

| 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](http://www.unil.ch/ecoledebiologie)

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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 put 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 specialising further in bioinformatics, or using your skills in combination with experimental approaches to advance knowledge in the field of 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.

### KEY COURSES

- Sequence a Genome
- Write a Review
- Write a Fellowship
- Data Analysis
- 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) from a Swiss university in Biology or in a field considered to be equivalent. Other degrees awarded by a foreign university may be considered equivalent and grant access to the 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

To obtain the Bioinformatics specialisation, you must:

- acquire 30 ECTS with compulsory and optional courses in the field of the specialisation
- complete a Master research project in the field of the specialisation

Students who want to obtain the Master's degree with the specialisation must indicate their choice at the time of the online enrolment for the Master programme.

## 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

