What is digital forensics?

Digital forensics is the process of acquiring, preserving, and analyzing electronic evidence in a way that is legally admissible in court. Digital forensic investigators will analyze information found on computers, laptops, tablets, cellphones, USB drives, printers, fitness devices, cars, GPS devices, medical devices, and networks. Digital forensics is also referred to as system forensics, computer forensics, computer forensics analysis, electronic discovery, data recovery, and computer analysis.

What do digital forensics specialists do?

Digital forensics specialists perform multiple roles across many different fields. They work in law enforcement investigating digital crimes; in government agencies fighting child exploitation, drug trafficking, and cyber terrorism; or in private corporations investigating company policy violations, employees digital resources misuse, intrusion detection, and hacking attacks. They also work in e-discovery acquiring, preparing, and presenting digital evidence in court; in the private sector working on intellectual property disputes, fraud cases, divorce, and other cases where digital media is involved; or recovering deleted or damaged data. Digital forensics specialist should possess strong analytical and investigative skills in order to uncover evidence on digital devices, such as cellphones, tablets, laptops, computers, GPS devices, personal fitness tracking devices, and cars. A forensic specialist will be able to locate deleted, encrypted, and hidden data in order to reconstruct past events or activities.

What is the employment outlook for this career?

The increased use of digital technology means that more and more organizations are becoming victims of cybercrime leading to increased demand for professionals with digital investigative skills. According to the U.S. Bureau of Labor Statistics, employment of information security analysts is expected to increase by 18 percent from 2014 to 2024, much faster than the average for all occupations. Demand for information security analysts is expected to be very high as these analysts will be needed to come up with innovative solutions to prevent hackers from stealing critical information or creating havoc on computer networks and to investigate cybercrime. (source: *www.bls.gov/ooh*)

For more information about HCC graduation rates, the median debt of students who completed the program, and other important information, visit *www.hagerstowncc.edu/computer-forensics*.

What are the average earnings?

Earnings will vary depending on experience, education, certifications, geographic location, and duties. Median annual wages of information security analysts were $90,120 in 2015. The lowest 10 percent earned less than $51,280, and the highest 10 percent earned more than $143,770. (source: *www.bls.gov/ooh*)

Why should students choose HCC?

HCC has a state of the art digital forensics lab featuring uFRED forensics server and EnCase forensic software allowing students to gain hands-on experience on how to perform digital forensic investigations.

HCC students participate in digital forensics and cybersecurity competitions allowing them to hone and validate their skills.

- In 2015, HCC was one of the first community colleges in the nation to be named as a Center of Academic Excellence for Two-Year Education in information assurance (CAE2Y) for the second time by the National Security Agency.

- HCC digital forensics classes are taught in a five-story STEM (Science, Technology, Engineering, and Math) Building that features a state-of-the-art cybersecurity penetration testing and digital forensics lab.

- HCC has aligned many of its courses with Cyberwatch, a consortium of over 126 colleges, businesses, and government agencies. This alignment allows students to transfer seamlessly from HCC to a four-year college to complete their bachelor's degrees.

- Upon program completion, students will be prepared for several industry standard certification exams including:
  - CompTIA Network +, Security +
  - EC Council Security 5, Network 5, E|NSA, C |EH (Certified Ethical Hacker)
  - The International Society of Forensic Computer Examiners Certified Computer Examiner (CCE)

Information Systems Technology, A.A.S.
Digital Forensics Option

The digital forensics concentration is designed to provide an introduction to the forensic investigation aspect of computers and related electronic data systems. The program includes an overview of forensic evidence collection methods, investigative techniques, and procedures suitable for persons exploring the digital forensics field as a career option. Those students interested in pursuing a career in a highly-specialized field can transfer credits to four-year colleges offering degree programs in digital/computer forensics. Students can also use the digital forensics option as a second degree to enhance career advancement.

General Education Requirements   21 credits

Arts/Humanities
Select from the approved General Education course list..3

Behavioral/Social Sciences
Select from the approved General Education course list..3

Biological/Physical Science
Select from the approved General Education course list..3

Diversity
Select from the approved General Education course list..3

English
Select from the approved General Education course list..3
ENG 112 Technical Writing I 3

Mathematics
MAT 101 College Algebra..3

Program Requirements.......... 30 credits
CYB 101 Introduction to Cybersecurity 3

CYB 131 Scripting Fundamentals 3

CYB 210 Ethics in the Information Age 3

CYB 240 Ethical Hacking Fundamentals 3

IST 108 Microsoft Operating Systems 3

IST 109 UNIX/Linux Operating Systems...................3

IST 154 Networking Basics...3

IST 166 Computer Forensics I —
Principles and Practices 3

IST 266 Computer Forensics II —
Investigations Practices................................3

IST 276 Network Forensics 3

Restricted Electives
Select three courses from the following list:
ADJ 101 Introduction to Criminal Justice 3
BTC 101 Introduction to Biotechnology.....................3
CYB 225 Tactical Perimeter Defense 3
CYB 246 Introduction to Cloud Computing...............3
IST 107 Database Management 3
IST 150 PC Tech: Repair and Troubleshooting 3
IST 151 PC Tech: Operating Systems 3
IST 160 Introduction to Security Fundamentals........3
IST 173 Database Fundamentals 3
IST 261 Server Management I 3
IST 269 Internship I 3

Degree Requirement..........................60

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