### Mathematics Education

**Major:** B.S. Mathematics Teaching *(Mathematics Dept., College of Arts & Sciences)*  
**Licensure:** Mathematics Grades 5-12 *(Urban Teacher Program)*  
**Total Credits:** 82

#### MAJOR COURSES  
(36cr MATH + 8cr MAED = 44 total credits)

**Prerequisites:** (credits do not count toward major)
- STAT 201 Statistics I (4 cr)
- MATH 120 Precalculus (4 cr)

**Foundation Courses (8cr)**

The following Foundation courses are required for admission to the Urban Teacher Program along with other admission requirements. Contact the Mathematics Department for more information about courses required for the major.

- MATH 210 Calculus I (4 cr, summer, fall, spring)
- MATH 211 Calculus II (4 cr, summer, fall, spring)

**Core Courses for the Major (28cr)**

The following courses have their own prerequisites, but students do not have to be admitted to the Urban Teacher Program to take these Core courses required for the major.

- MATH 215 Discrete Mathematics (4 cr, summer, fall, spring)
- MATH 301 Introduction to Real Analysis (4 cr, fall)
- MATH 310 Calculus III: Multivariable Calculus (4 cr, fall)
- MATH 315 Linear Algebra and Applications (4 cr, fall)
- MATH 340 Mathematical Modeling (4 cr, spring)
- MATH 370 Modern Geometry (4 cr, spring)
- MATH 471 Abstract Algebra (4 cr, fall)

**URBAN EDUCATION COURSES**  
(30cr)

**Pre-Professional Education Courses (6cr)**

The following courses are open to all students and are required for admission to the Urban Teacher Program along with several other admission requirements, including at least 40 hours working with youth in an urban setting. Contact the UTP Academic Advisor [utp-admissions@metrostate.edu](mailto:utp-admissions@metrostate.edu) for more information about program admission requirements.

- EDU 200 Introduction to Urban Education and Reflective Teaching (3 cr, summer, fall, spring)
- EDU 203 Multicultural Education (3 cr, summer, fall, spring)

**Professional Education Courses (24cr)**

The following courses are open to students who are admitted to the Urban Teacher Program.

- EDU 300 Assessment of Learning and Teaching in Diverse Urban Classrooms (3 cr, fall)
- EDU 306 Urban Middle School & High School Teaching Methods (4 cr, fall, spring)  

  **Co-requisite:** EDU 311 Urban Teaching Practicum (0-1cr)
- EDU 310 Teaching and Assessing Students with Disabilities (3 cr, fall)
- EDU 383 Information Technology for K-12 Learning and Teaching (2 cr, summer, fall, spring)
- EDU 400 Literacy Education in Urban Schools (3 cr, spring)
- EDU 415 Managing Learning in Diverse Urban Classrooms (3 cr, spring)
- EDU 430 Historical & Cultural Foundations of Urban Education (3 cr, fall, spring)
- EDU 435 Teaching ELL Students in Content Area Classrooms (3 cr, fall, spring)
- EDU 450 Advanced Urban Teaching Practicum and Seminar (0-1cr, fall, spring)

**Mathematics Education Methods Courses (8cr)**

The following courses are required for the major. It is strongly recommended that they be taken during the two semesters prior to student teaching.  
**Pre-requisites:** EDU 300, EDU 306 and at least 24 credits of MATH courses required for the Mathematics Teaching major.  
**Co-requisite:** EDU 450 Advanced Urban Teaching Practicum and Seminar (0-1cr)

- MAED 440 Teaching Mathematics to Urban Learners in Grades K-8 (4 cr, spring)
- MAED 450 Teaching High School Mathematics to Urban Learners in Grades 7-12 (4 cr, fall)

**Student Teaching (8cr total, 12 weeks full-time)**

Teacher Candidates must notify the UTP Field Experience Coordinator two semesters before the intended student teaching semester and submit a student teaching application packet.

- EDU 460 Student Teaching in the Urban Middle School (8 cr, fall, spring)
- OR
- EDU 470 Student Teaching in the Urban High School (8 cr, fall, spring)

---

*For more information, visit [http://choose.metrostate.edu/utp](http://choose.metrostate.edu/utp), email utp-info@metrostate.edu, or call 651-999-5920*

*Note: Course requirements subject to change; contact the program to verify this is the most up-to-date information.*