

**UMBC UGC Change in Existing Course: ENCH 446 Process Engineering Economics and Design II**

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Proposed Effective Date: Spring 2010

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**COURSE INFORMATION:**

change		current	proposed
<input type="checkbox"/>	Course Number(s)	ENCH 446	
<input type="checkbox"/>	Formal Title	Process Engineering Economics and Design II	
<input type="checkbox"/>	Transcript Title (≤24c)	Proc Engineering Econ II	
<input type="checkbox"/>	Recommended Course Preparation		
<input type="checkbox"/>	Prerequisite	ENCH 444, ENCH 445	
<input checked="" type="checkbox"/>	Credits	3	4
<input type="checkbox"/>	Repeatable?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	Max. Total Credits		
<input type="checkbox"/>	If yes, how many total credits?		
<input type="checkbox"/>	Grading Method(s)	<input checked="" type="checkbox"/> Reg (A-F) <input type="checkbox"/> Audit <input type="checkbox"/> Pass-Fail	<input type="checkbox"/> Reg (A-F) <input type="checkbox"/> Audit <input type="checkbox"/> Pass-Fail

**CURRENT CATALOG DESCRIPTION:**

Application of chemical engineering principles for the design of chemical processing equipment. Typical problems in the design of chemical plants. Comprehensive reports are required. (Fall) Prerequisite: ENCH 444 and ENCH 445.

**PROPOSED CATALOG DESCRIPTION:**  no changes  change in description

**RATIONALE FOR CHANGE**

As part of our continuous assessment and improvement processes and in preparation for an ABET accreditation visit, the Department intermittently redesigns courses to address deficiencies. ENCH 446 has been targeted for redesign based on feedback from our students, the instructor and our external advisory board. The curriculum and structure of ENCH 446 have been revised to provide a more rigorous design experience for our final semester seniors. Students work in groups to design a chemical process facility including both technical and economic analyses. Due to the open-ended nature of the design assignment, final design solutions are often quite different from one another and utilize very different technologies. Therefore, in addition to the traditional lecture time in the course, each design group is now required to meet with the instructor for an addition hour each week. The purpose of this added discussion is to focus on design-specific details and technologies not appropriate for inclusion in the lecture periods. Therefore, the contact time for students is now 4 hours per week instead of 3. We request a change in credit hours to match the time requirement.