



Course Number and Title: ITN 272 Digital Forensics

Campus Location:

Georgetown, Dover, Stanton, Wilmington

Effective Date:

2020-51

Prerequisite:

ITN 150, ITN 170

Co-Requisites:

None

Course Credits and Hours:

3.00 credits

2.00 lecture hours/week

2.00 lab hours/week

Course Description:

This course prepares students to conduct digital investigations and acquire and analyze digital evidence. Topics include file structures, network forensics, data recovery techniques, data hiding, data preservation techniques, and chain-of-evidence procedures.

Required Text(s):

Obtain current textbook information by viewing the [campus bookstore - https://www.dtcc.edu/bookstores](https://www.dtcc.edu/bookstores) online or visit a campus bookstore. Check your course schedule for the course number and section.

Additional Materials:

Access to high-speed Internet.

Schedule Type:

Classroom Course

Video Conferencing

Web Conferencing

Hybrid Course

Online Course

Disclaimer:

None

Core Course Performance Objectives (CCPOs):

1. Explain the limitations and capabilities of digital forensics. (CCC 1, 2; PGC 1, 2, 3, 4)
2. Examine the legal implications of the collection and investigation process. (CCC 2, 4; PGC 2, 3, 4)
3. Evaluate current digital forensics tools. (CCC 2, 6; PGC 1, 2)
4. Identify locations for digital evidence. (CCC 1, 2; PGC 1, 4)
5. Perform and document an investigation of digital evidence. (CCC 1, 2, 3, 4; PGC 1, 2, 3, 4)

See Core Curriculum Competencies and Program Graduate Competencies at the end of the syllabus. CCPOs are linked to every competency they develop.

Measurable Performance Objectives (MPOs):

Upon completion of this course, the student will:

1. Explain the limitations and capabilities of digital forensics.
 1. Define *digital forensics*.
 2. Determine the viability of forensic techniques given a scenario.
 3. Describe ethical and legal practices related to digital forensics.
 4. Explain the use of forensic techniques for data recovery.
2. Examine the legal implications of the collection and investigation process.
 1. Distinguish between criminal law, civil law, and corporate policy.
 2. Discuss the applicability of fourth amendment rights given a scenario.
 3. Demonstrate appropriate chain of custody procedures.
3. Evaluate current digital forensics tools.
 1. Describe the purpose and function of a forensic workstation.
 2. Evaluate digital forensics hardware and software tools.
 3. Select appropriate digital forensic tools given a scenario.
 4. Discuss the relevance and impact of anti-forensics techniques.
4. Identify locations for digital evidence.
 1. Determine the sources of relevant data for an investigation.
 2. Identify sources of digital evidence given an operating system type.
 3. Identify sources of digital evidence given a file system type.
 4. Identify sources of digital evidence for network activity.
 5. Identify sources of digital evidence given a mobile device.
5. Perform and document an investigation of digital evidence.
 1. Collect evidence for a digital investigation.
 2. Demonstrate appropriate documentation procedures.
 3. Explain the importance of repeatability of findings.
 4. Execute a digital investigation.
 5. Develop a forensic report based on findings of a digital investigation.

Evaluation Criteria/Policies:

Students must demonstrate proficiency on all CCPOs at a minimal 75 percent level to successfully complete the course. The grade will be determined using the Delaware Tech grading system:

92	-	100	=	A
83	-	91	=	B
75	-	82	=	C
0	-	74	=	F

Students should refer to the [Student Handbook - https://www.dtcc.edu/handbook](https://www.dtcc.edu/handbook) for information on the Academic Standing Policy, the Academic Integrity Policy, Student Rights and Responsibilities, and other policies relevant to their academic progress.

Core Curriculum Competencies (CCCs are the competencies every graduate will develop):

1. Apply clear and effective communication skills.
2. Use critical thinking to solve problems.
3. Collaborate to achieve a common goal.
4. Demonstrate professional and ethical conduct.
5. Use information literacy for effective vocational and/or academic research.
6. Apply quantitative reasoning and/or scientific inquiry to solve practical problems.

Program Graduate Competencies (PGCs are the competencies every graduate will develop specific to his or her major):

1. Solve technology-related problems using critical thinking and troubleshooting skills.
2. Articulate the role of the technology professional in organizations to support the ethical use of information technology.
3. Apply fundamental security concepts and strategies for maintaining and securing information technology.
4. Read and interpret technical information and effectively communicate to a wide range of audiences using oral, print, and multimedia strategies.
5. Demonstrate the importance of lifelong learning that empowers personal and professional growth.

Disabilities Support Statement:

The College is committed to providing reasonable accommodations for students with disabilities. Students are encouraged to schedule an appointment with the campus Disabilities Support Counselor to request an accommodation needed due to a disability. A listing of campus Disabilities Support Counselors and contact information can be found at the [disabilities services - https://www.dtcc.edu/disabilitysupport](https://www.dtcc.edu/disabilitysupport) web page or visit the campus Advising Center.