UNIT REPORT

Electronics and Computer Engineering Technology BS - Assessment Plan Summary

Electronics and Computer Engineering Technology BS

Develop Knowledge And Skills

Goal Description:

Students will develop knowledge and understanding of key concepts and skills relevant to Electronics and Computer ET.

RELATED ITEMS/ELEMENTS

RELATED ITEM LEVEL 1

Development Of Students' Knowledge And Skill

Learning Objective Description:

Students will be able to demonstrate competency in key areas of Electronics and Computer ET.

RELATED ITEM LEVEL 2

Digital Electronics

Indicator Description:

The Electronics and Computer Technology degree is a relatively new degree program. We propose to use the ETEE4373 Digital Electronic course, which is a study of the principles and applications of ditial logic circuits including logic gates, counters, shift registers, and combinational logic circuits, to evaluate student learning as the program develops. As students select and matriculate through this program, all students will complete the Digital Electronics course in their senior year. It is currently projected that five randomly selected students will be assessed.

Criterion Description:

Currently, ETEC Faculty members desire that at least 80% of the students enrolled in a Digital Electronics course will perform at an acceptable level with a score of 4 (exceeds standards) or higher. This standard will be reviewed/evaluated as the first student cohorts move through the program.

Findings Description:

N/A. Since the program is relatively new and there is no students progressed to the level to enroll in the Advanced Capstone Design course previously proposed for assessment, we propose to use this Digital Electronics for this purpose in the coming academic year.

RELATED ITEM LEVEL 3

Development of Students' Knowledge and Skill

Action Description:

As a relatively new Electronics and Computer Technology program, we don't have students progressed to the level to enroll in the Advanced Capstone Design course previously proposed for assessment for the 2016-2017 academic year. Therefore, we propose to use the ETEE 4373 Digital Electronics for assessment for the coming 2017~2018 cycle. This course is a study of the principles and applications of digital logic circuits including logic gates, counters, shift registers, and combinational logic circuits. Laboratory experiences consist of experimental problems. The Engineering Technology programs generally assess the criterion description of at least 80% of the students will perform at an acceptable level of a score of four or higher. We will continue monitoring student performance as the assessment data is available to ensure that the students are well prepared to enter the marketplace.

Update to Previous Cycle's Plan for Continuous Improvement

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

The Electronics and Computer Technology degree is a relatively new degree program. An advanced electronic capstone course is being planned to evaluate student learning as the program develops. Once the capstone course is developed, once it is approved and once the first student cohort matriculates through the course, the ETEC faculty will have an opportunity to assess student learning and whether adjustments need to be made to the program.

Update of Progress to the Previous Cycle's PCI:

Since we don't have enough students progressed to the level to take the Advanced Capstone Design course previously proposed for assessment, we proposed to use the ETEE 4373 Digital Electronics for assessment of the coming 2017-2018 academic year. We will discuss and develop a complete set of evaluation rubric justifying the course requirements and meeting or exceeding the criterion description.

With the addition of two new tenure-track faculty with academic expertise in the electronics area, we plan to start the process of curriculum mapping as well as development of flow chart and course offering rotation plan for the SHSU Electronics and Computer program. We will visit the name, prerequisites, course description, and content of all the courses in the current curriculum, and plan to make necessary update based on input from sources such as industry and alumni.

Monitoring market place, skills, and content knowledge

Closing Summary:

The Engineering Technology faculty started the process of curriculum mapping as well as development of flow chart and course offering rotation plan for the SHSU Electronics and Computer program. We will continue to monitor the progress of students enrolled in this program as they proceed towards the previously planned capstone design project course. Meantime, we plan to develop a complete set of rubrics for the ETEC4373 Digital Electronics course and use it for the 2017-2018 assessment cycle.