

# MSc CYBERSECURITY MANAGEMENT

January 2025

### **GRADUATE PROGRAMME**

INTAKE: September CAMPUS: Paris LANGUAGE: English / French



# Design, compliance and governance in cybersecurity

Established in Paris in 1919 4,300 students

+160 international academic partners

350 teachers and professional lecturers

15,000 graduates

+800 corporate partners and public organizations

> +40 students associations



ece.fr

Established in 1919, ECE Engineering School in Paris excels in tech and digital education. Specializing in software development, network architecture, cybersecurity, data and AI, our educators use project-based pedagogy to enhance learning. As part of the OMNES Education Group, a top private institution in France, ECE leads in innovation and academic excellence.

In a constantly evolving digital world, cyberattacks, deepfakes, social engineering, AI security risks are becoming increasingly frequent and sophisticated. Therefore, we need highly skilled professionals to protect entire infrastructure must be secured, including access, assets, communication, sensitive data and more.

This programme provides students with indispensable skills essential for navigating the multifaceted realm of cybersecurity. Covering critical areas such as risk assessment, threat identification, incident response, and strategic resource management, it equips graduates with the skills needed to confront and overcome the varied challenges encountered in the professional field.

Moreover, the curriculum prioritizes ethical standards and strict compliance with legal protocols. By instilling a strong ethical foundation, students are primed to take the helm in cybersecurity initiatives with integrity and compliance.

### **CAREER OPPORTUNITIES**

Upon completion of this programme, students will be professionals capable of meeting the needs of businesses, organizations and the public sector. They will be prepared for future careers as cybersecurity consultant, project security manager, security solutions integrator, SOC analyst operator or security incident response analyst.

### WHY CHOOSE THIS PROGRAMME

> This master's program covers fundamental topics such as database management, network and operating system security, DevOps, secure IT infrastructures, cryptography, identity management and incident response. Additionally, it includes discussions on cybersecurity standards, norms and methodologies.

- > Through conferences, site visits and projects, students meet with cybersecurity professionals, thus building their networks.
- > Courses are held on ECE's campus, centrally situated in Paris, near iconic landmarks such as the Eiffel Tower and the Seine River.
- > Students are offered a fully immersive experience in the world of cybersecurity.
- > Students build on the theoretical knowledge they have gained through the academic year and discuss their analyses and recommendations with senior managers in cybersecurity.
- > Upon culmination of the programme, students maybe conferred with a Bac+5 level diploma adorned with the prestigious MSc – Master of Science label accredited by the Conference of Grandes Écoles.
- > Students can obtain the international Certification CAPM (Certified Associate in Project Management) by PMI.

### THE OBJECTIVES OF THE PROGRAMME

Our graduates will be able to:

- > Understand the challenges of cybersecurity.
- > Identify and analyze cyber threats.
- > Design and implement effective security solutions.
- > Anticipate and manage security incidents.
- > Comply with security regulations and standards.

### ANSSI CERTIFICATION

SecNumedu

ECE has earned the SecNumEdu label from ANSSI, France's national authority for cybersecurity. This certification

programme, established by the French government, is designed to enhance the cybersecurity resilience of educational institutions. Through SecNumEdu, institutions receive guidelines and support to bolster their cybersecurity measures. This achievement reflects ECE's dedication to maintaining robust cybersecurity standards within its educational environment.



# MSc CYBERSECURITY MANAGEMENT

ECTS

60

January 2025

## Programme structure

YEAR 1

#### ENROLL OUR PROGRAMME



Applications from French or international students residing in France



#### Applications from international students residing outside France

The international admission procedure only applies to you if you are not a French national and live outside France.

#### CERTIFICATION



IT Transformation	
Digital Transformation and Business Models	3
Digital Ecosystem and Regulation	2
Information Systems Design	3
Digital Innovation	
Exploration of Disruptive Technologies	3
DevOps Practices and Continuous Integration	3
Information Systems Architecture and Performance	3
Internet of Things and Connected Systems	3
Blockchain and Crypto Economy	2
IT Project Management and Innovation	
Project Management Basics	3
Data Science Project Management with Python	3
Security, Compliance and Governance	
Introduction to Cybersecurity	4
Information Systems, Networks and Security	4
Cybersecurity in a Cloud Environment	4
Managerial Innovation Serving Leadership	
Innovation and Digital Entrepreneurship	3
Management of Multicultural and Distributed Teams	3
Strategic Communication	3
Today's Challenges and Future World Transformation	ons
Green IT and Digital Sustainability	4
Ethical Issues and Societal Impacts of Emerging Technologies	3
Foreign Language	
French courses FLE	4
4-month internship (optional)	

	ECTS
YEAR 2	90
Cybersecurity Policies and Compliance	
Cybersecurity Standards and Regulations	2
Identity and Access Management	3
Cybersecurity Risk management	4
Advanced Security and Cyber Threat Intelligence	
Advanced Cryptography	5
Assets, Threats and Vulnerabilities	5
Ethical Hacking and Penetration Testing	3
Today's Challenges and Future World Transformation	ns
Ethics of Digital Technologies	1
Deepfake Detection and Digital Forensics	3
Geopolitics of Cybersecurity and International Cyber Policy	/ 2
Defensive Cybersecurity and Automation	
Software Security	5
Distributed Systems Security	5
Automated Cybersecurity with Python	4
Managerial Innovation Serving Leadership	
Intercultural Leadership and Team Management	3
Communication and Innovation Management	3
Job Interview Simulation	1
Al Project Management and Innovation	
Applied Agile and Risk Management	4
Project Management Certification - CAPM by PMI	2
Master Thesis Methodology	1
Foreign Language	
French courses FLE	4
Dissertation	20
6-months internship	10



A Corporate Social Responsibility Policy to embody the commitments of OMNES Education

The societal challenges of the contemporary world require new skills, new responsibilities and new professions, which OMNES Education aims to provide to its student audience. With a resolutely humanistic and universalist approach, OMNES

Education seeks to unlock the abilities and aspirations of each individual through an innovative and

multidisciplinary study programme.

### ENTRY REQUIREMENTS

- > A first-class undergraduate degree with strong foundations in applied mathematics, basic knowledge of computer networks and database management, an introduction to cybersecurity, experience with cloud infrastructure and Linux environments.
- > English proficiency: the minimum score required is the upper intermediate B2 level, 4th level of English in the Common European Framework of Reference (CEFR).

### **TUITION FEES**

### French or international students residing in France

- > 11,750 €/academic year.
- > An application fee is payable at the time of the application submission: 90  ${\ensuremath{\in}}$  .
- International students residing outside France
- > 12,540 €/academic year.
- > An application fee is payable at the time of the application submission: 50  ${\ensuremath{\varepsilon}}.$



ECE is a school within the engineering sciences cluster of OMNES Education, a private multidisciplinary higher education and research institution. ECE is a member of CTI (Commission des Titres d'Ingénieur), Conférence des Grandes Écoles, UGEI, UN Global Compact, EFMD, Campus France and Innovation Makers Alliance