

University of Milano – Bicocca The Maldives National University



Department of Earth and Environmental Sciences

Master's Degree in Marine Sciences – Scienze Marine

Annual Manifesto - A.Y. 2023-2024

(MSc Degree Programme description)

The international Master of Science in Marine Sciences – Scienze Marine is an open access 2-year joint degree programme offered by the University of Milano-Bicocca in partnership with the Maldives National University.

In the Academic Year 2023-2024, the first and second year of the Master's Degree in Marine Sciences – Scienze Marine (Class LM-75 - Environmental and Land Sciences) are active:

COURSES PLAN

FIRST YEAR (for students enrolling in the A.Y 2023-2024):

MANDATORY COURSES:			CFU	SSD	Semest er		
BIODIVERSITY AND MARINE ECOLOGY (12 ETCS)	BIODIVERSITY UNIT	LESSON – 4 CFU	6	BIO/07	- First		
		PRACTICAL ACTIVITY – 2 CFU					
	MARINE ECOLOGY UNIT	LESSON – 4 CFU	6	BIO/07			
		PRACTICAL ACTIVITY – 2 CFU					
CHEMISTRY OF MARINE ENVIRONMENT		LESSON – 6 CFU	6	CHIM/1 2	Second		
FUNDAMENTALS OF MARINE BIOLOGY		LESSON – 4 CFU	- 6	BIO/05	First		
		PRACTICAL ACTIVITY – 2 CFU					
FUNDAMENTALS OF MARINE PHYSICAL GEOGRAPHY		LESSON – 4 CFU	- 6	GEO/04	First		
		PRACTICAL ACTIVITY – 2 CFU	U				
INTERNATIONAL LAW OF THE SEA		LESSON – 6 CFU	6	IUS/13	First		
PHYSICS OF THE SEA		LESSON – 5 CFU	6	FIS/06	Second		
		PRACTICAL ACTIVITY – 1 CFU					
MANDATORY MULTIPLE-CHOICE COURSES – The student has to choose 2 courses (12 CFU) from the following:							
ENGINEERING, CHARACTERIZATION AND DEGRADATION OF POLYMERS IN THE MARINE ENVIRONMENT		LESSON – 6 CFU	6	ING- IND/22	Second		
APPLIED GEOMORPHOLOGY AND HABITAT		LESSON – 4 CFU	6	GEO/04	Second		
		PRACTICAL ACTIVITY – 2 CFU					
BIOFACIES		LESSON – 4 ETCS	6	GEO/01	Second		
		PRACTICAL ACTIVITY – 2 CFU					
ENVIRONMENTAL JUSTICE AND GEOPOLITICS OF THE SEA *		E-LEARNING LESSON – 6 CFU	6	M- GGR/02	Second		
GEOBIOLOGY		LESSON – 5 CFU	- 6	GEO/01	First		
		PRACTICAL ACTIVITY – 1 CFU					
HUMAN GEOGRAPHY OF SMALL ISLAND SYSTEMS		LESSON – 6 CFU	6	M- GGR/01	Second		
MARINE ENVIRONMENTAL MICROBIOLOGY		LESSON – 5 CFU	- 6	BIO/19	First		
		PRACTICAL ACTIVITY – 1 CFU					
MARINE INVERTEBRATE ZOOLOGY		LESSON – 6 CFU	6	BIO/05	Second		

MARINE VERTEBRATE ZOOLOGY	LESSON – 6 CFU	6	BIO/05	Second
OCEAN AFFAIRS LAW AND POLICY	LESSON – 6 CFU	6	IUS/13	Second

^{*} Remote lesson by videoconference

SECOND YEAR (for students enrolled in the A.Y. 2022-2023):

MANDATORY COURSE:			CFU	SSD	Semest er
COASTAL AND MARINE HAZARD AND RESILIENCE *		E-LEARNING LESSON – 6 CFU	6	M- GGR/02	First
MANDATORY MULTIPLE-CHOICE COURSES – The student has to choose 2 courses (12 CFU) from the following:					
APPLIED MARINE GEOLOGY		LESSON – 2 CFU PRACTICAL ACTIVITY – 4 CFU	6	GEO/04	First
COASTAL AND MARINE BOTANY		LESSON – 4 CFU FIELD ACTIVITY – 2 CFU	- 6	BIO/01	First
COASTAL AND MARITIME TOURISM LESSON – 6 CFU		LESSON – 6 CFU	6	M- GGR/02	First
COASTAL RISKS AND DYNAMICS LESSON – 6 CFU		6	ICAR/02	First	
COMMUNICATION SKILLS AND INTERPERSONAL RELATION MANAGEMENT		LESSON – 6 CFU	6	M- PSI/08	First
MANAGEMENT OF AQUATIC RESOURCES: FISHERIES *		E-LEARNING LESSON – 6 CFU	6	BIO/07	First
MARINE MOLECULAR BIOLOGY		LESSON – 6 CFU	6	BIO/11	First
OCEAN MONITORING AND DATA ANALYSIS		LESSON – 1 CFU PRACTICAL ACTIVITY – 5 CFU	6	GEO/12	First
PALEOCEANOGRAPHY AND PALEOCLIMATOLOGY PRACT		LESSON – 4 CFU PRACTICAL ACTIVITY – 1 CFU FIELD ACTIVITY – 1 CFU	6	GEO/01	First
OTHER MANDATORY ACTIV	VITIES				
INTERNSHIP			4	NN	Annual
FURTHER LINGUISTIC KNOWLEDGE		ENGLISH - C1 LEVEL	4	NN	Annual
	<u>Italian students</u> have to choose among following ones:	FRENCH - B2 LEVEL	4	NN	Annual
		GERMAN - B2 LEVEL	4	NN	Annual
		SPANISH - B2 LEVEL	4	NN	Annual
	Mandatory for <u>foreign students</u>	ITALIAN - B1 LEVEL	4	NN	Annual
EDUCATIONAL ACTIVITIES "TO BE CHOSEN BY THE STUDENT"			12	NN	
FINAL EXAMINATION		28	NN		

^{*} Remote lesson by videoconference

ADMISSION TO THE MSc PROGRAMME IN MARINE SCIENCES - SCIENZE MARINE

To be eligible for admission to the MSc Programme in Marine Sciences – Scienze Marine, applicants must fulfil some curricular requirements and attend an interview to assess their personal educational background.

Curricular requirements

On the basis of the documentation submitted by each candidate, the Admission Committee, appointed by the MSc Degree's Teaching Council, will verify the possession of the following curricular requirements:

- a Bachelor's Degree (or three-year university diploma), or a foreign diploma recognised as appropriate by the University in compliance with ministerial regulations and the bilateral agreements in force;
- at least a total amount of 18 CFUs among the following subjects:
 - Chemistry and allied areas (CHIM/01, CHIM/02, CHIM/03, CHIM/06),
 - Biology and allied areas (BIO/01, BIO/05),
 - Earth Sciences (GEO/04, GEO/07),
 - Ecology and allied areas (BIO/03, BIO/07)

- English proficiency qualification at level B2 or higher

Admission interview:

Applicants, who meet the above curricular requirements, will be required to undergo an interview designed to assess their knowledge and skills in geology, biology, chemistry and geography.

The interview is in English.

Please, read the <u>2023/2024 A.Y. Admission information and deadlines</u> carefully before starting your application. Further information is published on the MSc Programme's e-learning page, in the section "<u>Admission to the MSc Programme, A.Y 2023-2024</u>".

Applicants must submit their application for admission via the Online Student Registry, the digital platform of the University of Milano - Bicocca. Please, see the tutorial: how to apply.

The list of admitted candidates will be posted on the web page of the MSc Programme in Marine Sciences - Scienze Marine. Admitted candidates will be able to enrol from the day after the publication of the ranking list.

ENROLMENT TO THE YEARS FOLLOWING THE FIRST ONE, CREDIT RECOGNITION AND TRANSFER PROCEDURES

From July 17th up to October 2nd 2023, students may:

- renew enrolment for the years following the first one, according to the procedures indicated by the University.
- apply for transfer, according to the procedures indicated by the University.

Students, who have transferred from other master's degree programmes, or students who have taken a leave of absence or have previously withdrawn from the university, or those holding another master's degree must apply for recognition of their previous credits, both for admission and for transfer. At least 50% of the credits of students coming from MSc degree programmes in LM-75 class will be recognized (M.D. n. 155 of 16/03/2007).

Students, who want to request credits transfer for examinations taken in previous academic careers, must contact segr.studenti.scienze@unimib.it.

Pursuant to Ministerial Decree 270/2004 and Law 240/2010, Universities may recognize as credits (CFUs) individually certified knowledge and professional skills, in accordance with the relevant regulations, as well as other knowledge and skills acquired in post-secondary education activities in which the University participated, for a total amount of 12 CFUs between bachelor's and master's degrees.

ACADEMIC YEAR: classes' timetable and attendance

The academic year is subdivided into two main terms, conventionally called semesters:

First semester:

Educational activities: from October 2nd 2023 to January 26th 2024

Teaching break: from November 13th to 17th, 2023 (only for second-year students)

<u>Second semester</u>:

Educational activities: from March 4th to June 21st, 2024

Teaching break: from April 18th to 24th, 2024 (for all students)

Classes schedule can be checked on the Web Agenda of the University of Milano-Bicocca.

Please, download the <u>UniMiB Course</u> App on your mobile device to easily check your classes' timetable, exams calendar and classroom availability.

Attendance at classes, although not compulsory, is strongly recommended, whereas attendance in both practical and field activities is mandatory for at least 75% mandatory.

COURSES: syllabus and professors' office hours

Courses may consist of a single unit or several integrated units, even multidisciplinary and with multiple teachers. Each unit consists of in-person or remote classes, usually combined with practical and/or field activities.

The expected learning work that a student spends in classroom depends on the type of teaching activity, as follows:

LESSON: 1 CFU (University Educational Credit) corresponds to 7 hours spent attending classes

PRACTICAL ACTIVITIES: 1 CFU corresponds to 12 hours spent attending classes FIELD ACTIVITIES: 1 CFU corresponds to 10 - 12 hours spent attending field work

All the essential information about each course (Syllabus) is posted on the MSc Programme's e-learning page, in the "Courses" section. Please, read each syllabus carefully to learn about content, learning outcomes, grading policy, reading, and everything else you need to know about courses. Professors' office hours are also available in the courses' syllabi.

STUDY PLAN

The Study Plan involves all the mandatory educational activities, mandatory multiple-choice courses and educational activities "to be chosen by the student" according to the MSc Programme Teaching Regulations.

When enrolling in the first year, students are automatically given the so-called "Statutory Study Plan", which only includes mandatory educational activities. Later, students have the opportunity to submit their own study plan, in which mandatory multiple-choice courses, foreign language and the educational activities "to be chosen by the student" should be stated. The student's right to take the exam of a teaching activity depends on the presence of the activity itself in the last approved study plan.

More information is available on the MSc Programme's e-learning page, in the "Study Plan" section.

The Procedures and deadlines for submitting the Study Plan are set by the University.

INTERNSHIP - 4 CFUs

The compulsory internship of 4-CFUs (100 hours) is designed to provide students with the opportunity to put into practice the skills, both scientific and technical, acquired during their studies.

This activity can be carried out either in the University's research laboratories or at external Institutions, upon previous authorization of the Stage Commission, appointed by MSc Degree's Teaching Council.

Under the guidance of both University and corporate tutors, this internship will be held in the labs, companies, organizations and institutions, even at international level, the University set agreements with, and it must be used in order to prepare for the final exam.

All information is available on the MSc Programme's e-learning page, in the "Practical Training - Internship" section.

FURTHER LINGUISTIC KNOWLEDGE - 4 CFUs

To obtain the degree, students must be proficient in a foreign language in one of the following ways:

For Italian students only:

- by passing a University test of foreign language proficiency at level B2 or higher among French, Spanish or German; or
- by passing a University test of English proficiency at level C1 or higher.

For foreign students only:

- by passing a University test of Italian proficiency at level B1 or higher.

Alternatively, students having the above language proficiency certifications, issued by University-accredited Institutions, will be exempted from the test. The language certificate must be submitted to segr.studenti.scienze@unimib.it to receive the validation of the expected 4 CFUs.

Click French, Spanish and German or English to know language proficiency certificates recognised as valid.

The <u>International Promotion and Language Training Office (UPIFoL)</u> manages all University foreign and Italian languages tests.

EDUCATIONAL ACTIVITIES "TO BE CHOSEN BY THE STUDENT" - 12 CFUs

The activities "to be chosen by the student" are part of the Study Plan. The Study Plan Commission, appointed by the MSc Degree's Teaching Council, verifies the consistency of the activities "to be chosen by the student" with the educational project.

In order to calculate the total number of the exams, the activities "to be chosen by the student" count for just one exam, regardless of the number of exams taken to earn 12 CFUs.

The student may acquire the expected 12 CFUs by choosing one of the following ways:

- Courses for a total amount of 12 CFU offered by this Programme or by other Master's Programmes of the University;
- 6-CFUs Practical Training activity (150 hours) plus one 6-CFUs course offered by this Programme or by other Master's Programmes of the University;
- 12-CFUs Practical Training activity (300 hours).

6- or 12-CFUs Practical Training activities will be held, under the guidance of both University and corporate tutors, in labs, companies, organizations and institutions, even at international level, the University set agreements with, and it can be used in order to prepare for the final examination.

Other activities like summer/winter schools, seminars, research activities at University research centres or other international centres can be validated as "6-CFUs Practical Training", but it must be agreed in advance with the Stage Commission.

All information is available on the MSc Programme's e-learning page, in the "Practical Training (stage)" section.

SUPERNUMERARY CREDITS - 16 CFUs

Students have the opportunity to include in their university career up to a maximum of 16 CFUs in excess of those required for graduation. The CFUs and grades earned for these supernumerary activities do not count in the final average exam grade, but are reported in the <u>Diploma Supplement</u>.

EXAMS

Students gain credits by passing the exams. The examination assessment may result in a grade (from a minimum of 18/30 up to a maximum of 30/30) or on a pass/fail basis.

The examination may be: 1) oral exam; 2) written exam with compulsory oral; 3) written exam with optional oral. If the written exam consists only of multiple-choice questions, the oral exam is compulsory.

The exam sessions, no fewer than five per academic year, are scheduled in three periods: January-February (Winter session), June-July (Summer session) and September (Autumn session). Additional exam sessions can be scheduled during "teaching breaks".

More information on the assessment for each course can be checked in the respective Syllabus, published on the MSc Programme's e-learning page, in the "Courses" section.

Exams calendar is available on the <u>Web Agenda</u> (or <u>UniMiB Course</u> App) of the University of Milano-Bicocca. Registration for exam dates must be performed by means of the <u>Online Student Registry</u>.

FINAL DEGREE EXAM

The final exam involves the presentation and discussion in English of a dissertation with important scientific and/or applied content, prepared by the student under the guidance of a supervisor.

The dissertation has to be original research on a specific topic related to the marine environment, also referring to the internship experiences. The dissertation is an important step in acquiring practical skills: it can be carried out internally at the University or externally at a company, institution or other university, including foreign universities. The dissertation has to be written in English.

Graduating students will discuss their dissertation in open sessions in front of a Degree Exams Committee, which will assign the final evaluation in 110 (with a minimum of 66/110) with potential honours, considering the student's entire career.

In order to be admitted to the final examination, students must be in possession of the credits pertaining to the educational activities envisaged in the last approved study plan, which must be added to those achieved in the final examination to obtain 120 credits.

Before undertaking the thesis work, students must submit a dissertation project form to the chosen thesis supervisor, who will send it to the secretary's office (didattica.ms@unimib.it), for subsequent approval by the MSc Degree's Teaching Council.

The forms and the standards related to the procedure for submitting the dissertation project, the regulations for the final degree examination, including the grade, and the calendar of the final degree sessions, with administrative deadlines, are available on the MSc Programme's e-learning page, in the "Final examination" section.

Upon request, the University will also issues a Master's Degree certificate to Marine Sciences graduates in digital format via an Open Badge.

SOFT SKILLS

The University offers students the opportunity to strengthen their soft skills by means of projects and activities that allow them to acquire digital certifications, named Open Badges, which can be used in the e-curriculum and on social media to quickly communicate the acquired skills and competences.

Please, discover the **Bbetween** and **iBicocca** Projects to improve your soft skills.

INTERNATIONAL MOBILITY

The MSc Degree Programme encourages international mobility, both in the form of attendance of courses or for activities such as internship, practical training or dissertation. These periods take place within the framework of International Mobility Programmes and require participation in a call for admission.

Major international mobility projects are:

- <u>Erasmus+ study</u>: students can undertake a study experience abroad at one of the University's Erasmus partners, for a period ranging from a minimum of 3 months to one year, during which they can study and take examinations that will be recognised in their study plan;
- <u>Erasmus+ Traineeship</u>: students have the opportunity to spend a period of a minimum of 2 to 12 months at foreign universities, research centres and higher education institutions in the EU in order to carry out internships or to prepare their dissertation:
- <u>EXTRA-EU Exchange</u>: for a minimum period of 1 to 6 months, students can carry out internships or research activities aimed at preparing their dissertation at higher education institutions, research centres and NGOs in non-EU countries.

CONTACTS

Location

Department of Earth and Environmental Sciences Buildings U1 and U4 - Piazza della Scienza, 1 and 4 – 20126 Milan

<u>Teaching Secretary's Office</u> e-mail: didattica.ms@unimib.it Phone: +390264482038

MSc Programme's web page: https://www.unimib.it/graduate/marine-sciences

MSc Programme's e-learning page: http://elearning.unimib.it/course/index.php?categoryid=3626

University Regulations for Students:

https://www.unimib.it/sites/default/files/segreteria studenti/regolamento studenti 2019 con decreto.pdf