unibz

Fakultät für Informatik
Facoltà di Scienze e Tecnologie informatiche
Faculty of Computer Science

Bachelor in
Computer Science

At a glance

Bachelor class: L-31
ECTS credits: 180
Duration of the course: 3 years
Courses will be taught in: Italian,
German and English (trilingual)
Places available: 50 EU + 5 non-EU
Campus: Bozen-Bolzano
Tuition fees: € 1.348,50 per year

Course description

In this course, you will learn how IT engineers develop any type of software: this is something that has become crucial for research, development and production in all fields of modern life. You will gain skills in various areas of IT. For example, you will learn to explore and test systems within mobile and web services.

The growing importance of IT is reflected in the role currently played by IT scientists, who not only create software, they also team up with specialists from other fields and explore all possibilities to turn their innovativeness and creativity into reality. This is why our study programme does not only provide you with specialist competence but you will also learn about project management and the most effective presentation and communication strategies.

This study programme has been awarded with the Bollino GRIN, the Italian GRuppo di INformatica, for the quality of the course contents.

Structure of the course

The first part of the course focuses on learning the basics of maths and IT. However, in the second semester you can already start your own developing project.

In the second part of the course, you can choose your modules, so that you can tailor your degree to your interests. Each lesson involves a lab workshop in which students put the theory they have learnt into practice. At the end of the degree course, you will have to develop a final project and dissertation in collaboration with a partner business or a research group in the faculty.

Study plan - Bachelor in Computer Science

1st year

Semester 1

6 CP	Linear Algebra*
6 CP	Discrete Mathematics
9 CP	Computer Programming*
3 CP	English for Computer Scientists 1
6 CP	Computer Systems Architecture

Semester 2

6 CP	Analysis
6 CP	Web and Internet Engineering
6 CP	English for Computer Scientists 2
9 CP	Programming Project
6 CP	Operating Systems

2nd year

Semester 3

3 CP	Maker Lab
6 CP	Introduction to Databases
6 CP	Probability Theory and Statistics
9 CP	Data Structures and Algorithms
6 CP	Italian for Computer Scientists / German for Computer Scientists

Semester 4

6 CP	Database Management Systems
6 CP	Formal Languages and Compilers
12 CP	Software Engineering
6 CP	Applied Computer Science 1

3rd year

Year Courses

12 CP	Free Choice/Internship

Semester 5

12 CP   Applied Computer Science 2

6 CP   Computer Networks

12 CP   Computational Security

    6 CP   Module 1: Computational Mathematics

Semester 6

12 CP   Computational Security

    6 CP   Module 2: Information Security

3 CP   Project and Teamwork Management

3 CP   Scientific Writing and Communication

3 CP   Introduction to Business Administration

6 CP   Internship/Project for Thesis

9 CP   Thesis

Applied Computer Science Areas

Software and Systems Engineering

12 CP   Software Architecture

    6 CP   Software Systems Architecture

    6 CP   Tools and Techniques for Software Testing

12 CP   Mobile and Physical Systems

    6 CP   Engineering of Mobile Systems

    6 CP   Physical Computing Project

Intelligent Systems

12 CP   Artificial Intelligence

    6 CP   Foundations of Artificial Intelligence

    6 CP   Machine Learning in Practice

12 CP   Intelligent Agents

    6 CP   Knowledge Representation

    6 CP   Intelligent Agents Project

* This exam is a prerequisite and must be done before the other exams. Students who do not pass this exam by the end of the first year can continue their studies but cannot take the relatives exams.

Exchange programmes and internships

Currently we offer more than 20 exchange programmes with universities all over the world and unibz is part of a large network of collaborations with employers in Italy and abroad where you can undertake your internship. When you write your final dissertation, you will need to undertake a compulsory dissertation-related internship lasting a minimum of 200 hours.

Career opportunities

Our graduates do not just work for software companies. They also work in other business sectors in which IT plays an increasingly significant role, in the public administration and in many Internet companies. The range of employment prospects is ample and goes from developing software solutions to the administration of complex IT infrastructures to careers as a consultant or IT Business Manager.

Well prepared and ready for the job market. On the website of **AlmaLaurea** you can check statistical **data about graduates' satisfaction and their employability**.

Bachelor in
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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.

Subject to accreditation of the Ministry.

Deadlines

Early Bird Application
Application: 02/03 - 28/04/2020 (by noon local time)
Language exams: 15 - 22/04/2020 (registration 31/03 - 07/04/2020)
Admission procedure and publication of ranking lists: by 18/05/2020
Payment of the 1st instalment of the tuition fees: by 28/05/2020 (by noon local time)
Enrolment: 15/07 - 27/07/2020 (by noon local time)

Late Application
Application: 20/05 - 09/07/2020 (by noon local time)
Language exams: 01 - 02/07/2020, if necessary, also on 03/07 (registration 20/05 - 25/06/2020)

Admission procedure and publication of ranking lists: by 29/07/2020
Payment of the 1st instalment of the tuition fees: by 06/08/2020 (by noon local time)
Enrolment: 29/07 - 06/08/2020 (by noon local time)

Late session
Opened if there are available study places, only for people who already have the required language requirements.
Application: 01 - 12/10/2020 (by noon local time)
Admission procedure and publication of ranking lists: by 23/10/2020
Payment of the 1st instalment of the tuition fees: by 30/10/2020 (by noon local time)
Enrolment: by 30/10/2020 (by noon local time)

Preparatory courses and Freshers Days
Intensive language courses: 07 - 25/09/2020 (Monday to Friday, 8 h/day)
Freshers Days: 28 - 29/09/2020

1st semester
Classes: 28/09 - 23/12/2020
Exams (extraordinary session): 14 - 23/12/2020
Holidays: 24/12/2020 - 06/01/2021
Classes: 07/01 - 16/01/2021
Exams: 18/01 - 13/02/2021

2nd semester
Classes: 22/02 - 01/04/2021
Holidays: 02/04 - 05/04/2021
Classes: 06/04 - 12/06/2021
Exams (extraordinary session): 17 - 29/05/2021
Exams: 14/06 - 10/07/2021

Autumn session
Exams: 23/08 - 25/09/2021

Available places

EU citizens and citizens given parity of treatment
Early Bird Application: 40
Late Application: 10

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

The programme will only be offered if a minimum of 30 newly enrolled students is reached.

Entry requirements

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

- a secondary school-leaving certificate (Italian system)

- a foreign qualification, recognised as equivalent.

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).

Requirements
In addition to the required titles, you must possess:

- adequate general competence and disciplinary competence in the mathematical area;
- adequate knowledge of at least two of the teaching languages used in the study programme (see section "Language requirements").

Concurrent enrolment at several universities or in several study programmes at the same university is not allowed.

Disciplinary competence and additional learning obligations
The general competencies and disciplinary competencies in the field of mathematics are assessed on the basis of the average grade of the third and penultimate year of secondary school obtained, and on the basis of other documents requested by the commission.

Possible additional learning obligations ("obblighi formativi aggiuntivi" - OFA) in the mathematics area are assigned as part of the admission procedure. See section "Selection procedure".

If you are assigned these obligations, you must attend a catch-up course in mathematics offered by the Faculty before the start of the "Linear Algebra" course and pass the relevant test. If you do not pass the test, you will have to attend an individual study programme defined together with your tutor to fill in the gaps and you will still have to complete the OFA by passing the test or alternatively the "Linear Algebra" exam within the first year of study. If you do not complete the OFA within the first year, you can enrol in the second year of study, but you will not be able to take exams of the second and third years of study.

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: B2
3rd language: no level required

After one year
3rd language: B1 (in order to sit exams)

Exit level (to graduate)
1st language: C1
2nd language: C1
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 upload language certificates to 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).
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)
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: https://www.unibz.it/en/services/language-centre/language-exams/.

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.

If you are not able to certify level B1 in the 3rd language by the end of the 1st year, you may enrol in the 2nd study year, but you are not allowed to take degree course exams of the 2nd and 3rd year, nor to participate in exchange programs, do Internships and be the beneficiary of scholarships of unibz.

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;
- Then fill in the form online and check if the required information is complete;
- Upload the required attachments for every selected study programme in the portal and submit the 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.

You have to upload:

- a passport-size colour photo;
- a photocopy of a valid identity card or passport (front/back). Please note: if your document is invalid, incomplete or unreadable, you will be excluded from the admission procedure;
- 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 can upload it upon enrolment at the very latest - until you have not uploaded your diploma, you can only gain conditional admission;
- an official translation of the qualification into Italian (not necessary for qualifications in German or English);
- the declaration of equivalent value of your qualification: if you are not yet in possession of the declaration, you can upload it upon enrolment at the very latest;
- the valid permit to stay for Italy (only for non-EU citizens legally resident in Italy) - see below chapter "EU-citizens and equivalent" point 2.

The declaration of equivalent value (not necessary for qualifications gained in Austria or Germany, but unibz reserves the right to request it in case of doubt)

If you have a foreign qualification, you must certify that your qualification would grant you admission to a similar study programme in the country where you gained this qualification. For this reason, you must:

- apply for the "dichiarazione di valore" (declaration of equivalent value) at an Italian consulate or embassy abroad (please apply for the declaration as soon as possible since processing times might be long);
- upload the declaration upon enrolment at the very latest, together with the other relevant documents.

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 provide the permit, 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: € 30.

As a non-EU citizen living abroad:

- You will also have to apply at the Italian authorities (consulate or embassy) in your country. The deadlines set by the Italian Ministry of Education, Universities and Research (http://www.studiare-in-italia.it/studentistranieri/) must be met. At the Italian authorities, you can apply for one study programme only. Should you not follow this procedure with the local Italian authorities, your direct online application to unibz will be declared null and void.
- At the beginning of September, you must also sit a separate Italian language test before you can enrol.

Admission procedure

The admission procedure is based on the following criteria.

The commission gives:

- up to 5 points for the evaluation of average of all grades;
- up to 5 points for the valuation of the average of grades in mathematic subjects;
- up to 1 point overall for proven extra-curricular experiences in scientific/IT areas.

In case of equality of points the preference will be given to the younger applicant.

Students who obtain 3 points or less for the evaluation of the average of mathematics are assigned the additional learning obligations ("obblighi formativi aggiuntivi" - OFA) described in the section "Disciplinary competence and additional learning obligations".

In the application portal, you shall:

- insert, using self-declaration, your grades for the subjects of your third-last and penultimate school year. **In the event of self-declared years were concluded abroad*, a copy of the relevant school report cards must be uploaded in the portal**;
- upload the provided form for self-declaration up to a maximum of 2 certified extracurricular experiences in science/IT field, if you have some (e.g. participation in robotics competitions, mathematics Olympiads, computer competitions, online courses with certificate). For each experience, a contact person must be indicated for verification;
- upload the official translation of your school report cards into Italian, German or English if needed;
- upload optionally language certificates under the corresponding menu point.

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

(*) If you have attended a school whose system differs substantially from the Italian system and you do not have the reports with the final grades of the third-last and/or penultimate year of study of your secondary school, the Admission Committee reserves the right to evaluate the possible final reports of the secondary school that refer to years different from the penultimate or third-last.

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 only secure your admission in one of them. Doing so you refrain from the admission to other study 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 that you do not gain full student status by only paying the tuition fees. This status will only be acquired upon enrolment. If you have secured your admission, there will be no refund of the tuition fees unless you do not pass your secondary school final exam or, in the event of non-EU applicants living abroad, you do not receive the documents necessary 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.

If you have gained your secondary school qualification abroad, you must upload (if not uploaded upon application):

- secondary school diploma
- official translation of the secondary school diploma into Italian (translation is not necessary if it has been issued in German or English)
- declaration of equivalent value of your secondary school diploma, issued by the Italian consulate or embassy abroad (not necessary for qualifications gained in Austria or Germany, but unibz reserves the right to request it in case of doubt)

At the beginning of the academic year you must submit **the originals** of the above-mentioned documents to the Student Secretariat.

Please note that if you do not possess a valid admission qualification, you could 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), 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 sit the Italian-language test (for bachelor programmes), any entrance tests you have to take, and to enrol for the study programme that you have applied for, after passing the admission procedure.

The Italian-language test, which all students applying for bachelor programmes must sit, usually takes place at the beginning of September in Bozen-Bolzano. Students might also sit the oral exam online.

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 Secretariat personally or via e-mail.

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

Tuition Fees

Fees amount to **€ 1348.50**.

- **1st instalment** (€ 748.50)*: includes the provincial tax for the right to study of € 148.50 and a revenue stamp of € 16.
- **2nd instalment** (€ 600): must be paid by 31 March 2021.

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 (and the provincial tax) 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 at your Faculty Secretariat.

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

Infopoint
Tuesday and Thursday: 14:00 - 16:00
Wednesday and Friday: 10:00 - 12:30

For appointments outside the
opening hours:
T. +39 0471 012100 or apply@unibz.it

Subject to change.
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