

TCOM/CFRS 510 Sec 001 – Digital Forensics Analysis
Department of Electrical and Computer Engineering
George Mason University
Spring 2015

Syllabus (4 Jan 2015)

Class time/location: Tuesday 7:20 pm – 10:00 pm / Fairfax Campus: Nguyen Engineering Building, Room 4457

Administrative Information

Instructor: Eric J. Eifert, Special Agent USAF
Adjunct Professor
E-mail: eeifert2@gmu.edu
Phone: 703-966-9998
Office Hours: By Appointment

Course Description

TCOM/CFRS 510 Sec 001 – Digital Forensics Analysis

Explains Computer Forensics crime scene procedures, beginning with initial walk-through and evaluation; identification and collection of potential evidence; preparation of intrusion investigation; aspects of working with investigators and attorneys; reverse engineering with file identification and profiling; application of critical thinking in determination of significance of artifacts; and analysis and reporting of evidence.

Credits: 3

Prerequisite(s): Graduate standing or permission of instructor

Text book



Title: Digital Evidence and Computer Crime, 3rd edition
Author: Eoghan Casey
Publisher: Academic Press
ISBN: 9780123742681
Pages: 807

Lab book



Title: Guide to Computer Forensics and Investigations Lab Manual
Author: Andrew Blitz and Christopher Steuart
Publisher: Course Technology
ISBN: 9781435498853
Pages: 224

Grading

Homework assignments, individual presentation, mid-term exam, and group presentations will be evaluated to create the final grade. All group members will receive the same grade.

Homework (4 assignments): 20%
 Individual Presentation #1: 10%
 Midterm Exam: 25%
 Individual Presentation #2: 20%
 Final Exam: 25%

Schedule

Week	Date	Topic	Reading Assignment / Lab	Projects Assigned / Due
Week 1	22-Jan-15	Introduction and case study "Complicated"	Chapter 1 / Lab 1	Assigned: Homework #1 and individual presentation topics
Week 2	29-Jan-15	Foundations of Digital Forensics	Chapter 2 / Lab 2	Due: Individual presentation topics (Computer forensics in the news)
Week3	5-Feb-15	Language of Computer Science Investigation	Chapter 3 / Lab 3	Due: Homework #1
Week 4	12-Feb-15	Digital Evidence in the Courtroom	Chapter 4 / Lab 4	Due: Individual Presentations – Part 1
Week 5	19-Feb-15	Cybercrime Law: A United States Perspective	Chapter 6 / Lab 5	Due: Individual Presentations – Part 2
Week 6	26-Feb-15	Conducting Digital Investigations	Chapter 7 / Lab 6	Assigned: Homework #2 - Cryptographic Hash Functions
Week 7	5-Mar-15	Handling a Digital Crime Scene / Investigative Reconstruction with Digital Evidence	Chapter 8 / Lab 7	Assigned: Groups and Group Presentation topics
Spring Break	12-Mar-15	No Class – Spring Break		
Week 8	19-Mar-15	MIDTERM EXAM		Due: Homework #2 & Group Presentation topics
Week 9	26-Mar-15	Computer Basics for Digital Investigators	Chapter 15 / Lab 8	
Week 10	2-Apr-15	Applying Forensic Science to Computers	Chapter 16 / Lab 9	In class Project (Homework #3): Crime Scene Collection
Week 11	9-Apr-15	Digital Evidence on Windows Systems	Chapter 17 / Lab 10 and 11	Due: Crime Scene Collection report (Homework #3)
Week 12	16-Apr-15	modus Operandi, Motive, and Technology	Chapter 9 / Lab 12 and 13	Assigned: Homework #4 - Forensic Examination of Hard Drive Image
Week 13	23-Apr-15	Violent Crime and Digital Evidence & Digital Evidence as Alibi	Chapter 10 & 11 / Lab 14	Group Presentations – Part 1
Week 14	30-Apr-15	Sex Offenders on the Internet	Chapter 12	Due: Homework #4 and Group Presentations – Part 2
Week 15	7-May-15	Final Exam		Final Exam

Blackboard Learn

We will be utilizing the new Blackboard Learn capability to post material, manage assignments, chat and other activities. You can access the Blackboard at: <http://myMason.gmu.edu>.

Attendance Policy

Students are expected to attend each class, to complete any required preparatory work (including assigned reading) and to participate actively in lectures, discussions and exercises. As members of the academic community, all students are expected to contribute regardless of their proficiency with the subject matter. Students are expected to make prior arrangements with Instructor if they know in advance that they will miss any class and to consult with the Instructor if they miss any class without prior notice.

Departmental policy requires students to take exams at the scheduled time and place, unless there are truly compelling circumstances supported by appropriate documentation. Except in such circumstances, failure to attend a scheduled exam may result in a grade of zero (0) for that exam.

Communications

Communication on issues relating to the individual student should be conducted using e-mail or telephone. E-mail is the preferred method – for urgent messages, you should also attempt to contact the Instructor via telephone. E-mail messages from the Instructor to all class members will be sent to students' GMU email addresses – if you use another email account as your primary address, you should forward your GMU email to that account.

Honor Code

Students are required to be familiar and comply with the requirements of the [GMU Honor Code](#). The Honor Code will be strictly enforced in this course.

Accommodations for Disabilities

If you have a documented learning disability or other condition that may affect academic performance you should: 1) make sure this documentation is on file with [Office for Disability Services](#) (SUB I, Rm. 4205; 993-2474; <http://ods.gmu.edu>) to determine the accommodations you need; and 2) talk with me to discuss your accommodation needs.