

## Computer Science

---

### Degree conferred

Master of Science in Computer Science  
Universities of Fribourg, Berne and Neuchâtel

### Languages of study

Study in English

### Commencement of studies

Commencement of studies in the Autumn Semester (September) or  
in the Spring Semester (February)

### Access to further studies

Ph.D.

This study programme is part of the Swiss Joint Master in Computer Science jointly offered by the Universities of Fribourg, Bern and Neuchâtel, providing students with a unique multilingual and multicultural learning environment. Students work closely with one or more research groups of the three participating institutes. Students can create a personalised curriculum from courses and seminars offered by the three universities. Teaching units are grouped into tracks reflecting different profiles in computer science. Most courses are taught in English, although some may be offered in only French or German. The programme can be completed in three full-time semesters. Personalised part-time curriculums are also available.

### Profile of the study programme

This study programme at the University of Fribourg is part of the [Swiss Joint Master in Computer Science](http://studies.unifr.ch/go/vBvMa) (SJMCS) a programme jointly offered by the Universities of Fribourg, Bern and Neuchâtel. The Joint Master gives candidates with a Bachelor of Science in Informatics or related domains the opportunity to advance their knowledge in computer science. Students work closely with one or more research groups of the three participating institutes. With this study programme, students benefit from a large, well-structured programme based on modern educational concepts. It combines the strengths of the three universities involved, forming one of the biggest Swiss university campuses offering just about everything that is typical for Switzerland. The SJMCS provides students with a unique multilingual and multicultural learning environment and is ideal for computer scientists who want to expand their horizons and open doors to a future career.

Students enrolled in the Joint Master's programme can create a personalised curriculum from over 60 courses and seminars offered by the Universities of Bern, Neuchâtel and Fribourg (travel costs between universities are reimbursed). These teaching units are grouped into 6 tracks reflecting different profiles in computer

science. Most courses are taught in English, although some may be offered in only French or German. However, students who only know English can complete the study programme without problems. The master programme consists of 12 teaching units and a master's thesis supervised by a professor. Students also have the opportunity to specialise in a particular area of interest, or to complement their degree with master's level courses in a minor study programme. The latter option is especially interesting for students holding a minor at the bachelor's level in a discipline other than informatics. The master programme can be completed in 3 full-time semesters. Personalised part-time curriculums are also available.

### Learning outcomes and career openings

Offering a broad range of courses from a number of disciplines, coupled with a scientifically sound but still practice-oriented approach, the Swiss Joint Master of Science in Computer Science is particularly suited to preparing students for the job market, where interdisciplinary experience and practical skills are highly valued in qualified graduates. A SJMCS degree enables students to fill advanced positions in various economic sectors, including financial industries, high-tech companies, journalism and entertainment, public administration, teaching and continuing education, research, automation, gaming and sports, communication technology, engineering and knowledge management. It also gives them the opportunity to continue their studies towards a Ph.D. degree, offering further interesting employment opportunities in industry and academia. Graduates of the SJMCS have excellent career opportunities as computer scientists are in high demand worldwide.

## Studies organisation

### Structure of studies

90 ECTS credits + 30 ECTS credits as an option in a minor study programme, 3-4 semesters

For a list of the minor study programmes to choose from, please contact the Departement of Informatics of the Faculty of Science and Medicine.

### Curriculum

<http://studies.unifr.ch/go/vBvMa>

### 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 by a Swiss university are admitted to a master's degree programme without any preconditions if they have earned 60 or 90 ECTS credits – depending on the chosen master's degree programme – within the corresponding discipline. However, additional requirements can be required. The same applies to holders of a bachelor's degree awarded by a foreign university, provided that the bachelor's degree is recognised and considered equivalent by the University of Fribourg.

Holders of a bachelor's degree awarded by a Swiss or a foreign

university, provided that the bachelor's degree is recognised and considered equivalent by the University of Fribourg, who do not fulfil this condition can be admitted to a master's degree programme with preconditions (which must be successfully completed before starting the master's degree programme) and/or additional requirements (which can be completed during the master's degree programme). The preconditions and/or additional requirements may not exceed 60 ECTS credits in total. The same applies to holders of a bachelor's degree awarded by a Swiss university of applied sciences, according to existing agreements.

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

### Alternatives

Also offered as a minor study programme (30 ECTS credits) as part of the Diplôme d'Enseignement pour les Ecoles de Maturité (DEEM)/Lehrdiplom für Maturitätsschulen (LDM).

### Contact

Faculty of Science and Medicine

Department of Informatics

Dr Andreas Humm

inf-scimed@unifr.ch

<http://studies.unifr.ch/go/en-computerscience>