## Program: Mathematics Education
### Major: Mathematics Education
### Degree: Bachelor of Science in Education (B.S.Ed.)

### University Core (Total Listed 42-44)

For a full list of courses see University Core.

- Courses from the major may apply to the areas marked in the University Core.

- **Written and Oral Communication** ............................................................................................................. 9

- **Quantitative Reasoning/Scientific Method** ................................................................................................. 10-11
  - Math ................................................................................................................................................. 3
  - Life Science ................................................................................................................................. 4
  - Physical Science ......................................................................................................................... 3-4

- **Critical Inquiry and Aesthetic Analysis** .................................................................................................... 6
  - Aesthetic Analysis ............................................................................................................................ 3
  - Critical Inquiry .............................................................................................................................. 3

### Support and Prerequisite Courses

#### Support Courses ................................................................................................................................................ 9

- MCOM 1113 Fundamentals of Speech
- ENG 1113 English Composition
- ENG 1213 English Composition and Research

#### Prerequisite Courses ....................................................................................................................................... 0-6

- MATH 1533 Precalculus-Algebra OR
- MATH 1513 College Algebra OR Placement Score AND
- MATH 1593 Plane Trigonometry OR Placement Score

* A grade of ‘C’ or better is required for either MATH 1513 or MATH 1533 and MATH 1593 to take MATH 2313.

### Major Requirements

#### Mathematics Education ................................................................................................................................... 41-42

**Required courses** .................................................................................................................................................. 36

- MATH 2123 Survey of Discrete for Math Education
- MATH 2313 Calculus 1
- MATH 2323 Calculus 2
- MATH 2333 Calculus 3
- MATH 2343 Calculus 4
- MATH 2743 Technology and Mathematics Education
- MATH 3113 Foundations of Advanced Mathematics
- MATH 3123 College Geometry
- MATH 3143 Linear Algebra
- MATH 3163 Elementary Number Theory OR
  - MATH 3183 Introduction to Modern Algebra
- MATH 4483 History of Mathematics
- STAT 2113 Statistical Methods

#### Mathematics Electives ......................................................................................................................................... 5-6

Select at least two of the following:

- MATH 2023 Foundations of Geometry and Measurement
- MATH 3103 Differential Equations
- MATH 3163 Elementary Number Theory
- MATH 3183 Introduction to Modern Algebra
- MATH 4143 Introduction to Analysis 1
- MATH 4960 Institute in Mathematics (2 hours)
- STAT 4113 Mathematical Statistics 1

### Professional Education ....................................................................................................................................... 32

- PTE 1010 Introduction to Teacher Education
- PTE 3023 Foundations of American Education/Clinical Exp
- PTE 3153 Adolescent Psychology
- SPED 4123 Teaching Individuals with Disabilities
- MATH 3323 Teaching Middle School Math
- MATH 4843 Teaching Secondary Mathematics
- MATH 4172 Educational Assessment
- MATH 4533 Contemporary Learning Sciences
- MATH 4811 Contemporary Issues
- MATH 4838 Internship/Student Teaching Secondary
- MATH 4853 Classroom Management & Instruction

^ Admission to Teacher Education required
# To be taken the same semester

#### Electives to bring total to ................................................................................................................................. 124

It is strongly recommended PHY 1114 General Physics I and Lab be taken in the general education core. Students planning to do graduate work should take MATH 3183, Introduction to Modern Algebra and MATH 4143, Introduction to Analysis 1.

### Minimum Graduation Requirements

1. **Overall GPA in all college course work** ................................................................. 2.50
2. **Average in course work at UCO** .............................................................. 2.00
3. **Courses in English Composition, Fundamentals of Speech, Professional Education, and area of specialization (major)**........ 3
4. **Proficiency in foreign language** ................................................................. Novice 4 level

For other regulations pertaining to graduation, see Academic Degree Requirements.