

| le savoir vivant |

Master of Science (MSc) in Molecular Life Sciences  
specialisation in

# Bioinformatics



*Unil*

UNIL | Université de Lausanne

Faculté de biologie  
et de médecine

[www.unil.ch/ecoledebiologie/en](http://www.unil.ch/ecoledebiologie/en)

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## OBJECTIVES/ASSETS

This programme aims at training interdisciplinary scientists with a solid background in both bioinformatics and biology. The emphasis is on being able to adapt the appropriate computational analysis tools for addressing meaningful biological questions.

You are encouraged to pursue Master projects either in bioinformatics, developing new tools and methods, or in experimental biology groups, where bioinformatics is key to making sense of high throughput data (genomes, transcriptomes, etc.).

You can continue as a bioinformatician in an academic or industrial research environment, or pursue further training towards a PhD, either specializing further in bioinformatics, or using your skills in combination with experimental approaches to advance knowledge in biology.

## CONTENT

- Two common courses with other Molecular Life Sciences students: “Sequence a Genome” (including both wet-lab experiments and bioinformatics), and a scientific writing class where you write a review article and a research proposal.
- Training in programming.
- Advanced training in statistics and bioinformatics.
- A large choice of optional courses in biology and bioinformatics.

### MANDATORY COURSES

- Sequence a Genome
- Write a Review
- Write a Fellowship
- Data Analysis
- Case Studies in Bioinformatics
- Programming for Bioinformatics

### PROJECTS

- First step research project
- Master research project in the field of bioinformatics (either purely computational, or combined with experiments)

### OPTIONAL COURSES

- Large choice of courses in biology and bioinformatics

## GENERAL INFORMATION

The Master of Science (MSc) in Molecular Life Sciences (MLS) amounts to 120 ECTS and is taught entirely in English. MLS students may obtain the Master without specialisation, or with a specialisation in Bioinformatics or Microbiology.

## ADMISSION REQUIREMENTS

Candidates for the Master MLS must hold a Bachelor of Science (BSc) in Biology or in a field considered to be equivalent awarded by a Swiss university. Another degree awarded by a foreign university may be judged equivalent and give access to the Master's degree programme, with or without further conditions.

## CONDITIONS FOR OBTAINING THE QUALIFICATIONS OF MASTER'S DEGREE WITH SPECIALISATION

[www.unil.ch/eb-mls](http://www.unil.ch/eb-mls) > Study programme > Regulations and directives

To obtain the Microbiology specialisation, you must choose and pass your Master research project within the field of the specialisation.

If you want to obtain the Master's degree with a specialisation, you must indicate your choice to the School of Biology when enrolling for your personal Master research project.

## Director of the programme

Prof. Richard Benton

## Responsible for the specialisation

Prof. Sven Bergmann

## Further information

[www.unil.ch/eb-mls](http://www.unil.ch/eb-mls) > Specialisations > Bioinformatics