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**College of Natural and Behavioral Sciences**  
**Department of Computer Science**  
<http://csc.csudh.edu>

<b>COURSE TITLE:</b>	Computer Forensics
<b>COURSE NUMBER:</b>	<b>CTC 328</b>
<b>INSTRUCTOR NAME:</b>	<b>MEHRDAD S. SHARBAF, PH.D. <a href="mailto:MSHARBAF@CSUDH.EDU">MSHARBAF@CSUDH.EDU</a>, OFFICE: NSM A-139</b> <b>PHONE: 310-243-3398, OFFICE HOURS: WED. 5:00PM-7:00PM</b>
<b>DATE:</b>	SPRING SEMESTER, 2023
<b>COURSE LENGTH:</b>	<u>15</u> WEEKS
<b>WEB COMPANION</b>	N/A
<b>BLACKBOARD WEB SITE</b>	<a href="http://toro.csudh.edu">HTTP://toro.csudh.edu</a>
<b>COURSE SCHEDULE:</b>	Session 1- Saturdays 1:00pm-3:00pm On Campus
<b>UNIT OF ACADEMIC MEASUREMENT (SELECT ONE):</b>	<input type="checkbox"/> QUARTER SYSTEM <input checked="" type="checkbox"/> SEMESTER SYSTEM
<b>PREREQUISITES:</b>	CSC 116 (INTRODUCTION TO COMPUTER HARDWARE & TOOLS) OR CONSENT OF INSTRUCTOR. STUDENTS SHOULD HAVE A WORKING KNOWLEDGE OF HARDWARE AND OPERATING SYSTEMS (OSS) TO MAXIMIZE THEIR SUCCESS ON PROJECTS AND EXERCISES THROUGHOUT THE COURSE.
<b>COURSE DESCRIPTION:</b>	This course offers an introduction to system forensics investigation and response. Areas of study include procedures for investigating computer and cybercrime, and concepts for collecting, analyzing, recovering, and preserving forensic evidence. Students will learn the basics of data acquisition, computer forensic analysis, e-mail investigations, image file recovery, and investigative report writing.

	TEXTBOOKS AND MATERIALS	(CHECK ONE)	
		REQUIRED	OPTIONAL (SUPPLEMENTAL)
TEXTBOOK (S)	<p align="center"><b>DIGITAL FORENSICS, INVESTIGATION AND RESPONSE</b>  <b>FOURTH EDITION</b>  <b>Chuck Easttom, PhD, DSc, MEd</b></p>  <p><b>eBook Bundle</b>  <b>ISBN: 9781284244502</b>    © 2022</p> <p>Here is the Code that you will use upon checkout:  <b>CSUDHCYBR 20% discount</b>  <a href="https://www.iblearning.com/catalog/productdetails/9781284228236">https://www.iblearning.com/catalog/productdetails/9781284228236</a></p>	✓	
References	HANDOUT	✓	
RESOURCES & SUPPLIES	An Internet browser (e.g. Internet Explorer), connection to the Internet. A storage device for your files (Flash Drive, writable CD, etc.).	✓	

**PERFORMANCE OBJECTIVES:**

**Upon completion of this course, the student should be able to do the following:**

- Summarize the basic principles of computer forensics.
- Summarize important laws regarding computer forensics.

- Describe various computer crimes and how they are investigated.
- Describe digital forensic methodology and labs.
- Outline the proper approach to collecting, seizing, and protecting evidence.
- Explain techniques for hiding and scrambling information as well as how data is recovered.
- Summarize various types of digital forensics.
- Explain how to perform a network analysis.
- Describe incident and intrusion response.
- Identify trends in and resources for digital forensics.

**INSTRUCTIONAL METHODS:**

- ✓ This course will be delivered through the use of lecture presentations, demonstrations, and limited hands-on experience.
- ✓ Practice:

**GRADING:**

Student performance will be evaluated based upon the following criteria: Evaluation of the course will include any class assignments or deliverable exercises, and the projects. The instructor will supply the students with a full grading scheme at the beginning of the course.

<b>Midterm</b>	<b>100</b>
<b>Final Exam</b>	<b>100</b>
<b>Group Research Paper Report</b>	<b>100</b>
<b>Group Research Project Proposal</b>	<b>50</b>
<b>Group Research Paper Presentation</b>	<b>50</b>
<b>Class Activity</b>	<b>200</b>
<b>Group lab Report</b>	<b>200</b>
<b>Group Case Presentation</b>	<b>100</b>
<b>Total:</b>	<b>900</b>

**Grading Scheme:**

96-100%	A	73-76%	C
90-95%	A-	70-72%	C-
87-89%	B+	67-69%	D+
83-86%	B	61-66%	D
80-82%	B-	< 60%	F
77-79%	C+		

**COURSE POLICIES: Late and Incomplete Deliverables:**

- Deliverables (Class Assignments, Projects) submitted late are not accepted.
- Deliverables (Class Assignment, Projects) not submitted before the end of the final class will earn 0%.
- Any exceptional, non-academic circumstances need to be discussed with the instructor as soon as they arise, prior to the due date of the deliverable. At the time of the discussion, NO make-up work will be assigned.
- The instructor reserves the right not to award credit for deliverables that are incomplete. Partial credit is awarded at the instructor's discretion, and only for work that merits such an award. Assignments that are incomplete or incongruous with the specifications may be returned to the student.

- ATTENDANCE:** Students are required to be prepared and attend all the class activities. The attendance policy is strictly enforced, and poor attendance may adversely affect your final grade due to class assignments. **Very Important Note:** Attendance is expected and required. The student is responsible for materials missed during an absence, whether excused or not. Excessive absences or tardiness will result in lowered grades.
- MAKE-UP WORK:** There will be no makeup or early examinations and late assignments will not be accepted.
- ACADEMIC INTEGRITY:** Academic integrity is of central importance in this and every other course at CSUDH. You are obliged to consult the appropriate sections of the University Catalog and obey all rules and regulations imposed by the University relevant to its lawful missions, processes, and functions.  
All work turned in by a student for a grade must be student's own work. Plagiarism and cheating (e.g. stealing or copying the work of others and turning it in as your own) will not be tolerated, and will be dealt with according to University policy. The consequences for being caught plagiarizing or cheating range from a minimum of a zero grade for the work you plagiarized or cheated on, to being dropped from the course.
- ADA STATEMENT:** Students with disabilities, who believe they may need an academic adjustment in this class, are encouraged to contact Disabled Student Services as soon as possible to better ensure receipt of timely adjustments.
- MIDTERM & FINAL EXAM:** Test is during the 8th week of the class and the date for the final exam is based on the final examination schedule printed in the campus Class Schedule. All projects are due no later than the last week of the semester.

(The class schedule is tentative and subject to change as circumstances dictate)

<b>WEEK #</b>	<b>DATE</b>	<b>TOPIC</b>	<b>Reading Assignment/ Computer Lab Topic/Online Module</b>
<b>Week 1</b>	1/28/2023	Course Introduction & Requirements/ Course Orientation and Overview / Course Syllabus/ Introduction to Forensics	Week 1-Chapter 1- Campus
<b>Week 2</b>	2/4/2023	Overview of Computer Crime	Week 2-Chapter 2- Campus
<b>Week 3</b>	2/11/2023	Forensic Methods and Labs	Week 3-Chapter 3-Campus
<b>Week 4</b>	2/18/2023	Collecting, Seizing, and Protecting Evidence	Week 4-Chapter 4-Campus
<b>Week 5</b>	2/25/2023	Understanding Techniques for Hiding and Scrambling Information	Week 5- Chapter 5- Campus
<b>Week 6</b>	3/4/2023	Recovering Data	Week 6- Chapter 6- Campus
<b>Week 7</b>	3/11/2023	Incident and Intrusion Response	Week 7- Chapter 7- Campus
<b>Week 8</b>	3/19/2023	<b>Midterm</b>	Week 8- Campus <b>Due Group Research Proposal-Midterm Exam covers Chapters 1-7</b>
<b>Week 9</b>	3/25/2023	Windows Forensics	Week 9- Chapter 8- Campus
	4/1/2023	<b>Spring Recess-No Classes</b>	
<b>Week 10</b>	4/8/2023	Email Forensics	Week 11- Chapter 11- Campus
<b>Week 11</b>	4/15/2023	Mobile Forensics	Week 12- Chapter 12- Campus
<b>Week 12</b>	4/22/2023	Network Forensics/Memory Forensics	Week 13- Chapter 13-14- Campus
<b>Week 13</b>	4/29/2023	Group Case Presentation	<b>Due for Group Case Presentation</b>
<b>Week 14</b>	5/6/2023	Group Research Paper Presentation	Week 15- Campus <b>Due Group Research Project Report</b>
<b>Week 15</b>	5/11/2023	<b>Final Exam Week</b>	<b>Final Exam covers Chapters 8, and 11-14</b>



**GO TOROS!**

## Technology Requirements

### *Computer:*

You must have access to a reliable computer for this course. If you are on campus, and do not have a laptop, you can check out a laptop from the IT User Services Help Desk via [Technology Checkout Program](#). In addition, the [CSUDH Toro Lab](#) offers on campus access to workstations with a wide variety of commonly used software.

Visit the [CSUDH Academic Technology Online Courses Technical Requirements](#) page for more information on technology requirements.

### *Email:*

All email communications from this course will go through your [Toromail](#). Toromail is the CSUDH student email system.

### *Internet and Campus Wireless Network:*

You must have Internet access to participate in this course. If you are on campus, connect your laptop and mobile device to the internet using the [eduroam](#) campus wireless network.

### *Office 365:*

Course work will require you to submit work in Word format (.docx files). Active CSUDH students have access to [Office 365 \(Word, Excel, PowerPoint\)](#) for personal desktop and laptop computers at no cost.

## **Blackboard Learn**

You may access the course through Blackboard Learn <https://toro.csudh.edu>. You have the flexibility in an online course to study and participate according to your work and personal schedule within each week of study. However, you must still complete assignments by their required due dates.

Your challenge is to dedicate the required time for study within your personal schedule. This syllabus, including the schedule and due dates, should support you in managing time effectively. Marking your study and your online discussion time in your personal calendar also will help.

As part of your personal schedule, make sure you check the Announcements several times a week so that you can see if I have posted any new information about the course.