



**UNIVERSITÀ DEGLI STUDI  
DELL'INSUBRIA**

**DIPARTIMENTO DI BIOTECNOLOGIE E  
SCIENZE DELLA VITA**

**COURSE REGULATIONS**  
**MASTER OF SCIENCE in BIOMEDICAL SCIENCES**

**a.a. 2021/2022**



## I. GENERAL INFORMATION

<b>COURSE NAME (CDS)</b>	Biomedical Sciences
<b>CLASS</b>	LM-6
<b>DURATION</b>	2 years
<b>COURSE VENUE</b>	Busto Arsizio - VA
<b>URL</b>	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 <a href="http://www.uninsubria.eu/lauream/course/biomedical-sciences">Course web page</a> ( <a href="http://www.uninsubria.eu/lauream/course/biomedical-sciences">www.uninsubria.eu/lauream/course/biomedical-sciences</a> )
<b>DEPARTMENT</b>	Department of Biotechnology and Life Sciences ( <a href="#">Dipartimento di Biotecnologie e Scienze della Vita – DBSV</a> )
<b>COURSE COORDINATOR</b>	Tiziana Rubino
<b>CONTACT</b>	The Course Office (Segreteria Didattica DBSV) is in Via Dunant, 3 – Varese Office hours can be found in the <a href="#">Course web page</a> ( <a href="http://www.uninsubria.eu/lauream/course/biomedical-sciences">www.uninsubria.eu/lauream/course/biomedical-sciences</a> ).
<b>CALENDAR OF THE TEACHING ACTIVITIES</b>	<p>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.</p> <p><b>I SEMESTER:</b></p> <ul style="list-style-type: none"><li>• CLASSES: September 20<sup>th</sup> 2021 – December 23<sup>rd</sup> 2021</li><li>• EXAM SESSIONS: Autumn: November 2-9 2021 (except 1st year students); Winter: January 17<sup>th</sup> 2022 - February 26<sup>th</sup> 2022</li></ul> <p><b>II SEMESTER:</b></p> <ul style="list-style-type: none"><li>• CLASSES: February 28<sup>th</sup> 2022 – June 11<sup>th</sup> 2022</li><li>• EXAM SESSIONS: Spring: April 6-13 2022; Summer: June 20<sup>th</sup> 2022 - September 17<sup>th</sup> 2022 (except August 1<sup>st</sup>-31<sup>st</sup>)</li></ul> <p>Official course breaks and closing days (Christmas holidays, Easter holidays, national and local holidays and other University closing days) are published in the <a href="#">Calendario Didattico di Ateneo</a> (Academic Calendar) approved annually by the Academic Bodies</p>
<b>FURTHER INFORMATION</b>	<p>ACCESS: no limitations to the number of students for the <i>Basic and Applied Biomedical Sciences</i>. For the curriculum <i>Double Degree</i> four positions are available for 2021/22.</p> <p>LANGUAGE: English</p> <p>CURRICULA: <i>Basic and Applied Biomedical Sciences</i></p>



	<p style="text-align: center;"><i>Double Degree</i></p> <p>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</p>
<p>ADMISSION REQUIREMENTS AND INTERVIEW</p>	<p>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/06 (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 31<sup>st</sup>, 2021 to access the course.</p> <p>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, molecular and cellular biology and biochemistry (for a list of the main topics for the interview, see <a href="#">Topics for the admission interview</a> available in the <a href="#">Course web page</a>). The interviews will be held during the month of September 2021; the schedule for the interviews will be published on the <a href="#">Course web page</a>. A negative outcome of the interview will preclude access to the Course for the current year.</p> <p>Candidates must also possess adequate knowledge of the English language, as documented by:</p> <ul style="list-style-type: none"><li>- 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 (in case the certification has been obtained within the previous five years the interview will be held in English to verify the fluency in English);</li><li>- or an academic degree (Bachelor's Degree, Master's Degree) corresponding to a course taught entirely in English.</li></ul> <p>Candidates who fail to satisfy either criterion shall have to attend the Scientific English course, which will be offered during the second half of September 2021, and to pass the relative exam.</p> <p><b>Non-EU students:</b> the access procedure consists of two steps:</p> <ul style="list-style-type: none"><li>- All candidates from extra-EU countries must pre-apply by sending an email to <a href="mailto:foreign.students.bms@uninsubria.it">foreign.students.bms@uninsubria.it</a> (within May 31<sup>st</sup> 2021), accompanied by a transcript of records of the first-level Degree Course, 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 who are considered potentially suitable 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 physiology, pharmacology, molecular and cellular biology and biochemistry. A negative outcome of the interview will preclude access to the Course for the current year.</li></ul>



	<p>- Only candidates considered eligible for admission shall start the pre-enrolment procedure through the University website within the deadline annually published on the website <a href="http://www.uninsubria.eu/programs/degree-programs/enrollment-procedures/pre-enrolment">www.uninsubria.eu/programs/degree-programs/enrollment-procedures/pre-enrolment</a>. The admission to the University program will be notified to Italian Consulates Embassies through the University System in order to issue the Visa.</p>
<b>STUDENT GUIDANCE, ENROLMENT PROCEDURES AND OTHER ADMINISTRATIVE ASPECTS</b>	<p>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 (<a href="http://www.uninsubria.eu/lauream/course/biomedical-sciences">www.uninsubria.eu/lauream/course/biomedical-sciences</a>) and the student secretariat. Further information (such as the teaching program and enrolment procedures) can be obtained through the Infostudent service.</p> <p><b>INFOSTUDENT SERVICE</b></p> <p>The <b>INFOSTUDENT</b> 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).</p> <p>Through this application, students can send their queries and requests (including attachments) to the appropriate Office(s) and monitor their status.</p>

## II. STUDY PLAN

### PROGRAMMED LEARNING ACTIVITIES - COHORT 2021/2022

Laboratory activities and exercises are indicated with the following symbols:

X: Classroom exercises

§: Laboratory

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 (Biomolecular)	6	48	V
II	ADVANCED AND QUANTITATIVE GENETICS	ADVANCED AND QUANTITATIVE GENETICS - Module II: Quantitative Genetics	BIO/18	C (Related & Complementary Discipl.)	4	32	V
I	PHARMACOLOGY	PHARMACOLOGY - Module I - Pharmacology and Chemotherapy	BIO/14	B (Biomedicine)	6	48	V
II	PHARMACOLOGY	PHARMACOLOGY - Module II – Neuropsychopharmacology §	BIO/14	B (Biomedicine)	6	50 (44+6)	V
I-II	ADVANCES IN BIOMEDICINE		BIO/13	B (Nutrition & Other Applications)	10	80	V
I	EPIGENETIC CONTROL OF GENE EXPRESSION §		BIO/11	B (Biomolecular)	6	52 (40+12)	V
I	PATHOLOGY		MED/04	B (Biomedicine)	6	48	V
I	CELLULAR BIOCHEMISTRY AND PROTEOMICS §X		BIO/10	B (Biomolecular)	6	56 (32+12 + 12)	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			D (Elective)	8	ND	



	suggested)						
ND	CURRICULAR TRAINEESHIP		NN	F (Other Activities)	30	750	F
ND	JOB ORIENTATION		NN	F (Other Activities)	1	12	F
ND	FINAL EXAM		NN	E	5	40	

## OPTIONAL COURSES

YEAR I							
SEM	COURSE name	MODULE name	S.S.D	COURSE Type and Area	Credits	Hours	Assessment *
6 CREDITS, TO BE CHOSEN FROM:							
II	CLINICAL CHEMISTRY		BIO/12	B (Biomedicine)	6	48	V
II	NEUROANATOMY AND NEURODEVELOP- MENT		BIO/16	B (Biomedicine)	6	48	V
II	NOVEL ANTICANCER THERAPIES §		BIO/14	B (Biomedicine)	6	52 (40+12)	V
II	CELLULAR AND MOLECULAR ONCOLOGY		BIO/13	C (Related & Complementa ry disciplines)	6	48	V
II	CLINICAL MICROBIOLOGY AND VIROLOGY		MED/07	C (Related & Complementa ry Discipl.)	6	48	V
II	PATHOPHYSIOLOGY OF THE CENTRAL NERVOUS SYSTEM		BIO/09	C (Related &Complemen tary Discipli.)	6	48	V



## OPTIONAL COURSES

YEAR II							
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)	V
I	BIOETHICS		MED/43	C (Related & Complementary Discipl.)	4	32	V
I	CLINICAL TRIALS IN PHARMACOLOGY		BIO/14	C (Related & Complementary Discipl.)	4	32	V
I	NEUROBIOLOGY AND THERAPY OF ADDICTION		BIO/14	C (Related & Complementary Discipl.)	4	32	V
I	PRINCIPLES OF NUTRACEUTICS AND CANCER CHEMOPREVENTION		BIO/13	C (Related & Complementary Discipl.)	4	32	V
I	SYSTEMS BIOLOGY- X		BIO/10	C (Related & Complementary Discipl.)	4	36 (24+12)	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		BIO/13	B (Nutrition	10	80	V



	BIOMEDICINE			& Other Applications)			
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)	V
I	PATHOLOGY		MED/04	B (Biomedicine)	6	48	V
I	CELLULAR BIOCHEMISTRY AND PROTEOMICS – Double degree §X		BIO/10	B (Biomolecular)	7	68 (32+12+24)	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 CENTRAL NERVOUS SYSTEM		BIO/09	C (Related & Complementary Discipli.)	6	48	V

**YEAR II**

SEM	COURSE name	MODULE name	S.S.D	COURSE Type and Area	Credits	Hours	Assessment*
ND	ADVANCED CLINICAL IMMUNOLOGY I		MED/04	B (Biomedicine)	6	DD	V
ND	CLINICAL APPLICATION	Module I: Monitoring Clinical Trials	BIO/14	B (Biomedicine)	8	DD	V





ND	CLINICAL APPLICATION	Module II: Medical Proteomics	BIO/14	B (Biomedicine)	8	DD	V
ND	ADVANCED CLINICAL IMMUNOLOGY II		MED/04	D (Elective)	2	DD	V
ND	SPECIAL FIELDS IN BIOLOGY		ND	D (Elective)	6	DD	V
ND	CURRICULAR TRAINEESHIP		ND	F (Other Activities)	24	ND	F
ND	FINAL EXAM		ND	E	6	ND	

### 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.

#### 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 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 2021/22. 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 2.4 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](#)

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