

MASTER'S DEGREE IN CIBERSECURITY

Basic Competences:

- Possess and understand knowledge that enables the development and/or application of ideas
- Know how to apply knowledge and solve problems in new or unfamiliar environments
- Integrate knowledge and make judgements based on incomplete or limited information, including reflections on social and ethical responsibilities
- Communicate its conclusions and arguments to specialized and non-specialized audiences
- Possess self-directed learning skills

General Competences

- Apply information security knowledge and techniques
- Select and apply information and communication protection techniques in complex and changing contexts
- Apply tools for software component security, as well as make judgments about system security
- Select, deploy and maintain monitoring, defence and intelligence solutions in cybersecurity

Specific competences

- Apply knowledge and methodologies to IT security management, including auditing, risk analysis and policy setting.
- Make security and privacy decisions in accordance with relevant regulations
- Apply knowledge of security economics and psychology
- Apply, choose and evaluate different security controls
- Apply the fundamentals and techniques of cryptographic engineering to the selection, design and evaluation of information and communications security.
- Differentiate, select and deploy secure communications technologies and architectures
- Apply techniques to conceal information on different media
- Apply vulnerability scanning techniques to software and networks
- Analyze malicious software intended for data intrusion or exfiltration
- Apply the processes, methods and technologies of digital forensic analysis
- Select, configure and deploy software components and systems for monitoring, data aggregation, correlation and reaction for cybersecurity
- Apply techniques for different aspects of cyber-intelligence
- Apply computational intelligence techniques to data analysis in cybersecurity



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- Produce work that brings a new perspective or applies skills to a complex or innovative problem, observing appropriate professional, planning and academic standards
- Ability to present and defend the results and conclusions of this work before an evaluation panel of diverse profiles
- Ability to identify the courses of action that guide professional activity in the cybersecurity sector
- Ability to work effectively in cooperation with other professionals

For additional information, see the [Memorandum](#)