I. Course Title: Methods of Teaching Mathematics in the Elementary School

II. Course Prefix/Number: MATH 328

III. Credit Hours: 3.0

IV. Prerequisite(s): 
(MATH 155 minimum grade C AND Math 156 minimum grade C) OR 
Two classes from the following list, each completed with a minimum grade of C:
- MATH 104
- MATH 106
- MATH 107
- MATH 120
- MATH 121
- MATH 150

V. Catalog Description:
This course is designed to provide the student with methods and techniques for teaching mathematics in the elementary school along with a study of current National and Colorado State Standards for elementary school mathematics. This course will provide a deep understanding of the concepts covered in elementary school. Techniques for assessing student knowledge and ways of integrating mathematics with other disciplines will also be covered.

VI. Curricular Relationships:
This course is required of all students seeking elementary teacher licensure. This course also enhances content knowledge in the following state model content standards areas of mathematics: 1, 2, and 6.

VII. Student Learning Outcomes:
- Students will be able to list and describe the current National and Colorado State Standards for Secondary Mathematics.
- Students will be able to demonstrate appropriate use of popular manipulatives used in elementary schools to teach various skills.
- Students will be able to read and write mathematically.
- Students will be able to demonstrate an ability to use technology to manage and communicate information.
- Students will be able to demonstrate an ability to use technology, including computers, calculators, and other devices, to increase student achievement.
- Students will be able to demonstrate an ability to apply technology to the delivery of standards-based instruction.
- Students will be able to critically discuss research into the teaching of elementary mathematics.
• Students will be able to articulate tried and proven methods for presenting mathematics at the elementary level.
• Students will be able to discuss methods of assessing student progress including CSAP assessment.

VIII. Content Outline:
• The National and Colorado State Standards will be introduced comparing the two sets as well as discussing their impact on teaching secondary school mathematics.
• Reading and writing assignments from the textbook on a specific, published schedule.
• Popular computer software and scientific calculators will be explored, not how to use them but how to effectively incorporate them into the classroom.
• Alternate learning and teaching styles will be explored other than just the lecture method.
• Methods for motivating students in mathematics at the secondary level will be discussed.

IX. Course Procedures/Policies/Grading Scale:
The grade for the course will be based on:
• Participation
• Written Assignments
• Final examination

No credit will be given for this course without successful completion of the laboratory component.

X. Required/Recommended Readings:
• This course will use materials such as a standard textbook such as: 

• Colorado Model Content Standards For Mathematics

• Other materials will be supplied by the instructor.

XI. Issues Unique to Course:
This course has a separate, required 0 credit laboratory to be taken concurrently with the course. The laboratory component will run from the second to the eleventh week of the semester. This laboratory will include twenty (20) hours of supervised, field-based experience related to teaching of relevant mathematics. The laboratory experience is administered through the Department of Teacher Education.

XII. Additional Departmental Issues: None