FSC 634 Computer Search & Seizure
Course Syllabus
Spring 2018

DIGITAL FORENSICS
INFORMATION ASSURANCE

WAEC 1232
T/TH 4:00 - 5:30

Instructor – John Sammons
Office – Weisberg Applied Engineering Complex – WAEC 2003
Office Phone – 304-696-7241
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Office Hours:
Mon, Weds, Fri – 10:00 – 11:00
T/TH – 11:00 – 12:00

All other times by appointments

* Please send me an email to schedule a meeting if possible. Sometimes I get pulled away even during office hours.

Textbook

None. Readings will be assigned by the instructor.

Credit

The course is three (3) credit hours.

Pre/co-requisites

Admission to the MU Forensic Science Graduate Program or Digital Forensic Certificate Program

Course Learning Objectives

Course Student Learning Outcomes	How students will practice each outcome in this Course	How student achievement of each outcome will be assessed in this Course
Students will effectively **explain** the function of key Windows forensic artifacts.	PowerPoint/Prezi development, peer & instructor review, journal assignments, Quizlets,	Presentations, Quiz questions, concept map, high stakes writing assignment, "hot seat" quizzes

Students will correctly **apply** the phases of the EDRM in civil litigation.	Case studies and practical exercises, journal assignments, Quizlets	Presentations, Quiz questions, concept map, high stakes writing assignment, "hot seat" quizzes
Students will **demonstrate** their ability to communicate effectively both orally and in writing.	PowerPoint/Prezi development, peer & instructor review, journal assignments, Quizlets	Presentations, Quiz questions, concept map, high stakes writing assignment, "hot seat" quizzes
Students will correctly **interpret**, *locate*, *preserve*, *collect*, *analyze*, and *interpret* common Windows artifacts as they relate to the facts and circumstances of a particular investigation.	Journal exercises, in-class team assignments, Quizlets, Practical exercises, journal assignments	Quizzes, "hot seat" quizzes, high stakes writing assignment
Students will **arrange** key course content into a comprehensive, detailed concept map that clearly demonstrates the relationship of one concept to another.	Module concept maps	Mid-Term & Final Concept Maps

Blackboard – Unless otherwise stated, ALL assignments must be submitted on time through Bb. It's your responsibility to know how to do this. Late work will not be accepted without a verified or university approved excuse. Should you have some issue that prohibits you from completing the assignment on Bb by the deadline, you should email the clearly labeled assignment to me via the Bb email system. If you're unable to email the assignment through Bb then email it to me using my MU email account. This should be **before** the due date as well. If not, it will not be accepted. You should collect proof that supports your reason for the work being late. Work that is not in Bb and not submitted via email prior to the due date and time will likely not be graded.

Grade Appeals

 Should you feel an assignment/test question was graded in error, you may appeal. However, your appeal MUST FOLLOW THIS PROCEDURE and FORMAT. You will submit the appeal through Bb email <u>only</u>. Appeals sent elsewhere will not receive a response. The subject line MUST say this "APPEAL – Test/Assignment Name." In the body of the email list the entire question, your answer, and why you think you deserve credit.

Instruction Method

There will be 3 contact hours of classroom instruction per week. Coursework will include classroom lectures, a learning journal, and exams along with a variety of low, med and high stakes writing assignments. You are expected to take an **active role** in your learning. Discussions and writing assignments play significant roles in the conduct of the course.

This course will be taught using active learning methodologies. This means that lectures, as a delivery method will be limited. For students, this means that you will be expected to complete all assigned "pre-work" before the start of class, participate in group assignments, and complete in-class exercises.

Evaluation method

Course grades will be based on a total points system. Your grade will be based on a percentage of the total points possible.

Approximate Course Point Distribution

Assignment/Assessment	Points Possible
Midterm & Final Exam (Concept Map)	200
Projects & Assignments	200
Learning Journals	330
Tests	350
Lab Assignments	200
Total	**1280** (Approx. Subject to change based on progress)

Final letter grades are determined based on the following grading scale:

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

The instructor reserves the right to change these values depending on the overall class performance and/or extenuating circumstances. Please note that your final grade will be calculated by hand, NOT from the totals/weights that you may see on Bb. Grades will be posted as quickly as possible into Bb. However, please keep in mind that those times will vary.

Policy Statement

My Academic Dishonesty Policy
Academic Dishonesty is defined as any act of a dishonorable nature which gives the student engaged in it an unfair advantage over others engaged in the same or similar course of study and which, if known to the classroom instructor in such course of study, would be prohibited. Academic Dishonesty will not be tolerated as these actions are fundamentally opposed to "assuring the integrity of the curriculum through the maintenance of rigorous standards and high expectations for student learning and performance" as described in Marshall University's Statement of Philosophy.

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

In this course, STUDENTS ARE NOT TO "COPY & PASTE" MATERIAL FROM A SOURCE INTO ANY ASSIGNMENT UNLESS SPECIFICALLY AUTHORIZED BY THE INSTRUCTOR.

If you are found cheating on projects or plagiarizing answers from the Internet or other sources (among other things), there will be no second chance. Your penalty is that you will receive a failing grade for the course. In those cases in which the offense is particularly flagrant or where there are other aggravating circumstances, additional, non-academic, sanctions may be pursued through the Office of Judicial Affairs. Notice of an act of academic dishonesty will be reported to the Department Chair, Dean of the College of Science, and to the Office of Academic Affairs. Please refer to the Marshall University Undergraduate Catalog for a full definition of academic dishonesty.

Your assignments may be analyzed using the anti-plagiarism suite of tools powered by Turnitin. Please visit http://turnitin.com for more information.

College of Science IT Student Conduct Agreement

In order to complete this course, you must read, sign, and comply with the COS IT conduct agreement. The agreement is available online here: http://www.marshall.edu/cosweb/agreements/?a=j3qw3

This code of conduct **MUST** be read and signed by you no later than **Friday, August 25, at 5:00 PM.** If you fail to sign this agreement, your access to the computers in WAEC 1232 will be **REVOKED** until you do.

Assignments

The course includes a number of writing assignments. All assignments are due **BY THE TIME NOTED ON Bb,** on their due date. **NO LATE ASSIGNMENTS WILL BE ACCEPTED**. There are VERY specific cutoff dates/times for submission. Please do not procrastinate. If you wait until the last night to start a writing assignment, chances are, you will fail. All (or the majority of) assignments MUST be submitted through Bb. Should some technical issue arise that makes this impossible submit the clearly labeled assignment using Bb email. In the even you cannot submit the assignment via Bb email use the instructors University email address as a means of submission. Should submission prove to be impossible, students are expected to leave a voice mail on the Instructors office phone. In ALL instances, any email or voicemail MUST have a date/time stamp that is BEFORE the due date/time of the assignment. Submissions that do not will be rejected.

File Names

All electronic submissions must follow this file naming convention:
FSC 634_Last Name_First Initial_Assignment Name.doc ("dfia460_sammons_j_researchpaper.doc")

Make-up Quizzes/Assignments and Late Penalty

 Make-up exams will not be given except under unusual circumstances and satisfactory written justification. Any student who misses a quiz/assignment due to an unexcused absence will receive a grade of zero with no opportunity for make-up or substitution. Only University excused absences or those occurring with a good reason (and that reason must be given prior to missing the quiz/assignment) will be accepted. Make up quizzes/assignments must be taken within one week of the original scheduled date. The decision to allow a make-up quiz or accept late work rests with the instructor. Please note, your university excuse MUST be received by me within TWO weeks of the missed assignment/test. Excuses received after that time will not be accepted.

Attendance Statement & Policy

Attendance is absolutely vital to your success in this course and your ability to learn and retain this material. As such, attendance is mandatory. You will be permitted TWO unexcused absences for the entire semester. Each unexcused absence after that will result in a one letter reduction of your grade. Top Hat will be used to collect attendance every day in class.

Class Cancellation

There may come a time during the semester when class could be cancelled (illness, weather, etc.). Should that occur, I will notify everyone through their official university email as well as post an announcement on Bb. You are responsible for checking these early and often to ensure that class will be held as scheduled. Should there be some technological issue that prevents me from doing that, a sign should be posted on the classroom door.

Professionalism

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 assignments, meet deadlines, ask questions when you don't understand, and participate. Participating in class means that you are not on your cell phone or surfing the Internet. If you can't be in class, I expect you to let me know ahead of time. Your classroom language and demeanor should also be professional at all times. Written communication with me must also be professional. You are expected to follow the guidelines in the "How to Email My Professor" article.

University Holidays & Key Dates

January 8, Monday
First Day of Classes

January 15, Monday
Martin Luther King, Jr. Holiday – University Closed

January 16, Tuesday
"W" Withdrawal Period Begins

March 16, Friday
Last day to drop an individual course

March 19, Monday – March 24, Saturday
Spring Break – Classes Dismissed

March 26, Monday
Classes resume

April 27, Friday
Last Class Day - Last Day to Completely Withdraw from Summer II

April 30, Monday – May 4, Friday
Final Exams

May 8, Tuesday, Noon
Final Grades Due

Expectations

1. Work/Think Hard
2. Participate
3. Act with Integrity
4. Embrace the Challenges
5. Tell Me if You Have a Problem
6. Own Your Mistakes and Shortcomings
7. Help Your Fellow Students
8. Be Willing to Work Outside Your Comfort Zone
9. Have FUN!
10. Treat Everyone with Respect
11. Read the Syllabus
12. Check Bb and Your Email Very Often
13. Check Bb for Due Dates and Assignment Specifics
14. Read ALL of the Assigned Materials

Technical Competencies

Students are expected to be proficient working with AD Forensic Toolkit, FTK Imager, Registry Viewer, Password Recovery Toolkit, and Microsoft Office products or their equivalent. In addition, students will need to an application to create concept maps. VUE, from Tufts University is the recommended tool for this purpose. It's a free, open source tool that works well on Windows or Macintosh computers. It can be downloaded here: http://vue.tufts.edu/. VUE is very simple to use with a very short learning curve. Students are also expected to be proficient using the Blackboard system (submitting assignments, navigating the class space, taking tests, etc).

Topics and Methodology

The following outline delineates the tentative class schedule with topics to be addressed during the course.
It could vary based on class progress and performance.

Week	Dates	Lecture Topics	Reading
1	Jan 8-12	Intro, Module "0" Data Storage	Bb
2	Jan 15-19	Data Storage	Bb
3	Jan 22-26	File Systems	Bb
4	Jan 29 – Feb 2	Windows Registry	Bb
5	Feb 5-9	Windows Registry	Bb
6	Feb 12-16	Windows Artifacts	Bb
7	Feb 19-23	Mid term	N/A
8	Feb 26 – Mar 2	Windows Artifacts	Bb
9	Mar 5-9	Anti-Forensics	Bb
10	Mar 12 -16	Ethics/ eDiscovery	Bb
	Mar 19 – 23	Spring Break	N/A
11	Mar 26-30	Examination & Analysis	N/A
12	Apr 2-6	Examination & Analysis	Bb
13	Apr 9-13	Final Project	Bb
14	Apr 16 -20	Final Projects	Bb

| 15 | Apr 23-27 | Dead Week | N/A |
| 16 | May 1 -5 | Final Review | N/A |

Every student is responsible for all materials presented in class, including lectures, notes, and handouts. In case you are not present for a class, it is your responsibility to contact the instructor and receive information about the material presented in that class.

Effort Required

This course requires significant effort both in and out of class. Outside of class students will be expected to keep pace with the reading/videos and come to class prepared. If you come to class unprepared it will negatively impact your ability to complete the lab exercises. For every 1 hour in class, the student is expected to put in an effort of at least 3 hours outside the class for studying and completing writing assignments. Depending upon background and preparedness, some students may have to put in additional effort. **DO NOT PROCRASTINATE.**

Prioritize, schedule, and take responsibility for your actions and you should do very well in this class. To be successful in this course, you **MUST** take an **active** role in the learning process. To be successful in the course, you must do the work. You must also manage your time effectively. Throughout the semester, you may be given time in class to work on various assignments. I STRONGLY encourage you take full advantage of this opportunity.

Blackboard and Module 0

Your first assignment is to complete Module 0. This module is located on Bb. Part of this module is a quiz that you are expected to complete the first week of class. This quiz covers course administration, procedures, rules, policies, etc. Module 0 lays the groundwork for the rest of the semester. You are expected to read and familiarize yourself with all the material in Bb and its location. You should go through Bb and see what resources and information are available to you. From time to time, you may find assignments, etc. that are left over from a previous semester. Check the dates. Unless the dates are current, those assignments aren't applicable. You may also ask me for clarification. In regard to due dates, they should be clearly listed in Bb. The date in Bb is the date we will go by. If you need to know when something is due, check Bb. I don't commit to memory every due date for every assignment in all of the classes I teach.

Learning Journal

As part of this course, each student must maintain a learning journal. This journal will contain a variety of low stakes assignments, many to be done in class. It is your responsibility to keep it current. It will be turned in at the end of each learning module as a single document. Do NOT procrastinate. The journals are graded **ALL OR NONE**. If you complete all entries, you will receive full credit. **ANY** missing entries will result in a 0.

You will need your journal during almost every class therefore you must ensure it's available when you need it. It is your responsibility to ensure that it's kept safe. You would be wise to make frequent back-ups of your journal. You may want to consider using Dropbox (www.dropbox.com) or Google Drive.

Tests & Readings

The number of quizzes/tests will vary, depending on class progress, participation, and the how well students keep up with assignments, readings, etc. Generally, there will be a quiz for each module. Students are expected to keep up with all reading assignments and come to class prepared to discuss the material.

Communication

Private E-mail (Marshall email) will be used to make any general announcements, last minute changes, etc. It is **mandatory** that you monitor your email messages at least once a day. PLEASE ONLY USE MY MARSHALL EMAIL ADDRESS FOR CORRESPONDENCE. Messages left on Blackboard will result in extremely delayed/no response. Please read and follow the guidelines outlined in the "How to Email Your Professor" article. There is a link to it posted on Bb.

All written communications, including discussion postings, emails and written assignments should be professional and courteous. Format, structure, organization, tone, clarity, spelling and punctuation all contribute to effective communication and are expected in all student communications. Any communication not deemed an appropriate business communication may be disregarded by the instructor or points may be taken off, at the sole discretion of the instructor. Students are expected to thoroughly proofread all communications

Using my University email ensures you get a response and the course run smoothly. During periods of inclement weather, check your email and Bb the night before, and the morning of class to see if it has been cancelled.

There is a great deal of information in Bb regarding the conduct of the course, additional resources, etc. You are expected to read and navigate through this material.

Note About Cell Phones and Internet in Class

Please set your cell phone ringer to "Vibrate Only" mode (or turn it off) before you enter the classroom. While in class, you will be expected to work on class related materials/assignments. Please do not surf the Internet and work on other assignments unless authorized by the instructor.

During tests, cell phones MUST be put away. No exceptions.

Disclaimer

The instructor reserves that right to modify the course schedule and evaluation system should it become necessary for the effective conduct of the course.

Social Networking

I often receive friend requests from students via Facebook. It is my policy however, not to accept these requests from current students. This is absolutely nothing personal, so please do not take it as such. You are welcome to follow me on Twitter and or join my network on Linked-In. Please join us on the MU Digital Forensics Facebook page. There is lots of good information there including job and internship opportunities.

Please participate in our social media channels:

Facebook:: Marshall Digital Forensics & Appalachian Institute of Digital Evidence

Twitter:: @ MUDigForensics & @AppyIDE

Join the student chapter of Appalachian Institute of Digital Evidence - http://www.appyide.org

Get Involved!

There are tremendous opportunities here beyond your coursework. The student chapter of AIDE (Appalachian Institute of Digital Evidence), internships, and research are just some of the possibilities. Involvement in these activities is what can separate your resume from the others. Do not miss this opportunity. See me for details. Also, get to know the faculty. Introduce yourself, stop by and see us. The more we communicate and get to know you, the more we can help you.

Recommendations

I am very happy to write recommendations for students. My only requirement is that you give me a basis/foundation for a recommendation. Here's what I mean. If you don't get involved, earn average grades, show up late for class, do the bare minimum, don't do research, etc. I have nothing to write about.

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