# TEACHING REGULATIONS OF THE MASTER'S DEGREE COURSE in BIOLOGY AND SUSTAINABILITY

a.y. 2025/2026

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# Art. 1 - General features and organization of the Bachelor's Degree in Biotechnology

The course of study, belongs to the class of Master's Degrees in Biology L-6 (DM 16 March 2007, reformed under the DM 19 December 2023) and is activated according to the teaching order of 24/02/2023.

Environmental sustainability is a central theme for the development of contemporary society, reaffirmed by inserting the protection of the environment, biodiversity, and ecosystems among the fundamental principles of the Italian Republic through the modification of Art. 9 of the Constitution.

Training in new occupational opportunities (green jobs) needs a high practical-operating capacity, anchored on a solid cultural heritage founded on biological principles in planning, application, and verification of environmental sustainability in all areas, including an effective ecological transition of productive processes, which can enhance natural capital and contribute to human well-being.

The course is characterized by a combination of biodiversity and environmental sciences, including biomolecular contents and methods. This training allows an integrated approach at all the different organization levels of biology (molecular, cellular, organism, species, and community). Biodiversity and environment sciences are dedicated to the knowledge of biological resources (natural capital), processes, and sustainability, while those of the biomolecular sector will provide advanced knowledge and techniques at the molecular and cellular levels. Disciplines of specialization are most present in the second year. Students will be able to acquire skills in the cellular-molecular field or insights into issues related to agroecosystems and sustainable production approaches.

Lessons are held in Italian, but candidates must have an internationally recognized certification for the English language at level B2 (or higher).

Candidates must hold a first-level degree (three-year) obtained by February 28th, 2024, in the classes L-2 (Biotechnology) or L-13 (Biological Sciences) or any other first-level degree obtained in Italy or abroad, which is considered equivalent according to the current legislation. In the latter case, the candidate's previous career must include biology, agronomy, mathematics and informatics, and chemistry credits.

The teaching structure responsible for the course is the DEPARTMENT OF BIOTECHNOLOGY AND LIFE SCIENCES
The Chair of the course is Professor BRUNO ENRICO LEONE CERABOLINI Unifind - Uninsubria - Cerabolini Bruno Enrico Leone

The reference teaching secretariat receives by appointment at the pavilion Lanzavecchia in via Dunant, 3 - Varese, and responds to e-mails received through INFOSTUDENTI.

#### Art. 2 – Lessons timetable

The course is organized following a semester-based calendar. Exams sessions are organized during the teaching activities suspension periods students may access the exams provided for in their study plan after having followed the course (attendance acquisition).

#### 1st SEMESTER:

- Lessons start date: from 22 September 2025 lessons end date: 16 January 2026;
- Fall exams session: 10-14 November 2025 (except for 1st-year students);

• Winter exams session: 19 January -20 February 2026.

#### 2nd SEMESTER:

- Lessons start date: 23 February 2026 lessons end date: 19 June 2026;
- Spring exams session: 8-14 April 2026;
- Summer exams session: 22 June 2026 to 18 September 2026 (except for the month of August).

For the lessons suspension dates and holidays for national, local and other festivities (Christmas break, Easter break, University holidays), students should refer to the University's Academic Calendar approved by the University bodies at the following link: <a href="https://www.uninsubria.eu/about-us/how-find-us/academic-calendar">www.uninsubria.eu/about-us/how-find-us/academic-calendar</a>

# Art. 3 Admission, assessment of educational background and additional learning requirements (OFA) remedial procedures

Candidates must hold a first-level degree (three-year) obtained by February 28th, 2026, in the classes L-2 (Biotechnology) or L-13 (Biological Sciences), or another first-level degree obtained in Italy or abroad, that can be considered equivalent according to the current legislation.

In this latter case, the candidate's previous career must include:

at least 36 credits in the sectors of area 05 (Biology) or in the sectors SSDAGR/03 (general arboriculture ans e tree crops); AGR/04 (horticulture and floriculture); AGR/05 (forest management and silviculture); AGR/06 wood technology and forestry uses; AGR/07 agricultural genetics; AGR/11 general and applied entomology; AGR/12 plant pathology; AGR/15 Food science and technology; AGR/16 Agricultural microbiology; AGR/17 General zootechnics and genetic improvement; AGR/18 Animal nutrition and feeding; AGR/19 Special zootechnics; AGR/20 Zoocultures;

at least 12 credits in the sectors of area 01 (Mathematics and Informatics) or area 02 (Physics) or in the sector SSD MED/01 (Medical Statistics);

at least 12 credits in the sectors of area 03 of Chemical Sciences or in SSD AGR/13 (Agricultural Chemistry) of area 07 of Agricultural and Veterinary Sciences.

Candidates satisfying the above requirements will have to take an interview with a committee of the Degree Course, aimed at verifying their preparation.

The schedule for the interviews will be published on the Course web page.

A negative outcome of the interview will preclude access to the Course for the current year.

Candidates who do not possess an internationally recognized certification for English language at level B2 (or higher), or who have not attended a first cycle course entirely held in English, will be required to attend a full-immersion course of Scientific English (offered in the second half of September 2026), and pass the corresponding exam.

#### Art.4 Orientation, enrollment procedure and other administrative aspects

The Degree Course organizes every year, in the spring/summer period, some course presentation and incoming orientation meetings for future freshmen. Informational material is published online and distributed to interested students. The admission procedures are published every year on the webpages of the Degree Course and of the students services office. Further information (for example on the curriculum, enrollment procedures) may be obtained through the Infostudenti service.

The INFOSTUDENTI service is a web application that offers a communication channel with the administration.

The service may be accessed by clicking on the following link: <a href="https://www.uninsubria.eu/services/all-services/infostudenti-information-service-students">www.uninsubria.eu/services/all-services/infostudenti-information-service-students</a>

#### Art. 5 - Prerequisites

Not applicable.

#### Art. 6 – European credit transfer and accumulation system (ECTS)

The courses have different types of assisted teaching: frontal lessons, exercitations and workshops.

Each ECTS corresponds to 8 class hours, 12 workshop hours and 12 exercitations hours, besides students' individual study, research and/or group work time.

# *Art.* 7 – *How to register for the integrated international course (double degree)* Not applicable.

# *Art. 8 – Validation of linguistic and IT certifications* Not applicable.

# Art. 9 – Validation of professional abilities or exams taken in a previous career Pursuant to article no. 4, paragraph 4 of the Ministerial Decree 1649/23, the Council of the Degree Course may validate:

- professional knowledge and skills certified pursuant to current regulations;
- knowledge and skills developed in educational activities at a post-secondary level in whose organization and implementation the university was involved.

The validation application will be assessed by the Council of the Degree Course. The validation may take place if the activity is related to the specific educational objectives of the Degree Course and of the educational activities for which the validation is being requested, also taking into consideration the content and duration in terms of hours of the activity. The maximum number of ECTS that may be validated is 12.

#### Art. 10 - Attendance obligations

Attendance is mandatory for workshop courses only; an attendance of at least 75% of the educational activities provided for is required. Mandatory attendance course will have to be followed in the correct year. Exceptions may be allowed, specifically, in cases of transfers from another course or University.

#### Art. 11 - Enrolling in subsequent years

There are no career blocks to enroll in the second year.

#### Art. 12 - Transfer procedures from other degrees courses

In case of transfers from other Universities, or changes from another degree course, the Council of the Degree Course, taking into consideration the specific educational objectives of the course, in compliance with the educational obligations established by the course's own Curriculum, assesses and ensures the validation of the maximum possible number of ECTS already obtained by students. For the purposes of the validation, meetings and tests may be required in order to assess the actual level of previously acquired knowledge. The abovementioned validation is carried out as provided for in article no. 3, paragraphs 11 and 12 of the ministerial decree of Class redefinition (19 December 2023). The validation is carried out until the ECTS provided for by the curriculum are reached.

#### Art. 13 - Rules for the submission of study plans and individual study plans

Students will be required to submit their study plan in the first year. It is possible to modify the study plan in the following year, according to the schedule of administrative procedures established by the University: <a href="https://www.uninsubria.it/formazione/consigli-e-risorse-utili/piano-di-studio">https://www.uninsubria.it/formazione/consigli-e-risorse-utili/piano-di-studio</a>.

As expressly provided for by DM 16.03.07, the student's choice of activities can be chosen from among all the courses offered at the University. It is possible to obtain the degree according to an individual study plan that also includes activities other than those provided for in the teaching regulations, as long as they are consistent with the teaching order of the course of studies of the academic year of registration. The Course Council will assess the consistency of these elective activities with the student's training path. The course of study proposes a list of lessons whose consistency is checked down.

#### Art. 14 – Curricular traineeship

The course is completed by an experimental internship and gives rise to the recognition of 27 credits, corresponding to a minimum of 675 hours. The internship period for the preparation of the thesis must be in any case qualitatively and quantitatively adequate to achieve the objectives of an internship for a master's degree in Biology and Sustainability. A minimum period of 9 months is considered suitable, considering a weekly frequency of 30-40 hours. It is, however, the responsibility of the university tutor, together with the external tutor, when present, to assess whether the work performed by the trainee is appropriate for writing the thesis.

#### Art. 15 Graduation procedure

The final exam consists in the production of a written report (thesis) prepared by the student and related to the research activity carried out in defense before a commission of teachers.

For further information please refer to the degree course webpage: [F018] BIOLOGY AND SUSTAINABILITY | Università degli studi dell'Insubria

For students with disabilities and/or specific learning disorders, please visit: <a href="https://www.uninsubria.it/studentidisabilidsa">www.uninsubria.it/studentidisabilidsa</a> (in Italian)

#### **ANNEXES**

Annex 1 - Study Plan

### II. STUDY PLAN

#### MANDATORY TEACHING ACTIVITIES - 2025/2026 COHORT

#### **BIOLOGY AND SUSTAINABILITY**

G – ASSESMENT V – EXAM I – SUITABILITY F – FREQUENCY

#### **MANDATORY COURSES:**

	1st YEAR								
SEM	COURSE Title	MODULE Title	Academic field	DISCIPLINARY FIELD / Type of Teaching Activity	ECTS	HOURS	ASSESSMENT METHOD		
I		1 Module Animal Resources	BIO/05	B (Disciplines of biodiversity and environment)	6	48	V		
II	NATURAL CAPITAL AND SUSTAINABILITY PRINCIPLES	2 Module Plant Resources	BIO/03	B (Disciplines of biodiversity and environment)	6	5 ECTS frontal teaching = 40 hours 1 ECTS exe = 12 hours	V		
A	PROCESS BIOCHEMISTRY		BIO/10	B (Disciplines of biodiversity and environment)	6	5.5 ECTS frontal teaching = 44 hours 0.5 ECTS exe = 6 hours	V		
A	CELL BIOLOGY OF LIFE PROCESSES		BIO/06	B (Disciplines of biodiversity and environment)	6	48	V		
I		1 Module Animal Environmental Physiology	BIO/09	B (Disciplines of the biomedical sector)	6	48	V		
II	STRESS PHYSIOLOGY AND BIOINDICATION	2 Module Plant Environmental Physiology	BIO/04	B (Disciplines of the biomolecular sector)	6	5 ECTS frontal teaching = 40 hours 1 ECTS exe = 12 hours	V		
A	BIODATA SCIENCE		BIO/05	B (Disciplines of biodiversity and environment)	6	48	V		
I	HISTORY OF BIOLOGY		M- STO/05	C (Related or supplementary)	6	4 ECTS frontal teaching = 32 hours 2 ECTS workshops = 24 hours	V		

### MANDATORY COURSES:

2nd YEAR								
SEM	COURSE Title	MODULE Title	Academic field	DISCIPLINARY FIELD / Type of Teaching Activity	ECTS	HOURS	ASSESSMENT METHOD	

### OPTIONAL COURSES (CURRICULAR, IN CHOICE/CHOICE BLOCKS):

2nd YEAR								
SEM	COURSE Title	MODULE Title	Academic field	DISCIPLINARY FIELD / Type of Teaching Activity	ECTS	HOURS	ASSESSMEN T METHOD	
A CHC	DICE BETWEEN:							
I	EPIGENETIC AND CONSERVATION		BIO/13	B (Disciplines of nutrition and other applications)	6	48	V	
II	SUSTAINABLE CHEMICAL PROCESSES		CHIM/11	B (Disciplines of nutrition and other applications)	6	5 ECTS frontal teaching = 40 hours 1 ECTS exe = 12 hours	V	
A CHC	DICE BETWEEN:							
П	SUSTAINABLE MANAGEMENT OF INVASIVE ANTHROPODS		AGR/11	C Related or supplementary)	6	4 ECTS frontal teaching = 32 hours 2 ECTS exe = 24 hours	V	
II	SUSTAINABLE FOOD PRODUCTIONS		AGR/20	C (Related or supplementary)	6	4 ECTS frontal teaching = 32 hours 2 ECTS lab = 24 hours	V	
A CHC	DICE AMONG:							
I	SUSTAINABLE USE OF PLANT RESOURCES AND BIOMASSES		BIO/03	B (Disciplines in the field of biodiversity)	6	4,5 ECTS frontal teaching = 36 hours 1,5 ECTS exe = 18 hours	V	
I	SUSTAINABLE USE OF ANIMAL RESOURCES AND BIOMASSES		BIO/05	B (Disciplines in the field of biodiversity)	6	48	V	
II	ANIMAL MODELS: RESOURCES FOR SUSTAINABLE PRODUCTION		BIO/05	B (Disciplines in the field of biodiversity)	6	5 ECTS frontal teaching = 40 hours 1 ECTS exe = 12 hours	V	

II	ANTHROPOLOGY AND BIOARCHAEOLOGY		BIO/08	B (Disciplines in the field of biodiversity)	6	48	V
A CHC	DICE AMONG:						
I	MOLECULAR STRATEGIES OF BIOLOGICAL ADAPTATION		BIO/18	B (Disciplines of the biomolecular sector)	6	48	V
I	INNOVATIVE APPROACHES FOR A SUSTAINABLE PLANT PRODUCTION		BIO/04	B (Disciplines of the biomolecular sector)	6	5 ECTS frontal teaching = 40 hours 1 ECTS exe = 12 hours	V
I	OMICS AND CONSERVATION		BIO/18	B (Disciplines of the biomolecular sector)	6	48	V
A CHC	DICE AMONG:						
II	HISTORY OF LIFE ON EARTH		GEO/01	C (Related or supplementary)	6	32	V
I	CHEMICAL METHODOLOGIES FOR SUSTAINABILITY	Modulo 1 Sustainable Processes for Biomass Treatment	CHIM/04	C (Related or supplementary)	3	24	V
II		Modulo 2 Alternative Methods in Silico	CHIM/12	C (Related or supplementary)	3	2.5 ECTS frontal teaching = 12 hours 0,5 ECTS exe = 6 hours	V

### OTHER MANDATORY COURSES

	II ANNO								
SEM	COURSE Title	MODULE Title	Academic field	DISCIPLINARY FIELD / Type of Teaching Activity	ECTS	HOURS	ASSESSMENT METHOD		
I-II	CHOSEN BY THE STUDENT		NN	D (elective)	12		V		
II	OTHER USEFUL SKILLS FOR ENTERING THE WORKFORCE		NN	F	3	24	I		
ND	FINAL EXAM	PREPARATIO N OF THE THESIS DISSERTAZIO NE FINALE	PROFIN-S	E/ Language/Final Test E/ Language/Final Test	25	PFR: 675	V		