Instructor
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Required Text(s)
AccessData Forensics Training Manual- Academic Edition *(Avalable only @ Marshall University Bookstore)*

Required Materials
Tophat Student Course Subscription (http://www.tophat.com) Join Code: 200372

Resource Sites
http://accessdata.com/solutions/digital-forensics/forensic-toolkit-ftk (Resource Site for FTK v6)
https://www.syntricate.com/computer-forensics-certification.html (Information & Resources on ACE)

Course Description
This three (3) credit hour Intro to Digital Forensics course (CRN #2905), This course teaches students how information is recovered from electronic devices and the forensic techniques used to perform forensic examinations. In addition, legal issues regarding electronic data will be discussed.

Prerequisites
IST 264- Technology Foundations

Computer Requirements
Students will be required to complete assignments using AccessData's Forensic Toolkit v6 (FTK) and its complimentary suite of forensic tools and hardware (this software will be made available in the WAEC 1232 computer lab). Open lab hours will be posted later in the semester. In addition, the open lab hours will be available to practice and complete laboratory projects and assignments. These hours are usually posted in the ML Commons area the first week of the semester.

The College of Science maintains agreements with various software publishers to provide software for its computer labs as well as for its faculty, staff, and students. Students currently enrolled in COS courses are eligible to receive, via the COS Software Store, a variety of software applications at no cost for use in their academic endeavors. This includes many of the same applications used in COS courses (including the virtual platforms used in this course). All students currently enrolled in COS courses are eligible for the program, regardless of his/her major, as long as he/she is currently enrolled in at least one COS course.
http://www.marshall.edu/cos/software.

Students will need to create Tophat user account and purchase a Tophat subscription plan for use within this course. Subscription plans vary from 4 month access, semester access, to lifetime access. Tophat will be used to track attendance, class quizzes, reviews, etc. The join code for this course is 200372 and the course homepage is https://app.tophat.com/e/200372. Tophat can be used from either a PC or via the Android/iOS app on a mobile device. Students can also text-in answers to +1 (315) 636-0905 via SMS. This is ideal for poor wifi or older mobile devices.

Students will receive emails via Marshall email (Please setup your Marshall account if you have not done so). E-mail will be used to make any general announcements, last minute changes, etc. It is mandatory that you monitor both your email at least once a day. PLEASE ONLY USE MY MARSHALL EMAIL ADDRESS FOR QUICK CORRESPONDENCE. Messages left on MUOnline or any other social media or email service may result in delayed responses.

Course content (labs, slides, exams, etc) will be distributed via MUOnline as they become available. You can log into the course homepage at the following address: www.marshall.edu/muonline

Course Objectives/Outcomes

Upon completion of Data Recovery & Analysis course, students will be able to:

Course Student Learning Outcome	How Practiced in This Class	How Assessed in This Course
✓ Students will be knowledgeable in recovering evidence from various digital media types	✓ In-class lecture & hands on laboratory exercises.	✓ Classroom Discussion, End of Module Exercises, In-Class Laboratory Exercises, Practice Competency Exam, Final Exam
✓ Students will be familiar with components of advanced hardware and software systems used in a digital forensics laboratory.	✓ In-class lecture & hands on laboratory exercises.	✓ Classroom Discussion, End of Module Exercises, In-Class Laboratory Exercises, Practice Competency Exam, Final Exam
✓ Students will be acquainted with advanced methods used to recover, examine, and complete case reports pertaining to digital evidence.	✓ In-class lecture & hands on laboratory exercises.	✓ Classroom Discussion, End of Module Exercises, In-Class Laboratory Exercises, Practice Competency Exam, Final Exam
✓ Students will be confident in analyzing and examining digital evidence that will stand up to standards required for criminal and/or civil cases.	✓ In-class lecture & hands on laboratory exercises.	✓ Classroom Discussion, End of Module Exercises, In-Class Laboratory Exercises, Practice Competency Exam, Final Exam
✓ Students will obtain knowledge that will allow successful completion of the AccessData Certified Examiner (ACE) certification.	✓ In-class lecture & hands on laboratory exercises.	✓ Classroom Discussion, End of Module Exercises, In-Class Laboratory Exercises, Practice Competency Exam, Final Exam

This Data Recovery & Analysis course will meet every Tuesday and Thursday (TR) from 11:00am-12:15pm in the Weisberg Applied Engineering Complex Room 1232 (Digital Forensics Laboratory). The class will consist of lecture/demonstration with accompanying labs and/or exercises. In addition to the required lab manual, materials and readings pertaining to the course will be provided by the instructor.

A practice competency exam is also available to take via MUOnline. This exam is equivalent to the AccessData Certified Examiner (ACE) certification exam in terms of structure and complexity. You will be allowed to take the exam as many times as you please during the semester. Your highest grade on the practice competency exam at the end of the semester will be used to calculate your final grade.

Daily knowledge-based quizzes will also be administered via Tophat. These quizzes can be used as study material for the final and midterm examination.

At the end of the semester, students will sit for the AccessData Certified Examiner (ACE) certification, which consists of approximately 40 theoretical and practical multiple choice questions that covers all of the knowledge points covered throughout the semester. The score obtained in this examination will count as your final exam grade.

Professionalism/Attendance Policy

This class is predominately lab and task based, with much of our time devoted to class time computer work and hands-on tutorials with forensic tools and other utilities that may only available in the laboratory environment. With that said, any missed classes will result in lost points (5 pts per class), put the student behind, and make it difficult to pick up with the next class lessons. Attendance is tracked and maintained electronically via Tophat. In the event that you MUST miss class, it is the student's responsibility to meet with the professor to discuss absences due to illness or other reasons. Any excused absences must adhere to the University's excused absence policy. In this course you will be treated as professionals and will be expected to behave and perform as such. As professionals, you will be expected to attend class, be on time, complete all of your assignments, meet deadlines, ask questions when you don't understand, and participate. Your classroom language and demeanor should also be professional. Also, please set your mobile devices to "Vibrate Only" mode (or turn it off) during class.

University Policies

By enrolling in this course, you agree to the University Policies listed below. Please read the full text of each policy be going to www.marshall.edu/academic-affairs and clicking on "Marshall University Policies." Or, you can access the policies directly by going to http://www.marshall.edu/academic-affairs/?page_id=802

Academic Dishonesty/Excused Absence Policy for Undergraduates/Computing Services Acceptable Use/ Inclement Weather/ Dead Week/ Students with Disabilities/ Academic Forgiveness/ Academic Probation and Suspension/ Academic Rights and Responsibilities of Students/ Affirmative Action/ Sexual Harassment

Instructor Contact & Social Media Policy

You are welcome to follow me on Twitter (@joshbrunty) and/or join my network on LinkedIn. You can also follow our department through our MU Digital Forensics or MU Forensics Facebook group pages. For class-related questions, however, please email me (no DM's, Snaps, etc.). You are also encouraged to stop by my office. Please note, however, that I rarely answer or walk you through lab-related questions via email. In these circumstances, you are encouraged to stop by my office during posted office hours and/or make an appointment.

Assignment Submission Guidelines

All assignments are due on their due date and must be submitted through via MUOnline (unless otherwise noted by the instructor). NO LATE ASSIGNMENTS WILL BE ACCEPTED. Please see the instructor if extenuating circumstances exist that may merit an extension or modification of the assignment.

All electronic submissions MUST follow this file naming convention:
DFIA400_LastName_FirstInitial_Assignment Name.doc ("DFIA400_brunty_j_ACEcertificate.pdf")

Assignments must be submitted in the format specified by the instructor for a given assignment. I WILL NOT accept projects submitted in non-approved formats or naming conventions. Assignments & projects must convey information in a clear, concise, and technical matter; hence obvious grammatical mistakes will be deducted. Projects will be available for download & submitted via MUOnline unless otherwise noted by the instructor.
All course assignments will:
1) Be completed on time
2) Meet guidelines and scoring rubrics for the assignment

Grading Policy

Student materials and grades will be returned as soon as graded to the student and can be viewed via MUOnline. Should you wish to appeal a grade, test question, etc, you need to follow this procedure. You should send an email via MUOnline to the Graduate Assistant and CC me. The title of the email must read "GRADE APPEAL – Assignment Name" (i.e. Lab 8.1, Exam 1, etc). The body of the email must include the question, question number, your answer, and why you think you deserve credit. For tests and quizzes in MUOnline, this should be done immediately after completion, before you leave class. You can copy and paste this information to make things simple. I will get back to you as soon as possible.

Final letter grades will be based on the following scale:

90-100	**A**
80-89	**B**
70-79	**C**
60-69	**D**
0-59	**F**

Percentage of grades will be distributed as follows:

In-Class Exercises/Attendance	25%
Practice Competency Exam (x1)	25%
Final Exam (ACE Cert.)	50%

Example:
In-Class Exercises/Attendance (86%)   x .25 = 21.50
Practice Competency Exam (87%)   x .25 = 21.75
ACE Exam-Final (85%)   x .50 = 42.50

85.75 (86% B)

In-Class Exercises/Attendance (25%)

Attendance will be taken each day via Tophat. It is the student's responsibility to make sure that their attendance is logged. Tardiness to class will result in loss of points for that particular class session. Each class will be worth five (5) pts. and will be calculated as a score at the end of the semester. Generally, this can range in the ballpark of 18-20 class meetings but can vary due to weather, cancelled classes, etc. Any in-class quizzes given by the instructor via Tophat will also factor into this percentage calculation.

Practice Competency Exam (25%)

A practice competency exam is also available to take via MUOnline. This exam is equivalent to the AccessData Certified Examiner (ACE) certification exam in terms of structure and complexity. You will be allowed to take the exam as many times as you please during the semester. Your highest grade on the practice competency exam at the end of the semester will be used to calculate this percentage.

ACE Exam-Final (50%)

At the end of the semester, students will sit for the AccessData Certified Examiner (ACE) certification, which consists of approximately 40 multiple choice questions that covers all of the knowledge points covered throughout the semester. The score obtained in this examination will count as your final exam grade. A grade of 75% or better must be achieved in order to receive the ACE Certification.

CLASS SCHEDULE	Marshall University Dates/ Important Dates/Notes	WEEK
NOTE: The following outline delineates the tentative class schedule with topics to be addressed during the course. Please note this is a tentative schedule and it may change upon class progress:		
Module 1- Introduction to Data Recovery & Analysis **Module 2**: Working with FTK Imager		Jan 9-13
Module 2: Working with FTK Imager (Cont.)	✓ Jan 16 (Monday)- MLK Day- No Class	Jan 16-20
Module 3: Windows Registry		Jan 23-27
Module 4: Registry Viewer		Jan 30-Feb 3
Module 5: Working with FTK-Part 1		Feb 6-10
Module 5: Working with FTK-Part 1		Feb 13-17
Module 6: Working with FTK-Part 2		Feb 20-24
Module 7: Processing the Case		Feb 27-Mar 3
Module 8: Narrowing your Focus		Mar 6-10
Module 9: Regular Expressions	✓ Mar 17 (Friday)- Last day to drop a full semester individual course	Mar 13-17
No Class	✓ Mar 20-24- Spring Break	Mar 20-24
Module 10: Filtering the Case		Mar 27-31
Module 13: Working with PRTK		Apr 3-7
Module 11: The Recycle Bin **Module 12**: Common Windows Artifacts		Apr 10-14
No Class **Module 14**: Encrypting File System (EFS) **Module 15**: Case Reporting	✓ Apr 17-21- No class- Professor out for OSAC Meeting	Apr 17-21
"Dead Week" **Module 14**: Encrypting File System (EFS) Cont. **Module 15**: Case Reporting Cont.	✓ "Dead Week" ✓ Practice Competency Exam DUE Apr. 28 @ 11:59PM via MUOnline	Apr 24-28

Final Exam Review		
Final Exam (ACE)	✓ Final Exam (ACE)	May 1-5

*Syllabus meets requirements set forth by [MUBOG Policy AA-14](#)