UA Initiative for the Development of Online Programs

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Program Title: Development of Distance Learning Courses in the UA Engineering Management Program

Project Description

Three traditional classroom courses (SIE 415/515, Technical Sales and Marketing; SIE 454/554, Law for Engineers; and SIE 457/557, Project Management) are being enhanced to render them available to distance learners. The online educational segments of the three courses incorporate multiple web-based resources, including D2L, a “Start Here” module that introduces the students to the structure of the online course, course syllabus, course objectives, and practice using many D2L tools. The three courses feature additional online resources such as webcasts of lectures, Elluminate virtual meeting rooms, streaming videos, and PDF files of PowerPoint presentations, articles, chapters, homework assignments, and study guides.

Goals

The purpose of this program is to develop online versions of three 400/500 level co-convened classes (SIE 415/515, SIE 454/554, and SIE 457/557) that are required for both the BS and MS degrees in Engineering Management in order to accommodate students who might otherwise be unable to pursue engineering degrees. By offering these online courses, students will be able to complete the MS degree and Certificate Program and to make significant progress toward their BS degree in Engineering Management through distance education.

What was accomplished?

The online access to the three courses (SIE 415/515, SIE 454/554, and SIE 457/557) minimizes the time and distance barriers that impact engineering students’ ability to complete or make significant progress toward their engineering degrees. In particular, both students from remote areas and those who have time conflicts due to work or other commitments can earn their MS in Engineering Management or Engineering Management Certificate without being physically present on the UA campus.

Assessment

A Quality Matters review has been or will be conducted for each course developed. The online version of two courses (SIE 415/515 and SIE 457/557) were launched in Spring 2011. An online survey of the students enrolled in these two courses will be conducted at the end of semester. Questions on the survey will address ease of use, effectiveness of learning strategies, evaluation of learning materials, amount learned and overall satisfaction with the course. When the third online course is launched, a similar online survey will be conducted. As time permits, interviews with students who have completed the online courses will be conducted.

Future Plans

On the basis of the results of the student surveys, insights learned from participation in the Ideas Lab, and the Quality Matters training, the two courses which were launched in Spring 2011 will be updated and improved. Immediately following the end of the semester, the three instructors who are participating on the grant, in collaboration with a graduate student who is currently enrolled in SIE 515 and SIE 557, will develop similar materials for the third class, SIE 454/554. It is anticipated that the knowledge gained during the development of the first two classes will be greatly beneficial when creating materials for the third class.

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