Introduction to Forensic Technology
FOR 110
Spring 2008

Instructor: Willy Straubhaar

Welcome to Introduction to Forensic Technology and the Computer and Digital Forensics major at Champlain College.

This is the introductory course in this program and is designed to expose students to a variety of information on numerous fields of forensic technology. While this course involves various forensic disciplines, including digital and non-digital methods, digital forensics does not exist in a vacuum. Other, non-digital but still highly technical forms of analysis are critical to creating a comprehensive and thorough examination of the facts in any case. Toward that end, the following topics will be covered:

Introduction, Definition and History of Forensic Science
Physical Evidence, Evidence Collection, and Crime Scene Management
Fingerprints
Drugs
Forensic Toxicology
Arson & Explosive Investigation
Serology
Firearms, Toolmarks, and Impressions
Document and Voice Examination
DNA
Computer Forensics

Course Prerequisite: None

Student Outcomes:

Upon completion of this course students will be able to:

- Compare and contrast the various types of forensic technology and the methods used for analyzing both digital and non-digital evidence.
- Perform cyber-research on various forensic topics.
- Analyze case studies involving collaborative investigation.
- Describe the critical aspects of a number of forms of forensic analysis.

- Determine what forensic tools and methods are appropriate to a given situation.
- Analyze findings and determine the degree of reliability inherent in each forensic tool.

Relationship to Core Competencies:

- Technology: This course is about new technologies, including computers and the Internet. Students will perform research on the Internet in addition to delving into other technologies.

- Writing: Students will complete various written works including formal research and participate in class discussions through written discussion postings.

- Communication: The ability to explain, verbally and in writing, the technical issues to both peers and laypersons is essential in this field. To enhance the student's presentation skills, various projects will be employed requiring students to present the results of their research to the class.

- Global Perspectives: Students will review case studies that cross wide geographic boundaries and require collaborative investigation. This aspect of criminal investigation, particularly in crimes involving computers and the Internet, is becoming increasingly important for criminal investigators.

- Critical Thinking: The course will introduce students to a variety of tools available to the forensic examiner. Given a set of circumstances, including physical evidence and crime scene, students will determine what the tools are best for evidence collection and examination. Students will apply their own experience and judgment to determine if the results of the examinations seem reliable. This course introduces students to a thought process that requires logic and creativity.

Instructor Contact Information:

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While I do not maintain office hours, I am available for appointments on the phone to consult with you on questions, problems, or other academic matters as needed. I am available daily via e-mail.
If you have difficulty getting in contact with me, you can always reach Cristian Balan, full-time faculty member in Digital Forensics at balan@champlain.edu or by phone at (518)569-1423.

Texts and Supplementary Resources:
Required Text: Criminalistics: An Introduction to Forensic Science by Richard Saferstein.

While there are numerous books on the topic of forensics and forensic technology, this book provides a good overview of all of the pertinent subject areas to be covered.

Attendance, Homework, and Grading:

Attendance, by means of reading and listening to lectures and participating in discussion postings is crucial to succeeding in this course. There is a breadth of information, including guest speakers (live or virtual) that will be presenting as subject matter experts on a variety of topics. Each of them will have critical, practical information that will not be available in the text. Class discussions will serve as important cornerstones to the learning process to allow students to glean information from their peers not available from other sources.

Students will be required to complete homework assignments.
Grades will be computed based upon student assignments and participation.

Late Work:

Late work will **not** be accepted unless the student has received approval from the instructor. Extensions for assignment due dates will be granted only in cases of serious, unforeseen circumstances.

Written Assignments:

Crime Scene Checklist (15%)

Requirement: Create a comprehensive crime scene checklist using information from the class readings and lectures. The assignment should be presented in a format that would be conducive of use when processing an initial crime scene. Thus, a product with significant narrative would not be acceptable, while an organized list would be very helpful.

Length: 1-2 pages

Format: Not narrative; checklist style;
Include list of references used (APA or MLA)

Paper #1 (15%)

Requirement: Research a topic covered in class; write a paper on this subject. Use at least three authoritative sources. One of these should be the text, and at least two other sources (journals, articles, periodicals, news stories, books, etc.) should be cited.

Length: 1500 words, minimum, exclusive of references.

Format: MLA or APA

Final Paper (25%) and Presentation (5%):

Requirement: Independently research a topic related to forensic technology. Topics must be approved by the instructor. Construct a paper and presentation on that topic.

Length: 3500 words minimum, excluding references

Paper Format: MLA or APA

Presentation: Present your research findings to the class using Power Point or other presentation software. Read your classmates' presentations and post thoughtful responses and comments to their presentations.

Class Participation (15%):

Online classes require participation in the discussion boards. Students will be expected to participate in the following manner:

Post at least one original contribution to the discussion board per week. This should be done not later than Wednesday at 11:59 p.m.

Reply to the instructor's discussion thread starter by Wednesday at 11:59 p.m.

Reply to each of your peers' postings by Saturday at 11:59 p.m.

While there is no length requirement for the posts, they should be thoughtful and well constructed. They should relate to the topic being discussed and new relevant ideas or research. This means that the posts should NOT say, "wow, I really like what so-and-so said…..I agree 100%"

Evaluation: Students will be given credit for each acceptable discussion posting that is completed by the deadline.

Final Exam (25%):

A final examination covering all readings and lectures will be given at the conclusion of the course. Format will be a combination of multiple choice questions and essays.

Grading Scale

The College's standard numerical grading scale will be used for calculating final grades:

A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
93+	90	87	83	80	77	73	70	67	63	60	59-

Academic Honesty:

The Student Handbook, *The Rudder*, https://my.champlain.edu/public/advising/pdfs/student_handbook_06.pdf, states the College's Academic Honesty Policy. Read and know this policy. Violations of the College's Academic Honesty Policy will treated with utmost seriousness. In the field of forensics and law enforcement there is dishonesty. It will destroy a career instantaneously. If you have a question or problem, let me know as soon as possible, and I will help to the greatest extent possible.

Course Calendar:

Week Begins	Topic	Reading/discussions	Assignment

(1) 01/07	Introduction, Definition and History of Forensic Science; Physical Evidence Collection, Crime Scene Management	Chapters 1, 2 and 3 Lecture 1	Post Autobiography
(2) 01/14	Fingerprints and Drugs	Chapters 9 and 14 Lectures 2 and 3	Final Paper Topic Due (1/20/2008 2355 hrs)
(3) 01/21	Forensic Toxicology, Medico-Legal Autopsy, Arson and Explosive Investigations	Chapters 10 and 11 Lectures 4 and 5	Crime Scene Checklist Due (01/27/2008 2355 hrs)
(4) 01/28	Serology, Hairs, Fibers, Sexual Assault Examination; Firearms, Toolmarks and Impressions	Chapters 8, 12, and 15 Lectures 6 and 7	Final Paper Outline Due (02/03/2008 2355 hrs)
(5) 02/04	Document and Voice Examination; DNA	Chapters 13 and 16 Lectures 8 and 9	Paper #1 Due (02/10/2008 2355 hrs)
(6) 02/11	Computer forensics; The Future of Criminalistics	Chapters 17 and 18 Lectures 10 and 11	Final Paper/Presentation Due (02/17/2008 2355 hrs)
(15) 02/18	Final week - Closure	Student Presentations and Discussions	Final Exam Due (02/21/2008 2355 hrs)

** This outline, including topics, dates, and assignments, is subject to revision throughout the semester.