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
- PHY 231 · GENERAL UNIVERSITY PHYSICS - 4
- PHY 241 · GENERAL UNIVERSITY PHYSICS LABORATORY - 1

**SPRING SEMESTER**
- MA 114 · CALCULUS II - 4
- UK Core · Comp. & Comm. II - 3
- PHY 228 · OPTICS, RELATIVITY AND THERMAL PHYSICS - 3
- CHE 105 · GENERAL COLLEGE CHEMISTRY I - 4
- SEM 110 · INTRODUCTION TO STEM EDUCATION - 2

Total Freshman Hours: 32

### Sophomore Year

**FALL SEMESTER**
- MA 213 · CALCULUS III - 4
- PHY 232 · GENERAL UNIVERSITY PHYSICS - 4
- PHY 335 · DATA ANALYSIS FOR PHYSICISTS - 2
- CHE 107 · GENERAL COLLEGE CHEMISTRY II - 3
- EDP 202 · HUMAN DEVELOPMENT AND LEARNING - 3

**SPRING SEMESTER**
- PHY 306 · THEORETICAL METHODS OF PHYSICS - 3
- PHY 361 · PRINCIPLES OF MODERN PHYSICS - 3
- STA 296 · STATISTICAL METHODS AND MOTIVATIONS - 3
- UK Core · Global Dynamics - 3
- EPE 301 · EDUCATION IN AMERICAN CULTURE - 3

Total Sophomore Hours: 31

### Junior Year

**FALL SEMESTER**
- STEM Electives (3 hours) - 3
- EGR Requirement (3 hours) - 3
- EDS 516 · PRINCIPLES OF BEHAVIOR MANAGEMENT AND INSTRUCTION - 3
- AST 310 · TOPICS IN ASTRONOMY AND ASTROPHYSICS (SUBTITLE REQUIRED) - 3
- UK Core · Arts and Creativity - 3

**SPRING SEMESTER**
- UK Core · Humanities - 3
- SEM 421 · SURVEY OF SECONDARY MATHEMATICS CURRICULUM - 3
- PHY 401G · SPECIAL TOPICS IN PHYSICS AND ASTRONOMY FOR - 1
- PHY 460G · HANDS-ON PHYSICS FOR MIDDLE SCHOOL AND HIGH SCHOOL TEACHERS - 2
- EDC 533 · TEACHING LITERACY ACROSS THE DISCIPLINES - 3
- STEM Electives (2 hours) - 2

Total Junior Hours: 15
Senior Year

**FALL SEMESTER**
- STEM Electives (3 hours) - **3**
- Any elective - **3**
- SEM 422 - STEM ED METHODS II - **3**
- PHY 460G - HANDS-ON PHYSICS FOR MIDDLE SCHOOL AND HIGH SCHOOL TEACHERS - **2**
- STEM Electives (3 hours) - **3**

**TOTAL HOURS: 14**

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

**TOTAL HOURS: 12**

Total Senior Hours: **26**

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