.
Cellular Biology.

Christoforos Nikolaou,
Assistant Professor, PhD 2005, National and Kapodistrian University of Athens.
Computational Biology – Bioinformatics, Structure and Organization of Chromatin.

SECTION OF BIOLOGY OF ORGANISMS, POPULATIONS, ENVIRONMENT AND MARINE BIOLOGY

Kriton Kalantidis,
Assistant Professor, PhD 1995, University of Nottingham.
Evolutionary Developmental biology of higher plants.

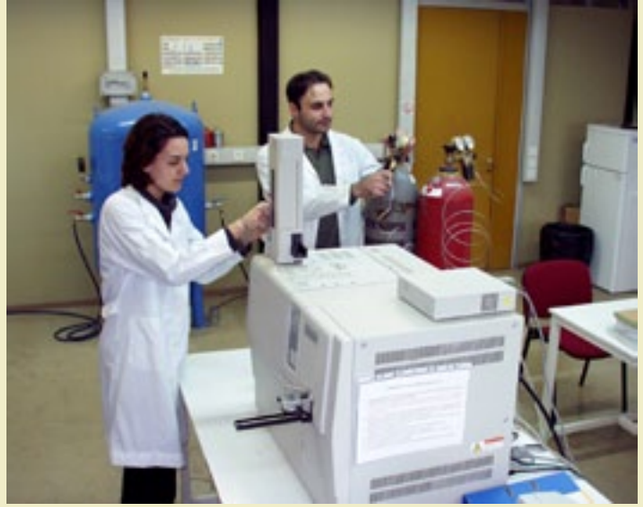
Kyriakos Kotzambasis,
Professor, PhD 1987, University of Marburg.
Plant Biochemistry and Physiology, Photosynthesis, Photobiology and Bioenergetics

George Koumoundouros,
Associate Professor, PhD 1998, University of Crete.
Marine Biology –Fish Biology

Emmanouil Ladoukakis
Assistant Professor, PhD 2001, University of Crete.
Evolutionary Zoology.

Konstantina Lyka,
Assistant Professor, PhD 1996, University of Tennessee.
Biomathematics

Moysis Mylonas,
Professor, PhD 1983, National & Kapodistrian University of Athens.
Ecology, Ecosystem of Islands, Zoogeography and Zoology



Michael Pavlidis,
Associate Professor, PhD 1990, National & Kapodistrian University of Athens.
Biology – Marine Ecology, Fish Physiology – Endocrinology

Nikolaos Poulakakis,
Assistant Professor, PhD 2005, University of Crete.
Systematic Zoology, Molecular Phylogenesis, Phylogeography and genetic management of animal populations, Ancient DNA (aDNA)

Stergios Pirintsos,
Associate Professor, PhD 1993, Aristotle University of Thessaloniki.
Plant Ecology, Ecology and Management of Terrestrial Ecosystems, Ecology of Rare and Endemic Plant Species, Biomonitoring of Environmental Changes, Environmental Risk Assessment.

Kyriaki Sidiropoulou,
Lecturer, PhD 2003, Rosalind Franklin University.
The role of intrinsic excitability on learning and memory. The role of inhibition in cortical information processing, Computational Neuroscience.

SECTION OF BIOTECHNOLOGY AND APPLIED BIOLOGY

Electra Gizeli,
Professor, PhD 1993, University of Cambridge.
Bio-Nano Technology – Biosensors

Ioannis Karakassis,
Professor, PhD 1991, University of Crete.
Marine Ecology.

Maroudio Kentouri,
Professor, PhD 1978, Universite des Sciences et Techniques du Languedoc, Montpellier.
Fish Cultures, Behaviour of Fishes under Controlled conditions.

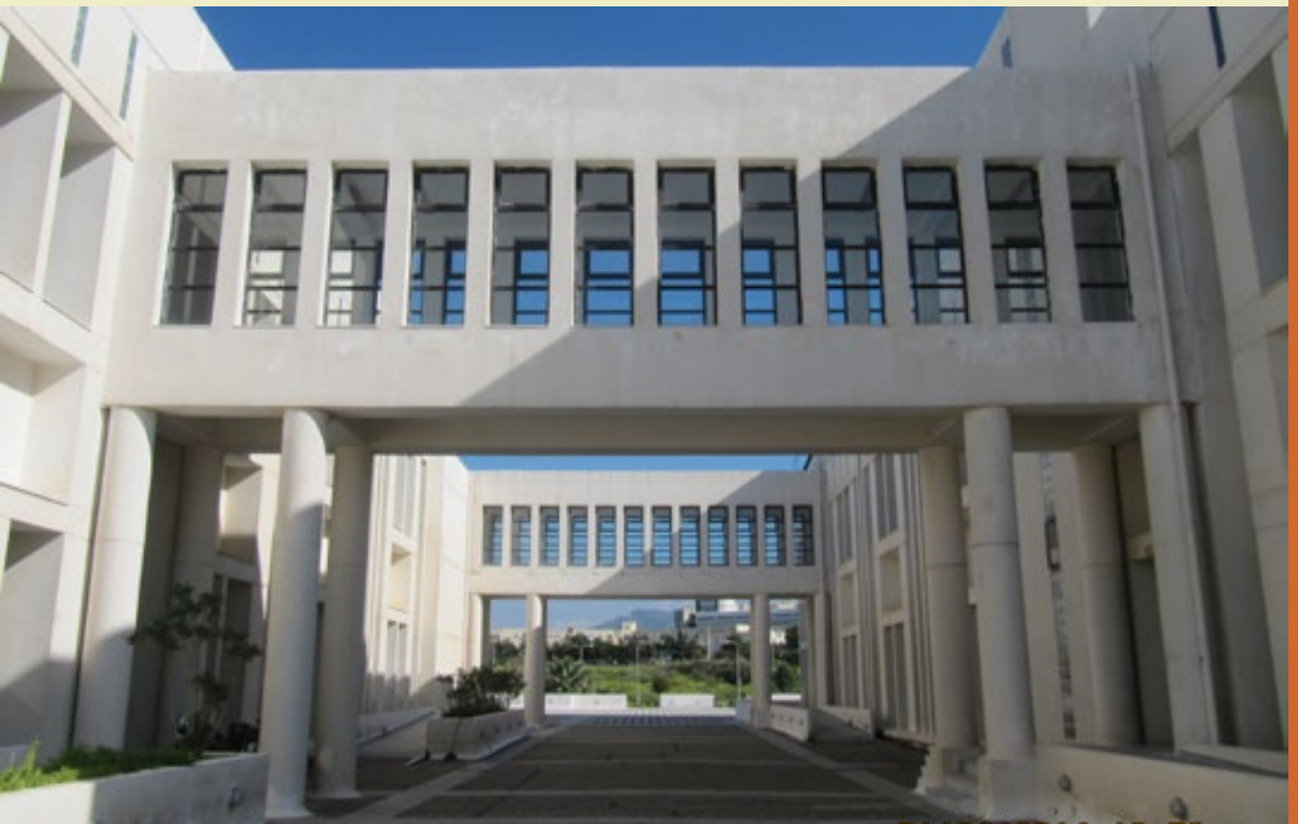
Vassilis Bouriotis,
Professor, PhD 1980, University of Liverpool.
Enzyme Biotechnology.

Anastasios Economou,
Professor, PhD 1990, University of East Anglia.

Microbiology – Molecular Biology and Biochemistry of microorganisms.

Retired Faculty Staff and Emeritus Professors

Michael Damanakis
Anastasios Eleftheriou
Eleftherios Zouros
Fotis Kafatos
Christos (Kitsos) Louis
Vassilis Nafpaktitis
Aristidis Economopoulos
Nikolaos Panopoulos
Kalliopi Roubelakis-Aggelakis
Emmanuel Stratakis
Nikolaos Tsimenidis



Procedures of Admission

Students are admitted to the Department of Biology, University of Crete, is consistent following all legal ways defined by the Ministry of Education and Religious Affairs for all Universities (Panhellenic Exams, special categories of large families of three or more children, immigrants, Greek emigrants, people suffering from serious diseases, ranking following exams. Recognition of courses complies with 4115/30-1-2013 Law, Article 35.

Participation in the ERASMUS Program

The Department participates in European Union (EU) Programs designed to promote free student mobility, while recognizing successfully completed courses from other European Universities within the framework of the above mentioned Programs.

Education and research objectives of Biology Department

The students of the Biology Department have the opportunity to obtain an adequate theoretical background and practical experience in advanced technologies in various biological fields such as Molecular Biology and Genetics, Cellular and Developmental Biology, Evolutionary Biology, Ecology, Marine Biology, Applied Biology, as well as Bio- and nano-technology.

The Department collaborates with the internationally recognized Research Institutes, located in Crete under the supervision of the General Secretary of Research and Technology (ΓΓΕΤ), the Institute of Molecular Biology and Biotechnology (active participation of Faculty professors) (IMBB/ITE, http://www.imbb.forth.gr) and the Hellenic Centre of Marine Research (ΕΛΚΕΘΕ, http://www.hcmr.gr/indexel.php). Additionally, it collaborates with the Natural History Museum of the University of Crete (http://www.nhmc.uoc.gr) which provides valuable scientific and educational services on Eastern Mediterranean environmental matters, as well as with the Botanical Garden of the University of Crete (http://www.bg.uoc.gr) and the National Agricultural Research Foundation (http://www.nagref.gr).

Occupational profile of graduates

Graduates of the Biology Department at the University of Crete have been pursuing a professional career towards various directions in the public and private sector in organizations concerned with biomedicine and health in general, with biotechnology, environment, aquacultures, as well as with education and research in the above mentioned fields.

Access to further studies

The Post-graduate Studies Programs which are carried out by the Department lead to the acquisition of a specialization Master's Degree, followed by a Doctoral Degree (Ph. D.) in the following fields: 1) Molecular Biology and Biomedicine, 2) Molecular Biology and Plant Biotechnology 3) Environmental Biology -Management of Terrestrial and Marine Resources 4) Protein Biotechnology and 5) Bioethics.

Regulations and Curriculum

Summary of the curriculum. Central axes / directions of the curriculum

The curriculum comprises a number of courses whose subject matter covers a wide range of biological fields, while offering students high standard of knowledge in contemporary Molecular Biology, Cell Biology, Biology of Populations and Organisms (mandatory courses). Following completion the 4th semester of studies, students choose one of the two directions of the curriculum and attend all mandatory courses of their selected direction, while also choose a series of optional courses. The directions (according to decree No 66442A/B1, Government Gazette Issue (FEK)) 1658 / 12-11-2003) constitute two cutting edge areas of research in Biological sciences and are as follows:

A. Biomolecular Sciences and Biotechnology (Molecular Direction)

B. Environmental Biology and Management of Biological Resources (Environmental Direction

Brief Description of Course Units – Type of Courses:

A. MANDATORY COURSES	NUMBER OF COURSES	Total ECTS
Common Mandatory Courses of Molecular and Environmental Direction	32	137
Molecular Direction	8	41
Environmental Direction	4	16

B. COMPULSORY ELECTIVE COURSES	NUMBER OF COURSES	Total ECTS
Common Compulsory Elective Courses of Molecular and Environmental Division	11	52
Diploma Thesis		20
Trimester Laboratory Course		4
Reading Course		4
Internship (3 month duration)		3
Erasmus Internship (3 month duration)		3
		(plus 17 that will be indicated in the Diploma Supplement)
Molecular Direction	14	56
Environmental Direction	11	43

C. FREE CHOICE COURSES	NUMBER OF COURSES	Total ECTS
Free Choice Courses	All mandatory and obligatory elective courses of the other division	32 *(they are taken into account upon graduation)*

COURSES OFFERED FROM OTHER DEPARTMENTS	NUMBER OF COURSES	Total ECTS
Courses from other Departments	Courses offered from other Depart.	18 *(included in 32 ECTS allocated to Free Choice Courses and are taken into account for graduation)*
Internship on Biology Teaching Strategies		6
Biology Teaching Strategies		4

Courses offered each semester (winter and spring) are clearly outlined at the beginning of each academic year. Throughout the first three (3) semesters of study, students are registered in 18 mandatory common courses for both directions, coupled with 3 English language courses. At the 4th semester students are registered in one more English language course. At the end of the 4th semester, students are asked to choose the direction corresponding to the areas of their scientific interest. At the 4th, 5th and 6th semesters of study, they are registered in both the common mandatory courses of the two directions and the compulsory ones of their direction.

At each academic semester students are registered for the first time in courses (compulsory, elective, free choice) that should not exceed 35 ECTS. On top of the 35 ECTS, students are allowed to register to courses that they were previously registered but not successfully examined. Also on top of the 35 ECTS can be considered the Practical Training as long as it takes place during the summer period.

Foreign Language courses

Compulsory Elective Courses may be taught in English in case of Erasmus students' attendance

Transfer of ECTS through the Erasmus Program

Students who participate in the Erasmus Program, after selecting one of the network Universities, can attend courses of their choice and achieve the corresponding credit transfer for their division, after approval of the Undergraduate Studies Committee and the Department's Assemby. It should be clarified that if a course title-content of the receiving University selected by the students coincides with our Department's curriculum courses, it can be recognized as such, only after consulting the instructor in charge. Foreign languages cannot be recognized.
Since the academic year 2007-2008 the students of the our Department are eligible to be offered an internship within the framework of Erasmus Lifelong Learning Programme at a University or other organization abroad. Three months of Erasmus internship correspond to 3 ECTS, as well as 17 additional ECTS for the Degree Supplement.

Examination periods and exams

The end of teaching at each academic semester is followed by a written examination period whose duration is decided by the Dean of the School. In case students fail at a subject in the proper exam period of the academic semester, they can be re-examined during the second examination period. If they fail again they are allowed to be re-examined according to the instructions of the current Law.

Grade re-evaluation

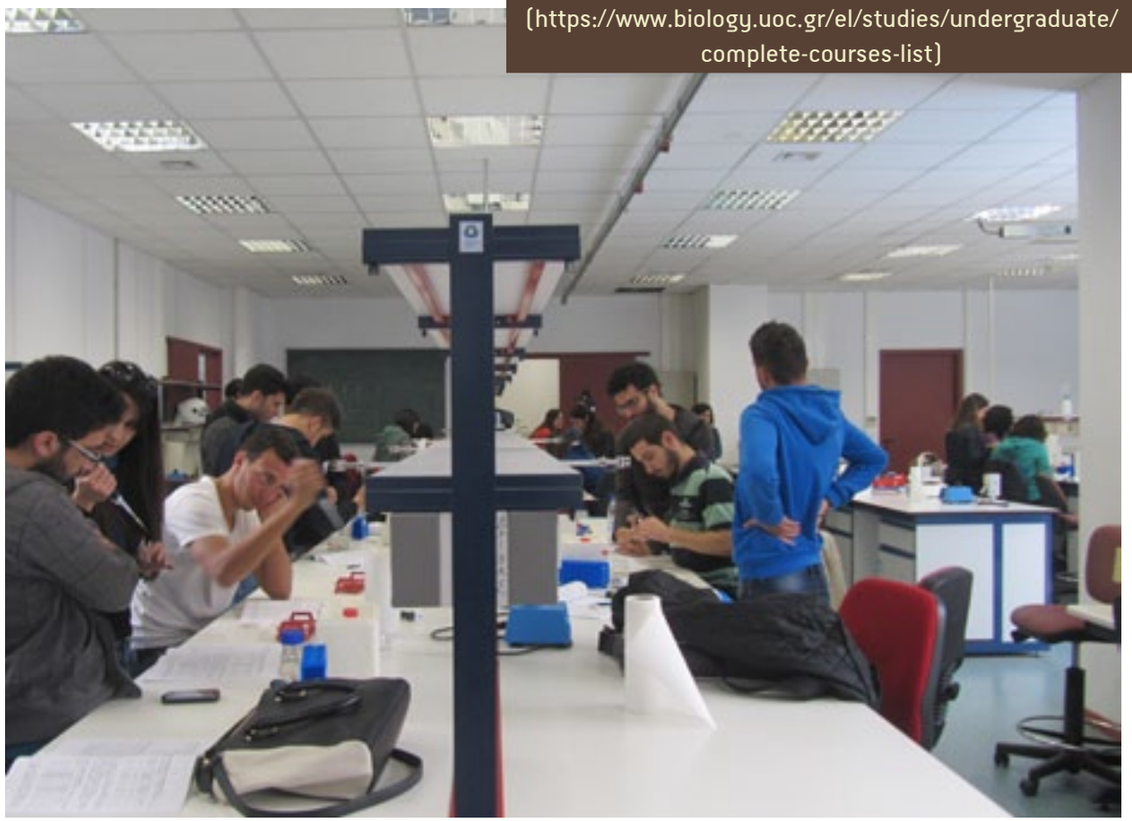
Students are allowed to apply for re-evaluation of grades obtained at either past or current academic semester courses. For **the former they should apply to the Secretary during the period of each semester course declaration. Students who wish to improve their grades -although they could be graduates - are eligible to request re-grading and postponement of their graduation for one examination period. They should hold an identity card and sign when applying, while their application should be assigned with a protocol number upon submission.**

Grading system and requirements for students' graduation

There is a continuous process of students' evaluation throughout the whole semester, which is indispensable to the educational process. Grading is determined on the basis of a 0 to 10 scale. Examination is considered successful if students get at least five (5). The instructor in charge of each course is fully responsible for deciding how to test students' progress, as well as grading and announcing the results. The exact format of the examination process (number of tests-frequency-way of testing and evaluation of student progress) is determined and described at the beginning of each semester by the instructor who is responsible for each course. Exams take place following the Exam Rules of the Department, whose complete text can be accessed in the Department's website (https://www.biology.uoc.gr/el/studies/undergraduate/various).

The requirements for graduation are the attendance of 8 teaching academic semesters, the successful completion of 36 mandatory courses for the Direction of Biomolecular Sciences and Biotechnology (concerning students who entered the Department in the academic year 2011-12) or 32 mandatory courses for the Direction of Environmental Biology and Management of Biological Resources, 4 mandatory semester courses of English Language and the completion of at least 240 ECTS credits for both direction.

Course structure diagram with credits (60 per academic year) (https://www.biology.uoc.gr/el/studies/undergraduate/complete-courses-list)



A' Semester	Course/ Instructor	hours	C.C.	ECTS
BIOL-101 Introduction to Zoology	(M. Pavlidis, N. Poulakakis)	4 X13	4	6
BIOΛ-102 Laboratory Course "Introduction to Zoology"	(N. Poulakakis, M. Pavlidis)	3 X11	2	3
BIOL-103 Physics	(I. Papanikolau)	5 X13	4	6
BIOL-105 General Chemistry	[K. Milios (Chemistry Department)]	4 X13	4	6
BIOL-107 Organic Chemistry	(E. Gizeli)	4 X13	4	6
BIOL-109 Uses of Computers and Biological Data Bases	(Ch. Nikolaou)	2 X13	2	2
BIOL-111 English I	(M. Koutraki)	3 X13	3	2
B' Semester	**Course/ Instructor**	**hours**	**C.C.**	**ECTS**
BIOL-150 Cell Biology	(G. Chalepakis)	5 X13	4	6
BIOL-152 Structure and Function of Plants	(K. Kotzabasis)	3 X13	3	4
BIOL-153 Laboratory Course in Structure and Functional Organization of Plants	(K. Kotzabasis)	3 X11	2	3
BIOL-154 Biochemistry I	(Ch. Spilianakis)	4 X13	4	6
BIOL-156 Biomathematics	(K. Lyka)	4 X13	4	6
BIOL-158 English II	(M. Koutraki)	3 X13	3	2
BIOL-155 General Methods for the Identification and Analysis of Biological Macromolecules	(D. Tzamarias, Ch. Spilianakis, K. Kotzabasis)	4 X11	2	3
C' Semester	**Course/ Instructor**	**hours**	**C.C.**	**ECTS**
BIOL-201 Microbiology	(A. Economou)	4 X13	4	6
BIOL-Ecology	(S. Pirintsos)	4 X13	4	6
BIOL-204 Methods in Ecology	(S. Pirintsos, Ch. Nikolaou)	3 X11	2	3
BIOL-205 Genetics I	(Ch. Delidakis)	5 X13	4	6
BIOL-207 Molecular Biology	(I. Papamatthaiakis)	4 X13	4	6
BIOL-208 General Methods of Cellular and Genetic Analysi	(A. Economou, Ch. Delidakis, V. Bouriotis)	3 X11	2	3
BIOL-211 English III	(M. Koutraki)	3 X13	3	3

D' Semester	Course/ Instructor	hours	C.C.	ECTS
BIOL-251 Methods for the Functional Analysis of Biological Macromolecules	(G. Garinis, V. Bouriotis, E. Athanasakis, K. Kotzabasis)	3 X12	2	3
BIOL-252 Biochemistry II	(D. Tzamarias)	4 X13	4	6
BIOL-254 Genetics II	(G. Garinis)	3 X13	3	4
BIOL-256 Physical Chemistry	(I. Papanikolau)	3 X13	3	4
BIOL-263 Laboratory Course in Animal Biodiversity	(M. Mylonas, N. Poulakakis, G. Koumoundouros)	3 X11	2	3
BIOL-257 Biodiversity and Plant Evolutionary Ecology	(S. Pirintsos)	3 X13	3	4
BIOL-259 Laboratory Course in Plant Biodiversity	(S. Pirintsos)	3 X11	2	3
BIOL-265 Marine Biology	(M. Kentouri, I. Karakassis, M. Pavlidis, G. Koumoundouros)	3 X13	3	4
BIOL-266 Laboratory Course in Marine Biology	(I. Karakassis, M. Pavlidis, G. Koumoundouros)	3 X11	2	3
BIOL-258 English IV	(M. Koutraki)	3 X13	3	3

E' Semester	Course/ Instructor	hours	C.C.	ECTS
BIOL-300 Advanced Methods for the Analysis of Cellular Processes	(D. Alexandraki, E Athanasakis, K. Kotzabasis, G. Zachos)	3 X11	2	3
BIOL-303 Evolution	(E. Ladoukakis)	5 X13	4	6
BIOL-305 Enzyme Biotechnology	(V. Bouriotis)	4 X13	4	6
BIOL-307 Immunobiology	(E. Athanasakis)	4 X13	4	6
BIOL-309 Biostatistics	(K. Lyka)	4 X13	4	6
BIOL-313 Biogeography	(M. Mylonas, N. Poulakakis)	3 X13	3	4
BIOL-311 Human Genetics	(G. Garinis)	3 X13	3	4

F' Semester	Course/ Instructor	hours	C.C.	ECTS
BIOL-350 Developmental Biology	(D. Alexandraki)	4 X13	4	6
BIOL-352 Biotechnology	(M. Kokkinidis, I Vontas, K. Kalantidis)	4 X13	4	6
BIOL-358 Plant Physiology	(K. Roubelakis-Aggelakis)	3 X13	3	4
BIOL-355 Methods of Analysis for Physiological Processes	(K. Kotzabasis, K. Sidiropoulou)	4 X11	2	3
BIOL-357 Animal Physiology	(K. Sidiropoulou)	3 X13	3	4
BIOL-315 Computational Biology	(Ch. Nikolaou)	4 X13	4	5

WINTER SEMESTER

a. Biomolecular Sciences and Biotechnology

Course/ Instructor		hours	C.C.	ECTS
BIOL-406 Crystal Structure Determination of Biological Macromolecules	(M. Kokkinidis)	2 X13	2	4
BIOL-408 Topics on Cell Cycle and Differentiation *(The course will not be taught at the academic year 2014-15)*	(D. Alexandraki)	2 X13	3	4
BIOL-410 RNA	(E. Tsagri)	2 X13	2	4
BIOL-412 Cell Growth, Proliferation and Cancer *(Successful examination at the courses of Cell Biology, Molecular Biology, Genetics I and Genetics II is recommended)*	(G. Zachos)	3 X13	3	4
BIOL-414 When Biochemistry meets Epigenetics	(Ch. Spilianakis)	3 X13	3	4

b. Environmental Biology and Management of Biological Resources

Course/ Instructor		hours	C.C.	ECTS
BIOL-413 Ichthyology	(M. Pavlidis)	3 X13	3	4
BIOL-403 Aquacultures	(M. Kentouri)	3 X13	3	4
BIOL-405 Terrestrial Ecosystem Management	(S. Pirintsos)	3 X13	3	4
BIOL-465 Fauna of Greece				

(Successful examination at the course of Animal Biodiversity is recommended)	(M. Mylonas)	3 X13	3	4
BIOL-409 Marine Pollution *(The course will be taught every even academic year)*	(I.Karakassis)	3 X13	2	4
BIOL-411 Benthic Ecology	(I. Karakassis)	3 X13	3	4

c. Courses Common to both Directions

Course/ Instructor		hours	C.C.	ECTS
BIOL-440 Photosynthesis	(K. Kotzabasis)	3 X13	3	4
BIOL-443 Reading Course	Faculty Member		2	4
BIOL-444 Quarterly Laboratory Course	Faculty Member		2	4
BIOL-447 Developmental Plant Biology	(K. Kalantidis)	3 X13	3	4
BIOL-445 Laboratory Course – Green Biotechnology	(K. Kotzabasis, K. Kalantidis, S. Pirintsos, I. Vontas, E. Tsagri)	3 X13	3	4
BIOL-449 Introduction to Medical and Economic Entomology	(Ch. Louis, I. Vontas)	2 X13	2	4

SPRING SEMESTER

a. Biomolecular Sciences and Biotechnology

Course/ Instructor		hours	C.C.	ECTS
BIOL-452 Protein Engineering	(M. Kokkinidis)	2 X13	2	4
BIOL-454 Topics in Enzym Biotechnology *(Successful examination at the course of Enzyme Biotechnology is recommended)*	(V. Bouriotis)	2 X13	2	4
BIOL-456 Molecular Oncogenesis (obligatory attendance) *(1. The course will be taught every odd academic year 2. Successful examination at the courses of Genetics I, Cenetics II, Cell Biology, Molecular Biology and Developmental Biology is recommended)*	(I. Papamathaiakis)	2 X13	3	4
BIOL-457 Organizing atoms in space *(Successful examination at the courses of Physics, Chemistry, Organic Chemistry, Biochemistry I, Biochemistry II and Physical Chemistry is recommended)*	(I. Papanikolaou)	3 X13	3	4
BIOL-458 New Technologies in Molecular Biology, Principles and Applications	(K. Kalantidis, I. Vontas, E. Gizeli)	3 X13	3	4
BIOL-460 Molecular Plant Virology	(E. Tsagri)	2 X13	2	4
BIOL-462 Special Topics in Immunology *(Successful examination at the course of Immunobiology is recommended)*	(E. Athanasakis)	4X13	3	4
BIOL-464 Protein Structure and Function *(obligatory attendance) (1. Successful examination at the courses of Biochemistry II and Enzyme Biotechnology is recommended) (The course will not be taught at the academic year 2014-15)*	(A.Economou)	3 X13	3	4
BIOL-468 Developmental Biology of Drosophila *(obligatory attendance) (Successful examination at the courses of Cell Biology, Molecular Biology, Genetics I and Genetics II is recommended)*	(Ch. Delidakis)	2 X13	3	4

b. Environmental Biology and Management of Biological Resources

Course/ Instructor		hours	C.C.	ECTS
BIOL-407 Topics in Physical Geography and Geomorphology	(M. Mylonas)	3 X13	3	4
BIOL-453 Management of Marine Biological Resources *(obligatory attendance)*	(G. Koumoundouros)	2 X13	2	4
BIOL-455 Marine Biotechnology *(obligatory attendance)*	(M. Kentouri)	2 X13	2	4

BIOL-461 Laboratory Course in Fauna of Greece *(Prerequisite:BIOL-465 Fauna of Greece)*	(M. Mylonas)	3 X11	2	3
BIOL-471 Evolutionary Ecology	(N. Poulakakis)	3 X13	3	4

c. Courses Common to both Directions

Course/ Instructor		hours	C.C.	ECTS
BIOL-463 Photobiology	(K. Kotzabasis)	2 X13	2	4
BIOL-446 Molecular Evolution *(The course will not be taught at the academic year 2014-15)*	(E. Ladoukakis)	2 X13	2	4
BIOL-490 Molecular Stress Physiology in Plants *(The course will be taught every even academic year)(Successful examination at the course Plant Physiology is recommended)*	(K. Roubelakis-Aggelakis)	3 X13	3	4
BIOL-491 Plant Biotechnology *(The course will be taught every odd academic year)*	(K. Roubelakis-Aggelakis)	3 X13	3	4
BIOL-492 Neurobiology	(K. Sidiropoulou)	3 X13	3	4
BIOL-493 Applications of Current Microscopy Techniques *(obligatory attendance)*	(G. Zachos)	2 X13	2	4
BIOL-443 Reading Course	Faculty Member		2	4
BIOL-444 Quarterly Laboratory Course	Faculty Member		2	4
BIOL-494 Introduction to Programming *(Addressed to all students (2nd, 4th, 6th semester, etc) – no prerequisites)*	(Ch. Nikolaou, K. Lyka)	2 X13	3	4
BIOL-495 Micro/nano-technologies in Biology and Molecular Diagnostics *(obligatory attendance) (Successful examination at the courses of Organic Chemistry and Biochemistry I is recommended)*	(E. Gizeli)	2 X13	2	4

Financing opportunities for Undergraduate students

Scholarships and awards for undergraduates on a level of Department/School/Institute

To estimate student ranking for the purpose of honorary award or scholarship granting on a Department/School/Institute level, all mandatory courses per academic year are taken into account with the exception of English I, II, III. Calculation is carried out by adding course grades, multiplying their sum to their credit load and dividing the product by the sum of the courses' credit load.

Public financing or other

Students are eligible to financing opportunities for their studies offered by various Institutes, as well as scholarship granting bequests.

Information

Department of Biology Secretariat
University of Crete, Voutes University Campus, GR
70013 Heraklion, Crete
Tel.: 2810394401, Fax : 2810394404,
E-mail: secretary@biology.uoc.gr,
Web Page: http://www.biology.uoc.gr/