

**George Mason University**  
**DFOR- 762 Mobile Device Forensics**  
**CRN 83201 SEC DL1**

**3.0 Credit Hours**

**Fall 2021 - Aug 23, 2021 – Dec 15, 2021**

**Mondays 7:20pm - 10:15pm (except where noted) - Synchronous Online Blackboard Ultra Collaborate**

**Instructor:**

Jessica Hyde

jhyde@gmu.edu

Office hours: Available upon request

**Recommended Prerequisites:**

CFRS 510, CFRS 661

**Recommended Textbook:**

Bair, J. (2018). *Seeking the truth from mobile evidence: Basic fundamentals, intermediate and advanced overview of current mobile forensic investigations*. London: Academic Press.

Mahalik, H., Tamma, R., & Bommisetty, S. (2016). *Practical Mobile Forensics: A hands-on guide to mastering mobile forensics for the iOS, Android, and Windows Phone platforms*. Birmingham: Packt Publishing.

**Optional Textbook:**

Reiber, L. (2016). *Mobile forensic investigations: A guide to evidence collection, analysis, and presentation*. New York, NY: McGraw Hill Education. ISBN: 978-0-07-184363-8

**Required Materials:**

You must have a personal laptop computer for the hands-on lab capable of using the forensic tools that will be made available on Blackboard prior to the Saturday in-person class meeting. Additionally, you must have a headset or mic capable of both listening to and responding to the synchronous remote lectures on Monday evenings using Blackboard Collaborate. Download links for required software will be provided by the instructor and disseminated via Blackboard.

**Course Description:**

This course will familiarize students with mobile forensics. We will focus on data types, storage, acquisition, and analysis of data from mobile devices. Students will utilize industry best practices for acquisition, analysis, and presentation of data from mobile devices. This class will be a mixture of lecture and hands-on acquisition and analysis.

The material provided in the course is proprietary. Uploading this material anywhere without the express permission of the instructor is strictly prohibited and a violation of the Mason Honor Code.

**Course Schedule: *Subject to Change***

Meet	Date	Topic	Reading	Homework
1	Aug 23	Lesson 1: Mobile Phone Networks, Data Sources, and Data Presentation	Rec: Bair Ch 5, Ch 7 Opt: Reiber Ch 1, 14	SOP Project Dist
2	Aug 30	Lesson 2: Mobile Forensics vs Computer Forensics and Mobile Forensic Image Types	Rec: Bair Ch 1 & Rec: Mahalik Ch 1 Opt: Reiber Ch 2, 6	Hmwk 1 Dist Proj Selection
	Sep 6	NO CLASS - Labor Day Holiday		
3	Sep 13	Lesson 3: Mobile Data preservation	Rec: Bair Ch 2, 3, 4 Opt: Reiber Ch 3, Ch 4, 7, 8	SOP Reporting/ Concept Plan
4	Sep 20	Lesson 4: Acquisition Methodology	Rec: Bair Ch 8 -11, 13 Opt: Reiber Ch 5	
5	Sep 27	Lesson 5: Advanced Acquisitions		Hmwk 1 Due
6	Oct 4	iOS Acquisition Lab Day		SOP Seizure Sec/Proj Plan
7	Oct 12*	Android Acquisition Lab Day	THIS IS A TUES	Midterm Dist
8	Oct 18	Lesson 7: Mobile Analysis – SIM	Rec: Bair Ch 6 Opt: Reiber Ch 9	Mid & Lab Due SOP Acq/Test Data
9	Oct 25	Lesson 8: Mobile Analysis – Android	Rec: Bair Ch 10 Opt: Reiber Ch 13	SOP SIM Analysis Due/Update Hmwk 2 Dist
10	Nov 1	Lesson 9: Mobile Analysis – iOS	Rec: Mahalik Ch 6 Opt: Reiber Ch 11	Hmwk 3 Dist
11	Nov 8	Lesson 10: Mobile Analysis – Blackberry, Windows, Feature Phones, Raw Binaries, and Time Stamps	Rec: Bair Ch 15 Rec: Mahalik Ch 12 Opt: Reiber Ch 10	SOP Android Sec/ Update
12	Nov 15	Lesson 11: Mobile Analysis - 3rd Party Applications, SQLite	Rec: Bair Ch 14	SOP iOS Sec/ Draft
13	Nov 22	Analysis Lab Day	Rec: Bair Ch 17 Rec: Mahalik Ch 11, 13 Opt: Reiber Ch 12	Lab 2 Due
14	Nov 29	Lesson 12: Mobile Malware, Comparative Analysis, IoT, and Challenges		Hmwk 2 & 3 Final Project
15	Dec 6	Reading Day		
Final	Dec 13	Final* Anytime on that date		

**Grading:**

<u>Weights</u>		<u>Letter Grades</u>
Homework	10 % (two assignments at 5 points each)	A+ 98-100
Labs	15 % (three labs at 5 points each)	A 92-98
Project	25 %	A- 90-91
Midterm	25 %	B+ 87-89
Final	25 %	B 83-86
		B- 80-82
		C 70-79
		F 0-69

The Midterm and Final exams are cumulative and will be timed online exams.

**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. **Students must utilize their GMU email account to contact the instructor.**

**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.