DCOM 265
Mobile Forensics
4 Credits

Community College of Baltimore County
Common Course Outline

Description

DCOM 265 – Mobile Forensics: students are presented with topics in mobile device forensics, including the analysis, preservation, and recovery of digital evidence in mobile devices. Students perform forensic acquisition and analysis of various mobile computing devices including Android, Apple (iOS), and Windows phone and tablet devices. Students apply best practices when performing evidence collection and analysis and perform hands-on exercises using forensically sound, industry standard tools.

Pre-requisites: DCOM 150

Overall Course Objectives

Upon completion of this course, students will be able to:

1. define mobile device forensics;
2. identify cellular networks, and cellular technologies such as Global System for Mobile Communication (GSM), Code Division Multiple Access (CDMA), and Integrated Digital Enhanced Network (iDEN);
3. analyze the methods of data storage on a mobile device;
4. apply the best practices for the isolation of mobile devices from cellular networks;
5. classify various mobile devices;
6. apply professional standards to document collected evidence;
7. identify smartphones, common phone operating systems, and supported file systems;
8. discuss the purpose of Universal Integrated Circuit Card (UICC)/Subscriber Identification Module (SIM);
9. extract data found on SIM cards in mobile devices and tablets;
10. analyze data collected from various data structures in mobile devices;
11. apply professional standards to prepare a forensics report; and
12. identify forensic challenges in analyzing mobile devices.

Major Topics

I. Mobile device forensics
II. Cellular networks and cellular technologies
III. Mobile device operating system and file system
IV. Mobile device preservation
V. Mobile device forensics tools

VI.   Mobile device forensic process
VII.   Mobile device data extraction and analysis
VIII.   SIM card analysis
IX.   Evidence collection and documentation
X.   Forensics reports

Course Requirements
Grading will be determined by the individual faculty member, but shall include the following, at minimum:

- five comprehensive laboratory projects
- one collaborative project
- two exams

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