



Bern University
of Applied Sciences

Master of Advanced Studies in Digital Forensics & Cyber Investigation

The digital transformation of society is creating new challenges and new opportunities, both for criminals and for criminal investigators. Today forensic and cyber investigators must collect and analyze digital evidence from a diverse landscape of technically complex sources. Our unique Master program gives you a wide range of practical skills needed for an exciting career in digital forensics and cyber investigation.

► School of Engineering and Computer Science

Who Should Apply?

The Master of Advanced Studies in Digital Forensics & Cyber Investigation (MAS DFCI) is designed for two groups of professionals:

- Experienced forensic investigators who want to increase their technical skills in digital forensics and cyber investigations
- Experienced engineers and technicians who want to transition into the field of digital forensics and cyber investigations.

Learning Objectives

Graduates will understand the fundamental concepts of modern digital forensics and cyber investigations. They will have the skills to collect and analyze digital evidence from a variety of sources, and have the ability to investigate complex cyber incidents.

Career Opportunities

The MAS DFCI prepares students for jobs in law enforcement, military, government CERTs, cyber-fraud investigation teams in the finance industry, cyber claims investigators in the insurance industry, security and incident response teams in large firms, consulting and security service providers, and specialized digital forensic and investigation firms.

Course Format

The MAS DFCI is designed for remote and international students pursuing a master's degree part-time. The program has 4 taught semesters and a final master's thesis semester. Each semester has four modules taught in English by experienced industry professionals. The modules are one full week of theory and practice with lab work, giving students a «hands-on» learning experience. Classes are taught in a combination of online and onsite formats in the Canton of Bern, Switzerland.

The Master of Advanced Studies (MAS) degree is 60 ECTS, and a 12 ECTS Certificate of Advanced Studies (CAS) is awarded after each semester.



Semester and Module Content



DFCI Fundamentals – CAS/Semester 1 (12 ECTS)

- Digital Forensic Fundamentals – standards, processes, cyber laws
- Cyber Investigation Fundamentals – basic investigations and intelligence
- Cybercrime Overview – crimes, criminals, and victims
- Digital Forensic Acquisition – forensic imaging of storage media

DFCI Advanced – CAS/Semester 2 (12 ECTS)

- File System Forensics – storage and filesystem analysis
- Operating System Forensics – Windows, Mac, Linux artifacts
- Application and Media Forensics – artifacts and file metadata
- Memory Forensics – acquisition and analysis

DFCI Specialist I – CAS/Semester 3 (12 ECTS)

- Network Forensics – traffic capture and analysis
- Malware Forensics – analysis and reverse Engineering
- Data Analytics and Visualization – timelines, big data
- E-Discovery – corporate litigation and investigations

DFCI Specialist II – CAS/Semester 4 (12 ECTS, minimum 4 modules)

- Cloud/VM Forensics – virtualization, APIs and artifacts
- Mobile Device Forensics – phone and tablet analysis
- Fintech Forensics – cyber fraud, virtual currency investigations
- Forensic Intelligence – OSINT, social media investigations
- Hardware/IoT Forensics – data extraction methods

Master Thesis – MAS/Semester 5 (12 ECTS)

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Continuing Education

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