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# MANIFESTO DEGLI STUDI A.A. 2023/2024

## Corso di laurea magistrale in COASTAL AND MARINE BIOLOGY AND ECOLOGY (BIOLOGIA ED ECOLOGIA COSTIERA E MARINA)

## cl. LM-6

(approvato dal Consiglio di Dipartimento del DiSTeBA con Delibera n. 137 dell'8/6/2023)





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(Master course entirely taught in English language)

### **General Information**

The Coastal and Marine Biology and Ecology (CMBE) Master Degree is specifically designed for students who are passionate about marine life and ecosystems and aspire to attain a high level of professional qualification on an international context. It offers a qualified education in both fundamental and applied marine biological and ecological sciences, with the primary goal of enhancing understanding of phenomena occurring in coastal, transitional, and marine ecosystems at various scales (watch the video at <a href="https://www.unisalento.it/web/10122/320">https://www.unisalento.it/web/10122/320</a>).

CMBE is a two-year, second-level course (in accordance with Decree No. 270/2004 of the Italian Ministry of Education, Universities and Research) with no predetermined limit on the number of students who can enroll. As outlined in the Didactic Regulations, prospective students must fulfill specific curricular prerequisites and undergo a positive evaluation of their personal preparation, conducted within the designated timeframe specified in the admission call. To obtain the final qualification, students are required to earn a minimum of 120 ECTS (European Credit Transfer System), equivalent to 120 Italian CFU (Crediti Formativi Universitari), including those allocated to the final verification test. This test entails presenting a report on an internship or research work experience that has been previously approved by the Academic Council, conducted at public or private research institutions, universities, or companies.

The CMBE Master Degree offers two distinct curricular programs:

- Marine Biology and Ecology (MBE)
- E-Biodiversity and Ecosystem Sciences (EBES)

Students enrolled in the MBE curriculum will have a unique opportunity during their second year of training to participate in a **double-degree** special program. This is made possible through a partnership with the University of Lille (France), in place since March 2017. Indeed, in their second year, students can choose to spend either 6 or 12 months at the University of Lille, with different options available:

- a) Attending courses and taking exams (limited to the first semester);
- b) Conducting research in a laboratory for their final thesis (limited to the second semester);
- c) A combination of attending courses, taking exams, and working in a lab for their final thesis (across both semesters).

This study period will allow these students to earn simultaneously two master degrees — one from University of Salento in Lecce and another from the University of Lille (<u>https://bit.ly/MBE\_DOUBLE\_DEGREE</u>). Each year, five selected students from the University of Salento have the opportunity to receive a fellowship to support the planned period in Lille. The MBE course in Italy stands out as the first of its kind taught entirely in English.

Students enrolled to the EBES curriculum will also have the opportunity to participate in mobility programs within the LifeWatch ERIC network for a minimum of 6 months, taking advantage of dedicated LifeWatch ERIC travel fellowships or participating to the ERASMUS+ program. The mobility of EBES students will also occur during the second year of the program.

The main occupational prospects involve research and consultancy work in both public bodies and private companies focused on the conservation and management of coastal and marine ecosystems. This includes tasks such as managing protected areas and assessing the environmental health status and risks. Additionally, the CMBE degree opens doors to postgraduate and PhD courses in various areas of marine sciences. The





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availability of a 14-meter long research boat and terrestrial vehicles equipped for the different types of sampling activities further supports the acquisition of practical skills that are highly sought after in the international job market.

In order to obtain the CMBE academic title, students must accumulate a minimum of 120 ECTS/CFU.

Each ECTS/CFU corresponds to 25 hours of learning activities, alternatively organized as follows:

- 8 hours of theoretical lectures plus 17 hours of individual study;
- 10 hours of laboratory activity (*practical*) plus 15 hours of personal re-elaboration of practical lab activities;
- 25 hours of personal traineeship or final exam preparation.

#### Educational activities

In agreement with the DM 270/04, the CMBE Master Course comprises five categories of learning activities (Tipologie di Attività Formative – TAF):

- (B) core educational activities in various disciplinary areas of biology;
- (C) educational activities in related disciplinary areas to biology and consistent with the educational objectives of the program, in addition to interdisciplinary training activities;
- (D) student's choice of educational activities;
- (E) educational activities aimed at preparing for the final examination to obtain the degree;
- (F) educational activities aimed at facilitating career choices through knowledge of the professional sector that the degree can provide access to, and potential internships, apprenticeships, and guidance.

The list of these activities, split by course year, is specified in Annex 1.

Regarding the TAF-D learning activities, during the second year of the course, students have the opportunity to earn up to 9 optional ECTS/CFU by selecting teaching/training activities from any of the University's degree programs. These activities must align with the student's CMBE training plan and should not duplicate the content already included in the study plan as part of basic, core, or related/integrative activities. The Academic Council recommends considering modules from the other CMBE curriculum or specific learning activities offered at the University of Salento.

One such option is:

"Conservazione e gestione delle risorse vegetali e animali" (SSD BIO/02 and BIO/05, 12 ECTS/CFU, taught in Italian), which is part of the Laurea Magistrale in Scienze Ambientali (cl. LM-75).

Additionally, students may explore:

"Risposte ecologiche ai cambiamenti climatici: implicazioni per la sostenibilità ecologica, economica e sociale a lungo termine" (SSD BIO/07, 2 ECTS/CFU, taught in Italian) from the Laurea Triennale in Sviluppo Sostenibile e Cambiamenti Climatici (cl. L-32);

"Laboratorio sulle Soft Skills" (2 ECTS/CFU, taught in Italian) from the Laurea Triennale in Scienza e Tecniche Psicologiche (cl. L-24).

The ECTS/CFU associated with TAF-D activities can be obtained, either entirely or partially, by engaging in apprenticeships at external institutions or by participating in activities related to the preparation of the final dissertation. In both scenarios, students have the autonomy to include their chosen activities in their Study Plan using a convenient online procedure accessible through the Student Web Portal.

However, if students wish to include educational activities from other Degree Programs of the University that are not among those recommended by the Academic Council, they must complete their Study Plan online,





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provisionally selecting an elective activity (or a group of elective activities) from the options proposed by the Academic Council. Subsequently, by January 31, 2024, students are required to email the list of chosen activities they intend to propose as replacements for the previously indicated ones to the Didactic Secretariat (at the address <u>giuseppina.tondo@unisalento.it</u>), using a form available on the DiSTeBA website at the following address: <u>https://www.disteba.unisalento.it/offerta-formativa/manifesto-degli-studi</u>. Please note that the inclusion of these activities will only occur after receiving approval from the President of the Academic Council.

The complete list of available activities can be found at this link: <u>https://www.unisalento.it/didattica/cosa-studiare/corsi-di-laurea</u>.

It is worth mentioning that in order to ensure a practical, hands-on, and comprehensive training experience that equips students with the essential skills of a specialized biologist in the field of coastal and marine biology and ecology, various external activities are highly encouraged. These include formative trainings with companies, public administration structures (e.g. Marine Protected Areas), and research laboratories. Furthermore, students can participate in internships with both Italian and foreign universities, taking advantage of international agreements such as the European Network Euromarine or the ERASMUS+ program. Practical classes, both in classrooms and in the field, as well as training stages offered by national and foreign Universities (especially those involved in the double-degree program), are also available to students. By engaging in these diverse activities, students can enhance their practical knowledge and gain valuable experiences that complement their theoretical learning, thereby fostering a well-rounded education in the field.

# The deadline for defining the study plan, set for January 31, 2024, is extended to May 15, 2024, for students who enroll following the April 2024 Entrance Examination.

A student who, as an alternative to the statutory Study Plan, wishes to submit an individual Study Plan (provided it is coherent with the constraints established by the Academic Regulations) is required to formalize the request by contacting the Didactic Secretariat of DiSTeBA via email at <u>giuseppina.tondo@unisalento.it</u> by January 31, 2024. In this case as well, the deadline of January 31, 2024, is extended to May 15, 2024, for students who enroll following the April 2024 Entrance Examination. Each Individual Study Plan must be proposed in accordance with the provisions established by the University Regulations for Students and must be approved by the Academic Council.

#### Attendance requirements

Attendance for theoretical lectures is not mandatory, although it is essential for granting a fruitful, smooth educational training of the CMBE student. Additionally, the student is required to attend all laboratory activities, seminars, and internships for at least two-thirds of their duration.

#### Class calendar

Teaching activities are organized in two semesters:

- First semester: 2 October 2023 19 January 2024;
- Second semester: 4 March 2024 7 June 2024.

#### Acquisition of CFU and Exams

All activities that contribute to the acquisition of ECTS/CFU credits undergo evaluation. The assessment procedures vary depending on the nature of the activity and may include written, oral, or combined written





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and oral examinations, or other suitable methods tailored to specific types of activities. Activities classified as TAF-B, C, and D are typically evaluated on a scale of thirty, with the possibility of achieving the highest mark of thirty *cum laude* to recognize exceptional student performance. For teaching activities that involve laboratory exercises, accreditation may be based on the evaluation of individual work related to ongoing exercises. The precise methods for conducting assessments are determined by a resolution of the Academic Council and are explained by the instructor at the beginning of the course

Regular examination sessions are scheduled during periods of temporary suspension of learning activities, following the below calendar:

- 3 sessions in the period 22/1/2024 02/3/2024
- 3 sessions in the period 10/6/2024 31/7/2024
- 1 session in the period 02/9/2024 30/09/2024

In addition to the regular exam sessions, there will be extraordinary sessions held in the months of October, November, March, and May. These sessions are specifically reserved for students who are off-course or graduating. Moreover, students enrolled in the last year of the degree course, starting from the second semester when no teaching is provided, are also eligible to access the extraordinary exams. During the second semester, second year students have the option to arrange additional extraordinary exams directly with the respective teachers of each discipline. This provides flexibility for students to schedule and take extra exams as needed during this period.

Students near to graduation (*graduands*) may request supplementary exam sessions before the session of graduation, if no ordinary sessions are scheduled within the four weeks preceding the date of the final degree session. To be considered *graduands*, students must:

- a. Have applied for graduation according to the terms fixed by the Student Secretariat;
- b. Have a maximum of remaining 15 ECTS/CFU to complete their educational path (this does not include the ECTS allocated for the training period also known as *stage* and final thesis work).

All exams scheduled after 30 April 2024 will be referred to the summer session of the academic year 2022/2023 and NOT as special session of the academic year 2023/2024.

The acquisition of ECTS credits of type F) related to internships or work experience - previously cleared by the Academic Council - at research institutions or universities, public or private companies, may be based on an activity report and does not entail a numerical grade. Instead, the assessment of the student's performance is determined solely by the Academic Council reflecting their judgment of the overall quality and fairness of the experience.

#### Sessions Degrees

Graduation sessions are planned in the following periods:

- 16-18 luglio 2024
- 08-10 ottobre 2024
- 10-12 dicembre 2024
- 11-13 marzo 2025
- 15-17 aprile 2025





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### Final Test

The final test for the achievement of the Master Degree in CMBE consists in the public presentation and discussion, in front of an appointed commission, of a written text (thesis work). The topic will be agreed upon with a member of the teaching staff of the CMBE course and it may involve also external tutors. Specific requirements have been established for pursuing of the double degree, outlined comprehensively in the Double Degree Agreement (*https://bit.ly/MBE\_DOUBLE\_DEGREE*).

Further information can be found at the DiSTeBA website <u>https://www.disteba.unisalento.it/guida-alla-didattica/esame-di-laurea</u>

# Knowledge required for access to the course, procedures for verifying the preparation of the student, employment and professional opportunities for graduates

Refer to the Degree Course website:

https://www.unisalento.it/didattica/cosa-studiare/corsi-di-laurea-magistrale/-/dettaglio/corso/LM51/coastaland-marine-biology-and-ecology

#### 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 Call for admission.

#### Università del Salento - DiSTeBA Corso di Laurea Magistrale in Coastal and Marine Biology and Ecology (Biologia ed Ecologia Costiera e Marina) - LM51 cl. LM-6 Curr. MBE (Marine Biology and Ecology) Offerta didattica erogata a.a. 2023/2024

#### I anno (Rif. Immatricolati a.a. 2023/2024)

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	Docente di riferimento	Semestr
Ecological indicators and biomonitoring	Monodisciplinare	6	3	3	24	30	54	BIO/07	Caratterizzante	Discipline del settore biodiversità e ambiente	Pinna Maurizio	<u>Pinna Maurizio</u>	SI	11
Ecology and Biology of Transitional Waters	Modulo di Ecology and Biology of Transitional and Marine Waters	6	4	2	32	20	52	BIO/07	Caratterizzante	Discipline del settore biodiversità e ambiente	Pinna Maurizio	<u>Pinna Maurizio</u>		"
Marine Biology	Modulo di Ecology and Biology of Transitional and Marine Waters	6	5	1	40	10	50	BIO/05	Caratterizzante	Discipline del settore biodiversità e ambiente	Pinna Maurizio	Rossi Sergio	SI	I
Community Ecology	Monodisciplinare	6	3	3	24	30	54	BIO/07	Caratterizzante	Discipline del settore biodiversità e ambiente	Mancinelli Giorgio	Mancinelli Giorgio		I
Environmental microbiology	Monodisciplinare	6	6		48		48	BIO/19	Caratterizzante	Discipline del settore biomolecolare	Alifano Pietro	Alifano Pietro		I
Marine life cycles and symbiotic associations	Monodisciplinare	8	6	2	48	20	68	BIO/05	Caratterizzante	Discipline del settore biodiversità e ambiente	Giangrande Adriana	Giangrande Adriana	SI	I
Pelagos Biology (Zooplankton and Necton)	Monodisciplinare	8	7	1	56	10	66	BIO/05	Caratterizzante	Discipline del settore biodiversità e ambiente	Belmonte Genuario	Belmonte Genuario	SI	I
Biodiversity of coastal and marine vegetation	Monodisciplinare	10	7	3	56	30	86	BIO/02	Caratterizzante	Discipline del settore biodiversità e ambiente	Zuccarello Vincenzo	Zuccarello Vincenzo	SI	Ш
Oceanography of Marginal Seas and of the Coastal Zone	Monodisciplinare	6	6		48		48	GEO/12	Affine/Integrativa	Attività formative affini o integrative	Fabio Bozzeda	Fabio Bozzeda		II

#### ll anno (Rif. Immatricolati a.a. 2022/2023)

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	Docente di riferimento	Semestre
Environmental Physiology	Monodisciplinare	6	5	1	40	10	50	BIO/09	Caratterizzante	Discipline del settore biomedico	Lionetto Giulia	Lionetto Giulia		I
Marine Biodiversity and Ecosystem Functioning	Monodisciplinare	6	6		48		48	BIO/05	Caratterizzante	Discipline del settore biodiversità e ambiente	Rossi Sergio	Rossi Sergio		I.
Experimental design and methodologies for marine biology	Monodisciplinare	6	3	3	24	30	54	BIO/05	Caratterizzante	Discipline del settore biodiversità e ambiente	Luigi Musco	Luigi Musco (2 CFU L.) Giulia Furfaro (1 CFU L. + 1 CFU E.) Emanuele Mancini (2 CFU E.)	SI (MANCINI)	I
Enviromental chemistry	Monodisciplinare	6	5	1	40	10	50	CHIM/12	Affine/Integrativa	Attività formative affini o integrative	Genga Alessandra	Genga Alessandra		I
Activities Chosen by the Student		9							A scelta dello studente	A scelta dello studente				
Job Market Orientation		1							Altro	Altre conoscenze utili per l'inserimento nel mondo del lavoro				Ш
Final Test		30							Lingua/Prova finale	Per la prova finale				

#### Gruppo di scelta da 6 CFU nell'ambito delle discipline del settore biodiversità e ambiente

1 "CFU lezione" corresponds to nr. 8 hours of frontal lectures in the classroom

1 "CFU esercitazione/laboratorio" corresponds to n. 10 hours of practical activities

Periodi	di erogazione delle attività didattiche:	
1	02/10/2023	19/01/2024
I	04/03/2024	14/06/2024

#### Università del Salento - DiSTeBA Corso di Laurea Magistrale in Coastal and Marine Biology and Ecology (Biologia ed Ecologia Costiera e Marina) - LM51 cl. LM-6 Curr. EBES (E-Biodiversity and Ecosystem Sciences) Offerta didattica erogata a.a. 2023/2024

I anno (Rif. Immatricolati a.a. 2023/2024)

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	Docente di riferimento	Semest
EVOLUTIONARY BIOLOGY	Monodisciplinare	6	4	2	32	20	52	BIO/05	Caratterizzante	Discipline del settore biodiversità e ambiente	Luigi Musco	Luigi Musco		Ш
HEORETICAL ECOLOGY	Monodisciplinare	6	6		48	0	48	BIO/07	Caratterizzante	Discipline del settore biodiversità e ambiente	Alberto Basset	Alberto Basset	SI	1
PLANT BIODIVERSITY	Monodisciplinare	6	6		48	0	48	BIO/02	Caratterizzante	Discipline del settore biodiversità e ambiente	Vincenzo Zuccarello	Vincenzo Zuccarello	SI	Ш
Community Ecology	Monodisciplinare	6	3	3	24	30	54	BIO/07	Caratterizzante	Discipline del settore biodiversità e ambiente	Giorgio Mancinelli	Giorgio Mancinelli		I
BIODIVERSITY AND ECOSYSTEM	Monodisciplinare	6	6		48	0	48	BIO/05	Caratterizzante	Discipline del settore biodiversità e ambiente	Sergio Rossi	Sergio Rossi	SI	I
UNDAMENTALS OF ECOLOGICAL NFORMATICS	Monodisciplinare	6	6		48	0	48	BIO/07	Caratterizzante	Discipline del settore biodiversità e ambiente	Docente a contratto gratuito	Docente a contratto gratuito		II
Environmental microbiology	Monodisciplinare	6	6		48		48	BIO/19	Caratterizzante	Discipline del settore biomolecolare	Pietro Alifano	Pietro Alifano		<u>!</u>
Environmental Physiology	Monodisciplinare	6	5	1	40	10	50	BIO/09	Caratterizzante	Discipline del settore biomedico	M.Giulia Lionetto	M.Giulia Lionetto		I
invironmental chemistry	Monodisciplinare	6	5	1	40	10	50	CHIM/12	Affine/Integrativa	Attività formative affini o integrative	Alessandra Genga	Alessandra Genga		I
MATHEMATICAL MODELLING IN ECOLOGY	Monodisciplinare	6	6		48	0	48	SECS-S/02	Affine/Integrativa	Attività formative affini o integrative	Serena Arima Dip.to SUS	Serena Arima Dip.to SUS		Ш

#### II anno (Rif. Immatricolati a.a. 2022/2023)

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	Docente di riferimento	Semestre
LABORATORY OF ECOLOGICAL INFORMATICS	Monodisciplinare	10	10		80	0	80	BIO/07	Caratterizzante	Discipline del settore biodiversità e ambiente	Docente a contratto gratuito	Docente a contratto gratuito		I
Activities chosen by the Student		9							A scelta dello studente	A scelta dello studente				
Job Market Orientation		1							Altro	Altre conoscenze utili per l'inserimento nel mondo del lavoro				Ш
Final Test		40							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. 10 hours of practical activities

Periodi di erogazione delle attività didattiche:									
1	02/10/2023	19/01/2024							
1	04/03/2024	07/06/2024							