# Mathematics, B.S.Ed.

**Major in Mathematics, BSE**

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<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td></td>
<td>Credits Required for Major</td>
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<tr>
<td></td>
<td>Minimum Residency 50% of Major Courses</td>
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<td>Minimum GPA 2.0 for Major</td>
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## REQUIRED MATHEMATICS COURSES

A grade of C- or higher is required in all required math courses, except MATH 464.

Calculus I - Choose 1 of the following: 4-5
- MATH 161 Calculus 1
- MATH 163H Honors Calculus 1
- MATH 211 Calculus 2
- MATH 301 History of Mathematics 3
- MATH 305 Teaching Math in Secondary Schools 4 2
- MATH 310 Intro to Mathematical Proof 3
- MATH 311 Calculus 3 4
- MATH 322 Linear Algebra 1 4
- MATH 325 Mathematical Connections 3
- MATH 345 Abstract Algebra 1 3
- MATH 354 Classical and Transformational Geometry 4
- MATH 405 Teaching Math in Secondary Schools 2 3
- MATH 464 Real Analysis 1 3

## REQUIREMENTS FOR NO OPTION DECLARED

### STATISTICS REQUIREMENT - Choose 1 of the following options 1-2: 4-6

Option 1. Intro to Probability and Statistics (C- or Better)
- MATH 333 Probability and Statistics

Option 2. Math Statistics I (C- or Better) and Statistics II (C- or Better)
- MATH 335 Mathematical Statistics 1
- MATH 435 Mathematical Statistics 2

### MATHEMATICS ELECTIVES - Choose 3 hours from: 3
- MATH 365 Ordinary Differential Equation
- MATH 370 Operations Research
- MATH 372 Financial Mathematics I
- MATH 375 Numerical Analysis
- MATH 393 Number Theory
- MATH 395 Introduction Combinatorics
- MATH 422 Linear Algebra 2
- MATH 445 Abstract Algebra 2
- MATH 457 Elementary Differential Geometry
- MATH 465 Real Analysis 2

## Total Hours 47-50

### Professional Education

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### EDUCATIONAL FOUNDATIONS
- EDFN 211 Foundations Modern Education 3
- EDFN 241 Psychological Foundations of Teaching 3

### REQUIRED EDUCATION COURSES
- EDSE 321 Issues in Secondary Education 3

### ACCOMMODATIONS AND ADAPTATIONS
- EDSE 340 Content Area Literacy for Diverse Classrooms 3
- SPED 346 Secondary Students w/Disabilities in Inclusive Settings 3

### STUDENT TEACHING
- EDSE 471 Student Teaching Seminar 3
- Student Teaching 9
- EDM 461 Student Teaching in Math

Total Hours 27

### Req Related for Mathematics, BSE

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### REQUIRED RELATED COURSES
- CSCI 161 Introduction to Programming 1 4
- CSCI 140 Discrete Structures 4

Total Hours 8

### Advanced Professional Studies, BSE

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*Clearances are valid for one year from the date that appears in the header of this degree audit in the field 'Clearance Date.' Clearances cannot expire in the middle of a semester.

### APS REQUIREMENTS

### English Composition - Choose 1 of the following: 3
- ENGL 110 Intro to College Writing
- ENGL 110H Hnrs: Intro to College Writing

### English Literature - Choose 1 of the following: 3
- ENGL 230 Introduction to Literature
- ENGL 231 World Literature 1
- ENGL 232 World Literature 2
- ENGL 233 Early British Literature
- ENGL 234 Later British Literature
- ENGL 235 American Literary Tradition 1
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>ENGL 236</td>
<td>American Literary Tradition II</td>
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<tr>
<td>ENGL 241H</td>
<td>H: Explorations in World Lit</td>
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<tr>
<td>ENGL 242</td>
<td>Reading Our World:</td>
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<tr>
<td>ENGL 292</td>
<td>Science Fiction</td>
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<tr>
<td>ENGL 333</td>
<td>African-American Literature 1</td>
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<tr>
<td>ENGL 333H</td>
<td>Hnrs: African American Lit 1</td>
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<tr>
<td>ENGL 334</td>
<td>African American Literature 2</td>
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<tr>
<td>ENGL 334H</td>
<td>Hnrs: African American Lit 2</td>
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<tr>
<td>ENGL 336</td>
<td>New Dimensions to World Lit</td>
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<tr>
<td>ENGL 338</td>
<td>Folklore and Literature</td>
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<td>ENGL 401</td>
<td>Old Eng Lang and Literature</td>
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<tr>
<td>ENGL 402</td>
<td>Middle Eng Lang and Literature</td>
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Mathematics

Two Mathematics courses are required for BSE students. You have taken 0 course(s). It is preferable to take two courses designated as G2. Click here to search for MATH courses on the current web schedule. BIOL 375 will fulfill one Mathematics course for BSE BIOL students.

EDFN 211 | Foundations Modern Education and Psychological Foundations of Teaching | 6 |

48 earned (transcript) credit hours are required

APS registration status

You ARE NOT eligible to register for courses requiring APS status.

ACT 126 - Educator Ethics Training

You must submit your Educator Ethics Training.

Pre-Service Testing Required

Pre-Service Testing Status is indicated by one of the following: 1.) PSTA - Pre-Service Testing Accomplished: Verified passing pre-service test scores meet the requirement. 2.) PSTI - Pre-Service Testing Incomplete: Non-passing pre-service test scores were submitted prior to the August 1, 2015 policy change. Passing scores must still be achieved in order to meet the PA certification requirements. 3.) PSTU - Pre-Service Testing Unverified: Unofficial copies of pre-service test scores were submitted. Official scores must be sent from the testing company in order to meet PA certification requirements. 4.) PSTX - Pre-Service Testing Waived: Per PDE - ACT 136, the Pre-Service Testing Requirement has been waived.

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Your GPA is below 3.0 - please see an advisor

If you are given the 2.8 GPA Exception for graduation and you graduate with a GPA lower than 3.0, you must have higher certification test scores in order to meet PA state certification requirements.

No dispositions-related holds

If the requirement above is checked as complete, then there are currently no dispositions-related holds on your APS Status. Registration for APS courses is permitted when all APS requirements have been met. If it is incomplete, you have a hold and APS registration will not be allowed.

**Full Admission to APS**

When all requirements are met, you must submit application for admission to APS status. Click here for the application.

**Total Hours**: 12