

CSC 443/543 and CYEN 401 Digital Forensics and Cyber Crime

Course Syllabus – Fall 2013

Instructor	Dr. Travis Atkison Office: Nethken 239 Email: atkison@latech.edu Office Hours: MTWR 0830 – 1100 or by appointment										
Course Section	Section 001 TR 1200 – 1350 NH105										
Course Description	Digital Forensics is an area of study that is rapidly growing in importance and visibility. It involves preserving, identifying, extracting, documenting and interpreting digital data. Though sometimes mis-understood, digital forensics is like other types of investigation. With the continuous rise of computer-related incidents and crimes, and the increased emphasis on homeland defense in this country, there is a growing need for computer science graduates with the skills to investigate these crimes. This course will introduce the topics of computer crime and digital forensics. Students will be required to learn different aspects of computer crime and ways in which to uncover, protect and exploit digital evidence.										
Course Objectives	At the conclusion of this course, the student will have gained an appreciation for the complexities and opportunities in the study of digital forensics. The student will also be very well read in the current research in the field of digital forensics.										
Grading Policy	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Participation</td> <td style="text-align: right;">10%</td> </tr> <tr> <td>Projects</td> <td style="text-align: right;">40%</td> </tr> <tr> <td>Presentations</td> <td style="text-align: right;">10%</td> </tr> <tr> <td>Midterm Exam</td> <td style="text-align: right;">20%</td> </tr> <tr> <td>Final Exam</td> <td style="text-align: right;">20%</td> </tr> </table> <ul style="list-style-type: none"> • Grading scheme is no worse than a 10-point grading scale. That is, A= 90+, B=[80-90), C=[70-80), D=[60-70) and F=less than 60 	Participation	10%	Projects	40%	Presentations	10%	Midterm Exam	20%	Final Exam	20%
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Requirements	<ul style="list-style-type: none"> • The participation grade is based on attendance and your contribution to in-class discussions. • You are responsible for all readings that are assigned. Material provided in lectures and other papers are testable. • Project assignments will be due as noted on schedule. • Students/student groups will be required to make at least one presentation and lead a class discussion on the subject of their term project. 										

Make-up Exam	There will be NO make-up exams. If an absence from the mid-term exam is excused, then the score on the final will count from the both the mid-term and the final. If the absence is unexcused, then the student will receive a score of zero for the mid-term. The final must not be missed.
Class Conduct	<ul style="list-style-type: none"> • Students are expected to conduct themselves in a professional manner. • Students should have their cell phones turned OFF during class.
Class Attendance	<ul style="list-style-type: none"> • Students are expected to attend all class meetings and to arrive on time. Being late may be recorded as an unexcused absence. If a class is missed, the student is responsible for the material covered. • Students are responsible for clarifying with the instructor when an absence is an excused absence. Any absence for a trivial reason will be unexcused. • For the first 3 absences, it does not matter if they are excused or unexcused. • Students will receive a penalty of two percentage points on the final grade for each unexcused absence beyond the third absence. • The total number of absences, excused and unexcused, will be reported when reporting your final grade.
Projects	<p>There will be a multiple projects in this course. Students are expected work in groups. All work is expected to be professional and of high quality.</p> <ul style="list-style-type: none"> • A student must make a 60% average on the term project in order to pass the class. Failure to make a 60% average on the term project will result in failure in the class regardless of overall average.
Exams	<p>There will be one exam during the term and a comprehensive final exam.</p> <ul style="list-style-type: none"> • In order to pass the class you must make a 60% average on all exams. Failure to make a 60% average on the exams will result in failure in the class regardless of overall average.
Academic Honesty	<p>In accordance with the Academic Honor Code, students pledge the following: <u>Being a student of higher standards, I pledge to embody the principles of academic integrity.</u></p> <p><i>Presentations</i> All sources, no matter the origin, used during presentations must be cited. Failure to credit your sources is academic misconduct.</p>

	<p>Exams</p> <p>No discussion of any kind, except with the instructor, is allowed during exams. Access to books, notes, calculators, PDA's, cell phones, and any other test-taking aids is strictly forbidden. In short, other than a pen, a pencil and an eraser, you can only use any test-taking aids that you can fit into your cranium.</p> <p>Any violation of the Academic Honor Code such as cheating on an exam, including plagiarism, will result in reporting to the Dean of Students and/or Honor Code Council for academic discipline. This includes both the provider of the information as well as the receiver of the information. Additionally, the minimum penalty for such a violation is a lowering of the final grade in the class by one letter grade.</p> <p>Review entire Academic Honor Code at http://www.latech.edu/documents/honor-code.pdf</p>
Add/Drop Policy	<ul style="list-style-type: none"> • A student can drop the course without a grade through 9 September. • A student can add the course through 9 September. • A student, who wants to drop the course after 9 September but on or before 25 October, must receive the approval of his/her advisor. He/she will be assigned a W on their transcript and will be assessed a fee. The advisor who permits the drop will specify its effective date. <p>A copy of the university's add/drop policy is available at the web page http://www.latech.edu/registrar/dropping-course.shtml.</p>
Class-wide Messages	<ul style="list-style-type: none"> • Any email from the instructor will be sent to your official <i>latech</i> email address. Students may forward their email to any account of their choosing. • Students are responsible for any instructions sent by email that are more than 24 hours old.
Final Exam	Thursday, 14 November 2013, 1200-1350
Emergency Notification System	<p>All Louisiana Tech students are strongly encouraged to enroll and update their contact information in the Emergency Notification System. It takes just a few seconds to ensure you're able to receive important text and voice alerts in the event of a campus emergency. For more information on the Emergency Notification System, please visit: http://www.latech.edu/administration/ens.shtml.</p>
Disability	<p>Students needing testing or classroom accommodations based on a disability are encouraged to discuss those needs with the instructor as soon as possible.</p>

Content	<p>The course will cover, but is not limited to, the following topics based on time allowed.</p> <ul style="list-style-type: none">• Foundation of Investigations• Data Analysis• Acquisition Techniques• Authentication Techniques• Volume Analysis• File System Analysis<ul style="list-style-type: none">○ Windows File System○ Mac and Unix/Linux File System• Common Forensics Techniques• Data Hiding Techniques• Recovering Graphic Files• Virtual Machines• Network Forensics• E-mail Forensics• Web-Browsing Reconstruction• Cell Phone and Mobile Device Forensics• Steganography
Graduate Credit	<p>Each graduate student is expected to make an additional presentation on a research topic of current relevance to Digital Forensics. The graduate students topic and term report is expected to be of conference quality. Term projects, presentations and exams are graded more stringently for the graduate students.</p>