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

New Indicator, Criterion, and Findings Item

Indicator Description:

Class DFSC data will be used to assess our cyber security program, Data will be collected during Fall and spring semester and data will be discussed during the UCC meetings.

Criterion Description:

Using DFSC 4317 class grades, students grade in homework, exams, and final project presentations will be gathered during spring of each year. The collected data shows that above 80% of students were able to pass the course and meet the assigned students' learning outcomes.

Attached Files

DFSC 4317.xlsx

CAE and DFSC 4317 - Spring 2023.docx

CAE and DFSC 4317.docx

Findings Description:

We attached a copy of the DFSC4317 assessment data in this report.

Attached Files

DFSC 4317 (SPRING 2023).png

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. We are in the process of collecting data 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:

We will continue gathering assessment data from DFSEC4317 during the spring semester of 2025. Data will be collected and shared with department during our UCC meeting. Improvement or modification, and changes of course contents will be discussed with the CS faculties.

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.

We have discussed the use of data collected from DFSC 4317 information security classes. Such data will help capture important performance metric data related to computational and technical skills in the area of Digital Forensic Engineering Technology. We will start collecting such data in the beginning of the year 2024.

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

New Indicator, Criterion, and Findings Item

Indicator Description:

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Criterion Description:

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RELATED ITEM LEVEL 2

SOs PEOs Assessments

Indicator Description:

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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. We are in the process of collecting data 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

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CAE and DFSC 4317.docx

RELATED ITEM LEVEL 3

SOs PEOs Assessment Action

Action Description:

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Update to Previous Cycle's Plan for Continuous Improvement Item

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

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.

Update of Progress to the Previous Cycle's PCI:

Data that include students' grades has been collected from DFSC4317. The data were used to measure the student's performance. The results showed that the students success rate was above 70%. We will continue to using this performance Measurment metric to assess our Cyber security program.

New Plan for Continuous Improvement Item

Closing Summary:

We have been assessing students' retention of knowledge in cyber security based on data collected from DFSC 4317. DFSC 4317 is a high-level undergraduate course that allows us to assess students' knowledge in various cyber security concepts that they learned from previous courses. Assessment methods based on homework, tests, and project presentation were used to measure students' learning outcomes. The observed data showed that students we achieving above the department exception in all assigned learning outcomes. Although DFSC4317 provides a good assessment tool for the cyber security program, but students retention of knowledge in low-level classes was not captured. Therefore, we are in the process of including several DFSC courses that captured students retention of knowledge in core classes. Since concepts covered in core classes are required by all top-level courses.