NORTHWESTERN CONNECTICUT COMMUNITY COLLEGE

COURSE SYLLABUS

Course Title: Computer Forensics and Investigations   **Course #:** CST* 156 / CJS * 156

Course Description: 3 Credits An introduction to the procedure and technical aspects of securing digital and computer evidence in relation to law enforcement. Topics include the forensics labs and their setup, Fourth Amendment, incident handling, first responder requirements, investigative reports, technical considerations in collecting evidence, and proper procedure to insure admissibility in court.

Pre-requisite/Co-requisite: ENG* 096

Goals: Students are expected to

- Develop skills in procedure and protocol during evidence collection
- Develop skills in proper navigation of various operating systems and application software
- Develop an understanding of the function and operation of digital storage devices
- Develop an understanding of the Fourth Amendment as it applies to crime scenes
- Develop communication skills to produce documentation in evidence collection.
- Develop an understanding of the common digital forensic tools currently available

Outcomes: Upon successful completion of this course students will be able to:

- Explain the key steps in forensic investigations
- Describe the need for forensic investigators
- Describe the enterprise theory of investigation (ETI)
- Describe legal issues involved in computer forensics
- Describe how to report the results of forensic investigations
- Explain how to evaluate physical security needs
- Explain evidence lockers and how to secure them
- Explain how to Create a forensic work area
- Explain how to configure a computer forensic lab
- Explain and evaluate equipment needs
- Explain basic forensic workstation requirements
- Explain the tools and software forensic investigators use
- Explain data destruction industry standards
- Explain how to Investigate computer crime
- Describe how to Develop policies and procedures
- Explain how to Investigate a company policy violation
- Describe the methodology of investigation
- Explain how to Evaluate a case (perform case assessment)
- Explain how to Develop and follow an investigation plan
- Explain how to Obtain a search warrant
- Explain how to Collect evidence
- Explain how to Implement an investigation
- Explain how to Image an evidence disk
- Examine digital evidence
- Explain how to close a case
- Explain how to evaluate a case
- Describe electronic evidence

- Describe the role of the first responder
- Describe types of electronic devices and collect them as potential evidence
- Explain the key steps in Building a first responder toolkit
- Describe evidence-collecting tools and equipment
- Describe first responder procedures
- Explain how to Secure and evaluate electronic crime scenes
- Explain how to Conduct preliminary interviews
- Explain how to Document electronic crime scenes
- Explain how to Collect and preserve electronic evidence
- Explain how to Package electronic evidence
- Explain the key steps in Transporting electronic evidence
- Explain the key steps in reports about crime scenes
- Identify some common mistakes of first responders
- Identify incidents
- Identify security incidents
- Describe Report incidents
- Explain CSIRTs
- Explain who works in a CSIRT
- Explain the types of incidents and levels of support
- Explain how a CSIRT handles a case
- Describe CERTs all over the world
- Explain the need for an investigative report
- Explain report specifications
- Explain report classification
- Describe the layout of an investigative report
- Explain the guidelines for writing a report
- Describe supporting material
- Explain the importance of consistency
- Explain the salient features of a good report
- Explain the investigative report format
- Describe the elements of a sample forensic report
- Explain the best practices for investigators

College Policies

Plagiarism: Plagiarism and Academic Dishonesty are not tolerated at Northwestern Connecticut Community College. Violators of this policy will be subject to sanctions ranging from failure of the assignment (receiving a zero), failing the course, being removed/expelled from the program and/or the College. Please refer to your "Student Handbook" under "Policy on Student Rights," the Section entitled "Student Discipline," or the College catalog for additional information.

Americans with Disabilities Act (ADA): The College will make reasonable accommodations for persons with documented learning, physical, or psychiatric disabilities. Students should notify Dr. Christine Woodcock, the Counselor for Students with Disabilities. She is located at Green Woods Hall, in the Center for Student Development. Her phone number is 860-738-6318 and her email is cwoodcock@nwcc.edu.

School Cancellations: If snowy or icy driving conditions cause the postponement or cancellation of classes, announcements will be made on local radio and television stations and posted on the College's website at www.nwcc.edu. Students may also call the College directly at **(860) 738-**

6464 to hear a recorded message concerning any inclement weather closings. Students are urged to exercise their own judgment if road conditions in their localities are hazardous.

Use of Electronic Devices: Some course content as presented in Blackboard Learn is not fully supported on mobile devices at this time. While mobile devices provide convenient access to check in and read information about your courses, they should not be used to perform work such as taking tests, quizzes, completing assignments, or submitting substantive discussion posts.

Course Withdrawal: If you are thinking about withdrawing from this class, *SPEAK TO YOUR INSTRUCTOR* first. Your instructor will be able to give you an idea of how you are doing overall and may be able to offer you suggestions for improvement and explain other options available. BEFORE you withdraw, consider the following:

- Withdrawing from a class can have an impact not only on your current funding (e.g. Financial Aid, Veteran's benefits or Scholarships, etc.) but may also impact your FUTURE funding
- Withdrawing from a class will make you ineligible for Dean's List Honors for that semester
- Too many W's on your transcript can impact your ability to transfer to a four-year institution, acceptance into a particular degree program and/or acceptance into graduate school

Sexual Assault and Intimate Partner Violence Resource Team: NCCC is committed to creating a community that is safe and supportive of people of all gender and sexual identities. This pertains to the entire campus community, whether on ground or virtual, students, faculty, or staff.

Sexual assault and intimate partner violence is an affront to our national conscience, and one we cannot ignore. It is our hope that no one within our campus community will become a victim of these crimes. However, if it occurs, NCCC has created the SART Team - Sexual Assault and Intimate Partner Violence Resource Team - to meet the victim's needs.

SART is a campus and community based team that is fully trained to provide trauma-informed compassionate service and referrals for comprehensive care. The team works in partnership with The Susan B. Anthony Project to extend services 24 hours a day, 7 days a week throughout the year.

The NCCC team members are:

Ruth Gonzalez, Ph.D.	860-738-6315	Green Woods Hall Room 207
Susan Berg	860-738-6342	Green Woods Hall Room 223
Kathleen Chapman	860-738-6344	Green Woods Hall Room 110
Michael Emanuel	860-738-6389	Founders Hall Annex Room 308
Seth Kershner	860-738-6481	Library
Jane O'Grady	860-738-6393	Founders Hall Annex Room 212
Robin Orlomoski	860-738-6416	Business Office Room 201
Patricia Bouffard, Ex-Officio	860-738-6319	Founders Hall Room 103
Savannah Schmitt		Student Representative

At NCCC we care about our students, staff and faculty and their well-being. It is our intention to facilitate the resources needed to help achieve both physical and emotional health.