BSEd in Secondary Education with Emphasis in Mathematics Education

Degree Program Description

The Bachelor of Science in Education in Secondary Education prepares students to work with children from ninth through twelfth grade in public, private, and alternative school systems. You may consider a degree in education if you enjoy working with children and/or adolescents, want to strengthen the future through education, and want to make a difference in the lives of others. MU Students work closely with mentors, practicing teachers, administrators, and university faculty to develop the knowledge and skills to enhance learning outcomes for children and youth. The coursework through the College of Education & Human Development focuses on teachers’ roles in facilitating learning at all levels of development and considers the influences of cultural, political, historical, and economic factors on students, teachers, and schools. Upon successfully completing the initial teacher certification process, the state grants you certification in secondary mathematics. Practical and rewarding clinical training in schools and agencies begins sophomore year and continues each semester culminating in a senior-level teaching internship, enhancing teaching skills and confidence. Coursework within Secondary Mathematics provides you with research-based methods of teaching mathematics.

Major Program Requirements

Students must complete all university (http://catalog.missouri.edu/academicdegreerequirements/universityrequirements/), general education (http://catalog.missouri.edu/academicdegreerequirements/generaleducation/), and content requirements, in addition to degree requirements. Please meet with an Academic Advisor to discuss degree requirements and to create a semester plan.

Teacher Education programs in the College of Education & Human Development are accredited by the Missouri Department of Elementary and Secondary Education (DESE (https://dese.mo.gov/)). Curriculum changes mandated to earn teacher certification may become effective at any point during your academic program. Therefore, it is extremely important that you DO NOT SELF ADVISE.

Early Experiences

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTC 1100</td>
<td>Orientation: Special Education</td>
<td>1</td>
</tr>
<tr>
<td>or SPC_ED 1100</td>
<td>School Health and Student Wellbeing</td>
<td>3</td>
</tr>
<tr>
<td>LTC 2200</td>
<td>Experiencing Cultural Diversity in the United States</td>
<td>3</td>
</tr>
<tr>
<td>ESC_PS 2000</td>
<td>Inquiry into Learning I</td>
<td>3</td>
</tr>
<tr>
<td>ESC_PS 2014</td>
<td>Inquiry into Learning I - Field Experience</td>
<td>1</td>
</tr>
<tr>
<td>LTC 2040</td>
<td>Inquiry into Schools, Community and Society I</td>
<td>3</td>
</tr>
<tr>
<td>LTC 2044</td>
<td>Inquiry into Schools, Community and Society: Field</td>
<td>1</td>
</tr>
<tr>
<td>IS_LT 2467</td>
<td>Inquiry into Empowering Learners with Technology</td>
<td>3</td>
</tr>
</tbody>
</table>

Mid-Level Experiences

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTC 4571</td>
<td>Introduction to Teaching Mathematics in Middle and Secondary Schools</td>
<td>3</td>
</tr>
<tr>
<td>LTC 4574</td>
<td>Intro. Teaching Math in Middle and Secondary School Field Experience</td>
<td>1</td>
</tr>
<tr>
<td>LTC 4560</td>
<td>Reading and Writing in the Content Areas</td>
<td>3</td>
</tr>
<tr>
<td>SPC_ED 4310</td>
<td>Behavioral and Classroom Management</td>
<td>3</td>
</tr>
<tr>
<td>LTC 4581</td>
<td>Teaching Mathematics in Middle and Secondary Schools: Focus on Algebra and Technology</td>
<td>3</td>
</tr>
<tr>
<td>LTC 4584</td>
<td>Teaching Math in Middle and Secondary Schools: Algebra and Technology Field</td>
<td>1</td>
</tr>
<tr>
<td>SPC_ED 4020</td>
<td>Teaching the Exceptional Learner</td>
<td>3</td>
</tr>
<tr>
<td>LTC 4565</td>
<td>Reading and Writing in the Content Areas II</td>
<td>3</td>
</tr>
</tbody>
</table>

Advanced-Level Experiences

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTC 4971</td>
<td>Internship and Capstone Seminar</td>
<td>12</td>
</tr>
<tr>
<td>LTC 4590W</td>
<td>Teach.Math in Sec.Schools: Focus on Geometry, Probability and Statistics - Writing Intensive</td>
<td>3</td>
</tr>
<tr>
<td>LTC 4594</td>
<td>Teach Math in Sec Sch: Focus on Geometry/Probability</td>
<td>1</td>
</tr>
<tr>
<td>LTC 4460</td>
<td>Teaching English to Speakers of Other Languages</td>
<td>3</td>
</tr>
<tr>
<td>ED_LPA 4060</td>
<td>Inquiring into Schools, Community and Society II</td>
<td>3</td>
</tr>
</tbody>
</table>

Content Area

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1500</td>
<td>Analytic Geometry and Calculus I</td>
<td>5</td>
</tr>
<tr>
<td>MATH 1700</td>
<td>Calculus II</td>
<td>5</td>
</tr>
<tr>
<td>MATH 2300</td>
<td>Calculus III</td>
<td>3</td>
</tr>
<tr>
<td>MATH 2320</td>
<td>Discrete Mathematical Structures (Recommended)</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 3000</td>
<td>Introduction to Advanced Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 4060</td>
<td>Connecting Geometry to Middle and Secondary Schools (Recommended)</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 4100</td>
<td>Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>MATH 4140</td>
<td>Matrix Theory</td>
<td>3</td>
</tr>
<tr>
<td>MATH 4510</td>
<td>Higher Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 4350</td>
<td>Introduction to Non-Euclidean Geometry</td>
<td>3</td>
</tr>
<tr>
<td>STAT 4050</td>
<td>Connecting Statistics to Middle and Secondary Schools (Recommended)</td>
<td>3</td>
</tr>
<tr>
<td>or STAT 4710</td>
<td>Introduction to Mathematical Statistics</td>
<td>3</td>
</tr>
<tr>
<td>INFOTC 1040</td>
<td>Introduction to Problem Solving and Programming</td>
<td>3</td>
</tr>
<tr>
<td>or CMP_SC 1050</td>
<td>Algorithm Design and Programming I</td>
<td>3</td>
</tr>
</tbody>
</table>

Semester Plan

Below is a sample plan of study, semester by semester. A student’s actual plan may vary based on course choices and where options are available.
<table>
<thead>
<tr>
<th>First Year</th>
<th>CR</th>
<th>Spring</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTC 1100</td>
<td>1</td>
<td>LTC 2200</td>
<td>3</td>
</tr>
<tr>
<td>MATH 1500</td>
<td>5</td>
<td>ENGLISH 1000</td>
<td>3</td>
</tr>
<tr>
<td>American History or Government</td>
<td>3</td>
<td>MATH 1700</td>
<td>5</td>
</tr>
<tr>
<td>ESC_PS 2000 (Social Science)</td>
<td>3</td>
<td>Humanities</td>
<td>3</td>
</tr>
<tr>
<td>Humanities</td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>14</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Year</th>
<th>CR</th>
<th>Spring</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESC_PS 2010 or LTC 2040 (Social Science)</td>
<td>3</td>
<td>ESC_PS 2010 or LTC 2040 (Social Science)</td>
<td>3</td>
</tr>
<tr>
<td>ESC_PS 2014 or LTC 2044</td>
<td>1</td>
<td>ESC_PS 2014 or LTC 2044</td>
<td>1</td>
</tr>
<tr>
<td>MATH 2300</td>
<td>3</td>
<td>IS_LT 2467</td>
<td>3</td>
</tr>
<tr>
<td>Writing Intensive</td>
<td>3</td>
<td>Lab Science</td>
<td>3</td>
</tr>
<tr>
<td>Humanities</td>
<td>3</td>
<td>MATH 2320</td>
<td>3</td>
</tr>
<tr>
<td>INFOTC 1040</td>
<td>3</td>
<td>Elective</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>15</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Year</th>
<th>CR</th>
<th>Spring</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTC 4571</td>
<td>3</td>
<td>LTC 4581</td>
<td>3</td>
</tr>
<tr>
<td>LTC 4574</td>
<td>1</td>
<td>LTC 4584</td>
<td>1</td>
</tr>
<tr>
<td>LTC 4560</td>
<td>3</td>
<td>LTC 4565</td>
<td>3</td>
</tr>
<tr>
<td>MATH 4350</td>
<td>3</td>
<td>SPC_ED 4310</td>
<td>3</td>
</tr>
<tr>
<td>MATH 4140</td>
<td>3</td>
<td>STAT 4050</td>
<td>3</td>
</tr>
<tr>
<td>SPC_ED 4020</td>
<td>3</td>
<td>MATH 4060</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fourth Year</th>
<th>CR</th>
<th>Spring</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTC 4971</td>
<td>12</td>
<td>LTC 4590W</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LTC 4594</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ED_LPA 4060</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LTC 4460</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Math Elective (MATH 4100, 4330, 4150, 4400)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MATH 4510</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits: 120