



#### DURATION OF STUDIES

2 years (4 semesters)

#### LANGUAGE OF INSTRUCTION

English

#### ADMISSIONS CONDITIONS

[www.unige.ch/gsem/en/programs/masters/admissions](http://www.unige.ch/gsem/en/programs/masters/admissions)

### *Master's Programme*

## THE MASTER IN BUSINESS ANALYTICS

At the intersection between data science, statistics and management, Business Analytics consists of using data to inform strategic decision making under uncertainty and to optimise business processes. In the digital economy with the proliferation of data, businesses have understood the tactical and strategic importance of analytics - the learning from data - as a critical field to detect and monitor client behaviours and expectations, or even future market trends.

Business Analytics tries to answer the following questions: "What has happened?" (descriptive analytics), "Why did it happen?" (explanatory or diagnostic analytics), "What will happen?" (predictive analytics) and "What should be done?" (prescriptive analytics). As such, Business Analytics is about bringing the business questions to the data.

Investing in Business Analytics can lead to a substantial competitive advantage, which, in certain sectors, ensures prosperity or even survival. Analytics is also one of the most promising approaches for public authorities who, in terms of transport, energy or public health, are required to manage and leverage the explosion of data to generate greater value for both businesses and society.

Given the increasing importance of "big data" in the economy, GSEM offers a new master program in Business Analytics that provides a wide range of career opportunities. This program responds to the growing need of medium to large organisations to leverage the use of data and to transform data assets into better management decisions.

#### OBJECTIVES:

- Support students to manage, analyse and use data in strategic, tactical and operational decision making under uncertainty
- Prepare students for an efficient leadership within the digital transformation to create value for businesses and society
- Bridge the gap between university education and professional needs

## STUDY PROGRAMME

4 semesters (max. 6 semesters) | 120 ECTS credits

### Core courses (1st year)

60 credits

- Algorithmics and Data Management
- Data Science for Business Analytics
- Data Quality and Data Collection Strategies
- Statistical Methodologies for Business
- Creating Value Through Data Mining
- Web Data and Digital Analytics
- Technologies and Architectures for Data
- Prescriptive Analytics
- Business Analytics Strategy
- Machine Learning
- Analytics Consulting

### Available options (2nd year)

60 credits

Business (Internship, specialised classes and master's thesis)

Research (Elective courses and master's thesis)

## ACADEMIC CALENDAR

[www.unige.ch/calendar](http://www.unige.ch/calendar)

## LEVEL OF FRENCH REQUIRED BY UNIGE

General placement test for non-Francophones is not required.

## PROFESSIONAL PROSPECTS

The Master in Business Analytics leads to professional opportunities in many industries in Switzerland and abroad such as:

- Banking
- Healthcare
- Insurance
- Manufacturing
- NGOs, public and private sectors
- Oil, gas and energy
- Pharma
- Research
- Retail and consumer goods
- Telecommunications

With applications to:

- Controlling costs and insuring compliance
- Credit scoring
- Customer relationship management
- Direct marketing
- Fraud detection
- Increase sales and enhance customer loyalty
- Predictive healthcare actions
- Preventative maintenance
- Process optimization
- Quality control
- Risk calculation
- Sales forecasting
- Scientific studies
- Social network management

## UNIVERSITY TAXES

500 CHF / semester

## REGISTRATION

Deadline: 28 February 2018

[www.unige.ch/enrolment](http://www.unige.ch/enrolment)  
[admissions.unige.ch](http://admissions.unige.ch)

## CONTACTS FOR STUDIES

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