



# Applied Data Science for Banking and Finance

## LAUREA MAGISTRALE IN APPLIED DATA SCIENCE FOR BANKING AND FINANCE

Campus	School	Program Duration	Next Intake	Total ECTS	Edition n.
Brescia, Italy	Mathematics, Physics and Natural Sciences I Banking, Finance and Insurance Sciences	2 years	September 2021	120	2

### Curriculum

#### FIRST YEAR

- IT Coding for data science (12 ECTS)
- Data analysis: techniques and tools (6 ECTS)
- Probability and statistics (6 ECTS)
- Analytics accounting (6 ECTS)
- Course from the economic/Legal area (6 ECTS)
- Finance and banking (12 ECTS)
- Elective course (6 ECTS)
- Foreign language (Italian for international students) (6 ECTS)

#### SECOND YEAR

- Artificial intelligence and machine learning (6 ECTS)
- Time series analysis and forecasting (6 ECTS)
- Laboratory of data analytics for banking and insurance (6 ECTS)
- Laboratory of data analytics for investment (6 ECTS)
- Elective courses (12 ECTS)
- Internship/Stage (6 ECTS)
- Thesis (18 ECTS)

#### ELECTIVE COURSES:

- Laboratory of cloud computing, big data and security (12 ECTS)
- Data management (6 ECTS)
- IT marketing (6 ECTS)
- Applied financial econometrics (6 ECTS)\*
- Sustainable business innovation and finance (6 ECTS)\*
- Business analytics and data-driven decision making (6 ECTS)\*
- Cyber security regulation (6 ECTS)\*
- Game theory (6 ECTS)\*
- Fintech regulation (6 ECTS)
- Quantitative finance (6 ECTS)
- Dynamical systems in finance (6 ECTS)

\* Economic/Legal area

### DID YOU KNOW?

Rarely will graduates from technological subject areas have knowledge of banking and finance, and vice versa: that is why students joining this degree will be able to personalize the curriculum to allow focusing on subjects they are less familiar with and be brought up to speed to become the ideal data analyst. Successful graduates will be perfectly formed on both the financial and the technological front.

### CAREER PATHS:

Professional Fin-Tech skills related to: managing large banking/financial data bases • filtering significant information out of conspicuous and heterogeneous data sets • extracting from massive data insights relevant to several decision-making processes in the banking/financial industry (e.g. asset allocation, dynamic portfolio choice, risk management, and client profiling/servicing)