

## Middle School Mathematics Education

### CERTIFICATE OF GRADUATE STUDY IN MIDDLE SCHOOL MATHEMATICS EDUCATION

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This program prepares elementary-certified teachers for the middle school subject area specialization in mathematics. It provides an opportunity for middle grades teachers to deepen and extend their understanding of mathematics in the areas of number sense and numerical operations, geometry and measurement, algebra, data analysis, probability, and discrete mathematics. At the same time, they continue their professional development by exploring issues and innovations in mathematics education. Emphasis is placed on developing a thorough understanding of the content of state and national standards. The program is appropriate for teachers currently teaching mathematics in grades 4-8 who wish to enhance their skills and knowledge, those certified in secondary mathematics who wish to gain a deeper understanding of middle school mathematics, and those responsible for the development and articulation of curriculum and instruction in mathematics in the elementary and middle grades.

### REQUIRED COURSES

MATH01.600 Topics in Elementary Mathematics	3 S.H.
MATH01.528 Math Modeling/Algebraic Reasoning	3 S.H.
MATH01.523 Selected Topics in Mathematics	6 S.H.

Two different topics are required, such as Geometrical Reasoning and Data Analysis/Discrete Math

SMED33.502 School Math Processes/Principles	3 S.H.
ELED02.552 Research in Children's Math Learning	3 S.H.
<b>PROGRAM TOTAL</b>	<b>18 S.H.</b>

### NOTES

1. Students may take the courses in any sequence, but those desiring the Certificate of Graduate Study must matriculate after 6 S.H.
2. The Certificate of Graduate Study is not a State of New Jersey instructional certificate. Graduates of the program will have completed the mathematics coursework necessary for the Praxis II in middle school mathematics.
3. Elementary-certified teachers, upon achieving the passing score on that examination, would be eligible for the NJ mathematics subject area specialization.
4. Students seeking the middle-school mathematics subject areas specialization must also complete a course in adolescent development (undergraduate or graduate).

For registration material, visit the graduate school web page at: <http://www.rowan.edu/colleges/graduate/>

### COURSE SCHEDULE (REVISED 10/08)

Spring – odd years, beginning in 2009  
MATH 01.600 Topics in Elementary Mathematics

Summer – odd years, beginning in 2009  
MATH 01.528 Math Modeling/Algebraic Reasoning

Fall – odd years  
ELED 02.552 Research in Children's Math Learning  
MATH 01.523 Selected Topics: Data Analysis & Discrete Math

Spring – even years  
SMED 33.502 School Math Processes/Principles  
MATH 01.528 Math Modeling/Algebraic Reasoning

Summer – even years, beginning in 2010  
MATH 01.523 Selected Topics: Data Analysis & Discrete Math

Fall – even years, beginning in 2008  
MATH 01.523 Selected Topics: Geometry