2022-2023

# **Cybersecurity BS**

## **Ethical Principles and Management Skills**

#### **Goal Description:**

To develop students' knowledge of ethical principles, technical skills, and management skills relevant to the field of Digital Forensics Engineering Technology.

Based on last year assessment's cycle comments, we are in the process of developing an indicator for this learning objective. Plan for adding and deploying the new indicator will be discussed during the department UCC meeting in Fall 2023.

#### Providing Department: Cybersecurity BS

#### **Progress:** Completed

RELATED ITEMS/ELEMENTS

#### **RELATED ITEM LEVEL 1**

#### Learning Objective Item

#### Learning Objective Description:

To develop students' knowledge of ethical principles, technical skills, and management skills relevant to the field of Digital Forensics Engineering Technology.

#### **RELATED ITEM LEVEL 2**

### **SOs PEOs Assessments**

#### **Indicator Description:**

UCC committees will select core subject for SO (Student Outcomes) evaluations. Previously planned TASO (Test for Assessing Student Outcomes) exam is no longer used, and the new assessment tool (named **Course-Based Evaluations**) will be implemented to quantitatively measure these Student Outcomes.

- 1. Student exit survey in DFSC 4317 will be deployed to evaluate SOs and PEOs.
- 2. Project presentation, assignments, and exams in DFSC 4317 will be used to measure the program performance.
- 3. UCC have revised the project rubric for the DFSC 4317.

### **Criterion Description:**

Rubric to measure the cyber security program has been developed and deployed during the spring 2022 semester. Data will be collected during fall and spring semesters. Handout1 and DFSC 4317 SLO mapping is provided in this report. Students' grades in DFSC 4317 will be collected during Fall and Spring semesters to track students' performance. The data will be used to assess our CAE designation program

Attached Files

Handout1(1).docx
CAE and DFSC 4317.docx

#### **RELATED ITEM LEVEL 3**

### **SOs PEOs Assessment Action**

**Action Description:** 

During the year 2023, class data for DFSC 4317 will be collected during Fall and Spring semesters. Data will be analyzed and assessment measurements are computed for tracking students performances in the cyber security track. The following provides detailed description of DFSC4317 course's SLO mapping that will be used to assess our cyber security program.

|  | DFSC 4317 Components |
|--|----------------------|
|--|----------------------|

| <b>Program-Level Learning</b> | Assignment | Assignment | Exam | Exam | Project      |
|-------------------------------|------------|------------|------|------|--------------|
| Outcome (PLLO)                | #2         | #3         | #2   | #3   | Presentation |
| 1: Use cyber defense          |            |            |      |      |              |
| technologies and              |            |            |      |      |              |
| exploitation tools to         |            | X          |      |      |              |
| identify and solve            |            |            |      |      |              |
| cybersecurity issues in       |            |            |      |      |              |
| software                      |            |            |      |      |              |
| 2: Understand information     |            |            |      |      |              |
| security policies and         |            |            |      | v    |              |
| identify ethical issues       |            |            |      | Λ    |              |
| related to cyberspace         |            |            |      |      |              |
| 3: Develop teamwork skills    |            |            |      |      |              |
| and communicate               |            |            |      |      | v            |
| effectively with others to    |            |            |      |      | Λ            |
| solve challenging problems    |            |            |      |      |              |
| 4: Optimize the               |            |            |      |      |              |
| effectiveness of              |            |            |      |      |              |
| cybersecurity tools by        |            |            |      |      |              |
| performing threat             | Χ          |            |      | Χ    |              |
| mitigation, digital forensic  |            |            |      |      |              |
| analysis, and software        |            |            |      |      |              |
| vulnerability assessment      |            |            |      |      |              |
| 5: Develop special            |            |            |      |      |              |
| knowledge in hardware         |            |            | v    |      |              |
| design and software           |            |            | Λ    |      |              |
| development                   |            |            |      |      |              |

## **Technical Competence**

## **Goal Description:**

Students will have a strong technical foundation, i.e., students will develop and demonstrate knowledge of theoretical materials, and computational and technical skills in the areas of Digital Forensics Engineering Technology.

Based on last year assessment's cycle comments, we are in the process of developing an indicator for this learning objective. Plan for adding and deploying the new indicator will be discussed during the department UCC meeting in Fall 2023.

**Providing Department:** Cybersecurity BS **Progress:** Completed

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

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

#### **Closing Summary**

For the next few years, the department will collect students' performance data via course-based evaluation (DFSC 4317). Data will be collected during fall and spring and shared with the UCC members. The data will be archived in department blackboard websites. Such data will be used towards assessing our CAE designation.

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

We were able to collect data from DFSC 4317 for the spring 2023. More data will be collected during the Fall 2023.

## New Plan for Continuous Improvement Item

**Closing Summary:** 

During Fall and Spring of each year, class data for DFSC 4317 will be used to measure student learning outcomes. Data will be use to measure the performance of our cyber security program.