

Courses for NJ Middle School Math Endorsement

TCNJ's Department of Mathematics and Statistics offers courses that are appropriate for undergraduate pre-service K-5 teachers or current/certified K-5 teachers *seeking the middle school endorsement in Mathematics* ("elementary teacher with subject matter specialization in mathematics").

Contact Dr. Cathy Liebars at liebars@tcnj.edu for more information about the courses listed below.

Courses:

Undergraduate level

Designation

MAT 211 Number Theory and Systems for Middle School Teachers

This course gives the middle school mathematics teacher a deeper understanding of numbers and operations. Physical materials, models, technology, and middle school curricula will be used to explore these topics. Exploration of ways to engage middle school students meaningfully in experiences that lay a strong foundation for more formal work in number theory will be integrated with the mathematics content.

MAT 212 Data Analysis and Probability for Middle School Teachers

This course gives the middle school mathematics teacher a deeper understanding of data analysis and probability. Physical materials, models, technology, and middle school curricula will be used to explore these topics. Exploration of ways to engage middle school students meaningfully in experiences that lay a strong foundation for more formal work in data analysis and probability will be integrated with the mathematics content.

MAT 214 Patterns, Functions and Algorithms for Middle School Teachers

This course gives the middle school mathematics teacher a deeper understanding of patterns, functions, and algebra. Physical materials, models, technology, and middle school curricula will be used to explore these topics. Exploration of ways to engage middle school students meaningfully in experiences that lay a strong foundation for more formal algebraic work will be integrated with the mathematics content.

MAT 215 Geometry for Middle School Teachers

This course gives the middle school mathematics teacher a deeper understanding of geometry. Physical materials, models, technology, and middle school curricula will be used to explore these topics. Exploration of ways to engage middle school students meaningfully in experiences that lay a strong foundation for more formal work in geometry will be integrated with the mathematics content.

MAT 217 Discrete Math for Middle School Teachers

This course gives the middle school mathematics teacher a deeper understanding of discrete mathematics. Physical materials, models, technology, and middle school curricula will be used to explore these topics. Exploration of ways to engage middle school students meaningfully in experiences that lay

Graduate level

designation

Math 591

Math 592

Math 594

Math 595

Math 597

a strong foundation for more formal work in discrete math will be integrated with the mathematics content.

MAT 218 Concepts of Calculus for Middle School Teachers

Math 598

This course gives the middle school mathematics teacher a deeper understanding of mathematics through the study of calculus. Physical materials, models, technology, and middle school curricula will be used to explore the topics. Exploration of ways to engage middle school students meaningfully in experiences that lay a strong foundation of the ideas of calculus will be integrated with the mathematics content.