THE MYTHS AND REALITIES OF CREATING A WEB-BASED, INTER-DISCIPLINARY GRADUATE ENGINEERING DEGREE PROGRAM

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This paper explores the experiences of the University of Wisconsin-Madison in planning, developing, conducting and evaluating the Master of Engineering in Professional Practice (MEPP) graduate degree program. Topics to be addressed include curriculum design, instructional design and technology, student support, program costs, and evaluation activities and results.

MEPP is a new degree program developed by UW-Madison’s College of Engineering to meet the 21st century needs of practicing engineers seeking to improve their effectiveness in leadership of technical projects and teams. Detailed information regarding the program, including curriculum, faculty and admission requirements are available at http://epdweb.engr.wisc.edu/mepp/

Engineers can participate in the program from anywhere in the world. Students are on campus only one week per year, in late August, for a group residency. All other studies can be performed at a distance, where the student lives, works or travels.

A few key distinguishing attributes of MEPP are:

- Students advance through the two-year program as a fixed cohort. The 30 students admitted to the program each year advance through the fixed curriculum as a group, building a strongly supportive learning community along the way.

- Course content and format have been optimized for Web-based delivery and adult, professional learners. Course material moves quickly from concepts to real-world applications, with projects and assignments that provide students with opportunities to apply concepts and tools to real-world projects. Course format takes advantage of the abilities of the World-Wide Web to enable frequent, meaningful collaboration with peers and faculty.

- The program uses a mix of synchronous and asynchronous learning formats. Web-based asynchronous discussions are supplemented with textbooks, instructor-developed study guides, and CDs.

MEPP students have achieved a course completion rate to date in excess of 98%. The proposed paper will examine program factors that have enabled students with full-time engineering jobs to achieve this high rate of success in a rigorous graduate engineering program. The paper will also provide an honest, insightful summary of key lessons learned along the way by program administration, staff, and faculty.

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