Data Analytics

Degree conferred
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Languages of study
Study in English. Some courses in French or German can also be chosen.

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

Data Analytics is aimed at training experienced scientists in data analysis methods. This ranges from traditional statistical methods to machine learning and data mining techniques, including the computer skills (programming) required for database management, data processing, data analysis and data visualisation. The Data Analytics minor study programme is therefore extremely pertinent for students wishing to complement basic training acquired as part of a master's degree.

This minor study programme is open to students from all faculties.

Profile of the study programme

The programme's primary goal is to teach students a number of skills essential to data management and analysis in any field. Students will therefore gain not only theoretical knowledge, but above all know-how. They will be capable of programming in different languages (R, Python, etc.), setting up and managing databases, extracting relevant information from them and carrying out statistical analysis of them. They will learn the modern methods of artificial intelligence and classification which today, in a «digitalised» world, play a role in all kinds of decision-making. A practical complement to a master's degree, this programme will be a major asset in the job market. It will also provide excellent preparation for students wishing to pursue a doctorate. This study programme is under the responsibility of the Department of informatics, which provides the content and monitoring.

Studies organisation

Structure of studies
30 ECTS credits as a minor study programme

Curriculum
http://studies.unifr.ch/go/U0SRS. (French)

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.

Admission requires a bachelor's degree which covered the following courses at the Faculty of Management, Economics and Social Sciences of the University of Fribourg, or an equivalent range of courses at another faculty/university:
- Mathematics I (4.5 ECTS)
- Mathematics II (4.5 ECTS)
- Statistics I (4.5 ECTS)
- Statistics II (4.5 ECTS)
- Statistics III (4.5 ECTS)
- Information Systems I (6 ECTS)
- Information Systems II (6 ECTS)

Contact
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http://studies.unifr.ch/enmaster/digitinf/dataeco30