SOUTHEAST COMMUNITY COLLEGE
CONSTRUCTION MANUFACTURING AND TECHNOLOGY DIVISION
Computer Information Technology Program
Date: August 2024

I. CATALOG DESCRIPTION

Course Number:	INFO2596
Course Title:	Computer & Digital Forensics
Prerequisite(s):	INFO2581 and INFO2586
Catalog Description:	This course is an introduction to computer forensics providing practical hands-on experience with the tools and techniques used in the investigative process. An emphasis is placed on digital forensic procedures, reporting, digital forensic tools, and legal issues relating to digital forensics.
Credit Hours:	2.0
Class Hours:	30
Lab Hours:	0
Total Contact Hours:	30

II. COURSE OBJECTIVES: *Course will:*

A. Examine major hardware and software tools, logging and auditing systems, digital evidence controls, and the processing of crime or incident scenes.
B. Demonstrate data acquisition processes, computer forensic analysis, e-mail investigations, and image file creation and examination.
C. Investigate evidence report writing and expert witness requirements.

III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES:

A. Student Learning Outcomes: *Student will be able to:*
1. Explain the legal aspects associated with gathering digital evidence.
2. Initiate the processes to secure and preserve an IT crime scene and evidence.
3. Create and examine a mirror image backup.
4. Use current digital forensics tools.
5. Evaluate evidence from IT crime scenes, image files, and mobile devices.

B. General Education Learning Outcomes (GELOs)
1. GELO 3: Critical Thinking & Problem Solving
Outcome 2: Synthesize information to arrive at reasoned solutions to problems.

IV. CONTENT/TOPICAL OUTLINE

A. Digital Forensics Profession and Investigations
B. The Investigator's Office and Laboratory
C. Data Acquisition
D. Processing Crime and Incident Scenes
E. Windows and CLI Systems
F. Current Digital Forensics Tools
G. Linux and Macintosh File Systems
H. Graphics Files Recovery
I. Digital Forensics Analysis and Validation
J. Virtual Machine Forensics, Live Acquisitions, and Network Forensics
K. E-mail and Social Media Investigations
L. Mobile Device Forensics
M. Cloud Forensics
N. Report Writing for High-Tech Investigations

O. Expert Testimony in Digital Investigations
P. Ethics for the Expert Witness

V. INSTRUCTIONAL MATERIALS

A. Required Text(s): Nelson, Phillips, and Steuart, *Guide to Computer Forensics and Investigations: Processing Digital Evidence*, (Refer to CID and/or instructor for current edition)
B. Other Resources: Computer & Digital Forensic Supplemental Materials and trial and shareware programs/utilities downloadable from the Internet
C. Computer and Internet access

VI. METHODS OF PRESENTATION/INSTRUCTION

A. Methods of presentation typically include a combination of the following:
1. Technology enhanced lectures
2. Group discussions
3. Engaged learning activities

VII. METHODS OF EVALUATION

A. Methods of evaluations, although determined by the individual instructor, traditionally includes a combination of the following:
1. Attendance and/or participation activities
2. Homework assignments
3. Quizzes
4. Exams
5. Research Projects

VIII. SPECIFIC COURSE REQUIREMENTS

A. This course will not qualify as a prerequisite if the student receives a final grade below C (70%).