

# Digital Forensics MS

## Technical Competence - To Develop And Demonstrate Knowledge Of Theoretical Materials, And Computational And Technical Skills

**Goal Description:**

Graduates with a master degree in digital forensics will have a strong technical foundation, that is, to develop and demonstrate knowledge of theoretical materials, and computational and technical skills in the areas of digital forensics.

**Providing Department:** Digital Forensics MS

**Progress:** Completed

RELATED ITEMS/ELEMENTS -----

RELATED ITEM LEVEL 1

**Understand The Body Of Knowledge Of Digital Forensics**

**Learning Objective Description:**

Students will develop and demonstrate knowledge of theoretical materials, technical skills and project management relevant to digital forensics.

RELATED ITEM LEVEL 2

**Written Comprehensive Examination**

**Indicator Description:**

Each student is required to take and pass the written comprehensive examination (WCE) in the graduating semester. Passing grade is defined as scoring 70 or above out of 100, and high pass grade is defined as scoring 85 or above out of 100. Graduate faculty who teach the current 5 core courses of digital forensics are responsible to design exam questions. Each student is given one hour on each of the 5 subjects:

1. Digital Security

2. Digital Forensics Investigation

3. File System Forensics

4. Network and Cyber Forensics

5. Cyber Law

Faculty who gave the exam questions are responsible to grade and report grades of these exams.

Students are required to take written compressive examinations in core content areas where they did not receive an A in a core course.

Attached Files

 [Copy of Comp-Exams](#)

**Criterion Description:**

Graduate faculty who gave the exam questions are responsible for grading and reporting the grades to graduate advisor. Each exam score should be numeric number between 0 and 100, so that a fail (69 or below), pass (70-84), or high pass (85-100) can be determined.

**Findings Description:**

Fall 2022: No students (as of Dec 2, 2022) have taken comprehensive exam yet.

Spring 2023: TBD

RELATED ITEM LEVEL 3

**Written Comprehensive Examination Action**

**Action Description:**

We aim for 100% success from the Comprehensive examinations along with "A"s or "B"s. Therefore, a comprehensive exam study guide will be shared with students who will need to take the exam, also courses will be geared more toward to research direction which will help students by reflecting the expectation from capstone projects.

#### RELATED ITEM LEVEL 1

### **Apply Knowledge And Skills In Projects And Real Work Environments**

#### **Performance Objective Description:**

Students will practice and demonstrate their capabilities and skills relevant to digital forensics and investigation in projects simulating real world tasks.

#### RELATED ITEM LEVEL 2

### **Final Capstone Project Assessment**

#### **KPI Description:**

The final project in this degree program is a capstone project that involves the students identifying a significant application development need for a selected client and the design and implementation of an appropriate solution to that need.

Each student is assigned to a member of the graduate faculty among graduate faculty as project advisor together with two additional graduate faculty forming the student's committee.

The department has established procedures for managing projects including

1. The presentation of project proposals within the first two weeks of the semester. The graduate faculty review and approve or disapprove each proposal.
2. Weekly progress meetings with the project advisor.
3. The evaluation by the complete graduate faculty of each student's progress at midterm.
4. The distribution of project activity to the remaining members of each committee.

At the end of the project each student prepares and runs a formal presentation including a description of the project, detailed explanation of the solution used and a demonstration of the completed application.

#### **Target Description:**

Every student must pass proposal presentation at their penultimate semester, continue and complete the project under the supervision of the faculty supervisor and a supervisory committee throughout the terminal semester. The student must provide a written result of a comprehensive implementation or analysis of a particular computer science problem encountered in the literature, and must present at their final project presentation (i.e., oral defense). The final defense must be passed by the committee members.

#### **Results Description:**

Fall 2022: One student passed his final defense. Four students passed their proposal presentations.

Spring 2023: TBA

#### RELATED ITEM LEVEL 3

### **Final Capstone Project Assessment Action**

#### **Action Description:**

We aim for 100% success from Capstone Projects. Supervising professors and committee members for capston projects will guide students throughout their penultimate and terminal semesters, and also related courses will be geared more toward to research direction which will help students successfully complete their capston projects.

## **Update to Previous Cycle's Plan for Continuous Improvement Item**

### **Previous Cycle's Plan For Continuous Improvement (Do Not Modify):**

Exit survey is conducted and results will be shared in graduate curriculum committee meeting in Fall 2022.

The GCC will conduct multiple meetings during the Fall 2022 and Spring 2023 semesters to find and apply necessary changes to the program.

### **Update of Progress to the Previous Cycle's PCI:**

Exit survey will be shared.

The GCC will conduct multiple meetings during the Fall 2022 and Spring 2023 semesters to find and apply necessary changes to the program.

## **New Plan for Continuous Improvement Item**

### **Closing Summary:**

The GCC will conduct multiple meetings during the Fall 2023 and Spring 2024 semesters to discuss how to improve the below weaknesses identified during the DF program review:

1. Low student enrollment
2. Low student degree conferred
3. No Thesis option