University of Arkansas - Fort Smith
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General Syllabus

CSCE 35203 Computer Forensics

Credit Hours: 3 Lecture Hours: 3 Laboratory or other types of Hours: 0

Prerequisites: Junior standing and consent of instructor

Effective Catalog: 2019-2020

I. Course Information

A. Catalog Description

Examines techniques and procedures to obtain evidence from a computer, network messages and logs. Topics include the preservation of data and evidentiary chain, legal aspects of the search and seizure of computers and related equipment/information. An introduction to different types of computer and networking architectures, characteristics of storage of modern computer architectures. Cybercrimes recognized internationally and by the United States will be introduced, along with the unique laws pertaining to them.

B. Additional Information - None

II. Student Learning Outcomes

A. Subject Matter

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

1. Analyze and explain the role of computer and technology forensics in a criminal investigation.
2. Execute a fundamental computer forensic analysis using computer and network-based tools.
3. Assess and explain the underlying concepts of how data are stored on different types of computers.
4. Explain the general structure of the Internet.

5. Interpret the laws applying to the appropriation of computers for forensic analysis, citing what laws are relevant and apply under what circumstances

B. University Learning Outcomes

This course enhances student abilities in the following areas:

Analytical Skills

Quantitative Reasoning: Students will analyze patterns of activity to differentiate between normal and abnormal network activity, as well as to find information within the context of an investigation.

III. Major Course Topics

A. Digital forensics and its relationship to other forensic disciplines
B. Incident response responsibilities
C. Forensic procedures
D. Digital evidence and tracking
E. Rules/standards of evidence
F. Evidence gathering and analysis
G. Forensic mechanisms
H. Profiling
I. Tools to support investigative work
J. Legal systems
K. Search and seizure
L. Media analysis