

PROGRAM GOAL

The goal of this program is to prepare candidates for licensure who can effectively teach mathematics to high school students, competently addressing the principles and standards of the NCTM and NCDPI by preparing candidates who:

- Have the knowledge and understanding of mathematics that will enable them to teach effectively to high school students;
- Recognize and address the needs of students who have different learning styles;
- Use technology effectively in the mathematics classroom;
- Teach students to use various methods to solve problems;
- Teach students to reason and communicate mathematically; and
- Teach students to make connections between mathematics and other subjects as well as real life situations.

"Preparing Educators for Diverse Cultural Contexts"



Mathematics Secondary Education



NORTH
CAROLINA
CENTRAL
UNIVERSITY
FOUNDED 1910

NORTH CAROLINA CENTRAL UNIVERSITY SCHOOL OF EDUCATION

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James E. Shepard, Founder

PROGRAM DESCRIPTION

The Mathematics Secondary Education Program, a collaboration between the College of Science and Technology and the School of Education at North Carolina Central University, prepares mathematics teachers to provide exemplary instructional programs for all public school students in diverse cultural and educational environments. The teacher candidates in our program blend course work and field experiences in our partnership network to develop the essential knowledge and skills that will lead to exemplary practice and success on the licensure exams.

Our program is unique in that the teacher candidates are quite diverse in terms of many dimensions, including (but not limited to) age, gender, ethnicity, work experiences, and teaching experiences.



PROGRAM CLASSIFICATION

Traditional First-Degree Students are those who are seeking a first bachelor's degree in Mathematics Secondary Education. They must complete the General Education Curriculum (GEC) program, make grades of C or better in the three English requirements (ENG 1110, 1210, 1250), pass the PRAXIS I*, and have a minimum overall 2.5 GPA to be formally admitted to the Teacher Education Program.

Second-Degree Students are those who have a bachelor's degree in another area and want to become licensed to teach in the area of Mathematics Secondary Education. Second-degree students apply through Undergraduate Admissions. Their transcripts are first evaluated by Admissions and then by the program coordinator to determine the specific program of study leading to a second-degree and licensure. For second-degree students, GEC requirements are automatically fulfilled.

*Alternatives: SAT scores of 1100 or above (550 on Verbal or Quantitative will exempt candidates from some tests requirements) or a minimum ACT composite score of 24.

Licensure-Only Students are those who hold a bachelor's degree, a license in another teaching area or who hold an advanced degree (master's or doctorate). Those who think they are eligible for this classification should contact the Office of Alternative Licensure Programs. Licensure-only students will submit copies of their current license and official transcripts from all previous institutions. An individual program will be developed based on a transcript evaluation.

MATHEMATICS EDUCATION COURSES

Professional Studies

- EDU 2800: Instructional Technology (3)
- EDU 3000: Educational Psychology (3)
- EDU 3010: Human Growth & Development (3)
- EDU 3030: Diversity, Pedagogy & Social Change (3)
- EDU 3120: Inclusive Teaching of Students with Special Needs (3)
- EDU 3150: Instructional Planning (3)
- EDU 3170: Assessment of Learning (3)
- EDU 4117 & EDU 4217: Student Teaching & Seminar (9)

Specialty Courses

- MATH 2010: Calculus I (5)
- MATH 2020: Calculus II (5)
- MATH 2030: Calculus III (3)
- MATH 2400: Statistics for Science Majors (3)
- MATH 3020: Differential Equations (3)
- MATH 3500: Number Theory (3)
- MATH 4410: Linear Algebra (3)
- MATH 4430: Abstract Algebra (3)
- MATH 4100: Geometries (3)
- MATH 4200: History of Mathematics (3)
- MATH 3100: Supervised Lab Experience (3)
- MATH 4920: Senior Seminar (3)
- PHYS 2310: General Physics for Sci and Pre-Engineering Majors II (3)
- COMP 1070: Programming I (3)
- COMP 2200: Logic for Math (3)
- COMP 2300: Discrete Structures for Computation (3)