| le savoir vivant |

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

Bioinformatics

www.unil.ch/ecoledebiologie

UNIL | Université de Lausanne
Faculté de biologie
et de médecine

specialisation in bioinformatics

OBJECTIVES / ASSETS

This programme aims to train flexible and adaptable interdisciplinary scientists. The emphasis is on integrating solid bioinformatics with biology.

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 bioinformaticians in laboratories or industry, or towards a PhD, either specializing further in bioinformatics, or using your skills to make the best use of genomics to advance knowledge in biology.

Training in bioinformatics is critical to design genomic experiments, and analyse and understand the data : a new generation of biologists at ease both at the bench and at the computer.

CONTENT

- Two common courses with other Molecular Life Sciences students : "Sequence a Genome" (including both wet-lab and bioinformatics), and scientific writing.
- Training in programming.
- Advanced training in statistics and bioinformatics.
- A large choice of optional courses in biology and bioinformatics.
- A Master project which can be done in an experimental biology or a bioinformatics group.

MANDATORY COURSES

- Sequence a Genome
- Write a Review
- Write a Fellowship
- Elements of Bioinformatics
- Statistics and Probability

PROJECTS

- First step project purely in bioinformatics
- Master's thesis 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 90 ECTS credits and is taught entirely in English. MLS students may obtain the Master without specialisation, or with specialisation Bioinformatics, Microbiology or Integrative Biology.

ADMISSION REQUIREMENTS

Candidates to 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 or academic title may be judged equivalent and give access to the Master's degree programme, with or without further conditions. No prior level of programming is required.

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

www.unil.ch/eb-mls > Study programme > Regulations and directives

To obtain the Bioinformatics specialisation, you must choose and pass your Master's 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 the Master's thesis.

Head of studies

Prof. Richard Benton

Responsible for the specialisation

Prof. Marc Robinson-Rechavi

Further information

www.unil.ch/eb-mls > Specialisations > Bioinformatics