
USF Sarasota-Manatee - Substantive Undergraduate Course Proposal Form

1. College/School Contact Information

<u>Tracking Number</u> 27	<u>Date & Time Submitted</u> 2013-12-19 11:41:15.0	
<u>Discipline</u> Information Technology	<u>College/School</u>	<u>Budget Account Number</u> 380700004
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2. Course Information

<u>Prefix</u>	<u>Number</u>	<u>Full Title</u>	
CIS	4203	Computer Forensics & Investigations	
Is the course title variable?			N
Is a permit required for registration?			N
Are the credit hours variable?			N
<u>Credit Hours</u>	<u>Section Type</u>	<u>Grading Option</u>	
3	Class Lecture (Primarily)	Regular	

Abbreviated Title (30 characters maximum)
IT Forensics & Investigations

5. Prerequisites
Programming course and a math course

6. Corequisites

7. Co-Prerequisites

8. Course Description

Teaches the methods of acquiring, preserving, retrieving, and presenting data that have been processed electronically and stored on computer media for use in legal proceedings. Focus on MS Windows systems.

9. New Course Information

<u>New Prefix</u>	<u>New Number</u>	<u>New Full Title</u>
N/A	N/A	N/A
Is the course title variable?		N
Is a permit required for registration?		N
Are the credit hours variable?		N
<u>New Credit Hours</u>	<u>New Section Type</u>	<u>New Grading Option</u>
N/A	Class Lecture (Primarily)	Regular

New Abbreviated Title (30 characters maximum)
N/A

12. New Prerequisites
COP 2030 and MAD 2104
13. New Corequisites
N/A
14. New Co-Prerequisites
N/A
15. New Course Description
N/A
16. **Justification**

A. Nature of change(s)

Without prerequisites listed in banner, students are entering this class unprepared. The result is students flounder in the course and end up having to drop it or get a poor grade. Explicitly stating the pre-reqs will ensure their inclusion in the catalog as well as preventing students from enrolling without taking the pre-reqs.

B. Indicate how this course will strengthen the Undergraduate Program.

Students will take courses in the correct sequence and be better prepared.

C. What specific area of knowledge is covered by this change that is not covered by courses currently listed.

n/a

D. What is the need or demand for this course? {Here you must indicate if this course is part of a required sequence in the major} What other programs would this course?

This course is a core course for the Information Security concentration. The course has been offered for a few years and 35-40 students enroll in it.

E. What qualifications for training and/or experience are necessary to teach this course?

Master's degree is required with 18 graduate credit hours in the discipline.

F. What will be the effect of this change on the program and on the students? Do you plan to drop a course if this change is made? (If dropping/deleting a course please complete the nonsubstantive course change form.)

No course will be dropped. Program will be more effective for students as they will build knowledge appropriately throughout their class sequence.

17. **Other Course Information**

A. Objectives

· Legal Procedures - ethical behavior as it relates to computer usage. Criminal behavior. Definition of cyber crime, concerns about search and seizure rights, the Fourth Amendment, and emerging legal precedent. Validity of analysis tools and methods. · Basic Forensic Science law enforcement view of forensics as well as general lab policies. Topics include: Locards Exchange Principle, what can/should be seized at a crime scene, what needs to be included in a warrants text for legal seizure; evidence chain of custody, and handling of evidence in the lab environment. · Media Capture and Analysis - correct and accurate handling of media which includes proper techniques for acquiring and verifying an image of the media, and analyzing the medias physical and logical structure to extract evidence. Information hiding in the logical structure of the media and in network traffic. Topics include: steganalysis, Domain Name Service (DNS) messaging, document metadata, and encryption. · Network Forensics - Obtaining evidence from network log files. Explores types of logging, and information about how network traffic can be extracted. Includes incident response. · Digital Device Analysis - considers disparate devices that may confront investigators. E.g., storage and extraction of information from USB flash drives, MP3 players, mobile phone forensics, et al.

B. Learning Outcomes

This course enables students to understand the details of: - Legal Procedures, ethical behavior and criminal behavior - Validity of analysis tools and methods - Basic Forensic Science and law as well as general lab policies - Correct and accurate handling of media - How to obtain evidence from network log files - Become familiar with Digital Device Analysis

C. Major Topics

1. Computer Investigations 2. Collecting and Analyzing Evidence 3. MS Windows forensics, file systems, windows registry, Linux, MAC 4. Data analysis and recovery 5. VM, networks, mobile device forensics 6. Presenting evidence

D. Textbooks

Required reading: Windows Forensic Analysis 2E By: Harlan Carvey ISBN: 978-1-59749-422-9 Other books mentioned during class as well that are not required but useful for bolstering students' overall knowledge of forensics.