MASTER’S DEGREE IN CYBERSECURITY

This master’s degree is a joint programme of the Barcelona School of Telecommunications Engineering (ETSETB) and the Barcelona School of Informatics (FIB). Both are globally renowned schools with wide-ranging research activity and close ties to industry.

Cybersecurity: managing threats in cyberspace

The ETSETB and the FIB are schools of the Universitat Politècnica de Catalunya - BarcelonaTech (UPC), a benchmark public institution of research and higher education in the fields of engineering, architecture, science and technology. With 50 years of history and more than 30,000 students, the UPC has the greatest concentration of research and innovation in IT in southern Europe. It is the best Spanish university in Computer Science, Engineering and Technology, according to the 2021 QS World University Rankings by Subject.

Further information:
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Barcelona School of Telecommunications Engineering
Barcelona School of Informatics
The master’s degree in Cybersecurity is a joint programme of the Barcelona School of Telecommunications Engineering (ETSETB) and the Barcelona School of Informatics (FIB). The goal of the master’s degree is to provide graduates with a solid grounding in the design, implementation and management of security in today’s infrastructure and communications.

In recent years, the number of organisations protecting themselves against cyberattacks has grown exponentially. Public and private organisations search for security experts, but there are not enough professionals to meet the demand. This master’s degree has a markedly professional orientation and provides fundamental skills in the cybersecurity field, including the analysis of systems’ risks and vulnerabilities, the prevention of cyberattacks and threats, the detection of and efficient response to cyberattacks, compliance with existing regulations on data protection and the design of security and privacy architectures. As a graduate of the master’s degree you will be able to pursue a career as a security expert in industry, education and public and private organisations.

Why this master’s degree?
The purpose of this master’s degree is to train experts in the design, implementation and management of the security of infrastructure and communications in today’s digital world and the applications and services they offer. The degree is eminently practical and focuses on professional skills. Graduates of the UPC’s master’s degree in Cybersecurity will gain the abilities needed to analyse risks and vulnerabilities in complex ICT systems, design ICT systems (their architecture and software), consider security prevention (security by design), detect unavoidable attacks and provide the fastest and most efficient response.

Aimed at:
The entry profile of the master’s degree is a university graduate in the ICT field and a professional with a related degree and extensive experience in the sector.

Admission:
Holders of a degree or students in the last year of a degree may apply for admission to the master’s degree in Cybersecurity. An official degree certificate must be produced on the day of enrolment, in September.

Holdiers of bachelor’s degrees in the following disciplines will be given preference:

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Curriculum

Network Security
Network Traffic Monitoring and Analysis
Application Security
Malware
Data Protection
Network Security - Authentication and Authorisation
Optional subjects* / Seminars
Master’s Thesis

* Optional subjects

60 ECTS credits
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