

COURSE AND SYLLABUS FORM

Syllabus Cover Sheet

Course Discipline Code & No: CSS 275 Title: Computer Forensics II Effective Term F 04
 Division Code: BCT Department Code: CISD Org #: 13400
 Don't publish: ☐ College Catalog ☐ Time Schedule ☐ Web Page

Reason for Submission. Check all that apply.

- ☒ New course approval
☐ Five-year syllabus review (Attach assessment results.)
☐ Major change
☐ Minor change (Corrections, editing, clarification)
☐ Reactivation of inactive course
☐ Inactivation (Submit this page only.)

Change information:

Minor changes

- ☐ Course discipline code & number (was _____)
 (when changing course number, select "inactivation" to
 discontinue the old course.)
☐ Course title (was _____)
☐ Course description
☐ Course objectives (minor changes)

For major changes, consultation with all departments affected by
 this course is required. Attach "course use in programs" report
 from Curriculum Database for Faculty.

Major changes (reviewed by Curriculum Committee.)

- ☐ Credit hours (credits were: _____)
☐ Total Contact Hours (total contact hours were: _____)
☐ Distribution of contact hours (contact hours were:
 lecture: _____ lab _____ clinical _____ other _____)
☐ Pre or co-requisites
☐ Distance Learning section approval
☐ General Education Distribution Course: Add ☐ Remove ☐
☐ Honors section approval
☐ Change in Grading Method
☐ Objectives
☐ Other _____

Rationale for course or course change

1. Assessment-based:

2. Non-assessment-based: This course is necessary to provide advanced training in computer forensics for the corporate and law
 enforcement professions.

Approvals Department and divisional signatures indicate that all departments affected by the course have been consulted.

Department Review by Chairperson ☒ New resources needed ☐ All relevant departments consulted

Print: James Lewis
 Faculty/Preparer

Signature

James Lewis

Date: 3-5-04

Print: Philip Geyer
 Department Chair

Signature

Philip Geyer

Date: 3-5-04

Division Review by Dean

☒ Request for conditional approval

Recommendation ☒ Yes ☐ No

Freeman

Dean's/Administrator's Signature

Date: 3-17-04

Curriculum Committee Review

Recommendation

☐ Tabled

☒ Yes

☐ No

Ruth A. Hatcher

Curriculum Committee Chair's Signature

Date: 3.25.04

Vice President of Instruction Approval

Approval

☒ Yes

☐ No

Roger M. Pooley

Vice President's Signature

Date: 4/14/04

Do not write in shaded area.

ACS Code 122

Entered in: Banner 4/23

C&A Database 4/23

Log File 4/23

Approved for General Education Area/Group _____

Syllabus Date _____

Basic skills table updated ☐
 Contact fee ☐

Please return completed form to the Office of Curriculum & Articulation Services.

Processed ...

COURSE AND SYLLABUS FORM

Course Discipline & No.: CSS 275 Title: Computer Forensics II

Credit hours: <u>4</u> If variable credit, give range: <u> </u> to <u> </u> credits	Instructor contact hours per semester: Lecture: <u>40</u> Lab: <u>20</u> Clinical: <u> </u> Practicum: <u> </u> Other: <u> </u> Total contact hours: <u>60</u>	Class capacity: <u>24</u> Standard capacity is 30 students unless otherwise specified in the Master Agreement.	Grading options: ☐ P/NP (limited to clinical & practica) ☐ S/U (for courses numbered below 100) ☒ Letter grades
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Prerequisites. Select one: ☒ College-level Reading & Writing ☐ Reduced Reading/Writing Scores COMPASS Reading <u> </u> COMPASS Writing <u> </u> ☐ No Basic Skills Prerequisite (College-level Reading and Writing is <u>not</u> required.)	In addition to Basic Skills in Reading/Writing: Level I (enforced in Banner) <table border="1"> <thead> <tr> <th>Course/Test</th> <th>Grade/Score</th> <th>Concurrent Enrollment</th> </tr> </thead> <tbody> <tr> <td>☐ and ☐ or <u>CSS 270</u></td> <td><u>B</u></td> <td>☐</td> </tr> <tr> <td>☐ and ☐ or <u> </u></td> <td><u> </u></td> <td>☐</td> </tr> <tr> <td>☐ and ☐ or <u> </u></td> <td><u> </u></td> <td>☐</td> </tr> </tbody> </table>	Course/Test	Grade/Score	Concurrent Enrollment	☐ and ☐ or <u>CSS 270</u>	<u>B</u>	☐	☐ and ☐ or <u> </u>	<u> </u>	☐	☐ and ☐ or <u> </u>	<u> </u>	☐
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Corequisites (<u>must</u> be enrolled in this class also during the same semester): <u> </u> <u> </u>	Level II (enforced by instructor on first day of class) <table border="1"> <thead> <tr> <th>Course</th> <th>Grade/Score</th> </tr> </thead> <tbody> <tr> <td>☐ and ☐ or <u> </u></td> <td><u> </u></td> </tr> <tr> <td>☐ and ☐ or <u> </u></td> <td><u> </u></td> </tr> <tr> <td>☐ and ☐ or <u> </u></td> <td><u> </u></td> </tr> </tbody> </table>	Course	Grade/Score	☐ and ☐ or <u> </u>	<u> </u>	☐ and ☐ or <u> </u>	<u> </u>	☐ and ☐ or <u> </u>	<u> </u>				
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Enrollment restrictions (In addition to prerequisites, if applicable.) ☐ and ☐ or ☐ Instructor consent required ☐ and ☐ or ☐ Admission to program required Program <u> </u> ☐ and ☐ or ☐ Other (please specify): <u> </u>	Please send syllabus for transfer evaluation to: ☒ EMU ☒ UM ☐ <u> </u> ☐ <u> </u> ☐ <u> </u> ☐ <u> </u>	Instructional mode ☒ On campus ☐ Online ☐ Blended (online and on-campus combined) ☐ ITV ☐ Other
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Course Options General Education Group I (Select one area) ☐ Writing ☐ Nat. Sci. ☐ Speech ☐ Soc./Behav/ Sci. ☐ Math ☐ Arts/Hum. Courses must meet all criteria. ☐ 1. Is a standard introductory course in the discipline ☐ 2. Has a verified transfer acceptance ☐ 3. Meets the critical thinking requirement ☐ 4. Assesses academic achievement ☐ 5. Covers minimum knowledge/skills	Honors section. Not all criteria are required. Check relevant items. ☐ 1. Emphasis on primary source materials ☐ 2. Emphasis on independent study/research ☐ 3. Greater rigor of course materials ☐ 4. Interdisciplinary approach ☐ 5. Development of critical thinking skills ☐ 6. Additional course objectives ☐ 7. Additional instructional methods ☐ 8. Satisfaction of the service component
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List all new resources needed for course, including library materials.

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Syllabus

Course discipline code & number CSS 275	Course title Computer Forensics II	Credit hours 4
Course description Brief statement of the purpose and content of the course	This course is a continuation of CSS 270, Computer Forensics I and includes forensic analysis of Linux file systems and introduces additional various forensic analysis software suites used to perform forensic analysis of FAT 16, FAT 32 and NTFS file systems.	
Course outcomes List brief statements that indicate what students will know and be able to accomplish as a result of taking the course. Indicate how these outcomes will be assessed for NCA assessment of student achievement.	Outcomes Upon completion of this course each student will be able to: 1. Perform the forensic analysis of a hard disk drive or floppy disk drive under the Linux operating system. 2. Acquire digital evidence of Linux file structures while adhering to reasonable handling practices. 3. Use Encase and various other advanced forensic analysis software programs for the collection, preservation, identification and recovery of computer data.	Assessment Method Standard tests are to be developed by CSSIA (Center For Systems Security and Information Assurance) member insitutions for this class.
Content outline List in sequence the instructional units/modules/clusters of related topics that will be taught, and indicate the major instructional objectives for each unit. Indicate methods that will be used in each unit to evaluate student work for grading.	Unit and Unit Objectives Unit #1. Gathering and securing data. Students completing this Unit will be able to: - Gather and secure selected data from the Linux and NTFS file systems as provided by the instructor from a disk drive using Encase forensic software. - Create bit stream images of original data with Linux and other computer systems for use in a forensic analysis using Encase and other forensic recovery software tools. Unit #2. Chain of custody and other procedures in the collection, identification, preservation, transportation and storage of data. Upon completion of this unit, students will be able to: - Physically control affected computers and or networks - Verify authenticity of data using advanced computer forensic tools - Use digital signatures including checksums and MD5 hashes to verify the authencity of data.	Evaluation Method 1. Students will have a written test of the subject material. 2. Students will demonstrate recovery and reconstruction of of data during class using forensic recovery software.

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	- Use Advanced tools such as the Forensics Tool Kit and the Encase Forensics Suite to view data copied from original media. - Account for and document changes to data using advanced forensics tools for the purposes of preparing evidence for legal or other proceedings. Unit #3 Using Encase and Forensics Tool Kit software to report on the results of computer forensics investigations. Upon completion of this unit, students will be able to use advanced computer forensics toolkits to: - Identify, secure and acquire digital evidence on a target hard disk - Create filtered output files from a target disk - Target selected data files and information for recovery as a result of filtering -Report the results of forensics investigations. Unit #4. Recoveing data from a selected disk drive data from the Recycle Bin. After completion of this unit, the student will be able to use advanced computer forensics tools including the Encase forensic suite to: - Recover deleted data. - Recover data from slack files. - Recover data from unallocated space. - Recover data from swap space
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Student Materials

List examples of types		Estimated costs.
Texts	* Encase Forensic software	\$ 0
Supplemental reading	* Access Data Forensic Software Suite	\$ 2,500
Supplies		
Uniforms		
Equipment		
Tools		
Software		

Equipment/Facilities: Check all that apply. (All classrooms have overhead projectors and permanent screens.)

Check level only if the specified equipment is needed for all sections of a course.

☐ Level I classroom

Permanent screen & overhead projector

☐ Level II classroom

Level I equipment plus TV/VCR

☒ Level III classroom

Level II equipment plus data projector, computer, faculty workstation

☐ Off-Campus Sites

☐ Testing Center

☐ Computer workstations/lab

☐ ITV

☐ TV/VCR

☐ Data projector/computer

☐ Other _____