UNIVERSITÀ DEGLI STUDI
DELL'INSUBRIA

DIPARTIMENTO DI
BIOTECNOLOGIE E SCIENZE
DELLA VITA

TEACHING REGULATIONS OF THE
BACHELOR'S DEGREE COURSE in BIOTECHNOLOGY

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 the Bachelor's Degree in Biotechnology L-2 (DM 16 March 2007, reformed according to the DM 19 December 2023) and is activated according to the teaching order of 15/06/2015.
Based on the expertise of the faculty and the research of the reference department (Department of Biotechnology and Life Sciences- DBSV), the CdS is divided into two curricula from the second year: Molecular Biotechnology and Health Biotechnology.
Biotechnology is the most innovative side of applied biology. By studying biotechnology, students will learn how to use biological systems for the production of goods and services, for example to:
improve human, animal and plant health through the discovery of new drugs, nutraceutics, vaccines and diagnostic methods; protect the environment by developing bio-sustainable and environmentally friendly industrial processes; satisfy the demand for energy by using biomasses as a renewable source.
The first cycle programme in Biotechnology offers students the essential knowledge needed to achieve these aims by employing a molecular and applied approach, which will allow them to gain the technical and scientific skills required by the different fields of biotechnology.
The degree programme has two different streams: Molecular biotechnology and Medical biotechnology.
The programme's strengths are:

- focus on each student's learning achievements;
- numerous workshops are offered from the first year;
- placements in laboratories in universities/companies (also abroad);
- high employability at the end of the programme.

Graduates will find employment in the following areas: research and management in public or private facilities; commercial activities, quality control, scientific dissemination, consulting for patents and free-lance professional services.

Lessons are held in Italian.

The teaching structure responsible for the course is the DEPARTMENT OF BIOTECHNOLOGY AND LIFE SCIENCES
The Chair of the course is Professor ELENA BOSSI
https://uninsubria.unifind.cineca.it/get/person/000134

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 2026-20 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:
https://www.uninsubria.eu/about-us/how-find-us/academic-calendar

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

Access to the Degree Course is free.
Enrollment will open according to the deadlines indicated in Sua-CdS and on the website of the University, on the dedicated page.
After having enrolled in the Degree Course students must take an educational background test (mandatory test), following the calendar established by the Degree Course. Students who have not taken the educational background assessment test in any of the proposed dates will have their careers blocked and will not, therefore, be able to register for exams.

Assesment of the students' educational background

The assessment of the students' educational background focuses of basic Mathematical skills and entails a barrier level (10 correct answers for 20 questions). Students who do not obtain this level will be assigned an additional learning requirement (OFA) which entails passing a further assessment test without which they will not be able to take the mathematics exam. Students may attend a specific remedial educational activity organized by the Degree Course.
The OFA must be met by 30 September of the year following enrollment. Failure to meet to OFA by this date entails the impossibility to register for the exams of the second year.
The test calendar, syllabus and further information are available on the University's webpage in the specific section dedicated to Admission, enrollment, and fees.
The assessment test is mandatory for everyone with the following exceptions: those who enroll in the first, second or third year by transferring from another university or degree course who have already passed a similar educational background assessment test through certification / self-certification which attests students have passed the Mathematics module and/or who have already passed a Mathematics exam, do not have to take the test.
The AiQUA Committee will decide upon the most suitable procedure to assess the educational background and the attribution of the OFA for those who, even if they do not fall into the category of those who do not need to take the test, could not take the test in the planned dates.

Additional learning requirements (OFA) remedial procedures

Students who have not obtained the minimum score in the Basic mathematics module (10 correct answers for 20 questions), may attend lessons, but will have an additional learning requirement (OFA). The learning requirement (OFA) will be met after passing a mathematics pre-test which will constitute a test of the acquisition of the contents treated in the remedial course offered by the Degree Course, as a measure to meet the OFA. In order to register for the Mathematics and bases of computer science and statistics exams, students will have to have passed this test.

Additional preparatory teaching activities for the educational background assessment test

To prepare for the educational background assessment test students may attend the Mathematics Pre-course offered by the University at the beginning of September. For further information, please visit the page dedicated to pre-courses

www.uninsubria.it/precorsi (in Italian)

Art.4 Orientation, enrollment procedure and other administrative aspects

Incoming orientation:

The Degree Course organizes for the 2nd semester of every year some presentation (Open Day) and incoming orientation meetings for future freshmen. The informational material is presented onlined and published on the website (www.uninsubria.it/orientamento; in Italian) and is available for interested students. Admission procedures are published every year on the webpages of the Degree Course and of the Students Services Office.

In itinere orientation:

- Study plan

The tutors of the Degree Course organize orientation meetings on how to select the curriculum and optional courses in the related field (Type of Teaching Activity C) and elective course (Type of Teaching Activity D).

- Internship

The Internships Committee organizes orientation meetings on how to choose the curricular internship. Every year some "themed day" are offered where all possible career opportunities and research activities carried out in the Department's laboratories are illustrated.

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:

www.uninsubria.eu/services/all-services/infostudenti-information-service-students

Art. 5 - Prerequisites

Not applicable.

To access the curricular internship students must have passed all first year courses.

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 hours of classroom teaching, 12 hours of laboratory and 12 hours of exercitations.

Art. 7 – Excellence programme

The Degree Course offers outstanding students enrolled in their 2nd year an excellence program, which entails the possibility to attend two seminars and a guided school trip at a company or institution in the biotechnological field chosen every year by the Council of the Degree Course, with the opportunity of meeting specialists from the field. The seminars will be on the topics covered by the courses of the Degree Course; one will offer a general scientific analysis while the other will have a technical and practical character (methodological and experimental approaches). Attendance to the Excellence program will be considered as an honors element in the final exam.

Art. 8 – Validation of linguistic and IT certifications

The validation of ECTS is automatic for the ENGLISH course, by forwarding to the Student Services office the certificate attesting that one of the following tests, which may have been taken autonomously by the students, has been passed:

- University of Cambridge Examinations (PET, FCE, CAE, CPE, BEC 1-3, CELS) B1 level
- Trinity College London Examinations (ESOL Grade 5 -12, ISE level I – III)
- TOEFL Examinations (Paper Based Test Score > 457, Computer Based Test Score > 137)
- City & Guilds Pitman Qualifications (ESOL Intermediate – Advanced, SESOL Intermediate – Advanced)

The validation of other certificates, including those for II skills,
will be assessed by the Council of the Degree Course, which will decide whether to validate the related ECTS.

Art. 9 – Validation of professional abilities or exams taken in a previous career

Pursuant to article 4, paragraph 3 of the Ministerial Decree 1648/23, 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 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 educational workshops; an attendance of at least 75% of the workshop hours provided for by the courses is required. Mandatory attendance courses must be taken in the correct year. Attendance is mandatory also for the ECTS for "Further skills for entering the workforce". Exceptions to the present norm may be allowed, for example, in cases of transfers from another course or University.

Art. 11 – Enrolling in subsequent years

There are no restrictions to enroll in the 2nd and 3rd year.

Art. 12 – Transfer procedures from other degrees courses

Transfer applications during subsequent years by students enrolled in the same course at another Italian university, following an authorization application, are accepted in relation to the vacant positions in the individual course years. Please see the specific Rectoral Decree published on the University's website. For all incoming transfers, the students' educational curriculum will be examined and the validation of passed exams will be subject, in terms of ECTS and mark, to the approval of the Council of the Degree Course, on the basis of the following criteria:

- analysis of the curriculum
- assessment of the adequacy of the academic fields and of the contents of the activities undertaken by the student in their previous career, with regard to the specific educational objectives of the degree course and of the individual educational activities provided for in the curriculum
- obsolescence of the contents of the exams.

The abovementioned validation is carried out as provided for in article no. 3, paragraphs 8 and 9 of the ministerial decree of Class redefinition (16 March 2007). The validation is carried out until the ECTS provided for by the curriculum are reached.

- Students who have been validated at least 21 ECTS will be admitted to the 2nd year, subject to availability.
- Students who have been validated at least 60 ECTS will be admitted to the 3rd year, subject to availability.

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

Students will have to submit their Study Plan in their second year, with the possibility to modify it in the following year (within the limits of elective courses, referred to as Type of Teaching Activity D), following the University's administrative fulfillments calendar. Information on how to submit and fill in the study plan are available on the Students Services webpage (study plan submission www.uninsubria.it/servizi/presentazione-piano-di-studio; in Italian) Elective educational activities may be chosen among all courses activated by the University with the exception of some integrated courses offered by the limited access healthcare degree courses. To check selection restrictions, please contact the relevant Student Services office.

The Committee appointed by the Council of the Degree Course will assess the coherence of the abovementioned activities with the students' educational curriculum. Study Plans that conform to the Regulations will be automatically approved, following the procedure provided by the Students Services for the submission of study plans. Students can submit an individual study plan, provided that this is coherent with the cultural project and suitable for the educational objectives and specific contents of the Degree Course. Individual study plans, which will have to adhere to the minimum ECTS provided for in the teaching Regulations, will be assessed and approved by The Committee appointed by the Council of the Degree Course.

Art. 14 – Curricular traineeship

The educational curriculum is completed by an experimental traineeship of 225 hours, carried out in the laboratories of the university or at an external company.

Art. 15 Graduation procedure

To access the final exam students must have undertaken a 9 ECTS internship for a period of at least two months. The final exam consists in the defense of a thesis, which normally consists in a report of the activity undertaken during the internship.

For further information please refer to the degree course webpage:
www.uninsubria.eu/bachelor-biotech

For students with disabilities and/or specific learning disorders, please visit:
www.uninsubria.it/studentidisabilidsa (in Italian)

ANNEXES

Annex 1 - Study Plan

STUDY PLAN

MANDATORY TEACHING ACTIVITIES - 2025/2026 COHORT

**: The course can be chosen for the 2nd or 3rd year
Assessment method: M = exam with mark / Q = qualification / A = attendance

MOLECULAR BIOTECHNOLOGY CURRICULUM

MANDATORY COURSES:

1st YEAR							
SEM.	COURSE Title	MODULES Title	Academic field	DISCIPLINARY FIELD / Type of Teaching Activity	ECTS	HOURS	ASSESSMENT METHOD
I	GENERAL AND INORGANIC CHEMISTRY		CHIM/03	A	6	52 (24+32 EXE)	M
I	CYTOLOGY AND HISTOLOGY		BIO/06	B	9	76 (64+12 WRK)	M
I	MATHEMATICS AND BASES OF COMPUTER SCIENCE AND STATISTICS		MAT/05	A	8	72 (48+24 EXE)	M
I	ENGLISH		L-LIN/12	E	2	16	Q
II	ANIMAL AND PLANT BIOLOGY	Animal Biology Mod.	BIO/05	B	6	48	M
		Plant Biology Mod.	BIO/04	B	6	52 (40+12 WRK)	M
II	ORGANIC CHEMISTRY		CHIM/06	A	8	72 (48+12 EXE+12 WRK)	M
II	PHYSICS		FIS/07	A	6	56 (32+24 EXE)	M
II	GENETICS		BIO/18	A	8	68 (56+12 EXE)	M

2nd YEAR							
SEM.	**COURSE Title**	**MODULES Title**	**Academic field**	**DISCIPLINARY FIELD / Type of Teaching Activity**	**ECTS**	**HOURS**	**ASSESSMENT METHOD**
I	ETHICS AND HUMAN SCIENCES		MED/02	B	4	32	M
I	PHYSIOLOGY		BIO/09	B	6	48	M
I	ANIMAL BIOTECHNOLOGY		AGR/20	B	6	52 (40+12 WRK)	M
I, II	BIOCHEMISTRY AND BIOINFORMATICS		BIO/10	B	12	100 (88+12 EXE)	M
II	MOLECULAR BIOLOGY		BIO/11	B	8	68 (56+12 WRK)	M
II	GENERAL MICROBIOLOGY		BIO/19	A	6	52 (40+12 WRK)	M
II	BIOTECHNOLOGY AND MOLECULAR AND PLANT BIOLOGY	Plant Biotechnology Module	BIO/04	B	6	52 (40+12 WRK)	M
II	MICROBIAL AND CELLULAR BIOTECHNOLOGY	Cellular Biotechnology Module	BIO/06	B	6	52 (40+12 WRK)	M
	ELECTIVE			D	6		

3rd YEAR							
SEM.	**COURSE Title**	**MODULES Title**	**Academic field**	**DISCIPLINARY FIELD / Type of Teaching Activity**	**ECTS**	**HOURS**	**ASSESSMENT METHOD**
I	BIOTECHNOLOGY AND MOLECULAR AND PLANT BIOLOGY	Molecular and Plant Biology Module	BIO/04	B	6	48	M
I	CELLULAR AND MICROBIAL BIOTECHNOLOGY	Microbial Biotechnology Module	CHIM/11	B	6	52 (40+12 WRK)	M

I	APPLIED BIOCHEMISTRY		BIO/10	B	6	54 (36+18 WRK)	M
	ELECTIVE			D	12		M
	CURRICULAR CHOICE FROM LIST			C	18		M
	EDUCATIONAL INTERNSHIP		FINEX_S	F	9		Q
	FURTHER SKILLS FOR ENTERING THE WORK FORCE		NN	F	1	SEM 10	Q
	FINAL EXAM		FINEX_S	E	3		

3 CURRICULAR COURSES AMONG (18 ECTS):

3rd YEAR							
SEM.	**COURSE Title**	**MODULES Title**	**Academic field**	**DISCIPLINARY FIELD / Type of Teaching Activity**	**ECTS**	**HOURS**	**ASSESSMENT METHOD**
I	FOOD BIOTECHNOLOGY	Food Biochemistry Module	BIO/10	C	3	26 (20 +6 WRK)	M
		Food Biotechnology Module	AGR/20	C	3	24	M
I	ANALITICAL CHEMISTRY AND QUALITY CONTROL	Chromatography Module	CHIM/01	C	2	16	M
		Spectroscopy Module	CHIM/01	C	2	16	M
		Quality Control Module	CHIM/01	C	2	16	M
II	RECOMBINANT TECHNOLOGIES		BIO/18	C	6	52 (40+12 WRK)	M
II	BIOTECHNOLOGICAL PROCESSES		CHIM/11	C	6	52 (40+12 WRK)	M
II	VEGETAL PHARMACEUTICAL SUBSTANCES **		BIO/03	C	6	50 (44+6 WRK)	M

HEALTHCARE BIOTECHNOLOGY CURRICULUM

****: The course can be chosen for the 2nd or 3rd year**

MANDATORY COURSES:

1st YEAR							
SEM.	**COURSE Title**	**MODULES Title**	**Academic field**	**DISCIPLINARY FIELD / Type of Teaching Activity**	**ECTS**	**HOURS**	**ASSESSMENT METHOD**
I	GENERAL AND INORGANIC CHEMISTRY		CHIM/03	A	6	52 (24+32 EXE)	M
I	CYTOLOGY AND HISTOLOGY		BIO/06	B	9	76 (64+12 WRK)	M
I	MATHEMATICS AND BASES OF COMPUTER SCIENCE AND STATISTICS		MAT/05	A	8	72 (48+24 EXE)	M
I	ENGLISH		L- LIN/12	E	2	16	Q
II	ANIMAL AND PLANT BIOLOGY	Animal Biology Mod.	BIO/05	B	6	48	M
		Plant Biology Mod. §	BIO/04	B	6	52 (40+12 WRK)	M
II	ORGANIC CHEMISTRY		CHIM/06	A	8	72 (48+12 EXE+12 WRK)	M
II	PHYSICS		FIS/07	A	6	56 (32+24 EXE)	M
II	GENETICS		BIO/18	A	8	68 (56+12 EXE)	M

2nd YEAR							
SEM.	**COURSE Title**	**MODULES Title**	**Academic field**	**DISCIPLINARY FIELD / Type of Teaching Activity**	**ECTS**	**HOURS**	**ASSESSMENT METHOD**
I	ETHICS AND HUMAN SCIENCES		MED/02	B	4	32	M
I	PHYSIOLOGY		BIO/09	B	6	48	M
I	MOLECULAR BASIS OF IMMUNOLOGY AND PATHOLOGIES	Immunology Module	MED/04	B	6	48	M
I, II	BIOCHEMISTRYAND BIOINFORMATICS		BIO/10	B	12	100 (88+12 EXE)	M
II	MOLECULAR BIOLOGY		BIO/11	B	8	68 (56+12 WRK)	M
II	GENERAL MICROBIOLOGY		BIO/19	A	6	52 (40+12 WRK)	M
II	CELLULAR AND MICROBIAL BIOTECHNOLOGY	Cellular Biotechnology Module	BIO/06	B	6	52 (40+12 WRK)	M
II	GENERAL AND MOLECULAR PHARMACOLOGY		BIO/14	B	6	48	M
	ELECTIVE			D	6		

3rd YEAR							
SEM.	**COURSE Title**	**MODULES Title**	**Academic field**	**DISCIPLINARY FIELD / Type of Teaching Activity**	**ECTS**	**HOURS**	**ASSESSMENT METHOD**
I	MOLECULAR BASIS OF IMMUNOLOGY AND PATHOLOGIES	Molecular basics of pathologies module	MED/04	B	6	48	M
I	CELLULAR AND MICROBIAL BIOTECHNOLOGY	Microbial Biotechnology Module	CHIM/11	B	6	52 (40+12 WRK)	M
I	NEUROPHYSIOLOGY AND SYSTEMS PHYSIOLOGY		BIO/09	B	6	48	M
	ELECTIVE			D	12		M
	CURRICULAR CHOICE FROM LIST			C	18		
	EDUCATIONAL INTERNSHIP		FINEX_S	F	9		Q
	FURTHER SKILLS FOR ENTERING THE WORK FORCE		NN	F	1	SEM 10	Q
	FINAL EXAM		FINEX_S	E	3		

3 CURRICULAR COURSES AMONG (18 ECTS):

3rd YEAR							
SEM.	**COURSE Title**	**MODULES Title**	**Academic field**	**DISCIPLINARY FIELD / Type of Teaching Activity**	**ECTS**	**HOURS**	**ASSESSMENT METHOD**

I	APPLIED BIOCHEMISTRY		BIO/10	B	6	54 (36+18 LAB)	M
I	ARCHAEOBIOLOGY AND FORENSIC BIOTECHNOLOGY	Forensic biotechnology module	MED/43	C	3	24	M
		Archaeobiology Module	BIO/08	C	3	24	M
I	MEDICAL SURGICAL BIOTECHNOLOGY AND TECHNOLOGIES	The new technologies of head and neck surgery	MED/31	C	2	16	M
		The new technologies of reconstructive and regenerative surgery	MED/19	C	2	16	M
		Biotechnology applied to the locomotor system	MED/33	C	2	16	M
II	ANATOMY FOR BIOTECHNOLOGY **	Human anatomy	MED/19	C	3	24	M
		Comparative anatomy	BIO/06	C	3	24	M
II	BIOTECHNOLOGY IN CLINICAL NEUROSCIENCES	Neurosurgery integrated with neuroimaging module	MED/27	C	3	24	M
		Neurology module	MED/26	C	3	24	M
II	RECOMBINANT TECHNOLOGIES		BIO/18	C	6	52 (40+12 WRK)	M