

CFRS 510- 001 Digital Forensics Analysis
Department of Electrical and Computer Engineering
George Mason University
Spring 2019 Syllabus

Administrative Information:

Class time: Thursdays, 7:20pm – 10:00pm
Location: Fairfax Campus, Nguyen Engineering Building 4457
Instructor: Brienne Douglas
E-mail: bdougl4@gmu.edu
Office hours: by appointment only

Course Description:

TCOM/CFRS 510, Sec 001 (catalog ID 11524) – 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

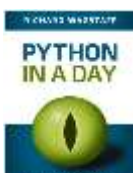
Required Texts:



Title: Guide to Computer Forensics and Investigations, Processing Digital Evidence, 5th Edition (GCFI)
Author: B. Nelson, A. Phillips, C. Stuart
Publisher: Course Technology
ISBN-10: 1285060032



Title: Lab Manual for Guide to Computer Forensics and Investigation Processing Digital Evidence, 5th Edition (GCFI Lab)
Author: Andrew Blitz
Publisher: Course Technology
ISBN-10: 1285079086



Title: Python In A Day
Author: Richard Wagstaff
Publisher: CreateSpace Independent Publishing Platform
ISBN-13: 9781490475578

Grading:

Homework assignments, presentations, and exams will be evaluated to create the final grade.

Homework:	15%	Presentation 1 (PR1):	10%
Midterm Exam:	25%	Presentation 2 (PR2):	15%
Final Exam:	30%	Participation:	5%

Schedule *(subject to change)*

Week	Date	Topic	Reading/Lab Assignment	Assigned/Due Item
01	24-Jan-19	Digital Forensics Foundation, Data Acquisition & Processing	GCFI Ch. 1, 3, 4 Labs 1, 3, 4	Assigned: HW1 & PR1 Topics
02	31-Jan-19	Python Basics – Data Types & Conversions, Libraries, Loops, Conditional Statements	Python in a Day Python Lab1	Due: PR1 Topics
03	07-Feb-19	Hard Drives & File Systems	GCFI Ch. 5, 7 Labs 5 – 7	
04	14-Feb-19	Python – Control Flow, Date/Time stamps, Functions	Python Lab2	Due: HW 1
05	21-Feb-19	Graphic Files, Analysis & Validation, Virtualization, & Social Media	GCFI Ch. 8-9, 12-13 Labs 8 – 9, 12–13	Assigned: PR2 & HW2
06	28-Feb-19	Presentation 1		
07	07-Mar-19	Midterm		
08	14-Mar-19	~~ Spring Break ~~		
09	21-Mar-19	Python – Handling files, Error handling, Try/Except clauses	Python Lab3	Due PR2 Topics
10	28-Mar-19	Memory & Cloud Forensics	GCFI Ch. 12 – 13 Labs 12 – 13	Due: HW 2
11	04-Apr-19	Python – Web Scraping	Python Lab4	Assigned: HW3
12	11-Apr-19	E-mail Analysis	GCFI Ch. 11	
13	18-Apr-19	Python – Generators, Iterators	Python Lab5	
14	25-Apr-19	Live Acquisitions	GCFI Ch. 10	Due: HW 3
15	02-May-19	Presentation 2 – Anti Forensics		
16	08-May-19	Final Exam		

[Black Board Learn & Communication](#)

Blackboard Learn will be used to post material, manage assignments, chat and other activities. You can access Blackboard at: <http://mymasonportal.gmu.edu>.

GMU policy requires that faculty and student course related communication be done via their respective **@GMU.EDU** email addresses. 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.

[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.

[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 and can be accessed at <http://oai.gmu.edu/the-mason-honor-code-2/>.

[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.