Information Assurance and Security MS

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

Goal Description:

Graduates with a master degree in information assurance and security 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 information assurance and information security.

RELATED ITEMS/ELEMENTS -

RELATED ITEM LEVEL 1

Understand The Body Of Knowledge Of Information Assurance And Security

Learning Objective Description:

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

RELATED ITEM LEVEL 2

Final Capstone Project

Indicator Description:

Each student is assigned to a member of the graduate faculty among graduate faculty as project advisor together with two additional graduate faculty forming the student's committee.

The department has established procedures for managing projects including

1. The presentation of project proposals within the first two weeks of the semester. The graduate faculty review and approve or disapprove each proposal.

2. Weekly progress meetings with the project advisor.

3. The evaluation by the complete graduate faculty of each student's progress at midterm.

4. The distribution of project activity to the remaining members of each committee.

At the end of the project each student prepares and runs a formal presentation including a description of the project, detailed explanation of the solution used and a demonstration of the completed application.

Criterion Description:

Members of the student's project committee evaluate the written documentation and oral defense of the capstone project with regard to:

- Appropriate scoping of the work at a level expected of a graduate student
- Comprehensive written documentation of the project identifying purpose, development design, completeness, results and potential for future development.

Students are awarded a High Pass, Pass or Fail.

Findings Description:

6 students completed their capstone projects with 3 high passes, one pass, and one low pass.

RELATED ITEM LEVEL 3

Capstone Project

Action Description:

The capstone project requires two semesters to complete, one semester for planning and one semester for implementation. Currently students are only able to register for one 3-hour course. The Graduate Curriculum Committee will explore more flexible options including:

- additional coursework in lieu of the capstone course
- addition credit hours for the capstone course
- a thesis option

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

1. Principle and Policy in Information Assurance
2. Database Security
3. Organization System Security
4. Operating System Security
5. Business Continuity Management

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:

One student was required to take comprehensive in two course COSC 5335 and DFSC 5336. the Student received low pass in each examination.

RELATED ITEM LEVEL 3

Comprehensive Examination

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 information assurance and security 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.

Continuous Improvement Plan

Closing Summary:

The policy concerning comprehensive examinations will be reviewed to provide options for waiving the examination for students who have excelled in the course courses.

The Graduate Curriculum Committee will review the potential for a more flexible approach to capstone projects, offering the option of additional coursework in place of the project and the addition of a thesis option for those who want to go on to further academic study.

The Graduate Curriculum Committee will monitor and report on a regular basis, career changes for alumni.