

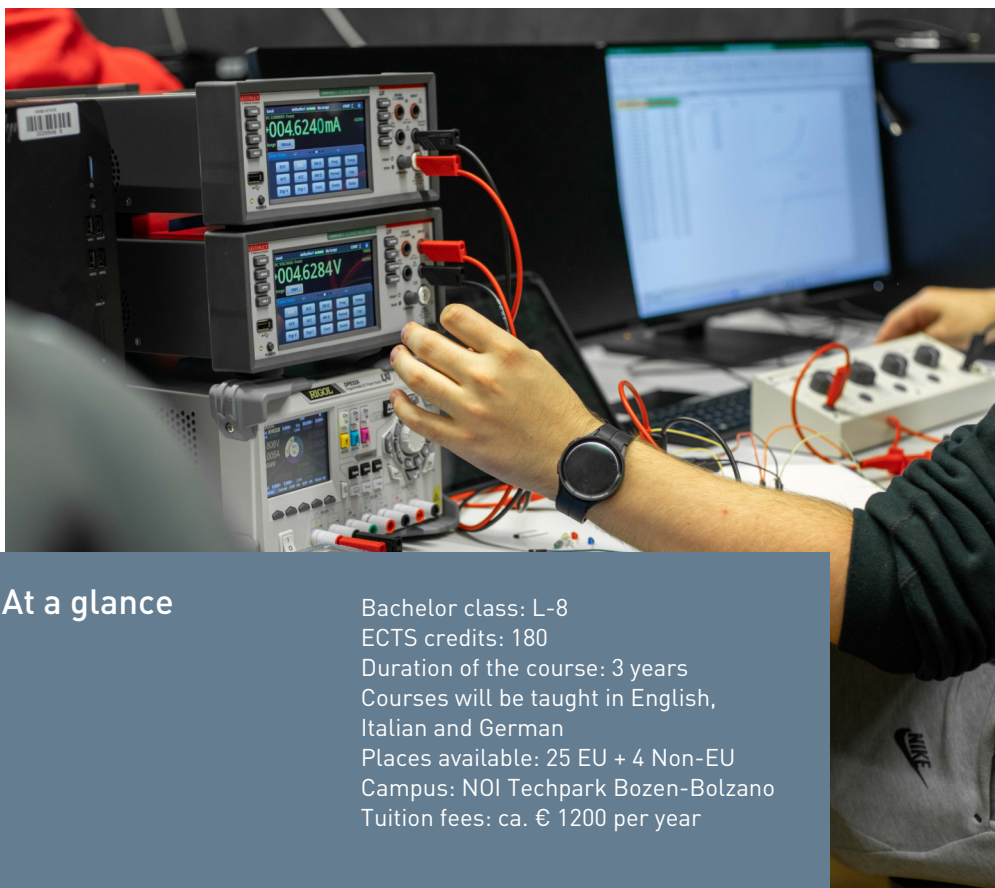


Fakultät für Ingenieurwesen
Facoltà di Ingegneria
Faculty of Engineering

Bachelor in

Electronic and Information Engineering

2024/25



At a glance

Bachelor class: L-8
ECTS credits: 180
Duration of the course: 3 years
Courses will be taught in English,
Italian and German
Places available: 25 EU + 4 Non-EU
Campus: NOI Techpark Bozen-Bolzano
Tuition fees: ca. € 1200 per year

The programme provides the necessary skills to design **electronic, embedded and automation components and systems**, combining a **solid theoretical basis** with a **hands-on approach**.

The three key areas of **electronic, computer and automation engineering** will be addressed, developing interdisciplinary skills ranging from the design of electronic devices and integrated circuits to the realisation of automated systems and software solutions. Through targeted courses and intensive practical training, you will have the opportunity to apply your knowledge to **various fields, such as precision agriculture, the medical sector, industrial automation and Internet of Things technologies**.

The practical training is carried out in **modern, well-equipped laboratories**, where students can lay their hands on advanced instrumentation and work on real projects. They learn to design and test electronic components and automated systems, turning theory into practice in an environment that simulates conditions in the world of work.

Structure

The **first part of the course** provides a solid theoretical foundation through **basic mathematics, physics and computer science**, including **mathematical analysis, linear algebra, physics and programming fundamentals**. Even at this early stage, students are introduced to the three key areas of the course - electronic engineering, automation and computer science - through introductory lectures on the fundamentals of electronics, automation and operating systems.

In the **second part of the programme**, the focus shifts to **practical and in-depth study of the technical skills** required to design, **build and validate electronic, automatic and embedded systems**. All teaching is accompanied by activities in modern, well-equipped laboratories where students can apply theory and work on concrete projects. Topics such as **electronic devices, analogue electronics, digital circuits and systems, data structures and algorithms, modern control, robotics and machine learning** are covered in depth, with a focus on advanced applications in the ICT and Industry 4.0 sectors.

The course is rounded off with **statistics, economics and management, free choice courses, language study** (Italian, English or German), an **internship in a company** and the **final thesis**. The thesis is a good opportunity to develop an innovative project in collaboration with partner companies or faculty research groups, and prepares for a career in highly competitive and innovative technological fields

Study Plan

1st Year

- 10 CP Mathematical Analysis I
- 10 CP Mathematical Analysis II
- 8 CP Linear Algebra
- 6 CP Physics I
- 9 CP Physics II
- 11 CP Fundamentals of Programming
 - 6 CP M1: Fundamentals of Programming I
 - 5 CP M2: Fundamentals of Programming II
- 6 CP Ubiquitous Computing

2nd Year

- 12 CP Electronics
 - 6 CP M1: Basics of Electronics
 - 6 CP M2: Electronic Circuit Design
- 6 CP Algorithms and Programming
- 6 CP Operating and Real-time Systems
- 9 CP Electronic Devices
- 6 CP Fundamentals of Systems and Control
- 9 CP Fundamentals of Statistics
- 3 CP Specialised Language (German, Italian or English)
- 6 CP Free Choice*
- 6 CP Internship

3rd Year

- 9 CP Modern Control
- 6 CP Electronic Systems
- 6 CP Robot Control
- 6 CP Computer Architecture
- 9 CP Artificial Intelligence and Machine Learning
- 6 CP Economics and Management
- 12 CP Free Choice
- 3 CP Thesis

Exchange Programmes and Internships

We maintain exchange relations with the Technical Universities in Munich, Dresden and Illmenau and have an extensive network of collaborations with companies for internships in Italy or abroad.

Career Opportunities

Graduates can pursue careers in a wide spectrum of sectors, from companies producing **hardware** and **software**, to those in the **public and private sectors** where the use of electronic, embedded and automation systems in specialised applications is critical. Career opportunities are diverse, ranging from the design and control of electronic components, circuits, systems and machines to the analysis and modelling of complex systems, and the development of methods and software for measurement, control and regulation.

They can work in key sectors such as **ICT, Industry 4.0, industrial automation, and in areas of high-tech applications** such as **precision agriculture or robotics**, where advanced skills in the design of electronic and software solutions are required. Their skills also qualify them for positions in **consulting, technology project management** and **research and development**, helping to solve complex challenges in highly innovative fields.



Bachelor in Electronic and Information Engineering

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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.

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 and 22 - 23/04/2024 (registration: 24/03 - 08/04/2025)

Admission exam: 14/05/2025 at 15:00 (local time)

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 - 05/08/2025 (by noon local time)

Late Application (only for EU citizens)

Application: 28/05 - 09/07/2025 (by noon local time)

Language exams (online): 23 - 27/06/2025 (registration: 28/05 - 15/06/2025)

Admission exam: 17/07/2025 at 15:00 (local time)

Publication of ranking lists: by 29/07/2025

Payment of the 1st instalment of the tuition fees: by 05/08/2025 (by noon local time)

Enrolment: from publication of the ranking list until 05/08/2025 (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)

Mathematics pre-course: 22/09 - 03/10/2025

Physics pre-course: 22/09 - 03/10/2025

Freshers Days: 29 - 30/09/2025

1st semester

Classes: 29/09 - 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: 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: 20

Late Application: 5

Non-EU citizens (living abroad)

Early Bird Application: 4

Entry requirements

To gain admission to the programme you need one of the following qualifications:

- a secondary school leaving certificate (Italian system)
- equivalent qualification obtained abroad.

Foreign school leaving certificates are considered equivalent if obtained after 12 years of education. In this case, you furthermore must have attended at least the last two years in the foreign school system (e.g. Irish Leaving Certificate: it is not enough to attend one year and obtain the foreign certificate).

The Italian Ministry of Education, University and Research has set specific admission requirements for holders of certain certificates (e.g. American high school diplomas, British and Greek certificates). For more information: apply@unibz.it (Advisory Service).

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., L-18/L-18 and must differ for at least 2/3 of the course contents).

Language requirements

The official teaching languages are German, Italian and English. Therefore, the following language requirements apply, otherwise you will be excluded from the admission procedure:

Entry level (to gain admission)

1st language: B2

2nd language: B1

3rd language: no level required

Preference will be given to candidates with a B2 level in their 2nd language. A B1 level in the third language is the minimum requirement for taking curricular examinations in that specific language.

Exit level (to graduate)

1st language: C1

2nd language: B2

3rd language: B2

The levels of the Common European Framework of Reference apply.

Your first language is the language in which you have the highest level of proficiency (B2 or C1). Your third language is instead the language in which you are weaker (or in which you are an absolute beginner).

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". The certification is mandatory for the first and second language, for the third language it is recommended (from B1 onwards).

- 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 German, Italian or English (recognised as C1) (Ladin upper secondary schools: recognised as B2 in German and Italian). **Foreign qualifications:** If the main teaching language is not clearly stated on your high 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 Italian, German or 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.

Please note that you can only register for **B1 and B2 level exams** and only for one level per language (e.g. in the same exam session you can register for a B1 German and a B2 Italian exam, but not for a B1 and a B2 German exam).

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

Secondary schools in a foreign country/Bi- or multilingual schools

If the foreign language proficiency levels (for German, Italian, or English) are explicitly indicated on the diploma of graduation according to the Common European Framework of Reference (i.e., B1, B2 or C1), and if all four language abilities (reading, listening, speaking, writing) have been assessed, then the indicated levels will be accepted as a proof of proficiency for the second and/or third language.

Please upload your school-leaving certificate to the application portal in the section “upload language certificates” under the respective language. The Language Centre will decide on its recognition.

Third language/Intensive language courses in September

If you have already acquired a language certificate in the third teaching language, please upload it to the portal. If you are not able to certify your language competence in the third language and you are admitted to unibz, you will have to take a placement test. You will receive further information about the test by e-mail. Based on the result of the placement test, you will be assigned to a certain learning path so that you will be able to reach level B2 as soon as possible.

If you are an absolute beginner in the third language, or if you have a level below B2, you may attend a three-week intensive language course during the pre-semester session in September in order to start the learning path.

The dates of the extensive courses are indicated in the “Deadlines” section. Beginner courses (A1) will be offered exclusively during the pre-semester intensive course session in September will no longer be offered during the academic year. Therefore, absolute beginners should start their learning path for the third language by attending the intensive courses in September.

There will be extensive courses (4 hours per week) during the semesters and intensive courses (8 hours per week) during the time between semesters.

The language courses offered by the Language Centre are **free of charge** and aim to help the students reach the following target levels in the third language:

- B1 level by the end of the 1st year;
- B2 level by the end of the 2nd year.

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** sufficient. 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. The fee is an administration fee and is non-refundable.

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 University portal. The application on University is mandatory, otherwise you will not be allowed to enrol. On University you can apply for one study programme only.

Admission procedure

The admission procedure is based on the following criteria:

Admission Exam (max. 100 points)

A multiple choice test will give information about the prior knowledge of the applicants in the

field of logic, mathematics and science subjects.

The admission test will take place online on the dates you will find under "Deadlines and important dates".

The result of the admission test in one of these dates remains valid for the admission procedure of the current academic year.

Here you can find an example of the admission exam.

Ranking lists

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

Additional learning obligations

If on the day of the exam the Admission Committee evaluates your prior knowledge as inadequate, you may be assigned additional learning obligations to be achieved by the end of the first academic year.

In order to get prepared for the additional learning obligations test, preparatory courses are offered in the weeks before the beginning of the first semester. In particular, the courses are taught as intensive courses in which the basic concepts of mathematics, physics, biology and chemistry are dealt with. The additional educational debt is absolved by passing a special examination. Specific dates will be scheduled to take the exams during the first year.

The OFA-exam must be passed within the first academic year of study and is an essential prerequisite for taking the curricular exams of the years following the first. If you have not passed the OFA exam in one of the sessions planned, you will be not able to enrol in the second year of study; consequently, you will be enrolled in the first year again.

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.

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 unless you do not pass your secondary school final exam or, in the event of non-EU applicants living abroad, you do not obtain the necessary documents for enrolment from the Italian authorities in your 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.

Students intending to transfer from another Italian University to unibz have to 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 secondary school qualification, during enrolment you need to upload these documents:

- your secondary school diploma
- an official translation of the diploma into Italian (not necessary for diplomas issued in German or English)

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

a) a) EU countries, Switzerland, Norway, Iceland, Liechtenstein, International Baccalaureate, European Baccalaureate:

- Statement of **Correspondence** of your secondary school diploma, 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 secondary school diploma, to be downloaded from the ARDI – Automatic Recognition Database – Italy
- Statement of **Verification** of your secondary school diploma, 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 secondary school diploma, issued by the Italian Information Centre on Academic Mobility and Equivalences (CIMEA)
- Statement of **Verification** of your secondary school diploma, 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:

Once you are eligible for admission (check the ranking lists) and have also applied on University, the Italian Authorities in your own country will issue you the entry visa for studies/university. This will allow to enrol for the study programme that you have applied for.

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