Soft materials are a broad class of materials that includes polymers, colloids, foams, gels, biological tissue and many other forms of matter that have both solid and liquid properties at the same time. Soft materials are ubiquitous in everyday life and are important for many industries. In addition to the traditional materials sector, the medical, pharmaceutical and food industries also depend on soft materials and therefore also require professionals with specific training in this domain.

Profile of the study programme

The Specialised Master of Science in Chemistry and Physics of Soft Materials (MScSoft) targets creative, open-minded and broadly interested talents who would like to build their professional careers on such materials. Normally, students will have already earned a Bachelor’s or Master’s degree in Chemistry, Physics, Materials Science, or a closely related discipline. As the programme is taught in English, adequate knowledge of this language is required.

Motivation

Soft materials are a broad class of materials that includes polymers, colloids, foams, gels, biological tissue and many other forms of matter that have both solid and liquid properties at the same time. Soft Materials are ubiquitous in everyday life and are important for many industries. In addition to the traditional materials sector, the medical, pharmaceutical and food industries also depend on soft materials and therefore also require professionals with specific training in this domain.
Laboratory work, experimental or theoretical, is the basis of scientific research. It provides a controlled environment for hands-on realisation of measurements or chemical syntheses. It is during this work that students will encounter many of the laboratory procedures and instruments used in research and learn good practices;

- Seminar presentations that are used to expand the students' knowledge in specialised domains less covered by the formal courses as well as to nurture the development of oral presentation skills for scientific results;
- Student projects that are a first step in applying the skills learned in the lectures and exercise classes to real research problems;
- The preparation of the Master's thesis, under the supervision of an experienced researcher, is the actual starting point of scientific research.

The programme is taught in English. All exams and written work (project reports, Master's thesis etc.) will be in English.

Academic and career openings
The Specialised Master of Science in Chemistry and Physics of Soft Materials (MScSoft) is not only intellectually stimulating, but it also provides a basis for excellent employment opportunities in a wide range of industries as well as the ability to pursue an academic career with a Ph.D. Potential employers include the chemical, pharmaceutical and food industries and companies supplying services to these industries in terms of equipment, measurement and analysis, research and regulation.

Organisation des études
Structure of studies
120 ECTS credits, 4 semesters

Curriculum

http://www.unifr.ch/science/plans/plans_e.php

Admission

Master's degree programmes are built on the knowledge and abilities that were acquired when obtaining a Bachelor's degree.

Holders of a Bachelor's degree awarded from a Swiss university of applied sciences can also be admitted with prerequisites or additional requirements.

The respective conditions of admission for each Master's degree programme are reserved.

Contact

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