

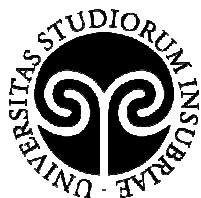
**UNIVERSITÀ DEGLI STUDI
DELL'INSUBRIA**

**DIPARTIMENTO DI BIOTECNOLOGIE E
SCIENZE DELLA VITA**

COURSE REGULATIONS

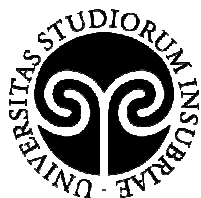
MASTER OF SCIENCE in BIOMEDICAL SCIENCES

a.a. 2023/2024

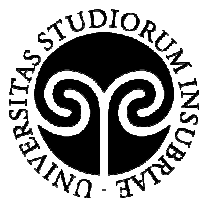


I. GENERAL INFORMATION

COURSE NAME (CDS)	Biomedical Sciences
CLASS	LM-6
DURATION	2 years
COURSE VENUE	Busto Arsizio - VA
URL	For information on the learning objectives of the Course, on job opportunities, admission requirements and procedures, expected learning outcomes, study plans, and final exam please consult the Course web page (www.uninsubria.eu/lauream/course/biomedical-sciences)
DEPARTMENT	Department of Biotechnology and Life Sciences DBSVonline – Università degli Studi dell'Insubria (uninsubria.it) – DBSV
COURSE COORDINATOR	Tiziana Rubino
CONTACT	The Course Office (Segreteria Didattica DBSV) is in Via Dunant, 3 – Varese Office hours can be found in the Course web page (www.uninsubria.eu/lauream/course/biomedical-sciences).
CALENDAR OF THE TEACHING ACTIVITIES	The academic calendar of the course is six-monthly. The teaching activities of the single courses may start later or finish earlier with respect to the indicated dates. Exam sessions are scheduled as indicated below. I SEMESTER: • CLASSES: September 25th 2023 – January 19th 2024 • EXAM SESSIONS: Autumn: November 13-17 2023 (except 1st year students); Winter: January 22nd 2024 - February 23rd 2024 II SEMESTER: • CLASSES: February 26th 2024 – June 14th 2024 • EXAM SESSIONS: Spring: April 3-9 2024; Summer: June 17th 2024 - September 20th 2024 (except August 1st-31st) Official course breaks and closing days (Christmas holidays, Easter holidays, national and local holidays and other University closing days) are published in the Calendario Didattico di Ateneo (Academic Calendar) approved annually by the Academic Bodies
FURTHER INFORMATION	ACCESS: no limitations to the number of students for the <i>Basic and Applied Biomedical Sciences</i>. Four positions are available for the curriculum <i>Double Degree</i> for 2023/24. LANGUAGE: English



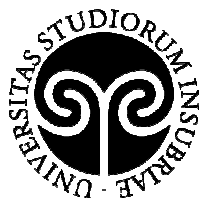
	CURRICULA: <i>Basic and Applied Biomedical Sciences</i> <i>Double Degree</i> DOUBLE DEGREE TITLE: The Double Degree curriculum allows to gain a Double Degree Title in partnership with MSc in Biomedical Sciences- University of Applied Sciences, Bonn-Rhein-Sieg
ADMISSION REQUIREMENTS AND INTERVIEW	Candidates must hold a first-level degree (three-year) in the classes L-13 (Biological Sciences) or L-2 (Biotechnology), 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 candidates' previous career must include at least 40 credits in the following sectors: BIO/6 (Comparative Anatomy and Cytology), BIO/09 (Physiology), BIO/10 (Biochemistry), BIO/11 (Molecular Biology), BIO/12 (Clinical Biochemistry and Clinical Molecular Biology), BIO/13 (Applied Biology), BIO/14 (Pharmacology), BIO/16 (Human Anatomy), BIO/18 (Genetics), BIO/19 (Microbiology), MED/03 (Medical Genetics), MED/04 (General Pathology), MED/06 (Medical Oncology), MED/07 (Microbiology and Clinical Microbiology). Candidates must have acquired the first-level title by December 31st, 2023 to access the course. Candidates satisfying the above requirements shall have to take an interview with a committee appointed by the Degree Program Board, aimed at verifying their preparation in the areas of physiology, pharmacology, immunology, molecular and cellular biology and biochemistry (for a list of the main topics for the interview, see Topics for the admission interview available in the Course web page). The interviews will be held during the month of September 2023; 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 must also possess adequate knowledge of the English language, as documented by: - an internationally recognized certification for a level corresponding at least to B2 level in the common European Reference Framework for Language Proficiency. This certification should be obtained within the three previous years; - or an academic degree (Bachelor's Degree, Master's Degree) corresponding to a course taught entirely in English. Candidates who fail to satisfy either criterion shall have to attend the Scientific English course, which will be offered in September 2023, and to pass the relative exam. Non-EU students: the access procedure consists of two steps: - all candidates from extra EU countries shall pre-apply by sending an email to foreign.students.bms@uninsubria.it (from December 1st 2022- May 31st 2023), accompanied by a transcript of records of the first-level Degree Course (final mark at least 75%), a certification of proficiency in the English language (at least B2 level), a photocopy of the passport, the CV and a letter of motivation. Candidates must have documented knowledge in the areas of biochemistry, molecular biology, genetics, pharmacology, and immunology. Potentially suitable candidates based on the submitted documents will be asked to take a Skype interview with a committee appointed by the Degree Program Board,



	aimed at verifying their preparation in the areas of pharmacology, immunology, molecular and cellular biology, genetics and biochemistry. In case one/two of the above five topics is not part of the first-level Degree Course, the student will be asked to fill in this gap prior to the admission interview. A negative outcome of the interview will preclude access to the Course for the current year. - Only candidates considered eligible for admission shall start the pre-enrolment procedure through the University website within the deadline annually published on the website www.uninsubria.eu/programs/degree-programs/enrollment-procedures/pre-enrolment The admission to the University program will be notified to Italian Consulates / Embassies through the University System in order to issue the Visa. - Considering that the student may need to study for the admission interview and the considerable time needed for the enrolment and visa procedures we urge the students to apply as soon as possible after December 1st. - Admitted students are not guaranteed any economical support. Few economical resources are available for meritable students through competitive calls that are normally open in the spring period. The simultaneous enrolment of students in two courses of study is permitted in accordance with the provisions of law no. 33, April 12nd 2022 and the related implementing decrees. The Degree Program Board, or a specific committee, will evaluate the requests and compliance with the constraints and requirements established by the legislation.
STUDENT GUIDANCE, ENROLMENT PROCEDURES AND OTHER ADMINISTRATIVE ASPECTS	In the spring/summer period, the Course organises meetings for the presentation of the course program and student guidance aimed at future freshmen. Information material gets published and distributed to interested students. Admission procedures are published annually on the web page of the Course (www.uninsubria.eu/lauream/course/biomedical-sciences) and the student secretariat. Further information (such as the teaching program and enrolment procedures) can be obtained through the Infostudent service. INFOSTUDENT SERVICE The INFOSTUDENT service is a web application that allows students or prospective students to contact the different University offices including Student Affairs Office (Segreteria Studenti) the Right to Study and Education and Student Services Offices (Diritto allo Studio e Servizi agli Studenti), the Student Guidance and Placement Office (Orientamento e Placement), the Course Offices (Segreterie Didattiche) and the International Relations Office (Relazioni internazionali). Through this application, students can send their queries and requests (including attachments) to the appropriate Office(s) and monitor their status. Infostudenti https://www.uninsubria.it/servizi/infostudenti-servizio-informazioni-gli-studenti

II. STUDY PLAN

PROGRAMMED LEARNING ACTIVITIES - COHORT 2021/2022



Laboratory activities, seminars and exercises are indicated with the following symbols:

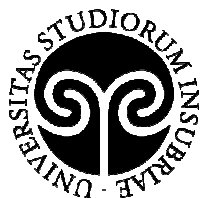
ESE: Classroom exercises LAB: Laboratory SEM: seminars

Assessment : V – EXAM I – APPROVAL F – ATTENDANCE

CURRICULUM Basic and Applied Biomedical Sciences

CORE COURSES:

YEAR I							
SEM	COURSE name	MODULE name	S.S.D	COURSE Type and Area	Credits	Hours	Assessment
II	ADVANCED AND QUANTITATIVE GENETICS	ADVANCED AND QUANTITATIVE GENETICS - Module I: Human Genetics and Genomics	BIO/18	B (Biomole- cular)	6	48	V
II	ADVANCED AND QUANTITATIVE GENETICS	ADVANCED AND QUANTITATIVE GENETICS - Module II: Quantitative Genetics	BIO/18	C (Related & Complemen- tary Discipl.)	4	32	V
I	PHARMACOLOGY	PHARMACOLOGY - Module I - Pharmacology and Chemotherapy	BIO/14	B (Biomedicine)	6	48 (40+8 SEM)	V
II	PHARMACOLOGY	PHARMACOLOGY - Module II – Neuropsychopharmacology	BIO/14	B (Biomedicine)	6	50 (44+6 LAB)	V
I-II	ADVANCES IN BIOMEDICINE		BIO/13	B (Nutrition & Other Applications)	10	82 (76+6 LAB)	V
I	EPIGENETIC CONTROL OF GENE EXPRESSION		BIO/11	B (Biomolecu- lar)	6	52 (40+12 LAB)	V
I	PATHOLOGY		MED/04	B	6	48	V



				(Biomedicine)			
I	CELLULAR BIOCHEMISTRY AND PROTEOMICS		BIO/10	B (Biomolecu- lar)	6	52 (40+12 LAB)	V
II	OPTIONAL COURSE 1			B	6		V
II	OPTIONAL COURSE 2			C	6		V

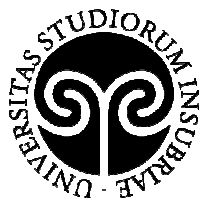
YEAR II

SEM	COURSE name	MODULE name	S.S.D	COURSE Type and Area	Credits	Hours	Assessment
I	IMMUNOPATHOLOGY		MED/04	B (Biomedicine)	6	48	V
ND	ELECTIVE COURSES (courses from the list of optional courses are suggested)			D (Elective)	8		V
I	OPTIONAL COURSES (to be chosen among the list of optional courses)			C	8		V
ND	CURRICULAR TRAINEESHIP		PROFIN _S	F (Other Activities)	30	750	F
A	JOB ORIENTATION		NN	F (Other Activities)	1	8 SEM	F
ND	FINAL EXAM		PROFIN _S	E	5	40	V

OPTIONAL COURSES

YEAR I

SEM	COURSE name	MODULE name	S.S.D	COURSE Type and Area	Credits	Hours	Assessment *
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6 CREDITS, TO BE CHOSEN FROM:							
II	CLINICAL CHEMISTRY		BIO/12	B (Biomedicine)	6	48	V
II	NEUROANATOMY AND NEURODEVELOPMENT		BIO/16	B (Biomedicine)	6	48	V
II	NOVEL ANTICANCER THERAPIES		BIO/14	B (Biomedicine)	6	48	V
6 CREDITS, TO BE CHOSEN FROM:							
II	CELLULAR AND MOLECULAR ONCOLOGY		BIO/13	C (Related & Complementary disciplines)	6	48	V
II	CLINICAL MICROBIOLOGY AND VIROLOGY		MED/07	C (Related & Complementary Discipl.)	6	48	V
II	PATHOPHYSIOLOGY OF THE NERVOUS SYSTEM		BIO/09	C (Related & Complementary Discipli.)	6	50 (44+6 LAB)	V

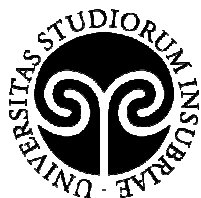
OPTIONAL COURSES

YEAR II

These courses can be chosen as:

- 8 credits for Type and Area D (students can alternatively choose courses from other Degrees but they need to be approved by the Degree Program Board)
- 8 credits for Type and Area C

SEM	COURSE name	MODULE name	S.S.D	COURSE Type and Area	Credits	Hours	Assessment
I	ANIMAL MODELS AND TECHNIQUES IN BIOMEDICAL RESEARCH		BIO/05	C (Related & Complementary Discipl.	4	36 (24+12 LAB)	V
I	BIOETHICS		MED/43	C (Related & Complementary Discipl.)	4	32	V
I	CLINICAL TRIALS IN		BIO/14	C (Related & Complementary	4	32	V



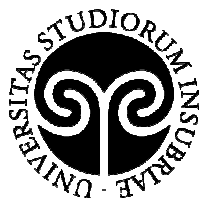
	PHARMACOLOGY			Discipl.)			
I	NEUROBIOLOGY AND THERAPY OF ADDICTION		BIO/14	C (Related & Complementary Discipli.)	4	32	V
I	PRINCIPLES OF NUTRACEUTICS AND CANCER CHEMOPREVENTION		BIO/13	C (Related & Complementary Discipli.)	4	32 (28 + 4 SEM)	V
I	RNA-BASED EXPERIMENTAL APPROACHES		BIO/11	C (Related & Complementary Discipli.)	4	40 (16 + 24 LAB)	
I	SYSTEMS BIOLOGY		BIO/10	C (Related & Complementary Discipli.)	4	36 (24+12 ESE)	V

The activation of the Courses in this list will be deliberated annually by the Degree Program Board.

CURRICULUM Double Degree

CORE COURSES:

YEAR I							
SEM	COURSE name	MODULE name	S.S.D	COURSE Type and Area	Credits	Hours	Assessment*
I-II	ADVANCES IN BIOMEDICINE		BIO/13	B (Nutrition & Other Applications)	10	82 (76+6 LAB)	V
II	HUMAN GENETICS AND GENOMICS		BIO/18	B (Biomolecular)	6	48	V
I	PHARMACOLOGY AND CHEMOTHERAPY		BIO/14	B (Biomedicine)	6	48	V
I	EPIGENETIC CONTROL OF GENE EXPRESSION - DDP		BIO/11	B (Biomolecular)	7	64 (40+24 LAB)	V
I	PATHOLOGY		MED/04	B (Biomedicine)	6	48	V

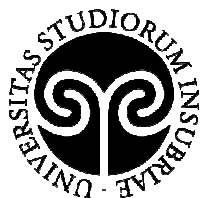


I	CELLULAR BIOCHEMISTRY AND PROTEOMICS – DDP		BIO/10	B (Biomolecu-ar)	7	64 (40+24 LAB)	V
II	CLINICAL CHEMISTRY		BIO/12	B (Biomedicine)	6	48	V
II	CLINICAL MICROBIOLOGY AND VIROLOGY		MED/07	C (Related & Complementary Discipli.)	6	48	V
II	PATHOPHYSIOLOGY OF THE NERVOUS SYSTEM		BIO/09	C (Related & Complementary Discipli.)	6	50 (44+6 LAB)	V

YEAR II

SEM	COURSE name	MODULE name	S.S.D	COURSE Type and Area	Credits	Hours	Assessme nt*
ND	ADVANCED CLINICAL IMMUNOLOGY I		MED/04	B (Biomedicine)	6		V
ND	CLINICAL APPLICATION	Module I: Monitoring Clinical Trials	BIO/14	B (Biomedicine)	8		V
ND	CLINICAL APPLICATION	Module II: Medical Proteomics	BIO/12	B (Biomedicine)	8		V
ND	ADVANCED CLINICAL IMMUNOLOGY II		MED/04	D (Elective)	2		V
ND	SPECIAL FIELDS IN BIOLOGY		ND	D (Elective)	6		V
ND	CURRICULAR TRAINEESHIP		ND	F (Other Activities)	24		F
ND	FINAL EXAM		ND	E	6		

III. COURSE REGULATION



EXAM PRIORITISATION: NONE

UNIVERSITY CREDITS (CFU):

The Course foresees different types of teaching: classroom teaching, exercises and laboratories.

Each CFU corresponds to 8 hours of classroom teaching, 12 hours of laboratory or 12 hours of exercises.

ACKNOWLEDGEMENT OF LANGUAGE AND COMPUTER SKILLS CERTIFICATION: NONE

ACKNOWLEDGEMENT OF PROFESSIONAL SKILLS OR EXAMS FROM PREVIOUS POST-SECONDARY LEVEL COURSES.

According to the art. 5 paragraph 7 the Degree Program Board may acknowledge the following as part of the study plan:

- certified professional knowledge and skills according to the current legislation;
- knowledge and skills gained in post-secondary level academic courses

Upon application for the acknowledgement of these assets, the Degree Program Board will assess their consistency with the educational objectives of the Course. The maximum number of credits is 12 CFU.

ATTENDANCE.

Attendance is only mandatory for laboratory activities (at least 75% of the planned educational activities) and for the activities included in the Job Orientation activity (up to one credit). Activities with mandatory attendance must be followed according to the year in course. Exceptions to this provision may be granted, in particular, in the event of transfer from another Course in this or in another University.

CURRICULAR TRAINEESHIP

The educational program is completed by a curricular traineeship lasting no less than nine months (no less than 750 hours) for students of the Basic curriculum and no less than five months (no less than 600 hours) for those of the DD curriculum. The traineeship project focuses on topics in the biomedical field and is carried out at a university facility or outside the university, even abroad, as long as an agreement with the university exists. The traineeship is preparatory for the preparation of the degree thesis. The choice of the structure in which to carry out the traineeship as well as the thesis project must be presented to the stage committee and is evaluated and approved by the Degree Program Board.

ENROLMENT IN THE SECOND YEAR.

Enrolment in the second year is unrestricted for students in the Basic and Applied Biomedical Sciences curriculum; for the Double Degree Program, please refer to the specific paragraph below.

TRANSFER FROM OTHER COURSES

Students enrolled in another University or another Course in this University, or according to a previous regulation of the Course can apply for transfer to this Course. Transfer applications will be evaluated by the Degree Program Board based on the following criteria:

- Syllabus analysis
- Consistency of the disciplinary areas and contents of the exams in the student's previous career with the specific objectives of the Course and of its individual learning activities.

Validation of the student's previous career will be performed according to art. N. 3, commas 8 and 9 of the ministerial decree (D.M.) redefining the Classes for first and second level University programs (16 March, 2007). A maximum number of credits corresponding to the total number of credits in the Course will be assigned.

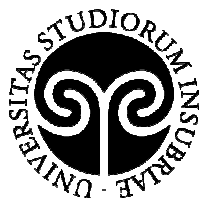
RULES FOR THE STUDY PLAN SUBMISSION AND PERSONALISED STUDY PLANS

Students must submit their Study Plan and choose the curriculum during the first semester of the first year. The study plan can be modified the following year, according to the deadlines established by the University.

Information on submission and compilation of the Study Plan can be found at the Study Plan submission webpage

Students opting for the Double Degree program: first year students are admitted to the program under condition, as described below. At the end of the first semester of the first year of studies, students excluded from the Double Degree curriculum must present, at the Student Secretariat, a modification of the study plan, indicating the curriculum change, which will take effect immediately.

As expressly stated in DM 16.03.07, students can select their elective courses from the entire University Course catalogue,



except for courses with restricted access. The Degree Program Board will verify that the proposed activities are consistent with the Course's learning objectives.

ACCESS TO THE INTERNATIONAL STUDY PLAN (DOUBLE DEGREE)

The Course has established a Double Degree Program with the University of Applied Sciences in Bonn-Rhein-Sieg (Germany), at the end of which the student obtains a Master's Degree in Biomedical Sciences (class LM-6) from the Università dell'Insubria and a Master of Science in Biomedical Sciences from Bonn-Rhein-Sieg University.

Four positions are available for the program for the Academic Year 2023/24. Candidates (including non-EU candidates) shall submit a specific application and must possess an English language certification (at least B2 level in the common European Framework of Proficiency for Languages) obtained within the two preceding years. Italian students must have obtained the first-level diploma with a score of at least 90/110 and foreign students must have a score of at least 2.5 according to the German Grading System. The Committee will verify that candidates fulfil the requirements for admission, but the actual admission can only be confirmed at the end of the Winter Exam Session (between the first and second semester) according to the ranking based on the number of CFU acquired (minimum 19 CFU), and average marks. It should be noted that the Teaching Board of the MSc in Biomedical Sciences at University of Applied Sciences, Bonn-Rhein-Sieg reserves the right to admit only students who have passed all the first-year exams by the date of the departure. In case students fail to satisfy this criterion, they can opt for the Basic and Applied Biomedical Sciences curriculum with a personalised study plan.

For further information please consult the [Double Degrees web page](#)

FINAL EXAM

The final exam for obtaining the qualification and the relative verification consist in the preparation and discussion of a thesis elaborated in an original way by the student under the guidance of a supervisor, at the end of the traineeship period. The thesis must be written in English.

Students following the double-degree program must first take the final exam at the partner university, as established by the relative regulation, and then at our university.

The dates of the graduation sessions and the related deadlines are published on the website

For further information and details please consult the [Course web page](#)
(www.uninsubria.eu/lauream/course/biomedical-sciences)