

**TCOM/CFRS 510 Sec 001 – Digital Forensics Analysis**  
**Department of Electrical and Computer Engineering**  
**George Mason University**  
**Fall 2014**

**Syllabus** (8 Aug 2014)

**Class time/location:** Monday 7:20 pm – 10:00 pm / Fairfax Campus: Nguyen Engineering Building 4457

**Administrative Information**

Instructor: Eric J. Eifert, Special Agent USAF  
Adjunct Professor  
E-mail: [eeifert2@gmu.edu](mailto: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, 3<sup>rd</sup> 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	25-Aug-14	Introduction and case study "Complicated"	Chapter 1 / Lab 1	Assigned: Homework #1 - Introduction to Digital Forensic Tools
Labor Day	1-Sep-14	No Class this week		
Week 2	8-Sep-14	Foundations of Digital Forensics	Chapter 2 / Lab 2	Due: Individual presentation topics (Computer forensics in the news)
Week3	15-Sep-14	Language of Computer Science Investigation	Chapter 3 / Lab 3	Due: Homework #1
Week 4	22-Sep-14	Digital Evidence in the Courtroom	Chapter 4 / Lab 4	Due: Individual Presentation #1
Week 5	29-Sep-14	Cybercrime Law: A United States Perspective	Chapter 6 / Lab 5	
Week 6	6-Oct-14	Conducting Digital Investigations	Chapter 7 / Lab 6	Assigned: Homework #2 - Cryptographic Hash Functions
Week 7	Tuesday 14-Oct-14	Handling a Digital Crime Scene / Investigative Reconstruction with Digital Evidence	Chapter 8 / Lab 7	
Week 8	20-Oct-14	MIDTERM EXAM		Due: Homework #2 Assigned: Individual Presentation #2 topics
Week 9	27-Oct-14	Computer Basics for Digital Investigators	Chapter 15 / Lab 8	Due: Individual Presentation #2 topics
Week 10	3-Nov-14	Applying Forensic Science to Computers	Chapter 16 / Lab 9	In class Project (Homework #3): Crime Scene Collection
Week 11	10-Nov-14	Digital Evidence on Windows Systems	Chapter 17 / Lab 10	Due: Crime Scene Collection report (Homework #3)
Week 12	17-Nov-14	modus Operandi, Motive, and Technology	Chapter 9 & 10/ Lab 11 and 12	Assigned: Homework #4 - Forensic Examination of Hard Drive Image
Week 13	24-Nov-14	Violent Crime and Digital Evidence & Digital Evidence as Alibi	Chapter 11 & 12 / Lab 13 and 14	
Week 14	1-Dec-14	Sex Offenders on the Internet		Due: Homework #4 and Individual Presentation #2
	8-Dec-14	Reading Day		
Week 15	15-Dec-14	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.