STEM Ed, Content Area: Mathematics (BS) | College of Education

The Secondary STEM Education program emphasizes the content knowledge needed for secondary STEM teachers to be successful. Earn a double major in STEM Education and content major (i.e., mathematics, physics, chemistry, earth science, physical science, computer science) with secondary teaching certification (grades 8-12) in one or more state-certifiable STEM subjects in just 4 years (120 credit hours).

### Freshman Year

**FALL SEMESTER**
- UK Core - Comp. & Comm. I - 3
- MA 113 - CALCULUS I - 4
- PSY 100 - INTRODUCTION TO PSYCHOLOGY - 4
- UK Core - Global Dynamics - 3
- UK Core - Humanities - 3

**SPRING SEMESTER**
- MA 114 - CALCULUS II - 4
- UK Core - Comp. & Comm. II - 3
- STA 296 - STATISTICAL METHODS AND MOTIVATIONS - 3
- SEM 110 - INTRODUCTION TO STEM EDUCATION - 2
- CS 115 - INTRODUCTION TO COMPUTER PROGRAMMING - 3

**TOTAL HOURS: 15**

Total Freshman Hours: 32

### Sophomore Year

**FALL SEMESTER**
- MA 213 - CALCULUS III - 4
- MA 322 - MATRIX ALGEBRA AND ITS APPLICATIONS - 3
- UK Core - Natural, Physical and Math - 3
- STEM Electives (3 hours) - 3
- EDP 202 - HUMAN DEVELOPMENT AND LEARNING - 3

**SPRING SEMESTER**
- UK Core - Arts and Creativity - 3
- MA 261 - INTRODUCTION TO NUMBER THEORY - 3
- MA 320 - INTRODUCTORY PROBABILITY - 3
- EPE 301 - EDUCATION IN AMERICAN CULTURE - 3
- STEM Electives (3 hours) - 3

**TOTAL HOURS: 15**

Total Sophomore Hours: 31

### Junior Year

**FALL SEMESTER**
- MA 361 - ELEMENTARY MODERN ALGEBRA I - 3
- MA 341 - TOPICS IN GEOMETRY - 3
- EDS 516 - PRINCIPLES OF BEHAVIOR MANAGEMENT AND INSTRUCTION - 3
- EGR Requirement (3 hours) - 3
- STEM Electives (3 hours) - 3

**SPRING SEMESTER**
- MA 362 - ELEMENTARY MODERN ALGEBRA II - 3
- MA 310 - MATHEMATICAL PROBLEM SOLVING FOR TEACHERS - 3
- EDC 533 - TEACHING LITERACY ACROSS THE DISCIPLINES - 3
- SEM 421 - SURVEY OF SECONDARY MATHEMATICS CURRICULUM - 3
- SEM 575 - SEE BLUE MATHEMATICS CLINIC - 3

**TOTAL HOURS: 15**

Total Junior Hours: 30
Senior Year

**FALL SEMESTER**
- STEM Electives (3 hours) - **3**
- Any elective - **3**
- SEM 422 - STEM ED METHODS II - **3**
- MA 330 - HISTORY OF MATHEMATICS - **3**
- STEM Electives (3 hours) - **3**

**TOTAL HOURS: 15**

Total Senior Hours: **27**

**SPRING SEMESTER**
- SEM 423 - ASSESSMENT IN STEM EDUCATION - **2**
- SEM 435 - STEM STUD TEACHING IN SEC SCHOOL - **10**

**TOTAL HOURS: 12**

Total Minimum hours Required for Degree: **120 hours**

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Current UK students: Please login to [http://myUK.uky.edu](http://myUK.uky.edu) to access your personalized major template and degree audit via the Graduation Planning System (GPS). This major template is the curriculum requirements for completion of the degree program only and is not a personalized audit based on your completed coursework. This major template does not reflect entrance requirements for selective majors. Please consult with the college to learn more about admission to this major.