Computing and Information Science MS

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

Goal Description:

Graduates with a master degree in Computing and Informatoin Science 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 Computing and Information Science.

RELATED ITEMS/ELEMENTS -

RELATED ITEM LEVEL 1

Understand The Body Of Knowledge Of Computer Science And Information Technologies

Learning Objective Description:

Students will develop and demonstrate knowledge of theoretical materials, technical skills and project management relevant to computer information systems.

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 computing and information science are responsible to design exam questions. Each student is given one hour on each of the 5 subjects:

1. Database Systems
2. Programming Languages
3. Data Structures
4. Operating Systems
5. Software Engineering

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

Three students were required to take comprehensive examinations with the following results:

Student 1: COSC 6318 Low pass
Student 2: COSC 5327 and COSC 6319 all Low Pass
Student 3: COSC 5319 Low pass and COSC 6319 High Pass

RELATED ITEM LEVEL 3

Comprehensive Examinations

Action Description:

The Graduate Curriculum Committee will develop a plan to provide more flexibility to students with differing career goals that allows for the waiving of comprehensive examination requirements for students who have excelled in some or all of the core courses in the program.

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 computer information systems in projects similating real world tasks.

Update to Previous Cycle's Plan for Continuous Improvement

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

Graduate programs in the department of Computer Science do not currently have systems in place to track alumni professional performance. This is an issue that needs to be addressed in all three existing graduate programs. The Graduate Curriculum Committee will develop the following in the 2016/17 cycle:

1.A rubric to provide a quantitative measure of student performance on comprehensive examinations.

2.A rubric to provide quantitative and qualitative data on student performance in final projects/theses.

3.Tools to provide comparisons of performance on comprehensive examinations, final projects/theses, and course grades.

4.Tools to track alumni career growth over the long term

Update of Progress to the Previous Cycle's PCI:

The following has been achieved:

- A rubric has been established to provide quantitative measures of student performance on comprehensive examinations
- A rubric has been established to provide quantitative and qualitative data on student performance in projects/theses
- A database has been developed to maintain contact with alumni and gather data on career growth.

Plan for Continuous improvement

Closing Summary:

The capstone project requires two semesters of effort to complete and the curriculum does not currently support enrollment in the project course for multiple semesters. The graduate curriculum committee will investigate the potential for a more flexible approach to demonstrating mastery in computer science concepts to meet the needs of individual students.

The assessment process changes, including the development of rubrics to evaluate comprehensive exams and capstone projects need to be evaluated for efficiency, consistency, and utility.