

University Bachelor of Technology (B.U.T.)

Computer Science

The **Computer Science Bachelor of Technology (B.U.T.)** prepares students over three years to become computer scientists who participate in the design, development and implementation of IT solutions that meet the digital transformation needs of organisations. They can become qualified IT technicians and work for digital service companies, software publishers, corporate IT departments (banks, insurance companies, retail sector, industry, e-commerce platforms, etc.) and various administrations.

The training is based on acquiring fundamental knowledge and skills in computer and web development, in system and network administration, and in database and project management. Emphasis is given to written and oral communication, including the English language, and to the importance of group work in order to join a project team.

Computer science graduates are both, technically and methodologically, competent. By successfully completing this programme, their awareness on current issues (data security, cloud computing, artificial intelligence...) will be raised, along with societal, legal, ethical, and environmental issues linked to the use of digital technologies.

Study tracks

- The **Application implementation: design, development, validation study track** focuses on the software life cycle: from the expression of the client's needs, to the design, programming, validation, and maintenance of the application.

Career prospects:

It qualifies students to work as application designers and developers (mobile, web, Internet of things, video games, etc).

- The **Deployment of communicating and secure applications study track** follow two main lines: the installation and the configuration of operating systems, the deployment and the securing of networks on the one hand, the installation and the configuration of application services along with the development of client-server applications meeting the requirements of an organisation on the other hand.

Career prospects:

This study track will prepare students to take on positions such as creating a company's working and communication environment, such as system and network administrator, DevOps or IT security manager.

- The **Administration, management and data processing study track** covers the knowledge required to manage data warehouses and visualise data to develop BI applications.

Career prospects:

This study track leads to database administrators or large volume of data manager occupations.

- The **Application integration and information system management study track** brings together skills related to the development and the integration of applications and also those related to the support functions for the

management of digital transformation projects in organisations.

Career prospects:

This study track trains functional and/or technical integrators and persons who define the settings of integrated software packages.

Skills

This course aims to develop six core IT graduate skills for Computer Science B.U.T. students:

- Carrying out an application development
- Optimising computer applications
- Running complex communication computer systems
- Managing information data
- Conducting a project
- Working as part of an IT team

Entry requirements

Computer science B.U.T. is open to high school graduates from general or technological backgrounds. It can be suitable for higher education students wishing to change study path.

Admission is based upon examination of academic records. When considering applications, some departments might require an interview. The B.U.T. can also be prepared within the Lifelong education scheme or on a vocational basis (apprenticeship training or work-based learning). The diploma can also be delivered on Accreditation of Prior Experiential Learning (APEL).

