

Course Abstract

If you need accommodations due to a disability, contact Disability Services in Edison Hall Room 100, 732.906.2546.

To foster a productive learning environment, the College requires that all students adhere to the Code of Student Conduct which is published in the college catalog and website.

Course ID and Name: CSC258 – Computer Forensics

Department: Business and Computer Science

Chairperson or Course Coordinator: Dr. Aslihan Cakmak

Office Location: ED123

E-mail Address: ACakmak@Middlesexcc.edu

Telephone: 732-906-2526

Prerequisites: CSC116 and CSC 245 or permission of department chairperson

Co-requisites: None

Course Description:

This course introduces students to the field of computer forensics. Students will learn the procedures and tools of the computer forensics field as related to corporate, civil and criminal investigations, including Encase, Drives pay and freeware. Data acquisition, analysis and preservation techniques will be covered. Both corporate and criminal case studies will be discussed. Linux, DOS and Windows operating systems will be covered.

General Education Status: N/A

Credits: 3 Lecture Hours: 3 Lab Hours: 0

Learning Outcomes:

Upon successful completion of this course, a student will be able to:

1. List the major functions of the computer forensics profession.
2. List the major steps in computer investigations.
3. List the functions of the investigator's office and laboratory.
4. Demonstrate use of several computer forensics tools.
5. List the major steps in processing crime and incident scenes.
6. Describe digital evidence controls.
7. Demonstrate how to work with Windows and DOS Systems with regard to computer forensic methods.
8. List Macintosh and Linux Boot Processes and File Systems.

9. Describe data acquisition procedures.
10. List several analytical techniques used in computer forensics.
11. Investigate data preservation techniques.
12. Demonstrate how to recover image files.
13. Demonstrate basic Network Forensics techniques,
14. Demonstrate how to investigate E-mail.
15. List the characteristics of an expert witness and reporting results of investigations.

Course Content Areas:

- Computer Forensics and Investigations as a Profession
- Structure of Computer Investigations
- The Investigator's Office and Laboratory
- Current Computer Forensics Tools
- Processing Crime and Incident Scenes
- Digital Evidence Controls
- Working with Windows and DOS Systems
- Macintosh and Linux Boot Processes and File Systems
- Data Acquisition Techniques
- Computer Forensics Analysis
- Recovering Image Files
- Network Forensics Analysis
- E-mail Investigations
- Becoming an Expert Witness and Reporting Results of Investigations