### Mathematics, B.S.Ed.

#### Major in Mathematics, BSE

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td></td>
<td><strong>REQUIRED MATHEMATICS COURSES</strong></td>
<td></td>
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<tr>
<td></td>
<td>A grade of C- or higher is required in all required math courses, except MATH 464.</td>
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<tr>
<td></td>
<td>Calculus I - Choose 1 of the following:</td>
<td>4-5</td>
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<tr>
<td></td>
<td>MATH 161 Calculus 1</td>
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<td></td>
<td>MATH 163H Honors Calculus 1</td>
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<td></td>
<td>MATH 211 Calculus 2</td>
<td>4</td>
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<tr>
<td></td>
<td>MATH 301 History of Mathematics</td>
<td>3</td>
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<tr>
<td></td>
<td>MATH 305 Teaching Math in Secondary Schools 1</td>
<td>2</td>
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<tr>
<td></td>
<td>MATH 310 Intro to Mathematical Proof</td>
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<td>MATH 311 Calculus 3</td>
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<tr>
<td></td>
<td>MATH 322 Linear Algebra 1</td>
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<tr>
<td></td>
<td>MATH 325 Mathematical Connections</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MATH 345 Abstract Algebra 1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MATH 354 Classical and Transformational Geometry</td>
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<tr>
<td></td>
<td>MATH 405 Teaching Math in Secondary Schools 2</td>
<td>3</td>
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<tr>
<td></td>
<td>MATH 464 Real Analysis 1</td>
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<tr>
<td></td>
<td><strong>REQUIREMENTS FOR NO OPTION DECLARED</strong></td>
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<td>STATISTICS REQUIREMENT - Choose 1 of the following options 1-2:</td>
<td>4-6</td>
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<tr>
<td></td>
<td>Option 1. Intro to Probability and Statistics (C- or Better)</td>
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<tr>
<td></td>
<td>MATH 333 Probability and Statistics</td>
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<td></td>
<td>Option 2. Math Statistics I (C- or Better) and Statistics II (C- or Better)</td>
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<tr>
<td></td>
<td>MATH 335 Mathematical Statistics 1</td>
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<tr>
<td></td>
<td>MATH 435 Mathematical Statistics 2</td>
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<td><strong>MATHEMATICS ELECTIVES - Choose 3 hours from:</strong></td>
<td>3</td>
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<tr>
<td></td>
<td>MATH 365 Ordinary Differential Equation</td>
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<td></td>
<td>MATH 370 Operations Research</td>
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<tr>
<td></td>
<td>MATH 372 Financial Mathematics I</td>
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<tr>
<td></td>
<td>MATH 375 Numerical Analysis</td>
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<tr>
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<td>MATH 393 Number Theory</td>
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<tr>
<td></td>
<td>MATH 395 Introduction Combinatorics</td>
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<td>MATH 422 Linear Algebra 2</td>
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<td>MATH 445 Abstract Algebra 2</td>
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<td>MATH 457 Elementary Differentl Geometry</td>
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<td>MATH 465 Real Analysis 2</td>
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<td>MATH 467 Partial Differential Equations</td>
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<td></td>
<td>MATH 471 Mathematical Modeling</td>
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<tr>
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<td>MATH 472 Financial Mathematics II</td>
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<tr>
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<td>MATH 483 Point-Set Topology</td>
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<tr>
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<td>Any 4@8 MATH course(s)</td>
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<tr>
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<td>MATH 498 Independent Study</td>
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<tr>
<td></td>
<td>MATH 535 Statistical Methods 1</td>
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</tr>
<tr>
<td></td>
<td>MATH 536 Statistical Methods 2</td>
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<tr>
<td></td>
<td>MATH 566 Complex Variables</td>
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<td></td>
<td>MATH 577 Problems in Applied Math</td>
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#### Professional Education

<table>
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<tr>
<th>Code</th>
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<tbody>
<tr>
<td></td>
<td><strong>EDUCATIONAL FOUNDATIONS</strong></td>
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</tr>
<tr>
<td>EDFN 211</td>
<td>Foundations Modern Education</td>
<td>3</td>
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<tr>
<td></td>
<td>Psychological Foundations of Teaching</td>
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<tr>
<td>EDFN 241</td>
<td>Psych Foundation of Teaching</td>
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<tr>
<td></td>
<td><strong>REQUIRED EDUCATION COURSES</strong></td>
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</tr>
<tr>
<td>EDSE 321</td>
<td>Issues in Secondary Education</td>
<td>3</td>
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<tr>
<td></td>
<td><strong>ACCOMMODATIONS AND ADAPTATIONS</strong></td>
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<tr>
<td></td>
<td>Content Area Literacy for Diverse Classrooms</td>
<td>3</td>
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<tr>
<td>EDSE 340</td>
<td>Cntnt Area Litrcy Divers Class</td>
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<tr>
<td></td>
<td>Secondary Students w/Disabilities in Inclusive Settings</td>
<td>3</td>
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<tr>
<td>SPED 346</td>
<td>Sec Stdnts w Disab Inclu Sttgs</td>
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<td></td>
<td><strong>STUDENT TEACHING</strong></td>
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<tr>
<td>EDSE 471</td>
<td>Student Teaching Seminar</td>
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<tr>
<td>EDMA 461</td>
<td>Student Teaching in Math</td>
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<td><strong>Total Hours</strong></td>
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#### Req Related for Mathematics, BSE

<table>
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<tr>
<th>Code</th>
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<tbody>
<tr>
<td></td>
<td><strong>REQUIRED RELATED COURSES</strong></td>
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<tr>
<td>CSCI 161</td>
<td>Introduction to Programming 1</td>
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<tr>
<td>CSCI 140</td>
<td>Discrete Structures</td>
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<td><strong>Total Hours</strong></td>
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#### Advanced Professional Studies, BSE

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<th>Code</th>
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<tr>
<td></td>
<td><strong>APS REQUIREMENTS</strong></td>
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<tr>
<td></td>
<td>English Composition - Choose 1 of the following:</td>
<td>3</td>
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<tr>
<td>ENGL 110</td>
<td>English Composition</td>
<td></td>
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<tr>
<td>ENGL 110H</td>
<td>Hnrs:English Composition</td>
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<tr>
<td></td>
<td>English Literature - Choose 1 of the following:</td>
<td>3</td>
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<tr>
<td>ENGL 230</td>
<td>Introduction to Literature</td>
<td></td>
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<tr>
<td>ENGL 231</td>
<td>World Literature 1</td>
<td></td>
</tr>
<tr>
<td>ENGL 232</td>
<td>World Literature 2</td>
<td></td>
</tr>
<tr>
<td>ENGL 233</td>
<td>Early British Literature</td>
<td></td>
</tr>
<tr>
<td>ENGL 234</td>
<td>Later British Literature</td>
<td></td>
</tr>
<tr>
<td>ENGL 235</td>
<td>American Literary Tradition I</td>
<td></td>
</tr>
<tr>
<td>ENGL 236</td>
<td>Later American Literature</td>
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</tr>
<tr>
<td>ENGL 237</td>
<td>Literary Research and Analysis</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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<td>ENGL 338</td>
<td>Folklore and Literature</td>
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<td><strong>Total Hours</strong></td>
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</table>
ENGL 401  Old Eng Lang and Literature
ENGL 402  Middle Eng Lang and Literature
ENGL 418  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
& EDFN 241  and Psyc Foundation of Teaching

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.

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.

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.

REQUIRED CLEARANCES

ACT 114 - FBI Fingerprint Needed
You must submit your FBI Fingerprint Clearance

ACT 34 - Criminal Record Check Needed
You must submit your Criminal Record Check

ACT 151 - Child Abuse Clearance Needed
You must submit your Child Abuse Clearance

Negative TB Test or Chest X-ray Needed
You must submit your Negative TB Test or Chest X-ray

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