

Syllabus for CCJS 421 (Computer Forensics)

Faculty Contact Information

Section removed.

Course Description

Prerequisites: CCJS 100 or CCJS 105; and IFSM 201. A study of the investigation of computer crime from both a legal and technical perspective. Intrusion detection techniques are examined. Case studies are used to develop an understanding of what happens when computer systems are compromised. Focus is on acquiring the skills to efficiently and effectively collect all of the available data in connection with a computer crime. Topics include developing and executing investigative and data collection plans, collecting data from a variety of computer and network hardware components, conducting appropriate analyses, and writing forensic reports.

Course Goals/Objectives

After completing this course, you should be able to:

- discuss the history and evolution of computer crime and computer forensics
- discuss various types of computer crimes and how computer forensic methodologies vary dependent upon the nature of the crime
- understand the role that digital evidence currently plays in criminal investigations
- define common terms associated with computer forensic examinations
- describe the computer forensics process
- discuss basic legal issues associated with computer forensic examinations
- explain the role of digital crime scene technicians, digital evidence examiners, and digital investigators
- understand network basics of relevance to computer forensic examinations
- identify unique forensic concerns related to computer intrusion (hacker) investigations
- identify basic hardware and components of relevance to computer forensic examinations
- develop and critique investigative and data collection plans
- develop and critique a basic computer forensic reports

Course Materials

Casey, Eoghan. *Digital Evidence and Computer Crime*. 2nd edition. Elsevier Science, 2004. ISBN: 0121631044.

Additional Materials

U.S. Department of Justice (2002). *Searching and Seizing Computers and Obtaining Electronic Evidence in Criminal Investigations*. Available at: <http://www.cybercrime.gov/searching.html>.

U.S. Secret Service (2006). *Best Practices for Seizing Electronic Evidence*. Available at http://www.secretservice.gov/electronic_evidence.shtml#intro.

Additional handouts and website references will be utilized to supplement these materials.

Course Introduction

CCJS 421 Computer Forensics is designed to acquaint students with practical and legal concepts unique to the field of computer crime and computer forensic analysis. Computer forensics is typically defined as a scientific, systematic inspection of a computer system and its' contents for evidence or supportive evidence of a crime. As the use of computers and the Internet has become more prevalent within our society, computer forensics has developed into a highly technical field requiring specialized expertise. This course will attempt to educate students regarding appropriate computer forensics processes, and the importance of adhering to a strict set of standards when gathering and analyzing electronic data.

Grading Criteria

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Academic Policies and Procedures

Project Descriptions

Topic Paper 1

You will be asked to write a topic paper on one of two suggested topics:

1. The significance of computer forensic analysis to law enforcement professionals.

2. Legal considerations of significance to computer forensic professionals.

Papers should incorporate concepts discussed in class and within the assigned text and other reading materials. Further information will be provided on the first day of class. Your grade on this paper will represent 15 percent of your final course grade.

Paper Requirements

- Single-sided, double-spaced format
- APA format
- Proper spelling and grammar are required
- Suggested length is four to five pages, not including title and reference pages

Topic Paper 2

You will be asked to write a topic paper on a topic of your choosing that is relevant to a subject discussed throughout the course of this class. The topic of your paper must be approved in advance.

Papers should incorporate concepts discussed in class and within the assigned text and other reading materials. Further information will be provided on the first day of class. Your grade on this paper will represent 15 percent of your final course grade.

Paper Requirements

- Single-sided, double-spaced format
- APA format
- Proper spelling and grammar are required
- Suggested length is four to five pages, not including title and reference pages

Course Schedule

Class	Meeting Date	Readings/Assignments	Due Date
1	10/25/2007	Read Introduction and Chapter 1 in <i>Digital Evidence</i> .	10/30/07
2	10/30/2007 (Virtual Classroom)	Complete Webtycho assignments. Read Chapters 2 and 3 in <i>Digital Evidence</i> . Review DOJ's <i>Searching and Seizing Computers and Obtaining Electronic Evidence in Criminal Investigations</i> .	11/1/07
3	11/1/2007	Read Chapter 4 in <i>Digital Evidence</i> . Review U.S. Secret Service's <i>Best Practices for</i>	11/6/07

		<i>Seizing Electronic Evidence.</i>	
4	11/6/2007 (Virtual Classroom)	Complete Webycho assignments. Read Chapters 5 and 6 in <i>Digital Evidence.</i>	11/8/07
5	11/8/2007	Read Chapter 7 in <i>Digital Evidence.</i>	11/13/07
6	11/13/2007 (Virtual Classroom)	Complete Webycho assignments. Read Chapter 8 in <i>Digital Evidence.</i>	11/15/07
7	11/15/2007	GUEST SPEAKER. Read Chapter 9 in <i>Digital Evidence.</i> PAPER 1 DUE ON 11/15/2007.	11/20/07
8	11/20/2007 (Virtual Classroom)	Complete Webycho assignments. Read Chapter 14 in <i>Digital Evidence.</i>	11/22/07
9	11/22/2007	NO CLASS - Thanksgiving.	11/27/07
10	11/27/2007 (Virtual Classroom)	Complete Webycho Assignments. Skim Chapters 10 through 13 in <i>Digital Evidence.</i>	11/29/07
11	11/29/2007	Read Chapter 15 in <i>Digital Evidence.</i>	12/4/07
12	12/4/2007 (Virtual Classroom)	Complete Webycho assignments.	12/6/07
13	12/6/2007	FINAL FACE-TO-FACE SESSION. WRAP-UP and FINAL EXAM REVIEW.	12/11/07
14	12/11/2007 (Virtual Classroom)	Complete Webycho Assignments.	12/13/07
15	12/13/2007	FINAL EXAM. PAPER # 2 DUE on 12/13/2007.	