Connectez-vous à votre avenir !
Présentation du MSc in Life Sciences

jeudi 1 décembre 2022
18:15 - 18:45
For people who are attending online

Please…

switch off your microphone

switch off your camera

For your questions, use the chat on the right:
MASTER MLS
Cooperation Master of Science in Life Sciences MSLS

Cooperation MSLS of BFH, FHNW, HES-SO, and ZHAW

Swiss Cooperation
30% of studies
Core Competences (Business & Data)
Cluster-specific Modules
MLS HES-SO: three majors

Applied Biosciences
AB, Sion

Chemical Development & Production
CDP, Fribourg

Viticulture & Enology
VE, Changins
## Structure of the Master Study Programme

### Overview of the curriculum

<table>
<thead>
<tr>
<th>Core Competences</th>
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<td>B-Modules 4x 3 ECTS</td>
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<td>CS-Modules 5-6x 3 ECTS</td>
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<td>Choice: minimum 5 CC modules, minimum 3 CS modules – <strong>30 ECTS in total</strong></td>
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#### Specialization modules (20 ECTS)
- **S-Modules by AB/CDP/NRM/VE**
  - 5x 4 ECTS

#### Master Thesis (40 ECTS)
- **X-Modules**
  - 4 ECTS / 6 ECTS / 30 ECTS

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### Project Manager

- Achieve the state of the art
- Defend an idea
- Analyze the feasibility
- Schedule work-packages
- Use the resources available
- Write a scientific report
- Present results
Prepare for the challenges originating from the job market (big data, Digitalization, Industry 4.0) and addressing the need to understand the concepts of entrepreneurship, innovation and business.

- Offered via the cooperation MSLS
- Distant learning and local teaching in presence (Changins, Fribourg and Sion)
Cluster-specific modules offer specialized, in-deep courses Presence/online/mix

Each specialization is partner of a cluster:

- AB → BioPharma BP
- CDP → Chemistry C
- VE → Food/ Environment F + E

Each Cluster offers 5-6 cluster-specific modules
Additional offers from other clusters (3-5 modules)
MAJORS
Majors: specialization modules and Master thesis

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**Master Thesis (40 ECTS)**
X-Modules
4 ECTS / 6 ECTS / 30 ECTS
Applied Biosciences

5 specialization modules

- Sustainable Biotechnology
- Genomics + Genome analysis
- *In vitro* Diagnostics
- Pharmaceutical sciences
- Quality and Regulatory affairs

Local Information

- urban.frey@hes-so.ch
AB – Example of a Master thesis

Master of Science HES-SO in Life Sciences

Diagnostics: Paper-based diagnostic device “SafeTest”

Stornetta Tom
Applied Biosciences
HES-SO Valais
Advisor: Pr. Dr. Jean-Manuel Segura

µPAD for the simultaneous detection of 6 biomarkers

Device allowing the uniform deposition of the reagents on the sample
Chemical Development & Production

5 specialization modules

- Process Chemistry and Development
- Process Design and Optimization
- Chemical Engineering & Process Intensification
- Safety, Production and Quality
- Analytics and Characterization

Local Information

- Michal.Dabros@hefr.ch
- olivier.nicolet@hefr.ch
Master of Science HES-SO in Life Sciences

Development and optimisation of a fed-batch culture of a S. Cerevisiae ale strain for the brewing industry

Lucien Blanchard

CHEMICAL DEVELOPMENT & PRODUCTION

HEIA-FR

Advisor: Michal Dabros & Brian Freeland // In collaboration with Dublin City University
Viticulture & Enology

Master with double diploma 120 ECTS (2 years)

- Master of Sciences in Life Sciences (first year)
  - Changins

AND

- EuroMaster Vinifera (second year)
  - Germany, Italy, Spain, Portugal
Viticulture & Enology

5 specialization modules

- Grapevine Environment - Sustainable Viticulture
- Genetic Resources and Grapevine Production
- Winery Design
- Fermented Beverages Technology, Chemistry and Microbiology
- Wine Economics and Management

Local Information

- Melanie.weikert@changins.ch
- liming.zeng@changins.ch
ORGANISATION
Full Time vs. Part Time Studies 90 ECTS (AB, CDP)

1st year
- Core Competences B/D
- Cluster-spec. Modules
- Specialization Modules
- TM Pre-Projects
- Master Thesis

2nd year

3rd year

Full Time

Part Time (50%)

Full time → 3 semesters

Part-time → 5 semesters
Admissions

Admission is decided on the basis of the candidate’s portfolio. Requirements are as follows:

- UAS Bachelor’s degree in a related field of the chosen major
- Bachelor’s degree in a related field from a University or Institute of Technology, subject to completing a practical internship
- Other applications are judged on the academic curriculum and the practical experience
- Candidates must hold a B2 level in English
More information

Study plans, module descriptions, etc., and admissions: hes-so.ch/mls

Admissions: open from 01.12.2022 to...

- 15.02.2023 (for students who need a visa)
- 30.04.2023

Questions?

- master.mls@hes-so.ch (general questions and admissions)
- urban.frey@hes-so.ch (Major Applied Biosciences)
- olivier.nicolet@hefr.ch (Major Chemical Development and Production)
- liming.zeng@changins.ch (Major Viticulture and Enology)
Hessō