

UNIVERSITÀ DEL SALENTO
FACOLTÀ DI SCIENZE MATEMATICHE, FISICHE E NATURALI
MANIFESTO DEGLI STUDI A.A. 2015/2016

Corso di Laurea magistrale in
COASTAL AND MARINE
BIOLOGY AND ECOLOGY
(BIOLOGIA ED ECOLOGIA COSTIERA E MARINA)
classe LM-6

Lecce, Maggio 2015

***Course of Coastal and Marine Biology and Ecology
(Biologia ed Ecologia Costiera e Marina)
Cl. LM-6***

- Laurea Magistrale in lingua inglese -

General Information

Coastal and Marine Biology and Ecology (Biologia ed Ecologia Costiera e Marina) is a two-year II level course according to DM 270/04, which does not contemplate a fixed number of enrolled students.

As specified within the related Schema of Teaching Organization, admission to this Course requires the possession of specific curricular requisites and it is subordinated to the overcoming of evaluation of the adequacy of their personal preparation according to the terms that will be established at the beginning of each academic year and will be made explicit in the admission notification.

To obtain the final qualification, a student must achieve a minimum of 120 CFU's (University Formative Credits) including 30 CFU's related to the final test (which concerns internships or work experience - previously cleared by the Educational Competent Body - at research institutions or universities, public or private companies, may be based on an activity report and does not provide an associated vote, but only an assessment of fairness expressed by the Educational Competent Body).

Educational activities

The Course of Coastal and Marine Biology and Ecology (Biologia ed Ecologia Costiera e Marina) includes 5 *categories of learning activities* ("B": Core subjects in various disciplines of biology; "C": Training activities in disciplines related to biology and consistent with the educational objectives of the course, plus an integrated interdisciplinary training; "D": Activities chosen by the student; "E": Training activities aimed at preparing the final examination for the attainment of the qualification; "F": Training activities to facilitate the professional choices through direct knowledge of the business sector the diploma may give access to, including, in particular, internships, apprenticeships and guidance) listed in the attached diagram.

The student can choose (as already approved by the Academic Council) - the courses offered in academic year 2015/2016 (as delivered in the second level courses), belonging to the Sectors Scientific-Disciplinary BIO/*, MED/*, CHIM/*, MAT/*, FIS/*, GEO/*, INF/* and ING-INF/.*

Each student can include in the study plan either the training activities proposed in this *Manifesto* (which he will select using a procedure available in the online Student Web Portal) or other courses offered in AY 2015/2016. In the latter case, the student must complete their online curriculum provisionally selecting an activity of your choice (or a group of activities to choose from) among those proposed by the Academic Council; then, by 18 December 2015, he will have to submit to the Secretariat (Congress Center, first floor) a paper form, available in the section "Educational Programmes / Activities chosen by the student" of the Portal of the Faculty of Sciences, containing the list of activities chosen who will propose the Teaching Council for approval, to replace those listed on-line.

The course includes the following *prerequisites*:

There are no prerequisites. However, the temporal sequence of courses of instruction given in the Manifesto of the Course, is suggested to the student for the examinations.

Attendance to theoretical lectures is not compulsory, even though it is an essential condition for a fruitful insertion of the student in the didactic organization of the Corso di Laurea Magistrale. Students, furthermore, are bound to attend laboratory activities, stages, seminars and trainings for at least 2/3 of their duration.

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The Course includes the following *attendance rules*:

Attendance to theoretical lectures is not compulsory, even though it is an essential condition for a fruitful participation of the student to the teaching organization of the Course. Students, furthermore, are required to attend laboratory activities, stages, seminars and trainings for at least 2/3 of their duration.

Class calendar

Teaching activities are organized in two semesters.

Classes are so scheduled:

- I semester: from October 5, 2015 to January 22, 2016
- II semester: from March 14, 2016 to June 10, 2016

Acquisition of CFU and Exams

All activities that allow credits acquisition carry an evaluation. Assessment procedures are made, as appropriate, by either written, or oral, or written and oral tests, or by other procedures suitable for particular types of activity.

The activities of type B, C and D are usually evaluated by a vote out of thirty possibly *cum laude*. For teaching activities involving laboratory exercises, accreditation may be made through evaluation of individual work on subjects related to ongoing exercise, the details of which are given by the instructor and approved by the body responsible for Competent Teaching.

The methods for the above tests are set by resolution of the Competent Body Learning (Educational Council) and illustrated by the instructor at the beginning of the course.

Exams are programmed as follows (during periods of suspension of classes):

- 2 sessions in February
- 1 session in March (by the 11th)
- 1 session in June (after the 10th)
- 2 sessions in July
- 1 session in September
- There are also three extra sessions, only for the students outside the normal duration of the course during the months of November, January and April

Students enrolled in second year (ongoing) of the LM, will take advantage of any extra session (during the second half) agreed with the teachers

Students about to graduate may request an extraordinary call before the session of graduation, if no sessions are scheduled.

To be considered on track to graduate, students must:

- a. have applied for graduation according to the terms fixed by the “Segreteria Studenti”
- b. support a maximum of 15 credits (excluding credits for the Stage and to final thesis) in order to complete their educational path.

The acquisition of CFU of type f) concerning internships or work experience - previously cleared by the Educational Competent Body - at research institutions or universities, public or private companies, may be based on an activity report and does not provide an associated vote, but only an assessment of fairness expressed by the Educational Competent Body.

Sessions Degrees

Graduation sessions are planned in:

- 20, 21 e 22 July 2016
- 25, 26 e 27 October 2016
- 12, 13 e 14 December 2016
- 21, 22 e 23 March 2017
- 26, 27 e 28 April 2017

Final Test

The final test to obtain the LM in Coastal and Marine Biology and Ecology consists in the public presentation and discussion, in front of an appointed commission, of a written text (Thesis). The topic will be agreed upon with a docent of the Course Coastal and Marine Biology and Ecology.

Knowledge required to access the course

Admission to the Master's Degree (Corso di Laurea Magistrale) in Coastal and Marine Biology and Ecology requires the possession of a three-year degree or a three-year university diploma, or any other title obtained abroad and recognized as suitable. To be enrolled in the Master's Degree in Coastal and Marine Biology and Ecology, candidates must possess the following curricular requisites (expressed in terms of CFU University Formative Credits referred to the groups of sectors listed below):

- 1) GROUP 1 (Botanica Generale, Botanica Sistemica, Botanica Ambientale e Applicata, Zoologia, Ecologia): from 6 to 40;
- 2) GROUP 2 (Anatomia Comparata e Citologia, Fisiologia, Biochimica, Genetica, Microbiologia): from 6 to 20;
- 3) GROUP 3 (Analisi Matematica, Probabilità e Statistica Matematica, Fisica Matematica, Chimica Generale ed Inorganica, Chimica Organica): from 5 to 20.

To be admitted to the following evaluation of the adequacy of their personal preparation, candidates must have at least 60 CFU's (calculated as the sum of the possessed CFU in the three disciplinary groups reported above). In addition to the requisites listed above, students must also possess adequate knowledge of the English language. This knowledge will be evaluated during the test of the initial preparation. These requirements are not applicable to English mother-tongue students.

Procedures for verifying the preparation of the student

To verify the adequacy of the personal preparation for the admission to the Master's Degree (art. 6, par. 2 and art. 11 par. 7 of the DM of 16 march 2007), each student will have to pass an oral admission test aimed also at verifying his/her knowledge of the English language.

Professional Career opportunities for graduates

The course aims to prepare professionals with high knowledge in the various sectors of applied biology aimed at the understanding of the ecological phenomena that are realized at the level of the various scales in coastal, transitional, and marine ecosystems.

Graduates in Coastal and marine Biology and Ecology will be able to:

- design, lead, support, carry on research projects in response to public calls (from the EU, States, Regions, Municipalities) and private companies interested in the development of human activities in different productive sectors addressing the management and valorization of coastal and marine environments (eg. fishery, aquaculture, tourism, conservation biology, coastal management, environmental impact assessment);
- act as consultants in private firms or in public bodies, provide assessment and expert recommendation on different sectors in marine and coastal as defined above;

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- design the content of books, articles, TV programs related to the marine environment, lead, support, carry out training programmes and dissemination events;

In this framework, on 11th February 2015 the TCB came to the decision to organise every year seminars aiming to provide the new graduates with basic theoretical and practical information required to find out a rapid connection with the job market. Therefore, in agreement with the scope and objectives of the Master course CBME, TCB will invite experts in the different fields of coastal and marine biology and ecology (to bring their professional experience and recommendations on how to seek for employments in the field.

Graduates in Coastal and marine Biology and Ecology:

- have a deep knowledge of the biology and ecology of coastal and marine ecosystems;
- have a deep knowledge of sampling techniques, of analytical instruments, and of the techniques of data acquisition and analysis;
- have an advanced knowledge of supporting statistical, mathematical, and informatics instruments; master the scientific method;
- be able to use the acquired knowledge to tackle applied problems in the control, conservation, and management of biodiversity, of the functioning of coastal and marine ecosystems, and of the goods and services they provide;
- be able to use the English language fluently, both in written and oral form, with special reference to scientific English;
- be able to work in full autonomy, also being responsible of projects and structures of Biologists).

A Master's Degree in Coastal and Marine Biology and Ecology allows you to:

- access to postgraduate courses (on competition);
- access to PhD courses (on competition);
- work in private laboratories;
- held positions of responsibility in private and public laboratories as researchers and/or consultants;
- practice the profession of biologist (after enrollment in the National Order of Biologists)
- members of environmental offices in the Municipalities of coastal towns.
- Directors or Staff members of Marine Protected Areas.

Rules of admission to the Course

The terms will be established at the beginning of each academic year and will be made explicit in the admission notification (Ref. <http://www.scienzemfn.unisalento.it/bandiammissioneccds>)

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For more information see the Faculty Web Site on the URL
http://www.scienzemfn.unisalento.it/home_page

Università del Salento - Facoltà di Scienze MM.FF.NN.
Corso di Laurea Magistrale in Coastal and Marine Biology and Ecology (Biologia ed Ecologia Costiera e Marina) - LM51
Offerta didattica erogata A.A. 2015/2016

I anno (immatricolati A.A. 2015/2016)

Nome Insegnamento	Tipo Insegnamento (Monodisciplinare / Integrato / Modulo)	CFU complessivi	CFU lezione	CFU esercitazione / laboratorio	Ore lezione	Ore esercitazione	Ore complessive attività frontale	SSD	TAF	Ambito	Responsabile Didattico	Docente	A.A. 2015/2016 Semestre
Biological indicators and biomonitoring	Monodisciplinare	6	3	3	24	36	60	BIO/07	Caratterizzante	Discipline del settore biodiversità e ambiente	Pinna Maurizio	Pinna Maurizio	II
Ecology and Biology of Transitional Waters	Modulo di Ecology and Biology of Transitional and Marine Waters	6	4	2	32	24	56	BIO/07	Caratterizzante	Discipline del settore biodiversità e ambiente	Basset Alberto	Basset Alberto	II
Marine Biology and Ecology	Modulo di Ecology and Biology of Transitional and Marine Waters	5	4	1	32	12	44	BIO/07	Caratterizzante	Discipline del settore biodiversità e ambiente	Basset Alberto	Fraschetti Simona	I
Community Ecology	Monodisciplinare	6	3	3	24	36	60	BIO/07	Caratterizzante	Discipline del settore biodiversità e ambiente	Mancinelli Giorgio	Mancinelli Giorgio	II
Environmental microbiology	Monodisciplinare	6	6	----	48		48	BIO/19	Caratterizzante	Discipline del settore biomolecolare	Pietro Alifano	Alifano Pietro	I
Development and evolution	Modulo di Life cycles and development	5	4	1	32	12	44	BIO/05	Caratterizzante	Discipline del settore biodiversità e ambiente	Piraino Stefano	Piraino Stefano	I
Life cycles and ecology	Modulo di Life cycles and development	5	4	1	32	12	44	BIO/05	Caratterizzante	Discipline del settore biodiversità e ambiente	Piraino Stefano	Giangrande Adriana	I
Pelagos Biology (Zooplankton and Necton)	Monodisciplinare	8	7	1	56	12	68	BIO/05	Caratterizzante	Discipline del settore biodiversità e ambiente	Belmonte Genuario	Belmonte Genuario	II
Biodiversity and taxonomy of plants	Monodisciplinare	9	8	1	64	12	76	BIO/02	Caratterizzante	Discipline del settore biodiversità e ambiente	Zuccarello Vincenzo	Zuccarello Vincenzo	II
Oceanography of Marginal Seas and of the Coastal Zone	Monodisciplinare	6	6	----	48		48	GEO/12	Affine/Integrativa	Attività formative affini o integrative	Lionello Piero	Lionello Piero	I

II anno (immatricolati A.A. 2014/2015)

Nome Insegnamento	Tipo Insegnamento (Monodisciplinare / Integrato / Modulo)	CFU complessivi	CFU lezione	CFU esercitazione / laboratorio	Ore lezione	Ore esercitazione	Ore complessive attività frontale	SSD	TAF	Ambito	Responsabile Didattico	Docente	A.A. 2014/2015 Semestre
Environmental Physiology	Monodisciplinare	6	5	1	40	12	52	BIO/09	Caratterizzante	Discipline del settore biomedico	Giulia Lionetto	Giulia Lionetto	I
Marine biodiversity and ecosystem functioning	Monodisciplinare	6	6	----	48		48	BIO/05	Caratterizzante	Discipline del settore biodiversità e ambiente	Ferdinando Boero	Ferdinando Boero	I
Environmental chemistry	Monodisciplinare	6	5	1	40	12	52	CHIM/12	Affine/Integrativa	Attività formative affini o integrative	Alessandra Genga	Alessandra Genga	I
Activities Chosen by the Student		9							A scelta dello studente	A scelta dello studente			---
Ethical, Economic and Normative Aspects		1							Altro	Altre conoscenze utili per l'inserimento nel mondo del lavoro			I
Final Test		30							Lingua/Prova finale	Per la prova finale			---

1 "CFU lezione" corresponds to nr. 8 hours of frontal lectures in the classroom
1 "CFU esercitazione/laboratorio" corresponds to n. 12 hours of practical activities