UNIVERSITÀ DI PAVIA

DEPARTMENT OF BIOLOGY AND BIOTECHNOLOGY

Master's Degree Course in
MOLECULAR BIOLOGY AND GENETICS (CLASSE LM 6)

STUDY PLAN FOR STUDENTS ENROLLED IN 2ND YEAR - DM270/'04
ACADEMIC YEAR 2026/2027

to fill in online when enrollment is complete between……..and……..

The undersigned

Matr. n…….

Surname .....……..…… Name……..

Born in……Country ……..…… on ……..……

Resident in …… Country ……...…….ZIP ……...…….

Address ……N……..…… . Tel. ……..……..……..

The Master's Course in MOLECULAR BIOLOGY AND GENETICS is organized in two curricula

- **Molecular Life Sciences**
- **Molecular and Digital Biology**

Students who intend to make choices that deviate from the study plan model that follows will present an individual study plan (for which a tax stamp of €16.00, generated by the offices, will be issued).

APPROVED BY THE TEACHING COMMITTEE ON ……

WE DECLARE THAT THE INDIVIDUAL PLAN IS COMPLIANT WITH THE TEACHING REGULATIONS OF THE COURSE OF STUDY IN RELATION TO THE ENROLLMENT ACADEMIC YEAR OF THE STUDENT (SCHEDA RAD).

SIGNATURE OF THE PRESIDENT OF THE TEACHING COMMITTEE ……

PLEASE NOTE: for students who request recognition of sport activities certified by the competent authorities (max 12 credits), the inclusion of the teaching activity 507236 RECOGNITION OF CFU FOR SPORTS MERITS is expected. The teaching activity will be included in the study plan by the U.O.C. Student Careers after validation by the teaching committee.

CURRICULUM MOLECULAR LIFE SCIENCES

I YEAR 2025/2026 (62 CFU)

Course	Parts	CFU	Scientific area	TAF/Field	Type of teaching activity
500802 Methods in Biochemistry		9	BIO/10	Distinctive Disciplines of the biomolecular sector	mandatory
500810 Microbial Genetics		6	BIO/18	Distinctive Disciplines of the biomolecular sector	mandatory
500805 Advanced Molecular Biology		6	BIO/11	Distinctive Disciplines of the biomolecular sector	mandatory
500190 Bioinformatics		6	ING-INF/06	Related/supplementary Related or supplementary training activities	mandatory
500811 Human Molecular Genetics		6	BIO/18	Distinctive Disciplines of the biomolecular sector	mandatory
500812 Molecular Pharmacology		6	BIO/14	Distinctive Disciplines of the biomedical sector	mandatory
510350 Internship for experimental thesis A		14	PROFIN_S	Language/Final exam For the final exam	mandatory
One of the following courses:					
510322 Structural Biology 510327 Basic Molecular Biology		6 6	BIO/11 BIO/11	Distinctive Disciplines of the biomolecular sector Distinctive Disciplines of the biomolecular sector	optional optional
One of the following courses:					
510351 Other Activities-Soft Skills		3	NN	Other Other skills	optional
509536 Italian Language for Foreign Students (mandatory only for foreign student who don't know Italian language)		3	NN	Other additional language knowledge	mandatory only for foreign student who don't know Italian language

II YEAR 2026/2027 (58 CFU)

Course	Parts	CFU	Scientific area	TAF/Field	Type of teaching activity
500462 Cellular Biochemistry		6	BIO/10	Distinctive Disciplines of the biomolecular sector	mandatory
502300 Developmental Biology		6	BIO/06	Distinctive Disciplines of biodiversity and environment sector	mandatory
504225 Plant Molecular Biology and Biotechnology		6	BIO/04	Related/ supplementary Related or supplementary training activities	mandatory
502301 Molecular Microbiology		6	BIO/19	Distinctive Disciplines of the biomolecular sector	mandatory
Free activities		12			
a) two courses (6+6 credits)* or b) one course (6 credits)* + 6 laboratory credits** or c) one course (3 credits)*** + 3 laboratory credits**** + one course (6 credits)*				optional optional optional	optional optional optional
503357 Internship for experimental thesis b		22	PROFIN_S	Language/Final exam For the final exam	mandatory

***Courses (6 CFU) suggested as free activities**

Courses for a total of 12 or 6 credits can be chosen among the following five or among the courses offered by the University of Pavia with the exception of numerus clausus courses in the medical and psychological field on a national level

Course	Parts	CFU	Scientific area	TAF/Field	Type of teaching activity
502305 Advanced Microscopy		6	BIO/06	optional optional	optional
501561 Molecular Genetics		6	BIO/18	optional optional	optional
502314 Molecular Entomology		6	BIO/05	optional optional	optional
501708 Immunology		6	MED/04	optional optional	optional
510314 Radiation Biophysics and Radiobiology		6	MED/36	optional optional	optional
512196 Advanced therapy medicinal products		6	MED/36	optional optional	optional

**** Laboratories (6 CFU) suggested as free activities**

Course	Parts	CFU	Scientific area	TAF/Field	Type of teaching activity
502315 Laboratory of Plant Pathology		6	AGR/12	optional optional	optional
502316 Laboratory of Botany		6	BIO/02	optional optional	optional
502317 Laboratory of Plant Physiology		6	BIO/04	optional optional	optional
502318 Laboratory of Zoology		6	BIO/05	optional optional	optional
502319 Laboratory of Comparative Anatomy and Cytology		6	BIO/06	optional optional	optional
502321 Laboratory of Ecology		6	BIO/07	optional optional	optional
502322 Laboratory of Physiology		6	BIO/09	optional optional	optional
502323 Laboratory of Biochemistry		6	BIO/10	optional optional	optional
502324 Laboratory of Molecular Biology		6	BIO/11	optional optional	optional
502325 Laboratory of Pharmacology		6	BIO/14	optional optional	optional
502326 Laboratory of Genetics		6	BIO/18	optional optional	optional
502327 Laboratory of Microbiology		6	BIO/19	optional optional	optional
502328 Laboratory of General Pathology		6	MED/04	optional optional	optional
502329 Laboratory of Immunology		6	MED/04	optional optional	optional
502330 Laboratory of Parasitology		6	VET/06	optional optional	optional
509644 Laboratory of Bioinformatics		6	BIO/11	optional optional	optional

*****Course (3 CFU) suggested as free activity**

Course	Parts	CFU	Scientific area	TAF/Field	Type of teaching activity
511905 Global Health – One Health		3	VET/06	optional optional	optional

******Laboratories (3 CFU) offered by the LM in Neurobiology**

Laboratory activity	Parts	CFU	Scientific area	TAF/Field	Type of teaching activity
510417 Laboratory of Zoology		3	BIO/05	Optional Optional	optional
510418 Laboratory of Comparative Anatomy and Cytology		3	BIO/06	Optional Optional	optional
510420 Laboratory of Physiology		3	BIO/09	Optional Optional	optional
510423 Laboratory of Biochemistry		3	BIO/10	Optional Optional	optional
510424 Laboratory of Molecular Biology		3	BIO/11	Optional Optional	optional
510425 Laboratory of		3	BIO/14	Optional	optional

Pharmacology				Optional	
510426 Laboratory of Genetics		3	BIO/18	Optional Optional	optional
510427 Laboratory of Microbiology		3	BIO/19	Optional Optional	optional
510428 Laboratory of General Pathology		3	MED/04	Optional Optional	optional
510429 Laboratory of Immunology		3	MED/04	Optional Optional	optional
510430 Laboratory of Bioinformatics		3	BIO/11	Optional Optional	optional

Course catalogue

ANY EXTRA EXAMS (MAX 24 CFU)

Teaching activity	CFU	Scientific area	TAF/Field	Year

Date……

Signature……

CURRICULUM MOLECULAR AND DIGITAL BIOLOGY

I YEAR 2025/2026 (54 CFU)

Course	Parts	CFU	Scientific area	TAF/Field	Type of teaching activity
500190 Bioinformatics		6	ING-INF/06	Related/ supplementary Related or supplementary training activities	mandatory
500805 Advanced Molecular Biology		6	BIO/11	Distinctive Disciplines of the biomolecular sector	mandatory
500812 Molecular Pharmacology		6	BIO/14	Distinctive Disciplines of the biomedical sector	mandatory
510324 Statistics and Big Data Analysis		9	BIO/11	Distinctive Disciplines of the biomolecular sector	mandatory
One of the following courses:					
510327 Basic Molecular Biology		6	BIO/11	Distinctive Disciplines of the biomolecular sector	optional
510322 Structural Biology		6	BIO/11	Distinctive Disciplines of the biomolecular sector	optional
One of the following courses:					
510325 Basic Biochemistry		6	BIO/10	Distinctive Disciplines of the biomolecular sector	optional
500462 Cellular Biochemistry		6	BIO/10	Distinctive Disciplines of the biomolecular sector	optional
One of the following courses:					
510326 Basic Genetics and Cell Biology		6	BIO/18	Distinctive Disciplines of the biomolecular sector	optional
500811 Human Molecular Genetics		6	BIO/18	Distinctive Disciplines of the biomolecular sector	optional
One of the following courses:					
510328 Basic Microbiology		6	BIO/19	Distinctive Disciplines of the biomolecular sector	optional
500810 Microbial Genetics		6	BIO/18	Distinctive Disciplines of the biomolecular sector	optional
One of the following courses:					
510351 Other Activities- Soft Skills		3	NN	Other Other skills	optional
509536 Italian Language for Foreign Students (mandatory only for foreign student who don't know Italian language)		3	NN	Other additional language knowledge	optional

II YEAR 2026/2027 (66 CFU)

Course	Parts	CFU	Scientific area	TAF/Field	Type of teaching activity
510330 Genomics and evolution in emerging infectious diseases	510348 Comparative genomics and metagenomics in vectors and pathogens	6	BIO/05	Distinctive Disciplines of biodiversity and environment sector	mandatory
	510349 Genomics and epidemiology of infectious diseases	6	VET/06	Related/supplementary Related or supplementary training activities	mandatory
510329 Laboratory of advanced bioinformatics for omics sciences		6	BIO/11	Distinctive Disciplines of the biomolecular sector	mandatory
510331 Pharmacogenomics, cancer genomics and epigenomics		6	BIO/18	Distinctive Disciplines of the biomolecular sector	mandatory
Free activities		12			
a) two courses (6+6 credits)* or b) one course (6 credits)* + 6 laboratory credits** or c) One course (3 credits)*** + 3 laboratory credits**** + one course (6 credits)*				optional optional optional	optional optional optional
502714 Internship for experimental thesis		30	PROFIN_S	Language/Final exam For the final exam	mandatory

***Courses (6 CFU) suggested as free activities**

Courses for a total of 12 or 6 credits can be chosen among the following four or among the courses offered by the University of Pavia with the exception of numerus clausus courses in the medical and psychological field on a national level

Course	Parts	CFU	Scientific area	TAF/Field	Type of teaching activity
502305 Advanced Microscopy		6	BIO/06	optional optional	optional
501561 Molecular Genetics		6	BIO/18	optional optional	optional
502314 Molecular Entomology		6	BIO/05	optional optional	optional
501708 Immunology		6	MED/04	optional optional	
512196 Advanced therapy medicinal products		6	MED/36	optional optional	optional

**** Laboratories (6 CFU) suggested as free activities**

Course	Parts	CFU	Scientific area	TAF/Field	Type of teaching activity
502315 Laboratory of Plant Pathology		6	AGR/12	optional optional	optional
502316 Laboratory of Botany		6	BIO/02	optional optional	optional
502317 Laboratory of Plant Physiology		6	BIO/04	optional optional	optional
502318 Laboratory of Zoology		6	BIO/05	optional optional	optional
502319 Laboratory of Comparative Anatomy and Cytology		6	BIO/06	optional optional	optional
502321 Laboratory of Ecology		6	BIO/07	optional optional	optional
502322 Laboratory of Physiology		6	BIO/09	optional optional	optional
502323 Laboratory of Biochemistry		6	BIO/10	optional optional	optional
502324 Laboratory of Molecular Biology		6	BIO/11	optional optional	optional
502325 Laboratory of Pharmacology		6	BIO/14	optional optional	optional
502326 Laboratory of Genetics		6	BIO/18	optional optional	optional
502327 Laboratory of Microbiology		6	BIO/19	optional optional	optional
502328 Laboratory of General Pathology		6	MED/04	optional optional	optional
502329 Laboratory of Immunology		6	MED/04	optional optional	optional
502330 Laboratory of Parasitology		6	VET/06	optional optional	optional
509644 Laboratory of Bioinformatics		6	BIO/11	optional optional	optional

*****Course (3 CFU) suggested as free activity**

Course	Parts	CFU	Scientific area	TAF/Field	Type of teaching activity
511905 Global Health – One Health		3	VET/06	optional optional	optional

******Laboratories (3 CFU) offered by the LM in Neurobiology**

Laboratory activity	Parts	CFU	Scientific area	TAF/Field	Type of teaching activity
510417 Laboratory of Zoology		3	BIO/05	optional optional	optional
510418 Laboratory of Comparative Anatomy and Cytology		3	BIO/06	optional optional	optional
510420 Laboratory of		3	BIO/09	optional	optional

	Physiology				optional	
	510423 Laboratory of Biochemistry		3	BIO/10	optional optional	optional
	510424 Laboratory of Molecular Biology		3	BIO/11	optional optional	optional
	510425 Laboratory of Pharmacology		3	BIO/14	optional optional	optional
	510426 Laboratory of Genetics		3	BIO/18	optional optional	optional
	510427 Laboratory of Microbiology		3	BIO/19	optional optional	optional
	510428 Laboratory of General Pathology		3	MED/04	optional optional	optional
	510429 Laboratory of Immunology		3	MED/04	optional optional	optional
	510430 Laboratory of Bioinformatics		3	BIO/11	optional optional	optional

Course catalogue

ANY EXTRA EXAMS (MAX 24 CFU)

Teaching activity	CFU	Scientific area	TAF/Field	Year

Date……

Signature……