

DEPARTMENT OF BIOLOGY AND BIOTECHNOLOGY Master's Degree Course in

MOLECULAR BIOLOGY AND GENETICS (CLASSE LM 6)

STUDY PLAN FOR STUDENTS ENROLLED IN 1ST YEAR - DM270/'04 ACADEMIC YEAR 2023/2024

to fill in online when enrollment is complete between

and

| The undersigned | | | |
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| Matr. n | | | |
| Surname | Na | ame | |
| Born in | Country | on | |
| Resident in | | CountryZ | IP |
| Address | N | Tel | |
| The Master's Co | urse in MOLECULAR I is organized in two c | | TICS |
| - Molecular Life Sciences | | | |
| - Molecular and Digital Biology | | | |
| If you intend to make different cho | | • • | |
| (Insert the new exam in the orange exam. Specify type of teaching ac | • . | • | ite the substituted |
| APPROVED BY THE TEACHING | COMMITTEE ON | | |
| WE DECLARE THAT THE INDIVITHE COURSE OF STUDY IN R (SCHEDA RAD). | | | |
| SIGNATURE OF THE PRESIDEN | IT OF THE TEACHING COMM | /IITTEE | |

CURRICULUM MOLECULAR LIFE SCIENCES

I YEAR 2023/2024 (59 CFU)

| Course | Parts | CFU | Scientific area | TAF Type of teaching activity | Field |
|---|-------|-----|-----------------|-------------------------------------|--|
| 500802 Methods in Biochemistry | | 9 | BIO/10 | Distinctive | Disciplines of the biomolecular sector |
| 510322 Structural Biology | | 6 | BIO/11 | Distinctive | Disciplines of the biomolecular sector |
| 500810 Microbial Genetics | | 6 | BIO/18 | Distinctive | Disciplines of the biomolecular sector |
| 500805 Advanced Molecular Biology | | 6 | BIO/11 | Distinctive | Disciplines of the biomolecular sector |
| 500190 Bioinformatics | | 6 | ING-INF/06 | Related/ supplementary | Related or supplementary training activities |
| 500811 Human Molecular Genetics | | 6 | BIO/18 | Distinctive | Disciplines of the biomolecular sector |
| 500812 Molecular Pharmacology | | 6 | BIO/14 | Distinctive | Disciplines of the biomedical sector |
| 510350 Internship for experimental thesis A | | 14 | PROFIN_S | Language/Final exam | For the final exam |

| Attività Formativa | CFU | Settore | TAF/Ambito | Anno | Tipo insegnamento |
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| Date | Signature |
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CURRICULUM MOLECULAR AND DIGITAL BIOLOGY

I YEAR 2023/2024 (54 CFU)

| Course | Parts | CFU | Scientific area | TAF Type of teaching activity | Field |
|--|-------|-----|-----------------|-------------------------------------|---|
| 500190 Bioinformatics | | 6 | ING-INF/06 | Related/ supplementary | Related or supplementary training activities |
| 500805 Advanced Molecular Biology | | 6 | BIO/11 | Distinctive | Disciplines of the biomolecular sector |
| 500812 Molecular Pharmacology | | 6 | BIO/14 | Distinctive | Disciplines of the biomedical sector |
| 510324 Statistics and Big Data Analysis | | 9 | BIO/11 | Distinctive | Disciplines of the biomolecular sector |
| One of the following courses: | | | | | |
| ☐ 510327 Basic Molecular Biology | | 6 | BIO/11 | Distinctive | Disciplines of the biomolecular sector |
| ☐ 510322 Structural Biology | | 6 | BIO/11 | Distinctive | Disciplines of the biomolecular sector |
| One of the following courses: | | | | | |
| ☐ 510325 Basic Biochemistry | | 6 | BIO/10 | Distinctive | Disciplines of the biomolecular sector |
| ☐ 500462 Cellular Biochemistry | | 6 | BIO/10 | Distinctive | Disciplines of the biomolecular sector |
| One of the following courses: | | | | | |
| ☐ 510326 Basic Genetics and Cell Biology | | 6 | BIO/18 | Distinctive | Disciplines of the biomolecular sector |
| □ 500811 Human Molecular Genetics | | 6 | BIO/18 | Distinctive | Disciplines of the biomolecular sector |
| One of the following courses: | | | | | 5 |
| □ 510328 Basic Microbiology | | 6 | BIO/19 | Distinctive | Disciplines of the biomolecular sector |
| ☐ 500810 Microbial Genetics | | 6 | BIO/18 | Distinctive | Disciplines of the biomolecular sector |
| One of the following courses: | | | | | |
| 510351 Other Activities-Soft Skills 509536 Italian Language for Foreign Students (mandatory only for foreign student who don't know Italian language) | | 3 | NN NN | Other Other | Other skills Additional Ianguage knowledge |
| J J / | | | | | |

| Attività Formativa | CFU | Settore | TAF/Ambito | Anno | Tipo insegnamento |
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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 2023/2024

to fill in online when enrollment is complete between and

The undersigned

| The anacioigned | | |
|---|---|---|
| Matr. n | | |
| Surname | Na | ıme |
| Born in | Country | on |
| Resident in | | CountryZIP |
| Address | N | Tel |
| The Mas | ter's Course in MOLECULAR E is organized in two c | |
| - Molecular Life Scien - Molecular and Digita | | |
| • | ent choices from the ones foreseen, the s of € 16 and the plan will need to be appro | study plan becomes individual; you therefore nee ved by the Teaching Committee. |
| • | ne orange spaces where you want to cha stivity and scientific disciplinary sector.) | ange and mark to eliminate the substituted exam |
| APPROVED BY THE TEA | CHING COMMITTEE ON | |
| _ | | VITH THE TEACHING REGULATIONS OF THE EMIC YEAR OF THE STUDENT (SCHEDA RAD |

SIGNATURE OF THE PRESIDENT OF THE TEACHING COMMITTEE

CURRICULUM MOLECULAR LIFE SCIENCES

I YEAR 2022/2023 (59 CFU)

| Course | Parts | CFU | Scientific area | TAF Type of teaching activity | Field |
|---|-------|-----|-----------------|-------------------------------------|--|
| 500802 Methods in Biochemistry | | 9 | BIO/10 | Distinctive | Disciplines of the biomolecular sector |
| 510322 Structural Biology | | 6 | BIO/11 | Distinctive | Disciplines of the biomolecular sector |
| 500810 Microbial Genetics | | 6 | BIO/18 | Distinctive | Disciplines of the biomolecular sector |
| 500805 Advanced Molecular Biology | | 6 | BIO/11 | Distinctive | Disciplines of the biomolecular sector |
| 500190 Bioinformatics | | 6 | ING-INF/06 | Related/ supplementary | Related or supplementary training activities |
| 500811 Human Molecular Genetics | | 6 | BIO/18 | Distinctive | Disciplines of the biomolecular sector |
| 500812 Molecular Pharmacology | | 6 | BIO/14 | Distinctive | Disciplines of the biomedical sector |
| 510350 Internship for experimental thesis A | | 14 | PROFIN_S | Language/Final exam | For the final exam |

II YEAR 2023/2024 (61 CFU)

| Course | Parts | CFU | Scientific area | TAF Type of teaching activity | Field |
|--|-------|-----|-----------------|-------------------------------------|--|
| 500462 Cellular Biochemistry | | 6 | BIO/10 | Distinctive | Disciplines of the biomolecular sector |
| 502300 Developmental Biology | | 6 | BIO/06 | Distinctive | Disciplines of biodiversity and environment sector |
| 504225 Plant Molecular Biology and Biotechnology | | 6 | BIO/04 | Related/ supplementary | Related or supplementary training activities |
| 502301 Molecular Microbiology | | 6 | BIO/19 | Distinctive | Disciplines of the biomolecular sector |
| One of the following courses: | | | | | |
| ☐ 510351 Other Activities-Soft Skills | | 3 | NN | Other | Other skills |
| ☐ 509536 Italian Language for Foreign Students (mandatory only for foreign student who don't know Italian language) | | 3 | NN | Other | Additional language knowledge |
| Free activities | | 12 | | | |
| a) two courses (6+6 credits)* or b) one course (6 credits)* + 6 laboratory credits** | | | | Optional | Optional |
| 503357 Internship for experimental thesis b | | 22 | PROFIN_S | Language/Final exam | For the final exam |
| | | | | | |

*Courses (6 CFU) suggested as free activities Courses for a total of 12 or 6 credits can be chosen among the following three or among the courses offered by the University of Pavia with the exception of numerus clausus courses in the medical field on a national level

| Course | Parts | CFU | Scientific area | TAF Type of teaching activity | Field |
|-------------------------------|-------|-----|-----------------|-------------------------------|----------|
| □ 502305 Advanced Microscopy | | 6 | BIO/06 | Optional | Optional |
| ☐ 501561 Molecular Genetics | | 6 | BIO/18 | Optional | Optional |
| ☐ 502314 Molecular Entomology | | 6 | BIO/05 | Optional | Optional |
| | | | | | |
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**Laboratories suggested as free activities

| Course | Parts | CFU | Scientific area | TAF Type of teaching activity | Field |
|--|-------|-----|-----------------|-------------------------------------|----------|
| 502315 Laboratory of Plant Pathology | | 6 | AGR/12 | Optional | Optional |
| 502316 Laboratory of Botany | | 6 | BIO/02 | Optional | Optional |
| 502317 Laboratory of Plant Physiology | | 6 | BIO/04 | Optional | Optional |
| 502318 Laboratory of Zoology | | 6 | BIO/05 | Optional | Optional |
| 502319 Laboratory of Comparative Anatomy and Cytology | | 6 | BIO/06 | Optional | Optional |
| 502321 Laboratory of Ecology | | 6 | BIO/07 | Optional | Optional |
| 502322 Laboratory of Physiology | | 6 | BIO/09 | Optional | Optional |
| 502323 Laboratory of Biochemistry | | 6 | BIO/10 | Optional | Optional |
| 502324 Laboratory of Molecular Biology | | 6 | BIO/11 | Optional | Optional |
| 502325 Laboratory of Pharmacology | | 6 | BIO/14 | Optional | Optional |
| 502326 Laboratory of Genetics | | 6 | BIO/18 | Optional | Optional |
| 502327 Laboratory of Microbiology | | 6 | BIO/19 | Optional | Optional |
| 502328 Laboratory of General Pathology | | 6 | MED/04 | Optional | Optional |
| 502329 Laboratory of Immunology | | 6 | MED/04 | Optional | Optional |
| 502330 Laboratory of Parasitology | | 6 | VET/06 | Optional | Optional |
| 509644 Laboratory of Bioinformatics | | 6 | BIO/11 | Optional | Optional |
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| Attività Formativa | CFU | Settore | TAF/Ambito | Anno | Tipo insegnamento |
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| Date | Signature |
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CURRICULUM MOLECULAR AND DIGITAL BIOLOGY

I YEAR 2022/2023 (54 CFU)

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

II YEAR 2023/2024 (66 CFU)

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

*Courses (6 CFU) suggested as free activities Courses for a total of 12 or 6 credits can be chosen among the following three or among the courses offered by the University of Pavia with the exception of numerus clausus courses in the medical field on a national level

| Course | Parts | CFU | Scientific area | TAF Type of teaching activity | Field |
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| ☐ 502305 Advanced Microscopy | | 6 | BIO/06 | Optional | Optional |
| ☐ 501561 Molecular Genetics | | 6 | BIO/18 | Optional | Optional |
| ☐ 502314 Molecular Entomology | | 6 | BIO/05 | Optional | Optional |
| | | | | | |
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**Laboratories suggested as free activities

| Course | Parts | CFU | Scientific area | TAF Type of teaching activity | Field |
|--|-------|-----|-----------------|-------------------------------|----------|
| 502315 Laboratory of Plant Pathology | | 6 | AGR/12 | Optional | Optional |
| 502316 Laboratory of Botany | | 6 | BIO/02 | Optional | Optional |
| 502317 Laboratory of Plant Physiology | | 6 | BIO/04 | Optional | Optional |
| 502318 Laboratory of Zoology | | 6 | BIO/05 | Optional | Optional |
| 502319 Laboratory of Comparative Anatomy and Cytology | | 6 | BIO/06 | Optional | Optional |
| 502321 Laboratory of Ecology | | 6 | BIO/07 | Optional | Optional |
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| 502325 Laboratory of Pharmacology | | 6 | BIO/14 | Optional | Optional |
| 502326 Laboratory of Genetics | | 6 | BIO/18 | Optional | Optional |
| 502327 Laboratory of Microbiology | | 6 | BIO/19 | Optional | Optional |
| 502328 Laboratory of General Pathology | | 6 | MED/04 | Optional | Optional |
| 502329 Laboratory of Immunology | | 6 | MED/04 | Optional | Optional |
| 502330 Laboratory of Parasitology | | 6 | VET/06 | Optional | Optional |
| 509644 Laboratory of Bioinformatics | | 6 | BIO/11 | Optional | Optional |
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| Attività Formativa | CFU | Settore | TAF/Ambito | Anno | Tipo insegnamento |
|--------------------|-----|---------|------------|------|-------------------|
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| Date | Signature | |
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