

# Software Engineering 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 computer software Engineering Technology.

**Providing Department:** Software Engineering BS

**Progress:** Completed

### RELATED ITEMS/ELEMENTS

#### RELATED ITEM LEVEL 1

### Ethical Principles And Management Skills

#### Learning Objective Description:

Students will develop and demonstrate an understanding of the ethic considerations and management principles relevant to the field of Computer Software Engineering Technology.

#### RELATED ITEM LEVEL 2

### SOs PEOs Assessments

#### Indicator Description:




















Students performance were assessed based on the following:

- Software engineering's term project assessment, which include, project presentation, project functionality, faculty evaluation, and peer reviews.
- Student exit survey conducted in COSC 4319. It was implemented to evaluate students learning outcomes and PEOs

Rubrics for peer evaluation, project presentation, and project functionality were developed. For more information refer to the attached documents.

Based on last year's comments, we are in the process of adjusting our indicators for the next cycle assessment.

#### Attached Files

-  [Handout 2-Student-Exit-Survey.docx](#)
-  [COSC 4319 \(Fall 2022\).png](#)
-  [COSC 4319\(7\).xlsx](#)
-  [Peer Evaluation \(Fall 2022\).png](#)
-  [Peer Evaluation\(5\).xlsx](#)
-  [SE Evaluation \(Fall 2022\).png](#)
-  [Project Evaluation \(Fall 2022\).png](#)
-  [Project Presentation\(5\).xlsx](#)
-  [Project Presentation \(Fall 2022\).png](#)
-  [Exit survey Answer sheet Fall 22.xlsx](#)
-  [Exit survey Answer sheet spr22 \(1\).xlsx](#)
-  [COSC 4319 \(SPRING 2022\)\(2\).png](#)
-  [Peer Evaluation\(2\).xlsx](#)
-  [Peer Evaluation \(SPRING 2022\)\(1\).png](#)
-  [Project Evaluation\(3\).xlsx](#)
-  [COSC 4319\(2\).xlsx](#)
-  [Project Evaluation \(SPRING 2022\)\(1\).png](#)
-  [Project Presentation \(SPRING 2022\)\(1\).png](#)
-  [Project Presentation\(2\).xlsx](#)

- [SE Evaluation \(SPRING 2022\)\(1\).png](#)
- [Exit survey Answer sheet spr22 \(1\).xlsx](#)
- [ABET Course Mapping.xlsx](#)

#### Criterion Description:

Students must achieve above 60% on project functionality, peer evaluation, and project presentation to pass.

#### Findings Description:

Final project presentation and student exist survey are two performance metrics were collected during the Fall and Spring 2023. Data is attached in this report.

#### RELATED ITEM LEVEL 3

##### Action - SOs PEOs Assessments

##### Action Description:

We are in the process of modifying the indicators for Ethical Principles And Management Skills and Technical Competence. Based on last year comments from the meta assessment report, will be proposing two new indicators for measuring Ethical Principles And Management Skills and Technical Competence. The UCC chair will conduct two meetings during Fall 2023 and spring 2024 to discuss the newly proposed indicators.

## 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 Computer Software Engineering Technology.

**Providing Department:** Software Engineering BS

**Progress:** Completed

#### RELATED ITEMS/ELEMENTS

#### RELATED ITEM LEVEL 1

##### Technical Competence

##### Learning Objective Description:

Students will develop and demonstrate knowledge of technical skills, relevant to the field of computer software engineering technology.

#### RELATED ITEM LEVEL 2

##### SOs PEOs Assessments

##### Indicator Description:

Students performance were assessed based on the following:

- Software engineering's term project assessment, which include, project presentation, project functionality, faculty evaluation, and peer reviews.
- Student exit survey conducted in COSC 4319. It was implemented to evaluate students learning outcomes and PEOs

Rubrics for peer evaluation, project presentation, and project functionality were developed. For more information refer to the attached documents.

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- [!\[\]\(8ff9e60a4b0560d7ec99179ef4779d9e\_img.jpg\) Peer Evaluation \(Fall 2022\).png](#)
- [!\[\]\(ab9b69bf5753a01c76b30af859454360\_img.jpg\) Peer Evaluation\(5\).xlsx](#)
- [!\[\]\(c5af66b13c724ca428497900cdbbc9b3\_img.jpg\) SE Evaluation \(Fall 2022\).png](#)
- [!\[\]\(1fde827780c8f912fd3ae9174d52d155\_img.jpg\) Project Evaluation \(Fall 2022\).png](#)
- [!\[\]\(49ab9fdb6ddb6816bcb8ccc012d5cebd\_img.jpg\) Project Presentation\(5\).xlsx](#)
- [!\[\]\(a10cf212d457430b842f8ac59c63db70\_img.jpg\) Project Presentation \(Fall 2022\).png](#)
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- [!\[\]\(7ffe3c6e7552aa3eb962276cd7a9a979\_img.jpg\) Exit survey Answer sheet spr22 \(1\).xlsx](#)
- [!\[\]\(28e94a65fe1d8cf887928bbaaa2c7303\_img.jpg\) COSC 4319 \(SPRING 2022\)\(2\).png](#)
- [!\[\]\(7db790dc622e1ac5f1c44afb7a5212a6\_img.jpg\) Peer Evaluation\(2\).xlsx](#)
- [!\[\]\(86147531a4f05b1215989ff8ab43fe6d\_img.jpg\) Peer Evaluation \(SPRING 2022\)\(1\).png](#)
- [!\[\]\(c3492017d65b370ec6b463430fff1ce7\_img.jpg\) Project Evaluation\(3\).xlsx](#)
- [!\[\]\(eadeaa5506f71c8d915378340dd044f1\_img.jpg\) COSC 4319\(2\).xlsx](#)
- [!\[\]\(2e7c96d436a2266b49a49932113a1657\_img.jpg\) Project Evaluation \(SPRING 2022\)\(1\).png](#)
- [!\[\]\(6a8a243cf3443d7797a7e525dc6a1efc\_img.jpg\) Project Presentation \(SPRING 2022\)\(1\).png](#)
- [!\[\]\(33e2662dd35315fbb8bde6de2141f6aa\_img.jpg\) Project Presentation\(2\).xlsx](#)
- [!\[\]\(56890bcfd6a4f9f79fd5acc5be8e52b2\_img.jpg\) SE Evaluation \(SPRING 2022\)\(1\).png](#)
- [!\[\]\(fd7e0a3996f31269d6928e9995a1b87e\_img.jpg\) Exit survey Answer sheet spr22 \(1\).xlsx](#)
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#### **RELATED ITEM LEVEL 3**

#### **Action - SOs PEOs Assessments**

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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**

The department has formed a new committee to assess the software engineering program. The committee will develop a plan to make B.SC in software engineering ABET accredited. Meetings will be held during the fall 2022 and spring 2023 to discuss possible courses used for ABET assessment. Other measurement tools will also be deployed, this include software engineering project report, project presentation, and student's exist survey.

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

Data for five classes will be collected during Fall and Spring semesters . SLO for these five classes will be used to measure the performance of our program.

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

### **Closing Summary:**

During Fall 2022 and Spring 2023, the department has form a committee to perform a self study report on obtaining ABET accreditation for the B.SC in software engineering. The following list of courses has been included for future assessment of our B.SC software engineering program. Data will be collected from these classes during Fall and spring semesters to monitor the program performance. Five years data will gathered and shared with the ABET committee members and program evaluators.

COSC 3312   Numerical Methods

COSC 3318   Data Base Management Systems

COSC 3319   Data Structures and Algorithms

COSC 4314   Data Mining

COSC 4318   Advanced Language Concepts

COSC 4319   Software Engineering

COSC 4320   System Modeling and Simulation

COSC 4349   Professionalism and Ethics