

# INFO | INFORMATIQUE

## 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.

### Competence-based learning.

The **Application implementation: design, development, validation study programme** is open to international students and 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).

#### Skills / learning units:

This course aims to develop six core IT graduate skills called UEs (*unités d'enseignement* / learning units):

- UE1: Carrying out an application development
- UE2: Optimising computer applications
- UE3: Running complex communication computer systems
- UE4: Managing information data
- UE5: Conducting a project
- UE6: Working as part of an IT team

Every class of a semester is **mandatory**. Each learning unit (UE) accounts for 5 to 10 ECTS ; validating all the semester units is required to validate a full semester.

**French-taught programmes.  
Attending all classes is mandatory.**

### Semesters open to international students.

Programme of studies:

**Application implementation: design, development, validation**

 **French: B2/C1**

- **Semester 3** (Autumn)
  - Requirements : 60 ECTS in computer-science
- **Semester 5** (Autumn)
  - Requirements : 120 ECTS in computer-science
- **Semesters 5** (Autumn) + **6** (Spring: project or work placement) in a row
  - Requirements : 120 ECTS in computer-science

**F CHAMBER 01**  
Annecy-le-Vieux  
campus



**061 - IT**  
Practical  
teaching & learning



**30-35 hrs a week**  
of study & projects  
in computer rooms



## Semester 3 - Courses, Skills (UE) & ECTS.

Course List	UE1	UE2	UE3	UE4	UE5	UE6	Weight
Web Development	.	.	.	.			1.75
Efficient Coding	.	.					1.15
Analysis (Mathematics)	.	.			.		1.35
Developement Quality	.				.	.	1.4
System Programming			.				1.1
Networks Architecture		.	.				1.15
SQL Programming				.			1.25
Probabilities (Mathematics)		.		.			1.1
Cryptography		.	.	.			1.25
Information Systems Management				.	.	.	2.2
Legal Issues in Digitalisation	.			.	.		1.15
Professional Communication in English		.	.		.	.	1.25
Professional Communication in French					.	.	1.15
Guidance						.	0.75
Project (Group Work)	.	.	.	.	.	.	12
<b>ECTS</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>30</b>

## Semester 5 - Courses, Skills (UE) & ECTS.

Course List	UE1	UE2	UE3	UE4	UE5	UE6	Weight
Introducing Management						.	0.9
Communication						.	1.3
Guidance							0.6
Algorithmic Quality	.	.					0.8
Advanced Programming	.	.					1.6
Multimedia Programming	.	.				.	0.6
Automation	.					.	0.8
Development Quality	.	.					1.2
Advanced Virtualisation	.	.					0.9
New Databases	.	.					1.6
Decision-making Support		.					0.7
Mathematical Modelling		.					1.3
Sustainable and Digital Economy	.					.	0.7
Professional Communication in English	.					.	2
Project (Group Work)	.	.				.	15
<b>ECTS</b>	<b>10</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>30</b>

## Semester 6\* - Courses, Skills (UE) & ECTS.

Course List	UE1	UE2	UE3	UE4	UE5	UE6	Weight
Entrepreneurship						.	1.2
Digital Laws						.	1.2
Information Communication						.	0.7
Guidance						.	0.7
Advanced Development	.	.				.	4.6
Application Maintenance	.	.					3.6
Project 1: upgrading an application	.	.				.	3
Project 2**	.	.				.	15
<b>ECTS</b>	<b>10</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>30</b>

\*requirements: Semester 5 at IUT Annecy

\*\*mentored assignment or work placement