

Continuous Improvement Cycle 2011-2013 Findings

Presentation to the Faculty of the CS and IS programs

Accreditation and Assessment Committee
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On this presentation...

- Review of our assessment process
- Findings and ABET's post-visit report
- Curricula changes

Assessment Process

- Academic Years (2011-2012 and 2012-2013)
- Tools:
 - Post-test
 - Graduate survey
 - Alumni survey
 - Courses materials
- Method:
 - Triangulation
 - Post-Test
 - Graduate Survey
 - Courses Materials

Our Programs

- COMPUTER SCIENCE
- INFORMATION SYSTEMS

Weaknesses

- Students understanding of *professional, ethical, legal, security and social issues and responsibilities*.
 - Course of action:
 - Ethics, Computing and Society course has been created.
 - We need to guarantee that students graduating on December 2013 are exposed to these topics.
 - Ethics modules should be administered this semester
 - SICI 4038 Research Seminar Workshop (TESINA).

Weaknesses

All of our students must recognize the need to engage in continuing professional development.

- Information about the *importance* of continuing professional development must reach *to every single student* in our department.

– Course of action

- Lecture in SICI 4038 Research Seminar Workshop (TESINA)

Weaknesses

- Our students need to improve the way they:
 - Analyze the local and global impact of computing on individuals, organizations, and society.
 - Course of action:
 - Ethics, Computing and Society course

Findings

- The students need to improve:
 - The way they analyze the asymptotic running time of simple algorithms using big-O notation
 - The application of mathematical concepts in the solution of a given problem
 - Why? Post test results:
 - 39% of the students answered the questions correctly
 - Analysis of course materials show 72%
 - Course of action
 - Meetings with course coordinators

Findings

- We need to improve the way the students:
 - Perform both unit and system testing.
 - Solve problems using the principles from:
 - discrete mathematics
 - continuous mathematics.
 - Determine the feasibility of a proposed software system
 - Course of action:
 - Meeting with course coordinators

Findings

- *It seems* that our students perform object-oriented and structured analysis and design of software systems
 - *There were no appropriate instruments to measure this indicator*
 - We need more input from the courses

Findings

- We need to revise the post test:
 - It was shown after analyzing course materials that:
 - Our students have the ability to design, implement, and evaluate a computer-based system, process, component or program to meet desired needs.
 - However, that was not shown on the post test
 - Need to revise post-test

Findings

- Strengths
 - Analyze a problem, identify and define the computing requirements appropriate to its solution.
 - Communicate effectively with a range of audiences.
 - Use current techniques, skills, and tools necessary for computing practices.

Information Systems

ABET Findings

- Weakness (on Curriculum)

“The program must enable students to attain an understanding of processes that support the delivery and management of information system within a specific application environment.”

- CONT 3005-3006 , SICI 4028 and two Business Administration electives does not suffice
- Course of action: CONT 3105-3106, ECON 3021, ADMI 3005, Enterpeneurship

ABET Findings

- This weakness will be *examine carefully* during the next visit:
 - Evidence of approved curricular revision
 - A list of course titles required as satisfying a business environment
 - Syllabi associated with the courses chosen as satisfying the concept of a business environment
 - Student transcripts demonstrating the course are now an integral part of the curriculum

Accreditation and Assessment Committee (AAC) Findings

THEY ARE SIMILAR BUT NOT EQUAL TO THE
COMPUTER SCIENCE PROGRAM

Findings

- We need to improve:
 - It seems that student choose the appropriate software and/or hardware tools to meet the desired goals.
 - We interviewed the professors that administered SICI 4038 course. They concluded the students meet indicator 2c, since students use hardware and software tools to create conceptual diagrams (UML, ERD), organize their tasks (CPM, Gantt charts) and interpret their results (plots). *Interviews are not enough*
 - *Tool used does not provide us with sufficient data to analyze it effectively.*

Findings

- We need to improve:
 - Students need to display a better knowledge in managing principles
 - Student must understand the operations within an organization
- Course of action
 - We need appropriate tools to measure this