CSE 4273
Introduction to Computer Crime and Forensics

REQUIRED/ELECTIVE:
Computer Science – Elective
Software Engineering – Elective
Computer Engineering – Elective

CATALOG DATA:
(Prerequisite: Senior standing in CSE/SE/CPE/MIS/CJ) Three hours lecture. Introduction to computer crime and the study of evidence for solving computer-based crimes. Topics: computer crime, computer forensics and methods for handling evidence.

PREREQUISITE BY TOPIC:
1. Basic knowledge of computer and storage media structure.

TEXTBOOKS AND OTHER REQUIRED MATERIAL:


COORDINATOR:
Dr. David A. Dampier

COURSE OBJECTIVES:
1. Students will be able to recognize computer crime and how it relates to society.
2. Students will be able to conduct rudimentary investigation of computer media to gather evidence of computer crimes.
3. Students will understand the implications of chain of custody and protection of evidence in the gathering of computer evidence.
4. Students will be able to recognize ways in which evidence can be hidden on a computer system.

TOPICS COVERED:  
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Introduction To Computer Forensics 4
Investigating Internet Clues 2
Structure Of Storage Media 2
Encryption 2
Data Hiding 2
Hostile Code 2
Forensic Toolkits 15
Investigating File Systems 7
Criminal Justice Fundamentals 6
Chain Of Custody
Preservation Of Evidence
Testifying About Forensic Evidence
Computer Law
Tests And Quizzes 3

CONTRIBUTION TO PROFESSIONAL COMPONENT:
Engineering Topics of Computer Organization
ASSESSMENTS:
1. Short quizzes in lecture meetings and tests.
2. Individual homework exercises.
3. Research paper.

RELATIONSHIP TO PROGRAM OUTCOMES:
Describe how this course relates to program outcomes. This may be list of specific course objectives including how they relate to course objectives.

PREPARED BY:
Dr. David A. Dampier, Assistant Professor, Department of Computer Science and Engineering, March 30, 2005.

ESTIMATE CSAB CATEGORY CONTENT:

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<th>Data Structures</th>
<th>CORE</th>
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<td>Algorithms</td>
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<td>Software Design</td>
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ORAL AND WRITTEN COMMUNICATIONS:
Every student is required to submit at least ___1__ written reports (not including exams, tests, quizzes, or commented programs) of typically ___5___ pages and to make _____ oral presentations of typically _____ minutes duration. Include only material that is graded for grammar, spelling, style, and so forth, as well as for technical content, completeness, and accuracy.

SOCIAL AND ETHICAL ISSUES:
Students are introduced to the topic of computer crime and how it relates to non-computer crime. They are assessed on their ability to understand computer crime in context with society, and on their ability to recognize computer crime and the evidence associated with it.

THEORETICAL CONTENT:
None.

PROBLEM ANALYSIS:
Approximately half of the homework assignments require the student to analyze computer media and discover evidence of potential computer crime.

SOLUTION DESIGN:
None.