

UMBC UGC Change in Existing Course: EDUC 426 - Mathematics in the Secondary School

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Proposed Effective Date: Spring 2019

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COURSE INFORMATION: (please provide all information in the “current” column, and only the information changing in the “proposed” column)

change		current	proposed
<input type="checkbox"/>	Course Number(s)	EDUC 426	
X	Formal Title	Mathematics in the Secondary School	Methods of Teaching Mathematics in the Secondary School
X	Transcript Title (≤30c)		Methods of Teach Math in Sec School
<input type="checkbox"/>	Recommended Course Preparation		
<input type="checkbox"/>	Prerequisite NOTE: Unless otherwise indicated, a prerequisite is assumed to be passed with a “D” or better.		
<input type="checkbox"/>	# of Credits Must adhere to the UMBC Credit Hour Policy	3	
<input type="checkbox"/>	Repeatable?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	Max. Total Credits		Max. Total Credits: This should be equal to the number of credits for courses that cannot be repeated for credit. For courses that may be repeated for credit, enter the maximum total number of credits a student can receive from this course. E.g., enter 6 credits for a 3 credit course that may be taken a second time for credit, but not for a third time. Please note that this does NOT refer to how many times a class may be retaken for a higher grade.
X	Grading Method(s)	X Reg (A-F) X Audit XPass-Fail	X Reg (A-F) X Audit <input type="checkbox"/> Pass-Fail

CURRENT CATALOG DESCRIPTION: EDUC 426 - Mathematics in the Secondary School (3.00)

This course introduces mathematics teaching at the middle and high school levels, including: (1) secondary school mathematics content, (2) understanding and developing students’ mathematical thinking; (3) designing, selecting, and sequencing mathematical tasks and assessments; and (4) your beliefs about mathematics learning and teaching and mathematics itself. The course emphasizes teaching for understanding; discovery learning; and representing mathematics with manipulatives, graphing calculators, Geometer’s Sketchpad, and other technologies. Topics include innovative curricula for learning and teaching mathematical reasoning, problem solving, and proof; proportional reasoning; algebraic thinking; trigonometry; spatial reasoning, geometry, and measurement; and probabilistic thinking. A semester-long, one-day per week field experience is required. Students in this course also enroll in Phase I of the 100 day internship.

Course ID: 53516

Consent: Department Consent Required

Components: Lecture

Requirement Group: You must complete [EDUC 412](#).

PROPOSED CATALOG DESCRIPTION (Approximately 75 words in length. Please use full sentences):

This course introduces mathematics teaching in Grades 7-12. Special emphasis is placed on college and career readiness. Students will explore methods for teaching mathematics equitably, teaching for conceptual understanding, thinking and

reasoning, problem solving, appropriate use of tools and manipulatives including technology, assessment, and interdisciplinary connections. Field experiences are required for this course.

RATIONALE FOR CHANGE: The name change reflects a consistent listing of methodology courses. This description more accurately reflects the course content and scope.