

Washtenaw Community College Comprehensive Report

CST 278 Computer Forensics for Mobile Devices Effective Term: Fall 2017

Course Cover

Division: Business and Computer Technologies

Department: Computer Instruction

Discipline: Computer Systems Technology

Course Number: 278

Org Number: 14300

Full Course Title: Computer Forensics for Mobile Devices

Transcript Title: Comp Forensics Mobile Devices

Is Consultation with other department(s) required: No

Publish in the Following: College Catalog , Time Schedule , Web Page

Reason for Submission: Three Year Review / Assessment Report

Change Information:

Consultation with all departments affected by this course is required.

Course description

Objectives/Evaluation

Rationale: To keep course objectives and focus in line with current industry practice.

Proposed Start Semester: Fall 2017

Course Description: In this course, students learn to acquire a forensic image of digital mobile devices, and then analyze the data. The types of forensic recovery including file system, logical, and physical will be covered. Mobile operating systems covered in this course include iOS and Android. Topics include evidence handling, analysis of iOS file systems and structures, file-type formats, 7-bit schema, NAND structure and other related topics. Students will then apply their knowledge to solve real and lab-produced case examples.

Course Credit Hours

Variable hours: No

Credits: 3

Lecture Hours: Instructor: 45 **Student:** 45

Lab: Instructor: 0 **Student:** 0

Clinical: Instructor: 0 **Student:** 0

Total Contact Hours: Instructor: 45 **Student:** 45

Repeatable for Credit: NO

Grading Methods: Letter Grades

Audit

Are lectures, labs, or clinicals offered as separate sections?: NO (same sections)

College-Level Reading and Writing

College-level Reading & Writing

College-Level Math

Requisites

Prerequisite

CST 270 minimum grade "C+"

General Education

General Education Area 7 - Computer and Information Literacy

Assoc in Arts - Comp Lit

Assoc in Applied Sci - Comp Lit

Assoc in Science - Comp Lit

Request Course Transfer

Proposed For:

Student Learning Outcomes

1. Recognize the concepts and essential techniques used to acquire, examine and analyze digital data from electronic mobile devices.

Assessment 1

Assessment Tool: Final Exam - short answer and multiple choice test

Assessment Date: Fall 2018

Assessment Cycle: Every Three Years

Course section(s)/other population: All sections

Number students to be assessed: All students

How the assessment will be scored: answer key

Standard of success to be used for this assessment: 80% of the students will score 75% or higher on the exam.

Who will score and analyze the data: Departmental faculty

2. Conduct an examination of a cellular phone for lost, deleted or encrypted data.

Assessment 1

Assessment Tool: Laboratory Report of examination

Assessment Date: Fall 2018

Assessment Cycle: Every Three Years

Course section(s)/other population: All sections

Number students to be assessed: All students

How the assessment will be scored: departmentally-developed rubric

Standard of success to be used for this assessment: 80% of the students will score 80% or higher.

Who will score and analyze the data: Departmental faculty

3. Conduct an examination of a cellular phone for evidence of unauthorized use.

Assessment 1

Assessment Tool: Laboratory Report of examination

Assessment Date: Fall 2018

Assessment Cycle: Every Three Years

Course section(s)/other population: All sections

Number students to be assessed: All students

How the assessment will be scored: departmentally-developed rubric

Standard of success to be used for this assessment: 80% of the students will score 80% or higher.

Who will score and analyze the data: Departmental faculty

Course Objectives

1. Identify the type of forensics acquisition device required for a specific task and perform the task.
2. Describe the secure handling of a forensic analysis on an electronic mobile device.
3. Secure data on an electronic mobile device without contamination or compromising the integrity.
4. Create a verifiable bit stream image of the original data.

5. Create documentation of the examination or investigation.
6. Provide written reports for each case image file.
7. Describe the differences between interrogation of iOS and Android mobile device operating systems.
8. Demonstrate mobile device evidence handling techniques before a forensic examination of the device.
9. Demonstrate mobile device evidence handling techniques during a forensic examination of the device.
10. Demonstrate mobile device evidence handling techniques after a forensic examination of the device.

New Resources for Course

Existing forensics examination devices and software.

Course Textbooks/Resources

Textbooks
Manuals
Periodicals
Software

Equipment/Facilities

Level I classroom
Computer workstations/lab
Data projector/computer

<u>Reviewer</u>	<u>Action</u>	<u>Date</u>
Faculty Preparer: <i>James Lewis</i>	<i>Faculty Preparer</i>	<i>Feb 13, 2017</i>
Department Chair/Area Director: <i>Philip Geyer</i>	<i>Recommend Approval</i>	<i>Feb 27, 2017</i>
Dean: <i>Kimberly Hurns</i>	<i>Recommend Approval</i>	<i>Feb 28, 2017</i>
Curriculum Committee Chair: <i>David Wooten</i>	<i>Recommend Approval</i>	<i>Mar 21, 2017</i>
Assessment Committee Chair: <i>Ruth Walsh</i>	<i>Recommend Approval</i>	<i>Mar 22, 2017</i>
Vice President for Instruction: <i>Kimberly Hurns</i>	<i>Approve</i>	<i>Mar 23, 2017</i>