

CSM 288
Fundamentals of Digital/Computer Forensics
 South Carolina State University
 Spring 2019

1. About Instructor

Instructor:	
Office:	
Office Phone:	
E-mail:	
Office Hour:	

2. About Course

Text Book:	Marjie T. Britz, Computer Forensics and Cyber Crime - An Introduction. Third Edition, Prentice-Hall, 2013, ISBN-13: 978-0-13-272377-0
Class Schedule:	MWF: 9:55 AM – 12:10 PM; Room 231/310
Course Description:	This course will cover the fundamentals of computer forensics and investigations. Topics will include historical and current computer forensic and investigative security issues; a systematic approach to computer investigations; digital forensics, email and image file analysis; and guidelines for investigation reporting. Various forensic tools will be used during the laboratory portion of the class. Hardware and software issues related to the development of a computer forensics laboratory will be discussed. Course includes hands-on laboratory exercises, term paper and presentation, simulation, participation in speaker series, and team work.
Prerequisite:	CS 188 or Consent of Instructor
Course Objectives	<p>The objectives of the course are the following:</p> <ol style="list-style-type: none"> 1. Discuss traditional problems associated with computer crime. 2. Define e-cash and its impact on society and cyber-crime. 3. Identify key historical developments. 4. Define traditional computer crime. 5. Categorize Internet communications. 6. Define contemporary computer crime. 7. Identify theft and identity fraud. 8. Distinguish between physical methods and virtual methods of identity theft. 9. Define terrorism. 10. Identify organized crime technologies. 11. Discuss evolution of computer-specific statutes. 12. Identify theft and financial privacy statutes.

	<ol style="list-style-type: none"> 13. Explain international cyber-crime efforts. 14. Explain how the first amendment is applied to computer-related crime. 15. Define probable cause as it relates to cyber-crimes. 16. Explain warrantless searches. 17. Differentiate between private and public sector searches. 18. Explain how computer forensics is considered an emerging discipline. 19. Identify problems associated with finding digital evidence. 20. Develop a process of evidence and report preparation. 21. Discuss future trends and emerging concerns as they relate to forensics and cyber-crime.
Course Competencies	<p>Upon completion of this course the students are expected to be able to demonstrate their knowledge in the following areas of the subject:</p> <ul style="list-style-type: none"> • Application Security • Network Security • Database Security • Internet Security • Introduction to Linux & Python • Team work and technical communication
Expected Measurable Outcomes	<p>To acquire the competencies in this course the students are required to accomplish the following:</p> <ol style="list-style-type: none"> 1. Take all scheduled examinations and quizzes 2. Complete all homework assignments, term paper and presentation 3. Simulation/Programming Exercise
4. Course Outline by Topic	
Weeks 1-2	<ul style="list-style-type: none"> • Chapters 1 and 2 • Practice Exercises • Quiz 1
Weeks 3-4	<ul style="list-style-type: none"> • Chapters 3 and 4 • Labs 1, 2 • Practice Exercises • Quiz 2
Weeks 4-5	<ul style="list-style-type: none"> • Chapters 5 and 6 • Labs 3,4 • Practice Exercises • Quiz 3 • Midterm Review
Weeks 6-7	<ul style="list-style-type: none"> • Chapters 7 and 8 • Practice Problems • Midterm Exam

Weeks 8-9	<ul style="list-style-type: none"> • Chapters 9 and 10 • Labs 5, 6 • Quiz 4 • Practice Exercises • Discussion on term Paper
Weeks 10-11	<ul style="list-style-type: none"> • Chapters 11 and 12 • Lab 7 • Quiz 5 • Practice Exercises
Weeks 12-13	<ul style="list-style-type: none"> • Chapter 13 • Term Paper Presentation • Term Paper report submission • Final Exam Review • Final Exam

4. Grading	
	Class Participation 10
	Homework/Design Project(s) 50
	Project Report & Oral Presentation 15
	<u>Quizzes, Test, Final Exam</u> 25
	<u>Total</u> 100

5. Academic Integrity and Policies	
	<p>A. Assignments</p> <p>Students must submit all assignments on or before the due date. Assignments turned in after the class on the due date will be considered late by one day. There will be 10% deduction of marks for each day being late to submit the assignment. The work you submit must be entirely your own and copied assignments will not be given any credit.</p>
	<p>B. Test/Examination/Quizzes</p> <p>The test and quizzes dates will be announced in the class. Any student who misses a test, examination or quiz will be given zero (0) for that test, examination or quiz. Make-up text, examination or quiz will be given only in special cases. To be eligible for a make-up test, examination or quiz the following conditions must be met:</p> <ul style="list-style-type: none"> • the student should inform the instructor well before the test, examination or quiz date. • written document supporting the reason for not being able to take the test, examination, or quiz should be submitted.