**DESCRIPTOR: ITIS 165**

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| Discipline: Information Technology/ Information Systems | Proposed Sub-discipline (if applicable): |
| General Course Title: **Computer Forensics Fundamentals** | Min. Units 3 |
| General Course Description: This course is an introduction to the methods used to properly conduct a computer forensics investigation beginning with a discussion of ethics, while mapping to the objectives of the International Association of Computer Investigative Specialists (IACIS) certification. Topics covered include an overview of computer forensics as a profession, the computer investigation process, understanding operating systems boot processes and disk structures, data acquisition and analysis, technical writing, and a review of familiar computer forensics tools. |
| Proposed Number: ITIS 165 | Proposed Suffix (if applicable):  |
| Required Prerequisite[[1]](#footnote-1): None |
| Required Co-Requisites : None. |
| Advisories/Recommended Preparation[[2]](#footnote-2):  ITIS 160 - Introduction to Information Systems SecurityEach course content area should be supported with relevant hands-on exercises as much as possible. |
| Course Content: 1. Computer Forensics as a profession
2. Computing investigation processes
3. Microsoft operating systems, boot processes and disk structures
4. Macintosh and Linux operating systems, boot processes and disk structures
5. The investigator’s office
6. Current computer forensics tools
7. Digital evidence controls
8. Crime/incident scene processing
9. Data acquisition
10. Computing forensics analysis
11. Email investigations
12. Graphic image recovery
13. High tech reports
14. Expert witness overview
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| Course Objectives: *At the conclusion of this course, the student should be able to:*1. Define computer forensics.
2. Summarize how to prepare for a computer investigation.
3. Summarize the certification requirements for computer forensics labs.
4. Measure the different ways for proper data acquisition.
5. Classify the rules for proper digital evidence handling.
6. Analyze how data is stored and managed by an operating system.
7. Analyze various computer forensics tools.
8. Validate the evidence during the analysis process.
9. Identify and reconstruct graphics files.
10. Describe the importance of network forensics.
11. Analyze email investigations.
12. Generate a forensic report.
13. Describe guidelines for testifying in court.
14. Maintain a high level of ethical behavior in their work.
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| Methods of Evaluation: Evaluation will include hands-on projects and a combination of examinations, presentations, discussions, or problem-solving assignments. |
| Sample Textbooks, Manuals, or Other Support Materials (do not include editions or publication dates):* Nelson, B. & Phillips, A., *Guide to Computer Forensics and Investigations*, Cengage
* Britz, M. T., *Computer Forensics and Cyber Crime: An Introduction*, Pearson
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| FDRG Lead Signature: Markus Geissler, PhD Date: 20Jan2021 |
| [For Office Use Only]  |  **Internal Tracking Number** |
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**Descriptor Guide Sheet**

**Discipline:** The discipline was determined and is entered.

**Subdiscipline:** You may decide that a sub-discipline will serve your discipline best. For example, biology faculty may or may not decide to identify subdivisions (cellular vs. organismic, or marine, or ecology/environmental). Discipline faculty will determine what best serves their needs.

**General Course Title**: Insert a course name in this field that is generally used and will be widely recognized. It need not be the actual course title at all colleges or universities but should describe the topic of the course.

**Minimum Units:** Indicate the minimum number of units expected of this course, based on semester configuration.

**Proposed Number:** Use the numbering protocol to assign a tentative number to the course; like the sub-discipline or general course title, during your drafting stages, this number can be changed.

**Proposed Suffix**: If desirable, add an “L” after the number in the box to indicate a lab; or an “S” to indicate this course is part of a sequence.

**Rationale or Comment**: Use this space to provide explanation to the field about the number; during the drafting stage, you may also use this space to record a request for an additional suffix or modification of the numbering protocol.

**Required Prerequisites or Co-Requisites**: List any courses required to be completed prior to taking the listed course; if there is not agreement among segmental faculty about the prerequisites, you might consider describing a similar course without those prerequisites or listing only Advisories/Recommended Preparation (see below). A co-requisite does not mean in the CCCs what it may mean for the 4-year institutions.

**Advisories/Recommended Preparation:** These recommendations for courses, experiences, or preparation need not be validated; they can be good-faith and generally accepted recommendations from discipline faculty that further the students’ chances of success in this or subsequent courses.

**Course Content**: Course content should list all the expected and essential topics of the course. If this course is a lab/lecture combination, the Lab content should be spelled out separately.

**Course Objectives**: List the course objectives, competencies, or skills that the students should be able to demonstrate upon completion of the course. Community college faculty should be attentive to explicitly linking the objectives to the topics covered. If this course is a lab/lecture combination, again the learning objectives should be spelled out separately and be linked to the topics covered in the lab component of the course. Use additional sheets as needed.

**Methods of Evaluation:** List examples of those methods you anticipate would be used to observe or measure the students’ achievement of course objectives (e.g., quizzes, exams, laboratory work, field journals, projects, research, demonstrations).

**Textbooks:** College-level texts, materials, or software packages can be suggested here. While texts used by individual institutions and even individual sections will vary, enter examples of representative work. If this is a lab course or a lab/lecture section, remember to include an example of a lab manual. The current C-ID textbook policy requires that CORs have at least one textbook with a publication date within **seven (7)** years of the course outline approval date. There may be cases in which a more recent text is expected (e.g. a technology course) or the publication date is less relevant (e.g. classic primary sources in literature, philosophy or history). If an FDRG determines that one or more textbooks need to be more recent, they will include that requirement on the descriptor (for descriptors developed or reviewed after Nov 1, 2012).

**FDRG Lead’s Signature and Date:** When the descriptor template is finalized by the FDRG, is in final form, and is ready for posting, the Lead should send this completed and signed document to Holly Demé at holly@asccc.org. The descriptor will be posted on the C-ID website for review and comment prior to finalizing the descriptor for the next phase of the C-ID system.

1. Prerequisite or co-requisite course need to be validated at the CCC level in accordance with Title 5 regulations; co-requisites for CCCs are the linked courses that must be taken at the same time as the primary or target course. [↑](#footnote-ref-1)
2. Advisories or recommended preparation will not require validation but are recommendations to be considered by the student prior to enrolling. [↑](#footnote-ref-2)