# Program Map: BSED in Secondary Education (6-12)
## Biology Education (121-124 credits)
### College of Education

<table>
<thead>
<tr>
<th>Name</th>
<th>Start Date</th>
<th>SID</th>
<th>Catalog Date</th>
<th>Advisor</th>
<th>Expected Graduation Date</th>
</tr>
</thead>
</table>

#### Freshman

<table>
<thead>
<tr>
<th>Course</th>
<th>Name</th>
<th>Hours</th>
<th>Area</th>
<th>Prerequisite</th>
<th>Spring Courses</th>
<th>Name</th>
<th>Hours</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area A</td>
<td>ENGL 1101</td>
<td>3</td>
<td>A</td>
<td></td>
<td>Area A</td>
<td>ENGL 1102</td>
<td>3</td>
<td>Prepare for GACE Program Admission Exams **</td>
</tr>
<tr>
<td>Area A</td>
<td>MATH 1111*</td>
<td>3</td>
<td>E</td>
<td>Pre-Calculus</td>
<td>MATH 1113</td>
<td>Pre-Calculus</td>
<td>3</td>
<td>** You are exempt from GACE Program Admission Exams by having a combination ACT score of 43 or a combination SAT score of 1000.</td>
</tr>
<tr>
<td>Area D</td>
<td>BIOL 1107</td>
<td>3</td>
<td>F</td>
<td>Pre-Calculus</td>
<td>BIOL 1108**</td>
<td>Principles of Biology II</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Area D</td>
<td>BIOL 1107L</td>
<td>1</td>
<td>F</td>
<td>Pre-Calculus</td>
<td>BIOL 1108**</td>
<td>Principles of Biology II</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Area F</td>
<td>EDUC 2000</td>
<td>3</td>
<td>F</td>
<td>Pre-Calculus</td>
<td>Area F</td>
<td>EDUC 2100</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Area F</td>
<td>EDUC 1103</td>
<td>2</td>
<td>F</td>
<td>Pre-Calculus</td>
<td>Area F</td>
<td>Investigating Critical &amp; Contemporary Issues in Education</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

#### Fall Milestones
- Total: 15

#### Fall Courses

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 111K</td>
<td></td>
</tr>
<tr>
<td>Area D</td>
<td></td>
</tr>
<tr>
<td>CHEM 1211</td>
<td>Introduced Physics I Pre-requisite: MATH 1113</td>
</tr>
<tr>
<td>Area D</td>
<td>Principles of Chemistry I Pre-requisite: None</td>
</tr>
<tr>
<td>CHEM 1212</td>
<td>Principles of Chemistry II Co-requisite: CHEM 1211/1211L</td>
</tr>
<tr>
<td>Area D</td>
<td>Principles of Chemistry I Lab Co-requisite: CHEM 1212</td>
</tr>
<tr>
<td>CHEM 1212L</td>
<td>Principles of Chemistry II Lab Co-requisite: CHEM 1212</td>
</tr>
<tr>
<td>Area B</td>
<td>Critical Thinking &amp; Communication Pre-requisite: None</td>
</tr>
<tr>
<td>HUMAN 1201</td>
<td>Elective Pre-requisite: None</td>
</tr>
<tr>
<td>Area E</td>
<td>Human Growth &amp; Development Pre-requisite: None</td>
</tr>
<tr>
<td>PSYC 2103</td>
<td>Exploring Teaching and Learning Pre-requisite: None</td>
</tr>
<tr>
<td>Area F</td>
<td>Exploring Socio-Cultural Influences in Teaching &amp; Learning Pre-requisite: None</td>
</tr>
<tr>
<td>EDUC 2120</td>
<td>BIED 2201 Biology Literacy for Diverse Learners Pre-requisite: None</td>
</tr>
</tbody>
</table>

#### Fall Milestones
- Total: 15

#### Spring Milestones
- Total: 16

#### Sophomore

<table>
<thead>
<tr>
<th>Course</th>
<th>Name</th>
<th>Hours</th>
<th>Area</th>
<th>Prerequisite</th>
<th>Spring Courses</th>
<th>Name</th>
<th>Hours</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area D</td>
<td>BIOL 3201</td>
<td>3</td>
<td>A</td>
<td>Pre-requisite: BIOL 1108/CH1212</td>
<td>BIED 3301</td>
<td>Genes Pre-requisite: BIOL 1108/1108L</td>
<td>3</td>
<td>Secure Tort Liability Insurance</td>
</tr>
<tr>
<td>Area D</td>
<td>BIOL 3201L</td>
<td>1</td>
<td>A</td>
<td>Pre-requisite: BIOL 1201</td>
<td>BIED 3301</td>
<td>Genes Lab Co-requisite: BIOL 1201</td>
<td>1</td>
<td>Secure Assessment Account</td>
</tr>
<tr>
<td>Area C</td>
<td>Elective</td>
<td>3</td>
<td>A</td>
<td>Pre-requisite: None</td>
<td>BIOL 3401</td>
<td>Ecology and Evolutionary Biology Co-requisite: BIOL 1108/1108L</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Area D</td>
<td>CSCI/CISI 1300</td>
<td>3</td>
<td>A</td>
<td>Pre-requisite: None</td>
<td>BIOL 3401L</td>
<td>Ecology and Evolutionary Biology Lab Co-requisite: BIOL 3401</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Area E</td>
<td>American Government</td>
<td>3</td>
<td>A</td>
<td>Pre-requisite: None</td>
<td>Area C</td>
<td>Elective Pre-requisite: None</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>EDUC 3030</td>
<td>Teaching Exceptional Learners Pre-requisite: Admission to TEP</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EDUC 3200</td>
<td>Curriculum and Assessment Pre-requisite: Admission to TEP</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Fall Milestones
- Total: 15

#### Spring Milestones
- Total: 16

#### Junior

<table>
<thead>
<tr>
<th>Course</th>
<th>Name</th>
<th>Hours</th>
<th>Area</th>
<th>Prerequisite</th>
<th>Spring Courses</th>
<th>Name</th>
<th>Hours</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area B</td>
<td>AFRS 1501</td>
<td>2</td>
<td>B</td>
<td>Pre-requisite: None</td>
<td>BIOL 3321</td>
<td>Microbiology Pre-requisite: BIOL 1108/1108L</td>
<td>3</td>
<td>Secure Tort Liability Insurance</td>
</tr>
<tr>
<td>Area B</td>
<td>BIOL 3321L</td>
<td>1</td>
<td>B</td>
<td>Pre-requisite: BIOL 1108</td>
<td>BIOL 3321L</td>
<td>Microbiology Lab Co-requisite: BIOL 1108</td>
<td>1</td>
<td>Apply for Graduation</td>
</tr>
<tr>
<td>EDUC 3040</td>
<td>Classroom Management and Ethics Pre-requisite: None</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIED 4416</td>
<td>Teaching and Research in Secondary Biology Education Pre-requisite: Admission to TEP</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIED 4417</td>
<td>Practicum in Teaching Secondary Biology Education Co-requisite: EDUC 4416 Pre-requisite: Admission to TEP</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Fall Milestones
- Total: 15

#### Spring Milestones
- Total: 16

#### Senior

<table>
<thead>
<tr>
<th>Course</th>
<th>Name</th>
<th>Hours</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 3321</td>
<td>Microbiology Pre-requisite: BIOL 1108/1108L</td>
<td>3</td>
<td>Secure Tort Liability Insurance</td>
</tr>
<tr>
<td>Area B</td>
<td>AFRS 1501</td>
<td>2</td>
<td>Complete Exit Counseling (Financial Aid)</td>
</tr>
<tr>
<td>EDUC 3040</td>
<td>Classroom Management and Ethics Pre-requisite: None</td>
<td>3</td>
<td>Complete Evaluation of Cooperating Teacher Survey</td>
</tr>
<tr>
<td>BIED 4416</td>
<td>Teaching and Research in Secondary Biology Education Pre-requisite: Admission to TEP</td>
<td>3</td>
<td>Complete Program Graduate Survey</td>
</tr>
<tr>
<td>BIED 4417</td>
<td>Practicum in Teaching Secondary Biology Education Co-requisite: EDUC 4416 Pre-requisite: Admission to TEP</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

#### Fall Milestones
- Total: 15

#### Spring Milestones
- Total: 16

#### Notes
- Submit edTPA
- Take GACE Program Admission Exams **
- Retake GACE Program Admission Exams, if needed
- Take GACE Content Exams Test I [026] and Test II [027] or Combined Test I and II [526]
Program Map: BSED in Secondary Education (6-12)
Biology Education (121-124 credits)
College of Education

Core Curriculum (Programmed Preferred Options in Bold)

Area B – Institutional Options 5 hrs.
   HUMN 1201 Critical Thinking & Communication 3 hrs.

Area C – Humanities/Fine Arts, and Ethics 6 hrs.
   1. Select one of the following:
      ENGL 2111 World Literature I 3 hrs.
      ENGL 2112 World Literature II 3 hrs.
      ENGL 2121 British Literature 1 3 hrs.
      ENGL 2122 British Literature II 3 hrs.
      ENGL 2131 American Literature I 3 hrs.
      ENGL 2132 American Literature II 3 hrs.
      ENGL 2222 African American Literature 3 hrs.
      PHIL 2010 Introduction to Philosophy 3 hrs.
      PHIL 2030 Introduction to Ethics 3 hrs.

   2. Select one of the following:
      ARTS 1101 Introduction to Visual Art 3 hrs.
      DNCE 2010 Dance Appreciation 3 hrs.
      ENGL 2521 Introduction to Film 3 hrs.
      HUMN 2011 Humanities 3 hrs.
      MUSC 1101 Introduction to Music 3 hrs.
      THEA 2101 Introduction to Theatre 3 hrs.

Area D – Natural Sciences, Math, & Technology 11 hrs.
   1. Select one of the following:
      BIOL 1107 Principles of Biology I 3 hrs.
      BIOL 1108 Principles of Biology II 3 hrs.
      CHEM 1211 Principles of Chemistry I 3 hrs.
      CHEM 1212 Principles of Chemistry II 3 hrs.
      CSCI 1130 Computer Applications 3 hrs.
      CSCI 1130 Computer Applications 3 hrs.
      CHEM 1211 Principles of Chemistry I 3 hrs.
      CHEM 1212 Principles of Chemistry II 3 hrs.
      BIOL 1108/1108L Principles of Biology II 4 hrs.
      BIOI 1107/1107L Principles of Biology I 4 hrs.
      CHEM 1211/1211L Principles of Chemistry 4 hrs.
      CHEM 1212/1212L Principles of Chemistry 4 hrs.
      PHYS 1111K Introductory Physics I 4 hrs.
      PHYS 1112K Introductory Physics II 4 hrs.
      PHYS 2211K Principles of Physics I 4 hrs.
      PHYS 2212K Principles of Physics II 4 hrs.

   2. Select two of the following lab sciences:
      BIOL 1107/1107L Principles of Biology I 4 hrs.
      BIOL 1108/1108L Principles of Biology II 4 hrs.
      CHEM 1211/1211L Principles of Chemistry 4 hrs.
      CHEM 1212/1212L Principles of Chemistry 4 hrs.
      PHYS 1111K Introductory Physics I 4 hrs.
      PHYS 1112K Introductory Physics II 4 hrs.
      PHYS 2211K Principles of Physics I 4 hrs.
      PHYS 2212K Principles of Physics II 4 hrs.

Area E – Social Science 12 hrs.
   POLS 1101 American Government 3 hrs.
   1. Select one of the following:
      HIST 2111 U.S. History to the Post-Civil War Period 3 hrs.
      HIST 2112 U.S. History from the Post-Civil War to Pre 3 hrs.
   2. Select two of the following:
      AFRS 2000 Introduction to Africana Studies 3 hrs.
      ANTH 1101 Introduction to Anthropology 3 hrs.
      ECON 2105 Principles of Macro-Economics 3 hrs.
      GEOG 1101 Introduction to Human Geography 3 hrs.
      HIST 1111 World Hist to Early Modern Times 3 hrs.
      HIST 1112 World History Early Modern Times to Pres 3 hrs.
      POLS 2401 Global Issues 3 hrs.
      PSYC 1101 Intro to General Psychology 3 hrs.
      PSYC 2103 Human Growth & Development 3 hrs.
      SOCI 1101 Introduction to Sociology 3 hrs.
      SOCI 1160 Social Problems 3 hrs.

Distinctive Courses in this Major

EDUC 3030 Teaching Exceptional Learners 3 credits
This course is designed to prepare candidates to work collaboratively with families and school personnel to have a positive impact on the educational, social and behavioral development of all students, including those with a full range of disabilities and in a diverse society. The course focuses on knowledge of legislative mandates for serving exceptional students, characteristics of exceptionality, best practice in facilitating teaching and learning, and accountability through assessment of outcomes. There are 60 required field hours in this course. This course cannot be passed without verification of completion of field hours. Admission to TEP required.

EDUC 3200 Curriculum and Assessment 3 credits
This course will engage students in the investigation of curriculum, instruction, and assessment development with an emphasis on student learning outcomes. This course will review assessment methods relative to constructing, evaluating and interpreting tests with an understanding on reliability, valid and fair measurements; descriptive and inferential statistics, and state competency testing. Students will cover knowledge management and methods for integrating technology into assessment practice. There are 60 required field hours in this course. This course cannot be passed without verification of completion of field hours. Admission to TEP required.

EDUC 4416 Teaching & Research in Secondary Biology Education 3 credits
This course is an examination and application of curricular issues, learning theories, teaching strategies, instructional materials, and assessment procedures for teaching secondary school biology in the multicultural and diverse classroom of today. The course emphasizes those practices recommended by research in biology education and the Next Generation Science Standards of the National Science Teachers Association (NSTA), which include inquiry and discovery through active learning. The eportfolio is required. Admission to TEP required. Taken with BIED 4417.

EDUC 4417 Practicum in Teaching Secondary Biology Education 3 credits
This course is designed to provide teacher candidates with experience in a supervised school setting where they will show active involvement with mentor teachers in creating and teaching lessons and assessing student learning to guide instruction. Students will learn how to implement meaningful and engaging instruction for secondary students in biology using inquiry and discovery to develop critical thinking, problem solving, and scientific literacy skills. There are 120 required field hours in this course. This course cannot be passed without verification of completion of field hours. Admission to TEP required. Taken with BIED 4416.

EDUC 4475 Student Teaching/Clinical Practice 10 credits
Student teaching is a 630-hour field-based capstone requirement for teacher certification and BSED candidates. Requirements for entry, grade level and/or content placement, and teaching experiences at the assigned school adhere to the most recent rules for teacher certification mandated by the GaPSC. Taken with EDUC 4476.

EDUC 4476 Student Teaching Seminar 2 credits
This seminar, taken with EDUC 4475 Student Teaching/Clinical Practice, provides students with structured support to meet final teacher preparation program requirements mandated by the GaPSC for teacher certification. Completion of GACE assessments and submission of the teaching portfolio to edTPA are required to complete this course. Taken with EDUC 4475.