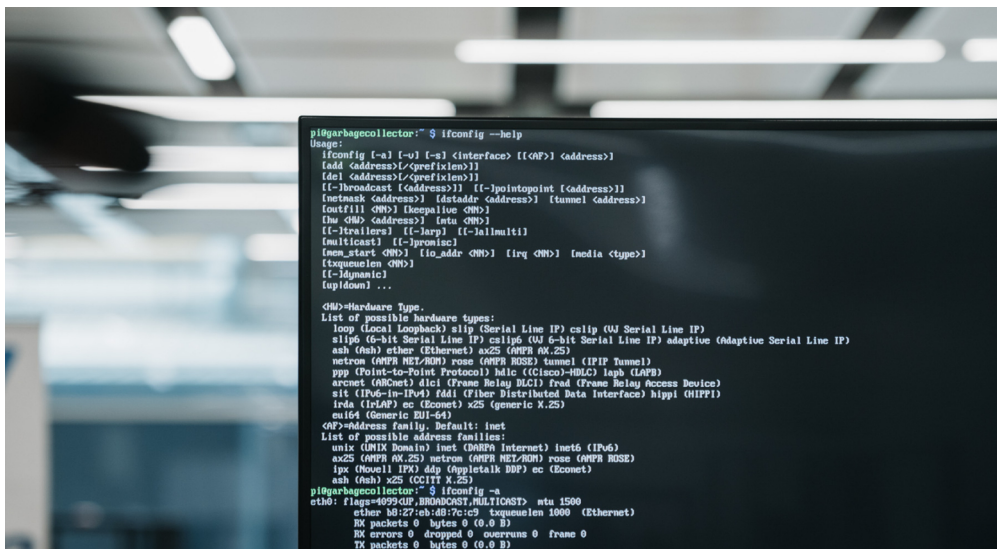Master in

Data Analytics for Economics and Management

2025/26

At a glance

Italian degree class: LM-Data
ECTS credits: 120
Duration of the course: 2 years
Courses will be taught in: English
Places available: 35 EU + 5 non-EU
Campus: Bozen-Bolzano
Tuition fees: ca. € 1200 per year

Course description

This programme is designed for students interested in developing state-of-the-art skills in **computing, econometrics, statistics and mathematics and using them to solve a wide range of data analysis problems arising in economics and management**. Students will learn a variety of cutting-edge techniques enabling them to extract meaningful information from large **data sets** and effectively communicate the results of their analysis, thus influencing various **key processes and strategic decisions in the organisations in which they will work.**

Online Info Sessions

We offer online information sessions in the coming months during which the master programme will be presented and where interested students can address their questions to professors and students. The Info Sessions take place on the following days:

- Friday, 28 March 2025, 16:00 (CET): register here

Structure of the course

The programme is divided into two tracks: Data Analytics for Economics and Business Analytics.

 Both tracks share a strong methodological core in **computer science, statistics, mathematics, and econometrics**. The specific goals of the tracks are:

- Provide a strong foundation in theoretical and applied **statistics** and in **machine learning**, which are essential tools for developing effective models and methods for **data analysis and prediction**.
- Develop **computer science** skills that are crucial for building **algorithms** and **programming** tools suitable for the implementation and application of data analysis methods.
- Develop a profile that combines solid **quantitative skills** with domain kn**owledge in economics and business** to support management in making data-driven strategic decisions.
- Develop problem-solving skills, teamwork skills, the ability to convey results effectively, and an understanding of **ethical and legislative issues related to the use of big data.**

Study Plan - Data Analytics for Economics

1st Year

12 CP	Programming and Visualisation for Data Science
6 CP	M1 - Introduction to Programming for Data Science
6 CP	M2 - Data Visualization and Exploration
12 CP	Econometrics for Data Science
6 CP	M1 - Time Series Analysis and Forecasting
6 CP	M2 - Management of Economic and Business Data
12 CP	Statistical Methods
6 CP	M1 - Statistical Methods for Business Analysis
6 CP	M2 - Advanced Statistics
6 CP	Machine Learning

Complementary Subject (two of the following):

6 CP	Financial Mathematics
6 CP	Financial Econometrics
6 CP	Economic Policy
6 CP	Methods for Public Policies Evaluation

2nd Year

12 CP	Optimisation Methods for Decision Making
6 CP	Optimisation Methods for Economics and Business
6 CP	Data Science Applications for Resource Optimisation, Risk Evaluation and Sustainability
12 CP	Big Data Methods for Economics and Business
6 CP	Statistical Methods for High-dimensional Data
6 CP	Natural Language Processing and Web Analytics
6 CP	Cybersecurity and Digital Privacy

Complementary Subject (one of the following):

6 CP	Financial Engineering and Quantitative Investment Strategies
6 CP	Applied Resource and Energy Economics*
6 CP	Sustainability Economics*
12 CP	Free Choice Courses
6 CP	Internship
12 CP	Thesis

* these two course are offered in alternate years

Study Plan - Business Analytics

1st year

12 CP	Programming and Visualisation for Data Science
6 CP	M1 - Introduction to programming for data science
6 CP	M2 – Data visualization and exploration
12 CP	Econometrics for data science
6 CP	M1 - Time Series Analysis and Forecasting
6 CP	M2 – Management of economic and business data
12 CP	Statistical Methods
6 CP	M1 - Statistical methods for business analysis
6 CP	M2 - Advanced statistics
6 CP	Machine learning
	Complementary Subject (two of the following):
6 CP	Network thinking and agent-based modeling
6 CP	Marketing B2B and sales management
6 CP	Experiential Tourism Marketing

2nd year

12 CP	Optimization methods for decision making
6 CP	Optimization methods for economics and business
6 CP	Data science applications for resource optimization, risk evaluation and sustainability
12 CP	Big data methods for economics and business
6 CP	Statistical methods for high-dimensional data
6 CP	Natural language processing and web analytics
6 CP	Cybersecurity and digital privacy
	Complementary Subject (one of the following):
6 CP	Digital marketing methods and consumer experience
6 CP	Applied Data Science for Business Decision-Making
6 CP	Introduction to Block Chain
12 CP	Free choice
6 CP	Internship
12 CP	Final exam

Exchange programmes and internships

We currently offer exchange programmes with partner universities around the world and

cooperate with an extensive network of companies for internships in Italy or abroad. Attendance in Bozen-Bolzano can be combined with an exchange with a foreign university, in Europe or elsewhere.
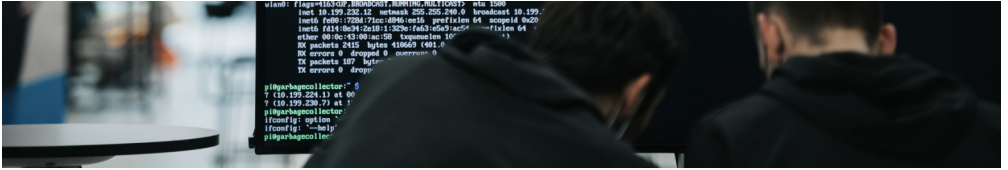
During the two years of the programme, you will also complete **an internship of at least 150 hours** in the local administrations, in the Chambers of Commerce, in public companies (e.g. health, transport, school), in non-profit organizations or in European or international organizations, depending on the availability of places and your preferences.

Career opportunities

This study programme can open a variety of exciting and well-paid career paths. Graduates will have
acquired the skills needed to work as professional business analysts, data scientists, managers or consultants in organizations that operate in a data-driven society.

Additionally, they will acquire the background necessary for enrolling in PhD programs in fields closely connected to quantitative economics, business analytics and data science. Skilled data analysts are some of the most sought-after professionals in the world now. Because of the strong demand and very limited supply of graduates, data analysts often receive high salaries and excellent job prospects, even at the entry-level.

Data analyst jobs are available in a wide range of private industries and public organisations, since any company using data also requires staff with a high level of analytic competency.

Master in
Data Analytics for Economics and Management

2025/26
Application and Admission

You can find all you need to know in order to apply and gain admission to this study programme by browsing through the information below.

Subject to accreditation of the Ministry.

Deadlines and important dates

Early Bird Application
Application: 03/03 - 06/05/2025 (by noon local time)
Language exams (online): 17/03/2025 (registration: 03 – 09/03/2025) and 16 -17 - 22 - 23/04/2025 (registration: 24/03 – 08/04/2025)
Publication of ranking lists: by 27/05/2025
Payment of the 1st instalment of the tuition fees: by 05/06/2025 (by noon local time)
Enrolment: from 11/07 - 14/10/2025 (by noon local time)

Late Application (only for EU citizens)
Application: 28/05 - 17/07/2025 (by noon local time)
Language exams (online): 23 - 27/06/2025 (registration: 28/05 – 15/06/2025)
Publication of ranking lists: by 06/08/2025
Payment of the 1st instalment of the tuition fees: by 19/08/2025 (by noon local time)
Enrolment: from publication of the ranking list until 14/10/2025 (by noon local time)

Additional Application Session (only for EU citizens)
The faculty can open additional application sessions for single study programmes in August and in September if there are available places. More information on additional sessions will be published in due course.

Preparatory courses and Freshers Days
Intensive language courses: 01 - 19/09/2025 (Monday to Friday, 6 h/day)
Preparatory courses (optional): 22/09 - 03/10/2025
Freshers Days: 29 - 30/09/2025

1st semester
Classes: 29/09 - 23/12/2025
Exams (extraordinary session): 11 - 23/12/2025

Holidays: 24/12/2025 - 06/01/2026
Classes: 07/01 - 24/01/2026
Exams: 26/01 - 21/02/2026

2nd semester
Classes: 02/03 - 02/04/2026
Holidays: 03 - 06/04/2026
Classes: 07/04 - 13/06/2026
Exams (extraordinary session): 14 - 23/05/2026
Exams: 15/06 - 11/07/2026

Autumn session
Exams: 24/08 - 26/09/2026

Available places

EU citizens and citizens given parity of treatment
Early Bird Application: 25
Late Application: 10

Non-EU citizens (living abroad)
Early Bird Application: 5

Entry requirements

In order to gain admission to this programme you need the following qualifications:

a **three-year university degree** (*) in one of the degree classes pursuant to Italian Ministerial Decree No. 270/04 (or an equivalent Italian qualification from previous degree programmes as well as an equivalent qualification gained abroad and recognised as suitable) **and the attainment of the following university credit points (CFUs/ECTS) in the following subject areas**:

at least 12 CFU/ECTS in "Economics"
scientific-disciplinary sectors in Italian universities:

- SECS-P/01 - Economics
- SECS-P/02 - Economic policy
- SECS-P/03 - Public Economics
- SECS-P/05 - Econometrics
- SECS-P/06 - Applied economics

at least 6 CFU/ECTS in "Business Administration"
scientific-disciplinary sectors in Italian universities:

- SECS-P/07 - Business administration and accounting studies
- SECS-P/08 - Management
- SECS-P/09 - Corporate finance
- SECS-P/10 - Organization and human resource management
- SECS-P/11 - Financial markets and institutions

- ING-IND/35 - Business and management engineering

at least 12 CFU/ECTS in "Statistics-Mathematics and/or Informatics"
scientific-disciplinary sectors in Italian universities:

- SECS-S/01 - Statistics
- SECS-S/02 - Statistics for Experimental and Technological Research
- SECS-S/03 - Economic Statistics
- SECS-S/04 – Demography
- SECS-S/05 - Social Statistics
- SECS-S/06 - Mathematical methods of economics, finance and actuarial science
- MAT/02 - Algebra
- MAT/03 - Geometry
- MAT/05 - Mathematical Analysis
- MAT/06 - Probability and Statistics
- MAT/09 - Operations research
- INF/01 - Informatics
- ING-INF/05 - Information processing system

If you have not yet graduated at the time of application:
You can apply if you have acquired at least 140 credit points (ECTS). In this case you will be admitted conditionally, and you will need to submit your diploma by the enrolment deadline.

If you graduate after the enrolment deadline:
You cannot enrol and you will lose your place, which will be offered to the subsequent applicant in the ranking list. In this case you should not pay the tuition fees to secure your admission. You will be able to submit a late enrolment request and, only if there still are available places, you will be allowed to enrol by 12 December 2025.
To be admitted, you must fulfil the language requirements indicated in the section "Language requirements".

According to national regulations, simultaneous enrolment in a maximum of 2 programmes is possible (however, the two programmes must not belong to the same class, e.g., LM-63/LM-63 and must differ for at least 2/3 of the course contents).

Language requirements

The official teaching language is English. Therefore, the following language requirements apply, otherwise you will be excluded from the admission procedure:

Entry level (to gain admission)
English: B2

The levels of the Common European Framework of Reference apply.

You can demonstrate your language proficiency in the application portal (in the section "upload language certificates" and/or "enrol for language exams") after you have created an application in the section "create/manage applications".

- In case your final certificate has been awarded by an **Italian** public institution, you need to submit a self-declaration.

- In case your final certificate has been awarded by a **foreign** public institution, you need to upload diploma scanned copy of the original.

You can demonstrate language proficiency through:

1. **the main teaching language in your final high school year**, if English (recognised as C1) **Foreign qualifications**: If the main teaching language is not clearly stated on your hign school diploma, please also upload a letter/document issued by your high school stating the medium of instruction.
2. **a bachelor or master degree** in English (recognised as C1). unibz graduates must upload the language certificates obtained and/or declare that they have passed language exams at the unibz Language Centre (B2, B2+ or C1). **Foreign qualifications**: If the teaching language is not clearly stated on your University degree, please also upload a letter/document issued by your University stating the medium of instruction during your studies.
3. **a recognised language certificate** (see the list of recognised certificates) If you cannot upload the certificates, you can send them by e-mail as PDF files or deliver them in person to the Language Centre by the application deadline (see "Deadlines" section).
4. **language exams organised by the unibz Language Centre**. You can register for these exams online through the application portal (in the section "enrol for language exams") after you have filled out your application in the section "create/manage applications". The registration periods are indicated in the "Deadlines" section. If you start your application outside a language exams registration period, you must return to the portal during one of the periods indicated above in order to register for an exam. Information regarding the structure of the language proficiency exams, their duration, their administration, and typical processing time for the publication of the results can be found on the following webpage.

For information on studying in three languages also visit the following page.

Online Application

Your application must be submitted online through the Application Portal. The deadlines are indicated in the "Deadlines" section.

- You need to create an account and upload a valid ID card or passport (front/back). Please note: if your document is invalid, incomplete or unreadable, you will be excluded from the admission procedure;
- Fill in the online form and upload the attachments listed under "Admission procedure";
- If you gained your qualification abroad, you must also upload the diploma of your qualification: if you are not yet in possession of the diploma, you'll need to upload it upon enrolment;
- Complete and submit the online application by the deadline. Once the application has been sent, it cannot be modified. Filled-in forms which have not been sent correctly will not be taken into consideration.

Please note: Mendacious declarations will be criminally prosecuted and will result in the automatic exclusion from the ranking list.

EU-Citizens and equivalent

You might apply for more than one study programme. If you are excluded in the first session, you might apply again in the second one.

Considered as equivalent are:

1. Citizens from Norway, Iceland, Liechtenstein, Switzerland, San Marino and the Vatican City State;
2. Non-EU citizens with a valid permit to stay in Italy (see article 39, paragraph 5 of decree no. 286 of 25.07.1998: "**permesso di soggiorno**" (residence permit) for work, family reasons, political or humanitarian asylum, religious reasons). In this case, you apply directly to the University as described above and must submit a copy of your valid permit to stay. A permit to stay for study reasons or a visa for tourism is **not valid.** If the permit has expired, you must attach a renewal request. **Please note** that if you do not upload the permit in the application portal, you will be automatically considered a non-EU citizen living abroad and therefore subject to the admission procedure through the Italian authorities in your country of origin.

Non-EU-Citizens (living outside of Italy)

Only one application period is offered. After the deadline it is not possible to apply anymore. Application fee: € 50.

Once the ranking list has been published, if you have gained admission, secure it by paying the first instalment and then start your visa application on the Universitaly portal. The application on Universitaly is mandatory, otherwise you will not be allowed to enrol. On Universitaly you can apply for one study programme only.

Admission procedure

The admission procedure is based on the following criteria:

1. Grade average (max. 90 points)

- If you have already graduated: Final grade (expressed in thirtieths)
- If you have not graduated yet: The grade average of the passed university exams (expressed in thirtieths)

In case of a bachelor concluded with the highest grade and the mention "summa cum laude", 2 additional points will be awarded.

2. Further language proficiency

You will receive 5 points if you demonstrate at least a C1 level in the official language of instruction (English).

For details, please see the paragraph "Language requirements for admission".

Minimum total points required to be admitted to the ranking: **55 points**

In the event of equal scores, priority will be given to the applicant who has obtained the highest score for the first criterion. If scores are still equal, the younger applicant will have priority. Only complete applications will be considered. The absence of one or more of the documents

required for the calculation of the average marks will result in exclusion.
If you still need to graduate and/or certify the remaining exams you must sit, you are provisionally admitted in the ranking lists.

Courses included in the programme of the **Master in Data Analytics for Economics and Management** are not valid for the acquisition of the 30 CPs required for admission.
Courses that have been taken into consideration in order to achieve the 30 CPs necessary to gain admission to the master programme cannot be recognised for a possible career abbreviation.

In the application portal, you shall upload:

1. Qualification:

- if graduated in Italy: diploma supplement or self-declaration (following the Italian D.P.R. no. 445/2000) of the degree awarded with the exams passed (if graduated) or with the exams passed (if not graduated yet);
- if graduated abroad: diploma supplement or final degree certificate with exams passed (if graduated) or transcript of records (if not graduated yet) in Italian, German or English.

The above must contain the following information: final grade, exams passed with grade and date of passing, credit points, scientific fields (the latter only for Italian titles).
For qualifications obtained abroad, also: scale of grades awarded by the university of provenance (with a minimum final grade to obtain the qualification and a maximum final grade achievable).

The Faculty reserves the right to request a description of the contents of the courses and/or teaching hours where necessary.

2. Excel file:
Please download the file available in the application portal. Fill in all information about your bachelor/courses and upload it in the portal as an excel file.

Please note that mendacious declarations will be sanctioned by criminal law and will result in your automatic exclusion.

Ranking lists
The Admission Committee will only evaluate the documents uploaded in the portal by the application deadline. The ranking lists will be published here and are only valid for the respective academic year.

Secure your admission and enrolment

If you have been admitted to more than one study programme, you can secure your admission for a maximum of 2 programmes by paying the designated rate twice. By confirming your place, you renounce admission to the other programmes.

1. Choose the study programme and pay the fees (to secure your admission) in the application portal.

The deadlines are indicated in the "Deadlines" section.

If you do not meet this deadline, you will automatically be excluded and the next applicant in the ranking list will be admitted.

For EU citizens and citizens given parity of treatment only: any remaining places of the early bird application, will be offered in the late application.

Please note: Paying university fees does not confer student status, which is only obtained by enrolling. If you pay but do not enrol, you are not entitled to a refund, except for non-EU applicants living abroad who do not obtain the necessary documents for enrolment from the Italian authorities in their country.

2. Enrol online in the application portal.

The deadlines are indicated in the "Deadlines" section.

Enrolment is recommended as early as possible, so you have the possibility to upload incomplete documents before the deadline.

If you do not meet the enrolment deadline, you will be excluded and the next applicant in the ranking list will be admitted.

Admission with reservation:

If you do not have the required academic qualification, you will be given a conditional offer for a study place and you must submit your qualification upon enrolment. If you achieve your qualification after the enrolment deadline, you cannot enrol, and you will lose your place which will be offered to the subsequent applicant in the ranking list. **Advice**: If you achieve your qualification after the enrolment deadline, you should not pay the tuition fees to confirm the study place. You will be able to submit a late enrolment request and, only if there are study places still available, you can enrol by 12 December 2025.

Students intending to transfer from another Italian University to unibz must submit to the Student Office - at the beginning of the academic year - a copy of the transfer application presented at the university of provenance.

3. If you have a foreign university degree, during enrolment you must upload:

- degree diploma of your Bachelor
- official translation of your degree into Italian (not necessary if the documents have been issued in German or English)
- Diploma supplement, where it must be indicated: that you have achieved at least 180 credit points (ECTS) and that the qualification gives access to a master programme

Depending on the foreign education system your degree belongs to, you must also upload:

a) EU countries, Switzerland, Norway, Iceland, Liechtenstein:

- Statement of **Correspondence** of your Bachelor degree, to be downloaded from the ARDI - Automatic Recognition Database – Italy

b) Non-EU countries that are signatories to the Lisbon Convention:

- Statement of **Correspondence** of your Bachelor degree, to be downloaded from the ARDI - Automatic Recognition Database – Italy

- Statement of **Verification** of your Bachelor degree, issued by the Italian Information Centre on Academic Mobility and Equivalence (CIMEA)

c) Non-EU countries that are not signatories of the Lisbon Convention:

- Statement of **Comparability** of your Bachelor degree, to be downloaded from the ARDI - Automatic Recognition Database – Italy
- Statement of **Verification** of your Bachelor degree, issued by the Italian Information Centre on Academic Mobility and Equivalence (CIMEA)

unibz performs the necessary checks on your foreign qualification and in case of doubt reserves the right to request additional documents.

Please note that if you do not possess a valid admission qualification, you can be excluded with Rector's decree even after enrolment.

If you are a non-EU citizen living abroad:

If you are eligible for admission (check the ranking lists) and have also applied on Universitaly, the Italian Authorities in your own country will issue you the entry visa for studies/university.

This will allow you to arrive in Italy to enrol for the study programme that you have applied for, after passing the admission procedure.

According to Italian law, within 8 working days of your arrival in Italy, you must have applied for the residence permit: as soon as you arrive, get in touch with the Advisory Service and you will be given the necessary information for starting the procedure.

Once you will obtain your residence permit (permesso di soggiorno), you have to hand it in at the Student Office personally or via e-mail.

Tuition Fees

Fees amount to **€ 1200**

- **1st instalment (€ 600):** includes the revenue stamp of € 16.
- **2nd instalment (€ 600):** must be paid by March of the following year

Delayed payment of the second instalment will result in a fine being levied. If you have not paid the tuition fees, you will be unable to take exams and will not be able to transfer to other universities or other study programmes.

If you drop out of a programme, interrupt your studies or are excluded from studies, you are not entitled to reimbursement of the fees.

Exemption from the tuition fees is granted to:

- Students with a disability recognized under article 3, paragraph 1, of Law No 104/1992, or with a disability up to or exceeding 66%: the disability certificate, issued by the health authorities, must be handed in at the beginning of the academic year.
- Foreign students who have been granted a scholarship from the Italian government.

Students who benefit from a scholarship granted by the Autonomous Province of Bozen-

Bolzano are entitled to receive a refund of the tuition fees.

Recognition of credit points from previous studies

Credit points from previous university studies can only be recognised after enrolment if the exams taken at the university of provenance are equivalent in content to those offered at unibz. You can fill out the application after enrolment.

The Advisory Service provides support regarding your choice of study. In many cases a simple call or a short request is enough to get the relevant information (Tel. +39 0471 012100).

Advisory Service
Universitätsplatz 1 - piazza
Università, 1
Italy - 39100, Bozen-Bolzano
Tel +39 0471 012100
Fax +39 0471 012109
apply@unibz.it

Opening Hours
Tuesdays: 10:00-12:00
Thursdays: 14:00-16:00

Alternatively, you may call us
throughout the week or book an
online appointment