

DESCRIPTIONS OF ELECTIVE COURSES

Field of study	Information Technology (Cybersecurity)
Level	second-cycle studies
Students admitted in the academic year	2024/2025 from summer semester
Semester in which the courses are selected	2
Semester in which the courses are conducted	3

Elective courses enable the acquisition of knowledge and development of skills important to the field of study but considering the student's individual interests.

This semester you can choose some elective courses, and the selected courses will be taken in the summer semester.

The course can be implemented if there is enough willing students (no less than 66% of students making their choice).

This semester, you will make your choice using a survey that will be available at the beginning of November (the survey will be active for two weeks). Students who do not make a choice will be administratively added to the courses that will be implemented.

In the winter semester of the 2025/26 academic year, students choose 1 course out of 2 offered.

CLOUD MANAGEMENT

Course content:

- Introduction to cloud architecture
- Adding a storage layer, hosting a static website
- Adding a computing layer, creating a dynamic website
- Adding a database layer, migrating a database to cloud services
- Creating a network environment, creating a virtual private cloud
- Connecting networks, creating a peer-to-peer VPC connection
- Securing user and application access, controlling account access
- Implementing elasticity, high availability, and monitoring
- Automating infrastructure deployment
- Creating microservices and serverless architecture

PENETRATION TESTS

Course content:

- Passive and active reconnaissance
- Penetration testing of web applications
- API penetration testing
- Network penetration testing
- Injection attacks