



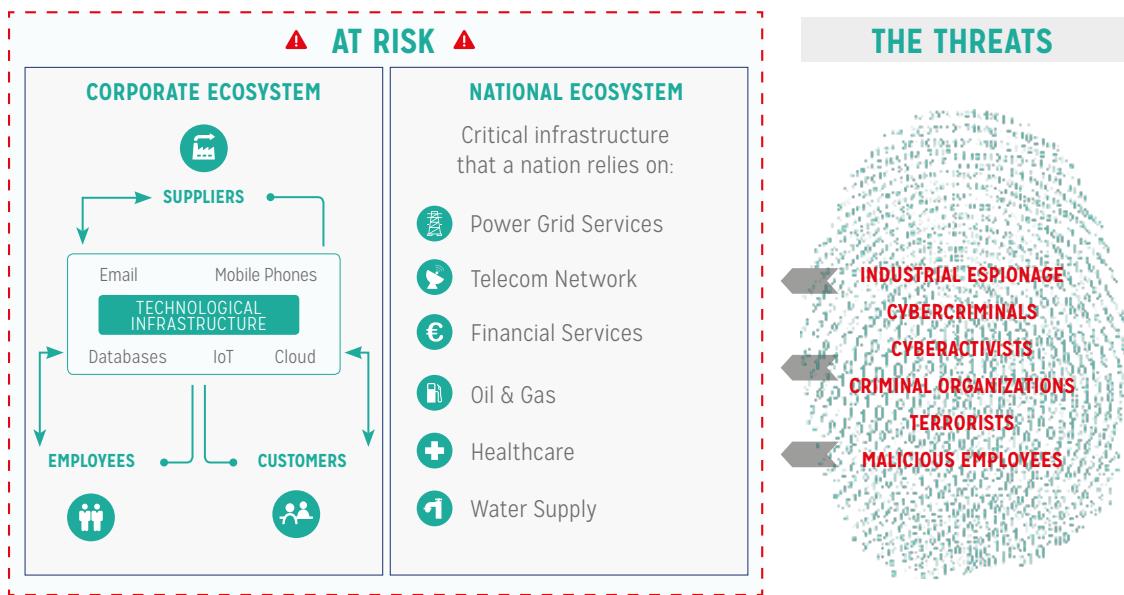
MASTER IN CYBERSECURITY

MASTER IN CYBERSECURITY OVERVIEW

AN EXCITING CAREER

The era of digital transformation has brought disruptive changes through all aspects of our lives. Constant change requires adaptation, especially in the workplace. Both private and public sectors have growing cybersecurity concerns, and worldwide news of information leakage has brought much attention to this subject. Leadership and management of cybersecurity teams and protocols is a growing necessity, making it the most exciting time for a career in cybersecurity. Are you prepared to lead the war against cyber crime?

WHY CYBERSECURITY?



INDUSTRIES

Cybersecurity is impacting diverse industries, including:

- | | |
|--------------------|----------------|
| Financial Services | Transportation |
| Retail | Consumer Goods |
| Healthcare | Manufacturing |
| Public Sector | Technology |
| Entertainment | Travel |

ROLES

- CSO - Chief Security Officer
- Security Analyst
- CISO – Chief Information Security Officer
- Cybersecurity Consultant
- Security Architect
- Ethical Hacker
- Vulnerability Manager
- Cybersecurity Analyst
- Digital Forensics Investigator
- IT Security Manager

3 STUDENT PROFILES



BUSINESS & TECHNOLOGY

You studied or are working in technology or business. You want to become an expert in identifying cyber threats and managing risk to drive protection and security.



LAW & COMPLIANCE

You studied or are working in law. You want to learn how to manage a cyber-crisis and become an expert in digital data protection, regulation, and cybersecurity governance.



SECURITY & DEFENSE

You want to play a significant role in defining cybersecurity policy and response at the local, state and national level.

WHY IE

- Study at the No.1 School in Europe (Financial Times ranking, 2012 and 2013). Located in Madrid, a vibrant and global city.
- Top ranked business school in the world.
- 50,000 alumni hold positions of responsibility in over 100 countries.
- 29 international offices around the globe.
- Around 40% of students every year receive some type of Financial Aid.
- Over 100 Nationalities represented.

4 AREAS FOR SUCCESS



Cybersecurity Governance and Management



IT, Cybercrime and Response



Business, Behavior and Change



Cyber Law, Compliance and Ethics

HANDS-ON CHALLENGES

You will engage in three intensive team challenges that will give you practical, hands-on experience working directly with industry experts. In each challenge, your team will present its results to a panel of experts.

CHALLENGE

Vulnerability Analysis

THE MISSION

Your team will be presented with a real cybersecurity situation. You will work to identify the potential risks to which the company may be exposed.

Forensics and Malware Analysis

Your team will use cryptography techniques to conduct malware analysis. You will conduct a cyber-exercise to collect electronic evidences and prepare a forensic report.

Global Cybersecurity Assessment

You will conduct a cybersecurity assessment to evaluate the digital maturity of an organization.

AN EXCITING CAREER

Cybersecurity is one of the hottest topics of the Digital Age. Over the past five years, the demand for cybersecurity professionals grew 3.5 times faster than other IT jobs and 12 times faster than all other jobs¹. First came the internet, then Big Data and now the Internet of Things - with more data in the cloud and online, security is a growing concern.

We're at a point where a company has either been hacked, or is about to be. Around 54% of organizations have a Chief Information Security Officer (CISO) in charge of their security program and visionary companies place cybersecurity as one of their top priorities.

Organizations, governments and institutions need to develop a clear cyber security strategy that aligns the organizational and the customers' data and privacy needs. They must be resilient towards cyber-attacks or incidents and protect their critical infrastructures while complying with the growing Policy and Regulatory Frameworks (GDPR, etc.)

Companies, governments and institutions are seeking professionals who understand the value cybersecurity has on the digital side of their business and lead teams with compelling security strategies. These professionals can come from diverse backgrounds such as business, engineering, law, compliance, defense, and security, who are able to prepare for, manage and prevent attacks. Professionals who are able to apply their expertise through diverse industries.

IE's Master in Cybersecurity is an innovative degree designed to train a new generation of cybersecurity professionals with all the necessary skills to pursue a successful career in cybersecurity management. We encourage you to read onwards in this brochure. If you are as excited as we are about the world of Cybersecurity.





"The demand for the cybersecurity workforce is expected to rise to 6 million globally by 2019"

Michael Brown, CEO at Symantec

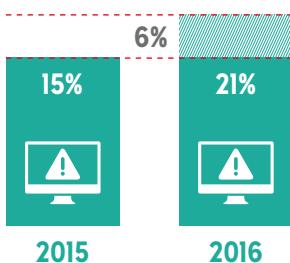
RELYING ON CYBERSECURITY TO PROTECT THE DIGITAL WORLD

WHY DO WE NEED CYBERSECURITY?



CYBER-ATTACKS

6% increase in attacks from 2015 to 2016



280BN \$ TOTAL COST OF CYBER-ATTACKS TO BUSINESSES IN 2016



WHAT IS THE PRIMARY IMPACT OF A CYBER-ATTACK?



WHAT DO CYBERSECURITY PROFESSIONALS DO?

The world is data-driven. Business strategy must safeguard intellectual property, financial information, and companies' reputation. With the number of threats and the sophistication of attacks increasing, this is a challenge for which only skilled professionals like you will bring value.



\$2 TRILLION

projected annual cost of cybercrime by 2019



\$150 MILLION

average cost of a Data Breach by 2020



TOP 10 REASONS ...TO JOIN THE MASTER IN CYBERSECURITY

**1**

JOB OPPORTUNITIES

A recent survey found that the world is expected to face a shortfall on 1.8 million cyber security workers by 2022. The workforce demands professionals in cybersecurity leadership positions.

2

MOST COMPREHENSIVE TRAINING

The program offers a strong practical approach to cybersecurity and the decision making process, critical for key leadership roles in this area. At IE we rely on hands-on, action-oriented teaching methodology which prepares students for real life situations. Moreover, our strong background in business and leadership allows us to train students to support organizations' business goals as well as manage large teams.

3

NETWORKING

Access to a network of professionals through a program that is in constant contact with industry players. Create your own network among our the 50,000 IE alumni

4

RECOGNITION

IE is constantly recognized worldwide as an innovative, top ranked school.

5

BECOME A HYBRID

Some of the most difficult cybersecurity jobs to fill are the ones that require knowledge in another industry. According to Burning Glass, these jobs actually take 17% longer to fill than the average cybersecurity job. Our program trains students from all backgrounds in order to bring cybersecurity and business expertise to their industry.

6

MADRID

iOlé! Enjoy a unique experience in a vibrant city like Madrid.

7

AN INTENSE PROGRAM

Our Master in Cybersecurity allows you to acquire the necessary skills to transform business through actionable insights and cutting-edge technologies

8

DRIVING INNOVATION

At IE School of Human Sciences & Technology we have an ecosystem of international professionals, that are pioneering cutting edge projects at the heart of one of the best schools in Europe, allowing students and their peers to become leaders and drivers of innovation.

9

INDUSTRY EXPERIENCED FACULTY

World-Class faculty including executives from various companies and industries such as IBM, Deloitte, Google, Kaspersky, and Telefonica among others.

10

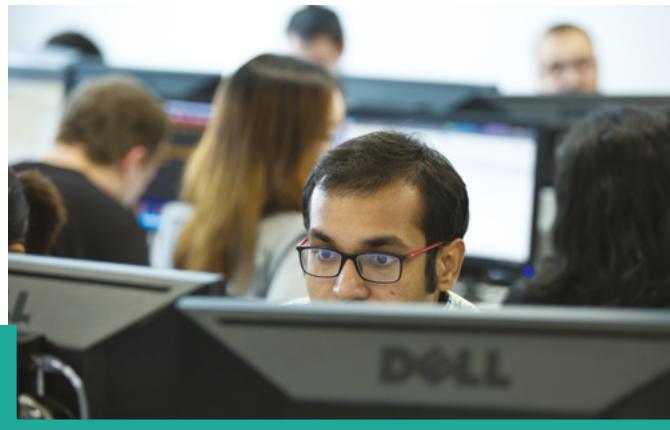
AN INTERNATIONAL EXPERIENCE

The world in your classroom. You will benefit professionally and personally from diverse classmates. IE has more than 100 nationalities on campus.

THE PROGRAM*

AN EXCITING JOURNEY

You will master the four areas of knowledge and skills needed to become a successful professional in the field of Cybersecurity. This program is built around the needs of industry recruiters and updated based on their ongoing feedback.



MODULE I: CYBERSECURITY GOVERNANCE & MANAGEMENT

The module is designed to give you an in-depth understanding of how different organizations can improve their risk management through an orderly and efficient operation of the security of their technological infrastructures. Analysis of the different cybersecurity roles and responsibilities to support the business areas and to improve decision making.

COURSES:

- Introduction to Cybersecurity: Safety vs Security
- Attacks, Threats and Security Incidents
- Risk Management, Countermeasures & Security Assessment
- Cryptography & Crypto Analysis
- Security of Electronic Payment Systems
- New Trends in Cybersecurity: Internet of Things, Cloud Computing, and Big Data
- Standards and Best Practices. ISO 27001 Corporate Security Policies Certification
- Industrial Cybersecurity & Critical Infrastructures
- Cyber Intelligence

MODULE II: IT, CYBERCRIME & RESPONSE

The courses in this module provide practical knowledge and skills necessary to understand, define and use information systems**. These systems are based on new technologies capable of analyzing at information at very high speed, large volumes of data of different types and resolve issues in varied business domains.

COURSES:

- OSI Layers: Network, Communications, and Firewalls
- Monitoring and Intrusion Detection Systems
- Pentesting and System Exploitation - Ethical Hacking
- Profiles and Roles: Access and Control Authentication
- Malware Analysis
- Threat Intelligence
- Forensic Investigation
- Foundation of Information Technology and Risk Management
- Security in Design & Development
- Systems & Tools for Cybersecurity
- Cybersecurity Operations and Data Driven-Security

* Please note that program content may be subject to change.

** Technology courses are designed to be accessible for lawyers and other non-technical profiles.



MODULE III: CYBER LAW, COMPLIANCE & ETHICS

This module is designed to provide you with in-depth training in competences and humanistic subjects so that you know how to apply the appropriate law and regulations.

You will acquire basic knowledge of information technology law and new technologies in the different areas of public law and private law.

COURSES:

- Privacy and Security Regulatory Framework
- Cyber Crisis Management and Resilience
- Audit Process, Methods, and Frameworks
- Business Continuity, Contingency, and Recovery Plans
- Compliance, Ethics, and CSR

MODULE IV: BUSINESS, BEHAVIOR, AND CHANGE

This module analyzes human behaviors that form the basis of events and incidents related to the use of new technologies and cyberspace. The behaviors will be analyzed in the different paradigms of action: as antisocial element contrary to the legal order that leads to cybercrime. Also in contrast to this we'll have behavioral analysis as individual and group behavior of citizens / users of information systems exposed to the risks derived from cyberspace.

COURSES:

- Leadership for Success: The Power of Soft Skills
- Leadership, Communication, Change Management
- Cyber Criminology
- Communicating Cybersecurity Effectively
- Cybersecurity cost/benefit Analysis
- Working Effectively in Teams

OFFICIAL DEGREE

Students must fulfill specific requirements to be able to request the issuance of the Official University Degree upon completion of the Master Program. Please go to <https://www.ie.edu/registrar-office/> for more information.

HANDS-ON CHALLENGES

You will engage in three intensive team challenges that will give you practical, hands-on experience working directly with industry experts. In each challenge, your team will present its results to a panel of experts.



MALWARE ANALYSIS

Your team will use the latest techniques and tools to conduct forensic analysis. You will conduct a cyber-exercise to collect electronic evidence and prepare a forensic report.



VULNERABILITY ASSESSMENT

Your team will face a real cybersecurity situation. You will work to identify the potential risks the company could be exposed to.



GLOBAL SECURITY AUDIT

You will conduct an integral cybersecurity assessment to evaluate the maturity level of an organization.

EXPOSURE WORKSHOPS

In addition to courses and Hands-on Challenges, you will participate in a series of workshops designed to expose you to the latest trends and emerging ideas, tools, technologies and business issues. Some examples of topics covered are Cyberintelligence, Interviewing Skills and Careers, Entrepreneurship, among others.





CISSP CERTIFICATION

The demand for skilled information security (InfoSec) professionals has increased exponentially over the past few years. But how do recruiters know who is and isn't qualified for the job?

Like in many other industries and trades, professional certifications have been developed in recent years to validate that InfoSec technicians understand the dangers that threaten online security, and are able to prevent and mitigate them. Of these certifications, one of the most impressive and widely recognized is the CISSP.

CISSP stands for Certified Information Systems Security Professional. Professionals with a CISSP certification define the architecture, design, management, and/or controls that ensure the security of business environments. It was the first certification in the field of information security to meet the stringent requirements of ISO/IEC Standard I7024.

However, despite the growing popularity of the CISSP credential, only about 100,000 have been distributed. While studying the Master in Cybersecurity at IE School of Human Sciences & Technology, you will have the opportunity to enhance your professional skills and stand out from competitors by preparing for this certification.

COMPANIES THAT COLLABORATE WITH THE PROGRAM

The best way to learn is through practical, hands-on methodologies. Thanks to our strong relationship with top industry professionals, students have the opportunity to experience the real world of work in the classroom through challenges, consulting projects, and multimedia simulations, applying their knowledge as they go. Here are some of the partner companies collaborating with the program:



PROGRAM STRUCTURE



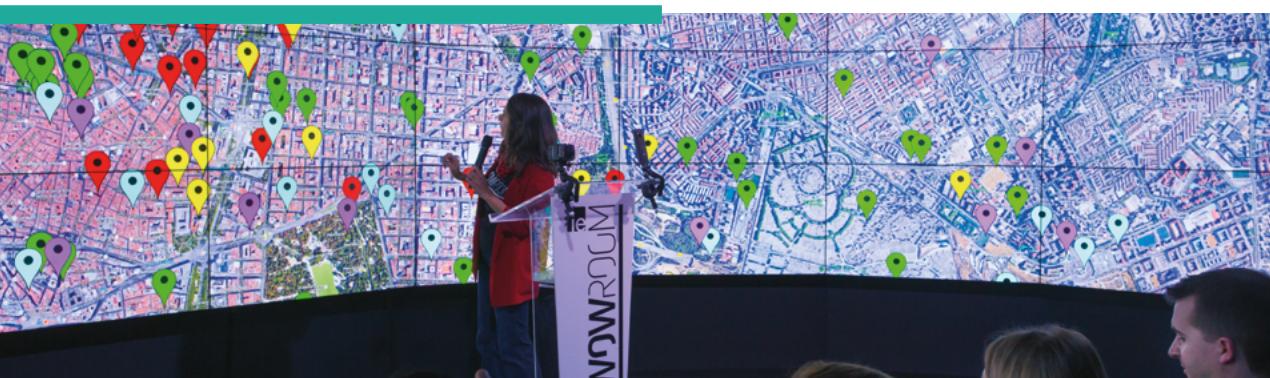
CHOOSE THE PROGRAM FORMAT BEST SUITED FOR YOU:

IMMERSIVE FULL-TIME PROGRAM IN MADRID

Our full-time programs are designed for those looking for a totally immersive educational experience. Your fast-paced days will be filled with face-to-face classes, group meetings, presentations, simulations, and debates, and you'll get to know students from diverse geographical and professional backgrounds. Our Madrid campus is in the heart of the city, in the financial district, and is full of resources to complement your learning, such as the IE Library, the Venture Lab, and talks given by experts. Dive into your field of study and make the most out of your time at IE in the vibrant capital city of Madrid.

DYNAMIC PART-TIME PROGRAM FOR BUSY PROFESSIONALS

Looking to pursue a master's degree while advancing in your career? IE's part-time degrees are cutting-edge programs that blend virtual and physical learning: classes are taught on the IE Online Campus, and are complemented by several one-week, in-person sessions in Madrid, so you won't have to put your professional life on hold. You'll learn through live lectures, interactive videoconferences, discussion forums, and debates, collaborating with other like-minded changemakers across the globe. An accurate reflection of how modern corporations operate today, this format prepares you to dive into the world of work straight away.



FULL TIME FORMAT:

Face-to-face classes

3 sessions a day

At least **1 hour** session of group work per day

Participate in **IE Clubs** and other activities organized after standard class hours

Exposure to **workshops** and **talks** during each term

PART-TIME FORMAT:

15-month dynamic course that ensures an **accelerated** and **integrated** learning experience.

Flexible balance between day-to-day job and studies.

A blend of several **face-to-face periods** in our Madrid campus and **online courses** taught by live videoconferencing and discussion forums* with on-going interaction with faculty and classmates on a 24/7 online campus.

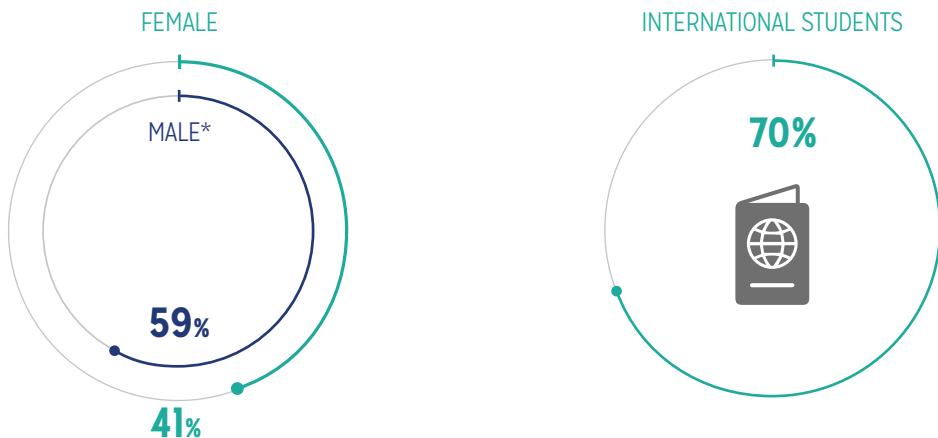
*Schedule:

- Videoconference sessions: Saturdays from 13:00 – 14:30 and 15:00 – 16:30 (GMT+1). Time frame subject to class composition and student's geographic areas.
- Online Forums: Monday to Thursday (open 24/7)

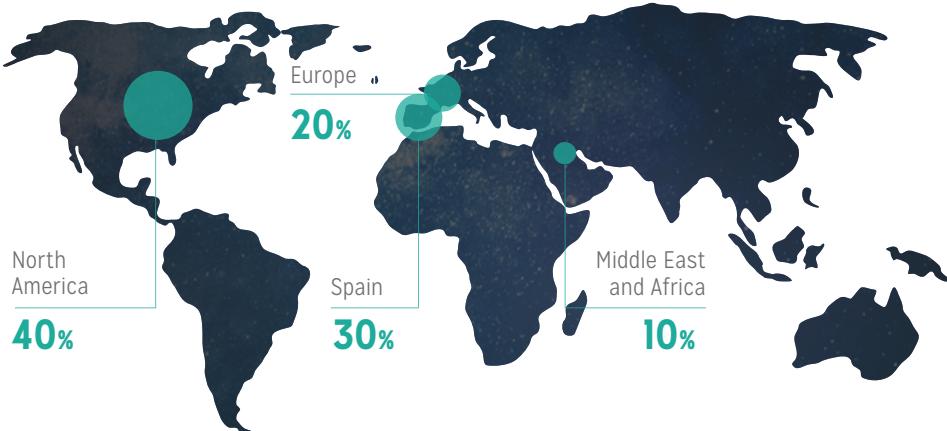
AN INTERNATIONAL CLASS

BECOME PART OF A VIBRANT INTERNATIONAL CLASS

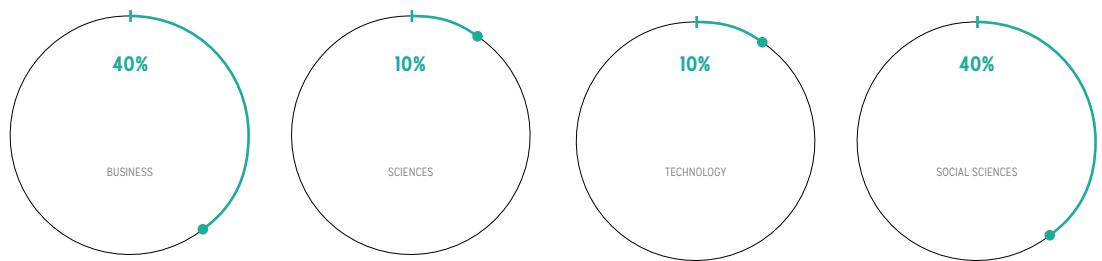
CLASS PROFILE



REGIONS



ACADEMIC BACKGROUND



INDUSTRIES REPRESENTED

- IT, Banking
- Telecommunications
- Financial Services
- E-commerce,Law, Consulting
- Healthcare,Education
- Technology
- Public Administration
- Energy and Utilities
- Insurance Services and logistics among others.

A FEW COMPANIES REPRESENTED

- Saatchi and Saatchi
- FDS Global
- Gardere
- Cooptalis
- Microsoft

CAREER OPPORTUNITIES

Career possibilities range from strategic to leadership roles in various industries sa well as the private or public sector. Students will gain experience not only in cybersecurity but overall understanding of the impact a security professional can have throughout an organization.

SOME COMPANIES THAT HAVE HIRED OUR ALUMNI:

- ON-X
- Deloitte
- Oylo Spain
- Ernst & Young
- Aiulen Cyber Security
- Kapersky
- DXC



"Skills gap persists: only 1 in 4 of applicants are considered qualified for each open job posting, and filling information security positions can take six months or longer."

State of Cyber Security Report, ISACA 2017



"There will be a shortage of 2 million cybersecurity professionals by 2019"

ISACA and RSA conference survey



"Nearly 75% of security professionals say they do not have enough staff to defend their organizations against current threats."

Black Hat USA conference

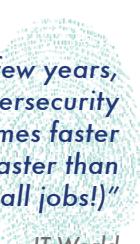
ROLES ON THE PRIVATE AND PUBLIC SECTOR

- CSO – Chief Security Officer
- Security Consultant/Manager
- CISO – Chief Information Security Officer
- Information Security Manager
- Cybersecurity Senior Consultant
- Senior Security Architect
- Data Privacy Officer
- Threat Intelligence Analyst
- Ethical Hacker
- Vulnerability Manager
- Digital Forensics Investigator
- IT Manager



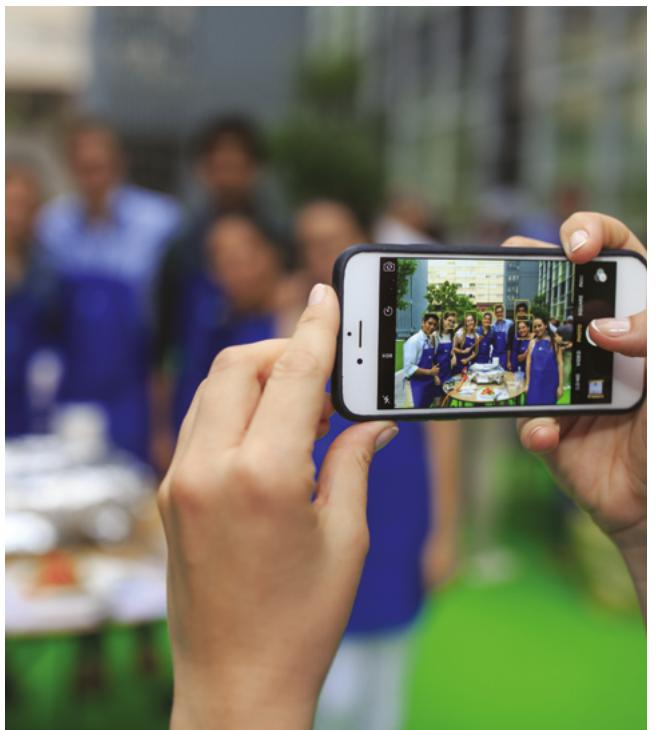
"There will be 3.5 million cybersecurity job openings by 2021."

Forbes



"Over the past few years, the demand for cybersecurity professionals grew 3.5 times faster than other IT jobs(2 times faster than all jobs!)"

IT World



FACULTY



GIANLUCA D'ANTONIO
Academic Director

Group, Chairman at ISMS Forum
Spain



MICHAEL KAISER
Advisory Board

National Cyber Security, Alliance
Executive Director



HUGH THOMPSON
Advisory Board

Symantec - Blue Coat, VP, Chief
Technical Office



MIGUEL REGO
Advisory Board

Cyber Security Leader in EY and
former CEO at INCIBE - (Spanish
National Cyber Security
Institute)



JAVIER PEREA
Advisory Board

Strategic Cybersecurity Advisor,
Hi-Tech Executive, Entrepreneur,
Board Member and Investor



RAJ SAMANI
Advisory Board

VP, CTO for Intel Security EMEA





**CARLOS ALBERTO SAIZ
PEÑA**
Professor

Attorney, Partner and Head of Governance, Risk & Compliance practice at Ecix Group



RAMSÉS GALLEGOS
Professor

Strategist & Evangelist at Symantec



NATHALY REY
Professor

EMEA Head of Trust, Google Cloud



VICENTE DÍAZ
Professor

Principal Security Analyst / Threat intelligence Manager, Global Research and Analysis Team at Kaspersky Lab



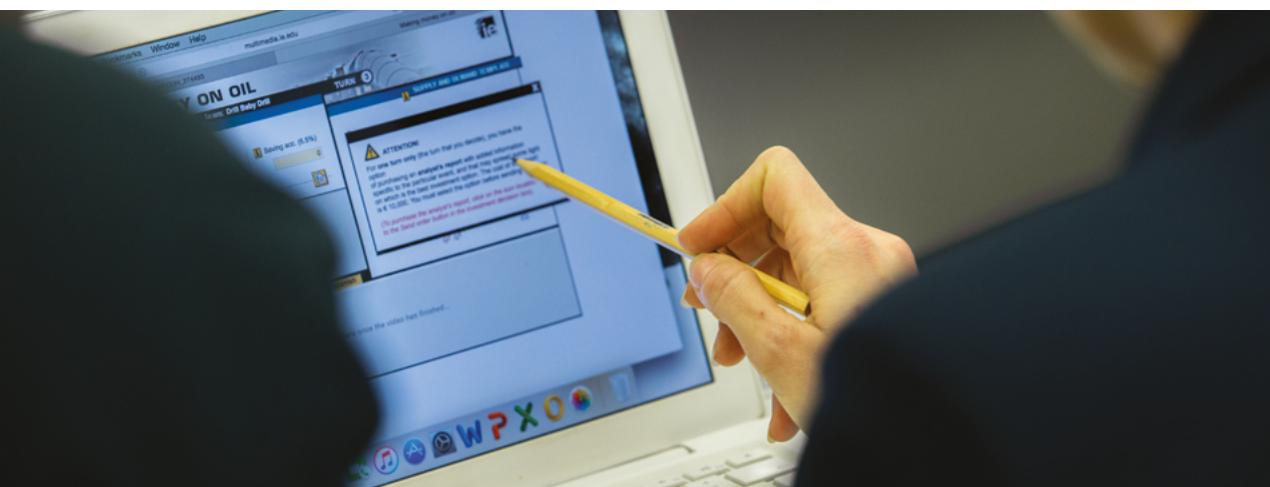
PEDRO PABLO PEREZ
Professor

Global Security VP Telefonica / 11paths CEO / Cybersecurity Expert



VIRGINIA AGUILAR GARCÍA
Professor

NATO Cyber Defence Section, Head of CTAC.



¡MADRID!

Join us at IE and you will be part of more than a Masters program. Your learning will go beyond classroom training, and extend to a rich array of on and off-campus activities, and the cultural and professional life in the city of Madrid. You will benefit greatly from your international classmates in the program, from relationships with students in other programs at IE University and IE Business School, and from your relationships with faculty.

Take part in an unforgettable period of your life in Madrid. The program is taught entirely in English, and those studying the full-time option will also have the opportunity to learn/improve their Spanish - the native language of 500 million people worldwide and the world's second business language.

The campus for postgraduate masters programs of IE is around 20.000m² in size, spread across 17 buildings strategically situated in the Barrio de Salamanca district of Madrid, a very well connected area in the heart of the financial district of the city.



SOME HIGHLIGHTS OF MADRID...



GO...

on a trip to the beach: Madrid is 300km from the sea (1.5 hours by train, 3 hours by car). Try Valencia, Balearic Islands, or Málaga!



EXPLORE...

museums and culture: Madrid has three of the most important art museums in the world: The Prado, with four thousand works of art; the Thyssen-Bornemisza, with works by Renoir and Van Eyck; and the Reina Sofía, with over 20,000 works from the 20th century.



ENJOY...

Madrid's social life: Madrid is internationally renowned for its nightlife, old cafés, fun bars and restaurants. It has one social venue per 132 people, so many places to go and have fun!



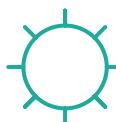
TASTE...

traditional tapas: Madrid's famous eating style is tapas! Small portions of different Spanish dishes, something you should try as soon as you arrive to Madrid.



EXPERIENCE...

flamenco: Spain is where the famous music and dance style flamenco was born, take a trip to Sevilla in the high-speed train and watch live an authentic flamenco show.



FEEL...

the sun: Madrid is the European capital with the most sunny days, here comes the sun!



WATCH & PRACTICE...

sports: Attend as a fan to a Real Madrid game or practice any sport from hiking, to skiing, to sailing, Madrid is located in the center of Spain, do it all!



TRAVEL...

around Europe: Madrid is located in a very strategic and central location within Europe, hop on a flight and reach any destination in Europe or North Africa in just 2-3 hours.

ADMISSIONS & FINANCIAL AID

The objective of the admissions process is to select motivated students with high potential for success and leadership in their chosen field.

IE's admissions process is based on the review of your application materials as well as interviews with our admissions and academic team to ensure a good fit between the program and your preparation and career interests.



APPLICATIONS FOLLOW FOUR STEPS:

1

APPLY

Start your application process right away through our online application system. Simply go to

www.ie.edu/cybersecurity

2

REVIEW

Our admissions and academic team will review your application and all accompanying documents.

3

INTERVIEW

If you pass the review, you will be invited to interview with our admissions and academic staff (in-person or online).

4

DECISION

IE Admissions will make a final decision on your application. The admissions process is a rolling process and there is no deadline for application for a particular class. Admission is valid for two years.

ADMISSION REQUIREMENTS

The application form provides the Admissions Committee with important information for evaluating candidates. In addition to the completed form. Please enclose the following documentation in your application package:

- Evidence of completion of a Bachelor degree (or equivalent) from an accredited university.
- Official university transcripts (certified translation into English or Spanish).
- One-page CV or resumé.
- IE Global Admissions Test (you may provide a GMAT or GRE instead).
- English language certificate for non-native English speakers (Cambridge Advanced or Proficiency, TOEFL, IELTS, or Pearson Academic). A certificate is not required if you completed an undergraduate degree in English.
- Photocopy of current passport.
- One passport-size photo.
- Completed application form, including all supporting documents.
- Two letters of recommendation.
- Application fee 125€ (non-refundable and payable by credit card or cash).

GET IN TOUCH



Have an informal chat
cybersecurity.advisor@ie.edu



For more information go to
www.ie.edu/cybersecurity



Apply now at
www.ie.edu/app

IE'S GLOBAL PRESENCE

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USA & Canada

West & Midwest USA -

Los Angeles

westcoast@ie.edu

South USA & Caribbean - Miami

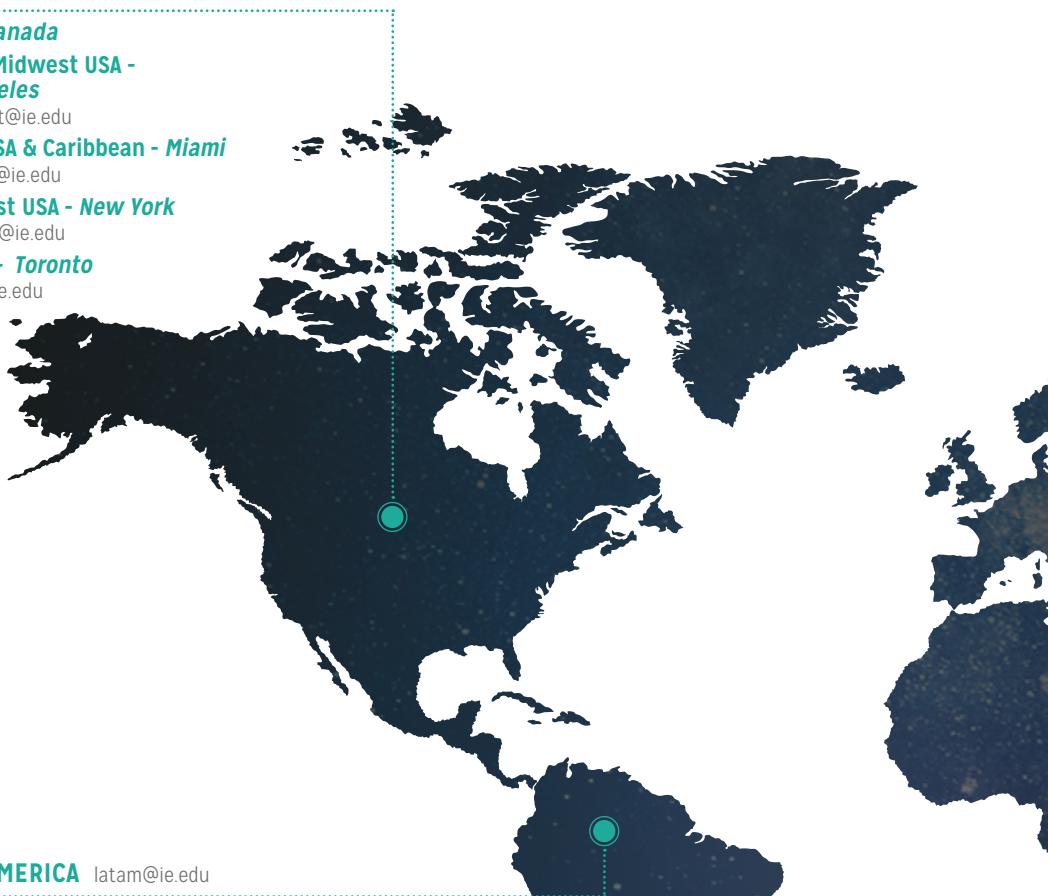
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Please Note: The information contained in this brochure is subject to change. IE reserves the right to modify program content, regulations and policies when deemed appropriate and in the best interest of the IE community. Please contact the program management team should you have any queries.

