MATH EDUCATION (MAE)

MAE 201. Mathematical Concepts for P-9 I. (3 Credits)
I, II. Prerequisites: MAT 112 or higher with a grade of "C" or higher. Concepts beyond algorithmic computation are emphasized. Topics include problem solving, whole numbers, integers, mental math, numeration, and elementary number theory.

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MAE 202. Mathematical Concepts for P-9 II. (3 Credits)
I, II. Prerequisites: MAT 112 or higher and MAE 201 with a grade of "C" or higher. Concepts beyond algorithmic computation are emphasized. Topics include rational numbers (fractions, decimals, and precent) real numbers, probability, and statistics.

View Course Learning Outcomes

1. {}

MAE 302. Mathematical Concepts for P-9 III. (3 Credits)
I, II. Cross-listed as EME 301. Prerequisites: Admission to professional education; MAT 112 or higher and MAE 201, each with a grade of "C" or better. Pre- or Co-requisite: MAE 202 with a grade of “C” or better. Concepts beyond algorithmic computation are emphasized. Topics include geometry and measurement. Credit will not be awarded to students who have credit for EME 301.

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MAE 303. Math Models and Applications. (3 Credits)
II. Prerequisites: admission to a teacher certification program; and either MAT 234 with a grade of C or higher or a combination of four courses: MAE 201, MAE 202, MAE 302 or EME 301, and MAT 112 or higher, with a grade of C or higher in each course and a combined grade point average of 2.75 in the four courses. The course emphasizes conceptual understanding and communication of mathematical topics through modeling, problem solving, and technology. Topics include algebra, geometry, trigonometry, and real-world situations. Credit cannot be awarded for both MAT 303 and MAE 303.

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MAE 305. Problem Solving and Technology. (3 Credits)
II. Prerequisites: admission to a teacher certification program; and either MAT 234 with a grade of C or higher or a combination of four courses: MAE 201; MAE 202; MAE 302 or EME 301; and MAT 112 or higher, with a grade of C or higher in each course and a combined grade point average of 2.75 in the four courses. The course will enable students to use technology effectively in the mathematics classroom and explore topics to deepen mathematical understanding.

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1. {}

MAE 475. Math Teaching Senior Seminar. (3 Credits)
I. Formerly MAT 475. Prerequisites: admission to teacher education program and a minimum 2.75 GPA in major and supporting course requirements for MAT teaching major. Emphasis on the interrelationship between mathematical topics. Problem solving with technology. Oral presentation on a topic selected jointly with the instructor. Credit will not be warded for both MAE 475 and MAT 475.

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MAE 480. Seminar in:___. (1-3 Credits)
A. Prerequisite: will vary with topic offeredl. Advanced topics in mathematics education. May be retaken to a maximum of nine hours, provided the topics are different.

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