Data Analytics & Economics

The Master programme in Data Analytics & Economics combines state-of-the-art training in data analytics and economics, taking into account the demands of digitalisation. This makes it the first Master’s degree in Switzerland to combine data analytics with the economics of markets and organisations. Skills in both these areas are crucial to understanding, shaping and regulating future markets and organisations. Internet platforms, recommender systems and dynamic pricing are just some examples of current fields of application in which this kind of profile is in high demand.

The uniqueness of this Master programme lies in its combination. Students not only learn how to handle big data sets, work with artificial intelligence and program in Python and R; but also to understand markets, evaluate strategies, and analyse the economic implications in order to analyse and improve strategic decisions. Moreover, economic skills are important for shaping rules of play (e.g. of sales platforms) and designing regulations (e.g. by the competition authorities). To meet the training needs of the digital transformation, this Master programme is rooted in economics, statistics and computer science.

The Master programme is divided into two compulsory modules, I and II, and one elective module. Module I, «Data Analytics», covers statistical, econometric and computer science methods of data analysis, while module II, «Economics of Markets and Organisations», covers the relevant economic concepts. These compulsory modules teach students skills in the key areas of the Master programme. The elective module comprises a wide range of courses that apply the techniques and concepts of compulsory modules I and II to various specialist fields. The freedom to choose courses from this module enables students to specialise according to their own individual interests.

Learning outcomes and career openings
Due to digitalisation there is high and increasing demand for a training profile that provides technical skills in data analysis as well as conceptual skills in economic decision-making in organisations and markets. By combining data analytics with the economics of markets and organisations, this Master programme satisfies these needs.

The «Master of Science in Data Analytics & Economics» degree at the University of Fribourg opens up excellent career opportunities in the private and public sectors.

Career prospects:
- Internet and technology companies (e.g. data analytics, conducting of experiments or A/B testing, marketing analysis, product management, interface function between experts and public);
- Consulting (e.g. data and computer-assisted strategy...
consulting, market design consulting);
- Banks and other organisations (e.g. data analytics, market research, corporate management);
- Public administration (e.g. data-based analysis and optimisation of state interventions, advice on regulation, competition authorities).

Studies organisation

Structure of studies

90 ECTS credits, 3-4 semesters

Curriculum

http://studies.unifr.ch/go/VWcfr

Comments

Data Analytics is also offered as a minor study programme (30 ECTS credits).

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 (at least 90 ECTS credits) 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)
- Microeconomics I (6 ECTS)
- Microeconomics II (6 ECTS)
- Statistics I (4.5 ECTS)
- Statistics II (4.5 ECTS)
- Statistics III (4.5 ECTS)

Contact

Faculty of Management, Economics and Social Sciences
Dean's Office
decanat-ses@unifr.ch
http://studies.unifr.ch/go/en-ses

http://studies.unifr.ch/enmaster/digitinf/dataeco

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