### Preparing Educators who are Scholars and Leaders

#### Senior Year

**Professional Preparation:**

- **One of the Following:**
  - BIO 340 (4) Ecology (Prereq: BIO 222)
  - BIO 341 (2) Tropical Ecology (Prereq: BIO 111 and permission of instructor)

**Courses Outside the Department:**

- **Plus At Least Four Electives (4 Courses) From the Following:**
  - BIO 301 (4) Microbiology (Prereq: BIO 221)
  - BIO 302 (4) Molecular Genetics (Prereq: BIO 221 and 222)
  - BIO 303 (4) Biochemistry of the Cell (Prereq: BIO 222 and CHM 120)
  - BIO 400 (4) Field Botany (Prereq: BIO 111)
  - BIO 401 (4) Applied Plant Science (Prereq: BIO 111)
  - BIO 420 (4) Comparative Anatomy and Embryology (Prereq: BIO 111)
  - BIO 421 (4) Invertebrate Zoology (Prereq: BIO 222)
  - BIO 422 (4) Field Zoology (Prereq: BIO 222)
  - BIO 423 (4) Marine Biology (Prereq: Any BIO course and permission of instructor)

**Courses Outside the Department:**

- CHM 110 (4) Foundations of Chemistry
- CHM 115 (4) Kinetics, Thermodynamics and the Environment (Prereq: CHM 110)
- CHM 120 (4) Organic Chemistry (Prereq: CHM 115)
- PHY 111 (4) General Physics I (Prerequisites: MTH 150 strongly recommended)

**One of the Following:**

- MTH 110 (4) Finite Mathematics
- MTH 150 (4) Analytic Geometry and Calculus I (Prereq: appropriate placement)
- MTH 120 (4) Introduction to Statistics
- MTH 145 (4) Calculus for Management, Life and Social Sciences

**One of the Following:**

- EES 112 (4) Environmental Science
- EES 115 (4) Earth Systems

**Professional Preparation:**

- EDU 111 (4) Perspectives on American Education (EDU 001 Lab included)
- EDU 120 (4) Human Growth and Development
- EDU 221 (4) Education of Students with Exceptionalities (Prerequisites: EDU 111 and 120)

**Senior Year (Prerequisites: EDU 111, 120, 221):**

- EDU 350 (2) Curriculum and Methods of Teaching in Grades 9-12 (Fall Term of Senior Year)

  **Spring Term of Senior Year (16 Credit Hours):**

  - EDU 433 (3) Foundations of Literacy Instruction
  - EDU 434 (3) Content Literacy Strategies and Modifications for Diverse Learners
  - EDU 454 (4) Teaching Science in Grades 9-12
  - EDU 460 (2) Critical Issues in Secondary Education
  - EDU 472 (4) Practicum: Secondary Teaching

**Teaching Internship (Fall Term After Graduation):**

- EDEP 670 (6) Teaching Internship

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### Biology Licensure

**(South Carolina – Grades 9-12)**

<table>
<thead>
<tr>
<th>The Following:</th>
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<tbody>
<tr>
<td>BIO 111</td>
<td>(4) Foundations of Biology</td>
<td>BIO 222 (4) Research and Analysis (Prereq: any Furman BIO course)</td>
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<tr>
<td>BIO 221</td>
<td>(4) Genetics (Prereq: BIO 111)</td>
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**One of the Following:**

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- BIO 341 (2) Tropical Ecology (Prereq: BIO 111 and permission of instructor)
- BIO 342 (2) Field Studies in Tropical Ecology (Prereq: BIO 341)
- BIO 343 (4) Environmental Systems (Prereq: BIO 111, CHM 110, EES 110, 111, 112 or 113)

**One of the Following:**

- BIO 320 (4) Animal Physiology (Prereq: BIO 222)
- BIO 321 (4) Plant Physiology (Prereq: BIO 222)
- BIO 322 (4) Human Physiology (Prereq: BIO 111)
- BIO 325 (4) Developmental Biology (Prereq: BIO 221 and 222)

**The Following:**

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- BIO 303 (4) Biochemistry of the Cell (Prereq: BIO 222 and CHM 120)
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- EDEP 670 (6) Teaching Internship

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**Revised August 29, 2018** | **Last Reviewed November 15, 2018**