

Metropolitan State University Individual Internship Guidelines Computer Forensic Science (CFS)

Types of Internships

- CFS Internships can be used either to fulfill the program requirement of *CFS 499 Computer Forensics Capstone Project/Internship* (See Appendix A for additional guidelines) or to gain technical and working experience in areas for which there is no parallel CFS and ICS course:
 - All CFS internships are three (3) semester credits
 - The grading options for CFS internships can be either an S/N or a letter grade

Internship Content

- The minimum internship content requirements for a CFS three semester-credit internship are listed below.
 - All portions of requirements 1, 2, and 3 must be met in order for an internship to be approved.
- 1) At least 120 hours of onsite experience at the internship site and/or involvement in the internship project.
 - a) The involvement in the internship project could be independent and self-directed or macro-supervised/directed work which combines practical application with theoretical components;
 - b) The practical and theoretical level of the work must be equivalent to the upper division CFS or ICS courses in nature;
 - c) The onsite involvement in this internship must not begin until the Academic Internship Agreement has been submitted and approved.
 - 2) Self-directed and self-originated reading and study on major theories relevant to the competence title, appropriate for an upper division level of learning:
 - a) Reading shall consist of approximately 7 to 10 items that are related to the competency and are appropriate for upper division learning within that competency. As part of the application for the internship, the student shall present an annotated bibliography of these items.
 - b) The student will write a 3000 to 5000 word paper that demonstrates broad based conceptual knowledge of the subject, and discusses the practical experience with respect to that knowledge. The exact nature of the paper will vary with the internship, but some common things to do in the paper are to compare and contrast the practical experience of the internship with the concepts and theory of the learning area, to discuss how well the theories apply to the practical experience, to discuss areas of the project such as its planning vs. execution, and/or to discuss the work dynamics of the team.
 - 3) Meet all the requirements specified under "Evaluation" below.

Gaining Internship Approval

- By following the steps below, you prevent unnecessary hassles and make the approval process for an internship go more smoothly.
 - 1) Attend an internship information session. Contact the Center for Community Based

Learning at 651-793-1285 or cbl.center@metrostate.edu or check the *Catalyst* for dates, times and locations. These are usually held monthly. At this meeting you will receive an internship packet, which includes all the necessary paperwork for your internship. Alternatively, you can schedule an appointment with someone from the internship office to discuss your potential internship, and to get the internship packet.

2) Follow the steps on the Student Process Checklist for Academic Internships that you received at the internship information session or from the Internship Office. When doing so, note the following recommendations.

3) *Finding an Internship*: Metropolitan State resources for finding internships are explained at the internship information session. Alternatively, you may find an internship on your own. Due to the nature of the field, it is highly recommended that you find an internship through your employment or your connections. In either case, you must observe the following rules.

i) Your site supervisor may not be related to you (e.g., a parent, sibling, child, uncle, aunt, cousin, in law, domestic partner). Check if you're not sure, this list is not exhaustive. You also may not be related to the faculty liaison.

ii) An internship must consist of new learning. You may do an internship at your present work location, even for your present supervisor. But this work must be something that is new learning for you, and it must be significantly different from the work that you normally do for this organization.

iii) *Completing the Academic Internship Agreement with the help of the site supervisor/evaluator*: If you have any question about the competence statement and/or annotated bibliography, talk to the CFS faculty liaison. This can save you iteration later should the CFS faculty liaison need to request changes in your agreement to make your internship acceptable to the department.

iv) *Multiple internships*: A student may count up to two CFS internships (6 credits at the maximum) toward a CFS degree.

These internships may be at the same site, and may have the same site supervisor. However, they must be completely different internships, covering different competencies, with different reading lists and separate papers. Each requires a full internship application.

v) *Evaluation*: List the site supervisor as the evaluator on the Academic Internship Agreement.

vi) *Note*: Just performing work, having regular work performance reviews, reading training manuals or company personnel manuals will not be adequate to receive college level credit for an internship.

Evaluation

1) Evaluation of the onsite work component of the internship will be done by the onsite supervisor in consultation with the CFS faculty liaison or the advisor.

2) Evaluation of the theoretical portion of the competence will be done by the CFS Faculty liaison, via approval of the annotated bibliography as part of approving the internship, and via approving the final research paper.

3) The grading options for CFS internships are an S/N or a letter grade based on the agreement between the student, the supervisor, and the student's advisor.

Appendix A

For those who are taking CFS internships for fulfilling the program requirement of CFS 499 Computer Forensics Capstone Project/Internship you must follow the general internship guidelines provided above as well as the additional guidelines provided below:

- The goal of the internship is to provide students an opportunity to practice what they have learned from the computer forensics program and study some contemporary issues in the field of computer forensics.
- Follow the guidelines below when you are preparing your internship application:
- The internship should include 120 hours work in a computer forensics related area (either part time or full time)

Prerequisites:

Students must complete all of the following courses before applying for an internship for CFS 499:

CFS 380 Digital Evidence Analysis;
ICS 382 Computer Security;
LAWE 325 Criminal Procedure and Investigation;
POL 331 Law and the Legal Process or CFS 484 Computer Law
Exception can be made only with the approval of both the student's advisor and the CFS program director.

Competence statement:

Knows the principles and procedures of computer forensic investigation, prosecution, and defense well enough to be able to use the state of the art technology in acquisition, preservation, identification, analysis, and presentation of digital evidence in criminal trials, civil litigations, or internal affairs investigations.

Learning outcomes:

- Knows the standards and procedures of computer crime investigation;
- Be able to use the court-accepted tools to perform digital data acquisition, preservation, identification, and analysis;
- Be able to draft an expert report of findings;
- Knows the foundation and principles of forensic data analysis;
- Knows how to prepare and present a technical witness in a court of law;
- Be able to help either prosecution or defense to prepare their digital evidence;
- Be able to work on a real-world case and come up with some proper digital evidence in supporting the case;
- Be able to work with the law enforcement in a cybercrime or computer-related criminal investigation;
- Be able to support the Department of Homeland Security in fighting against cyber terrorism.
- Be able to support an e-commerce company in protecting their customers'

privacy.

- Be able to play two roles in a criminal trial or a civil litigation or an internal affair investigation under a real or hypothetical situation, such as a digital evidence examiner, a defendant, an expert witness, a lawyer, or a judge.

Internship components:

- Play at least two roles in digital evidence involved, either real or hypothetical, cases (these roles could be defense, prosecution, witness (investigator or computer forensics examiner), judge, and jury)
- The internship must involve using a court-accepted, either proprietary or open-source, computer forensic tool
- A research topic that requires reading of at least 7 papers (the papers must be approved by the advisor) and write a reading summary for each of the papers
- A research paper (at least 10 pages, Times New Roman, 12, single column, and double spaced), that is based on the reading, research, and internship activities
- A weekly journal that records all the activities of the internship
- A presentation (at least 15 MS power point slides) to summarize the internship as well as the research to the supervisor as well as the advisor
- An evaluation report from the internship supervisor

Completion of the internship:

In addition to what are required in the general guidelines above, students are asked to submit the following items to their advisor for their academic record upon the completion of the internship:

- A hard as well as a soft copy of the research paper, power point presentation, and weekly journal
- A hard or soft copy of evaluation report from the internship supervisor

Note: the director of the computer forensics program at Metropolitan State University reserves the right to make any justification to the guidelines above without further notification.