



BAKER COLLEGE
STUDENT LEARNING OUTCOMES

ITS 4250 Computer Forensics and Investigation
3 Semester Hours

Student Learning Outcomes & Enabling Objectives

1. Demonstrate the skills and knowledge related to the profession of computer and digital forensics examinations and investigations.
 - a. Describe the steps required to acquire a hash verifiable bit stream image of a digital storage device.
 - b. Describe the various tools used to perform a forensic examination of a hash verifiable image of a storage device.
2. Demonstrate how to acquire a hash verified image using FTK Imager.
 - a. Explain the role of a write blocker as used in a digital forensics examination and how to connect it to a forensic system.
 - b. Use FTK Imager program to acquire a valid bit-stream image of an evidence drive.
3. Demonstrate competency in how to locate and perform a password recovery of an encrypted file such as Microsoft Word, Excel or Power Point.
 - a. Use common password identification and recovery tools such as Daossoft or Passware Kit.
 - b. Use Password Encryption Analyzer for locating encrypted files on a media.
4. Demonstrate competency in the use of Autopsy and other forensic examination tools.
 - a. Demonstrate and describe how to examine the Windows Registry of a hash verified disk image.
 - b. Demonstrate and describe how to identify, export and examine various files of a drive image under forensic examination, including volatile memory captures.
 - c. Explain how disk geometry relates to the forensic examination of a storage device.
5. Describe how to reconstruct a corrupted file header and recover the password of a corrupted file.
 - a. Demonstrate how to use a hex editing tool to examine a text file.
 - b. Demonstrate how to reconstruct a Microsoft Word, Excel or Power Point file with a corrupted file header.
6. Describe the administrative aspects required to perform the forensic examination of a digital storage device such as a SSD or hard disk drive.
 - a. Describe chain-of-custody, evidence handling and receipt documentation.
 - b. Describe the structure of an effective examination report.

CAE-CD Technical Core: Digital Forensics (DFS)
These SLOs are approved for experiential credit.

Effective: Fall 2020