

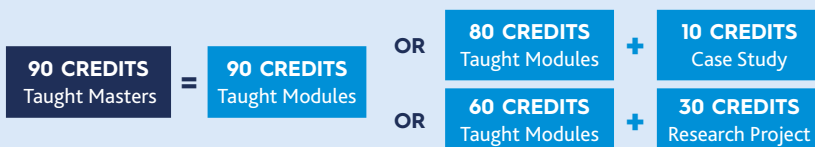


# MSc Forensic Computing & Cybercrime Investigation

1 Year Full Time/2 Years Part Time | Distance Learning

This is a programme for law enforcement. It aims to provide high quality forensic computing and cybercrime investigation training and formal education. It is also designed to deliver cutting-edge, up-to-date cybercrime investigation techniques, strategies and tactics that allow students to understand and tackle emerging trends in cybercrime. Over the past 17 years, we have brought in specialists from around the world to review and advise on the content considering the needs of digital forensic investigators and computer crime specialists. The UCD School of Computer Science (CS) and UCD Centre for Cybersecurity and Cybercrime Investigation (CCI) are working closely with law enforcement agencies and industry practitioners in seeking solutions to technologies-related crime. CS and CCI staff also collaborate with the scientists from European Cybercrime Training and Educational Group at Europol (ECTEG).

## Course Content and Structure



### Modules and Topics (Subject to change and are not guaranteed by UCD)

Lectures are pre-recorded and provided online via a virtual online learning environment, allowing you to participate from your home or office and attend UCD only for examinations each year in Dublin, the Netherlands or the USA.

#### Core Modules

MSc candidates are encouraged to take the following modules in their first year:

- Computer Forensics
- Network Investigations

#### Option Modules

- Financial Investigation Techniques – Following the Money
- Programming for Investigators
- Malware Investigations
- Mobile Device Investigations
- Live Data Forensics
- Linux for Investigators
- VoIP and Wireless Investigations
- OSINT Collection and Analysis
- Online Child Abuse Investigations
- Advanced Computer Forensics
- Data and Database Forensics
- Advanced Malware Analysis
- Case Study
- Research Project

## Career Opportunities

For law enforcement officers, having this qualification has the additional advantage of adding credibility to their testimony as expert witnesses. Career development possibilities in this field are excellent. Graduates include senior staff at Europol and INTERPOL, members of national and regional police forces and police training colleges, government ministries and agencies with Law Enforcement (LE) powers, defence forces, specialist cybercrime agencies, revenue, customs and border protection.

### EU and Non-EU Enquiries

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UCD School of Computer Science  
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🌐 [www.ucd.ie/courses/msc-forensic-computing-cybercrime](http://www.ucd.ie/courses/msc-forensic-computing-cybercrime)

### Apply Now

This programme receives significant interest so please apply early online at

[www.ucd.ie/apply](http://www.ucd.ie/apply)

## Learning Outcomes

On successful completion of the programme, depending on the module taken, students will be able to:

- Understand methods used to conduct forensic analysis of digital devices including computer systems and mobile devices
- Identify, collect, process, analyse and present digital forensics evidence
- Use common network investigation techniques
- Develop critical thinking in analysing and performing cybercrime investigation
- Research and develop custom tools for evidence analysis
- Work in groups to resolve computer forensic challenges
- Understand the cybercrime business model and how to perform the financial fraud investigations
- Conduct research into novel forensic and cybercrime investigation problems
- Investigate cases of child sexual exploitation on the Internet
- Tackle the forensic analysis of future technologies (both hardware and software) through the development of new applications.

## Applicant Profile

- All applicants must be current employees of a law enforcement organisation (LE) working in an investigative role. You do not have to be a sworn officer. LE includes any organisation that has responsibility for the enforcement of national or local legislation.
- Applicants with a primary degree in Computer Science are preferred. However, applicants working in the field of digital forensic investigations in law enforcement for more than 2 years and who have successfully completed advanced training, will be considered at the discretion of the course directors on a case-by-case basis.
- Applicants whose first language is not English must also demonstrate English language proficiency of IELTS 6.5 (no band less than 6.0 in each element), or equivalent, such as TOEFL (iBT) score of 90 or PTE score of 63. Visit the UCD Admissions website for further details.



## UCD School of Computer Science

The School of Computer Science in University College Dublin is the largest computer science department in Ireland with over 1,000 students. Our academics and researchers are active in the field of digital forensics and cybersecurity. As well as BSc undergraduate degrees we also offer a range of Masters level degrees and a structured PhD program. Our online MSc in Forensic Computing and Cybercrime Investigation has been running since 2006 and has 1500 alumni in 70 countries. The new MSC in Cybersecurity is providing opportunities for IT professionals to upskill while they work.

[www.ucd.ie/cs](http://www.ucd.ie/cs)

## Current CCI Projects include:



### The UNDERSERVED Project

The objective of the UNDERSERVED project is to develop a threat reporting and analysis platform for use by sectors vulnerable to cyber attack, but without the means to mitigate. UNDERSERVED will pull together state of the art and best practice to develop a customised back-end system that will conduct automated file analysis and produce sophisticated and comprehensive threat reports that can be shared with the community at risk, and with law enforcement.

[www.ucd.ie/cqi/projects/underserved](http://www.ucd.ie/cqi/projects/underserved)



### CYCLOPES - European Network of Practitioners Fighting Cybercrime

The EU-funded CYCLOPES project will build and maintain an innovation-driven network for LEAs against cybercrime, creating synergies between LEA, industry and the scientific community.

[www.cyclopes-project.eu](http://www.cyclopes-project.eu)

## UCD Centre for Cybersecurity and Cybercrime Investigation

The UCD Centre for Cybersecurity and Cybercrime Investigation (CCI) is one of the leading European centres working with law enforcement and Industry to support the fight against cybercrime through a range of capacity building solutions including training, education, forensic tool development and targeted research.

[www.ucd.ie/cqi](http://www.ucd.ie/cqi)



### The FREETOOL Project

Since 2012 this project has developed 11 free digital forensic tools for law enforcement. As well as the tools, FREETOOL provides a community of trusted users and developers, a secure repository and distribution channel and training for law enforcement to use the tools. It is moving towards common standards and opportunities with other projects that share the ethos, as well as enhancing development skills and connecting global law enforcement.

[thefreetoolproject.eu](http://thefreetoolproject.eu)

### Training and Education

For over 20 years, CCI has been creating, organising and delivering conferences, workshops, training courses and educational initiatives for law enforcement and government, focusing on digital forensics and cyber security.

[www.ucd.ie/cqi/education](http://www.ucd.ie/cqi/education)

## Graduate Testimonial

“ I wanted to express my gratitude for my supervisor's advice throughout the process of conducting the research project. Also the entire FCCI Master program was a great experience from which I've learned so much. I'm really happy that I went through it. Therefore I've recommended it to my colleagues. ”

- MB  
Chief Inspector, Landeskriminalamt  
Baden-Württemberg, Germany

## Tools4LEAs |

### Tools4LEAs

The European Anti-Cybercrime Technology Development Association (EACTDA) runs the Tools4LEAs project and aims to establish a long-term and sustainable structure that will deliver on a regular basis tools, ready to be used at operational level by European public security practitioners (law enforcement agencies, forensic institutes, and others) fighting cybercrime. The delivered tools will support the end users primarily in their digital investigations and will have no license costs for European public security practitioners.

[www.eactda.eu/projects/Tools4LEAs](http://www.eactda.eu/projects/Tools4LEAs)



## UCD School of Computer Science

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