**Required Certification Sequence for UABTeach Candidates Majoring in Biomedical Engineering**

Program: **BIOLOGY**

TOTAL HOURS: * 

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**General Studies**

Shall include courses and/or experiences in the humanities, social studies, mathematics, and science.

**Humanities:**
- EH 101 English Composition I 3
- EH 102 English Composition II 3
- Humanities/Fine Arts (See AGSC List) 9

**Social Science:**
- History (See AGSC List) 3
- Non-History Social Science (See AGSC List) 6

**Science:**
- Natural Sciences (lab required with each course)
  - CH 115/116 Chemistry I with Lab 4
  - CH 117/118 Chemistry II with Lab 4
  - PH 221 General Physics I and Lab 4
  - PH 222 General Physics II and Lab 4

**Mathematics:**
- MA 125 Calculus I 4
- MA 126 Calculus II 4
- MA 260 Introduction to Linear Algebra 3

**Other:**
- PHL 275 or HY 275 Perspectives on Science and Mathematics 3

**SPECIAL NOTES:**

*To be eligible for Class B certification in biology, candidates will need to complete all courses on this checklist, meet Teacher Education Program requirements for certification, AND complete all degree requirements for Biomedical Engineering.

Prospective and admitted students should **NOT** begin any coursework without seeking advisement from the Office of Student Services (call: 205-934-7530) each term. Students who ignore this admonition assume responsibility for their own mistakes.

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**Professional Studies**

These courses must be taken prior to admission to TEP.
- EHS 125 Step 1: Inquiry Approaches to Teaching 1
- EHS 126 Step 2: Inquiry-Based Lesson Design 1
- EHS 325 Knowing and Learning in Science and Mathematics 3

These courses require admission to TEP before they can be taken.
- EHS 326 Classroom Interactions 3
- EHS 327 Project-Based Instruction 3

**Internship:**

Students must take EHS 425 and EHS 426 in the same term.
- EHS 425 Apprentice Teaching 6
- EHS 426 Apprentice Teaching Seminar 1

**Teaching Field**

Must include an academic major of at least 32 semester hours with a minimum of 19 hours in the upper division. (List all courses required for the teaching field.)

See Attached Additional Requirements 33**

These hours do not include those courses calculated for the Teaching Field located on this page.

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**Dean of Education:**

**Date:** 7/15/15
# Class B Biology Education Program Checklist

## Teaching Field Courses (32/19 Analysis)

### Lower Division Courses (All of the Courses Below are Required)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BME 210</td>
<td>Engineering Biology</td>
<td>3</td>
</tr>
<tr>
<td>BY 123</td>
<td>Introductory Biology and Lab</td>
<td>4</td>
</tr>
<tr>
<td>BY 210</td>
<td>Genetics</td>
<td>3</td>
</tr>
</tbody>
</table>

### Upper Division Courses (At Least 23 Hours of Coursework From the List below)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BY 409</td>
<td>Mammalian Physiology with Lab</td>
<td>4</td>
</tr>
<tr>
<td>BY 492</td>
<td>Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>BME 310</td>
<td>Biomaterials</td>
<td>3</td>
</tr>
<tr>
<td>BME 312</td>
<td>Bicomputing</td>
<td>3</td>
</tr>
<tr>
<td>BME 313</td>
<td>Bioinstrumentation</td>
<td>3</td>
</tr>
<tr>
<td>BME 333</td>
<td>Biomechanics of Solids</td>
<td>3</td>
</tr>
<tr>
<td>BME 340</td>
<td>Bioimaging</td>
<td>3</td>
</tr>
<tr>
<td>BME 350</td>
<td>Biological Transport Phenomena</td>
<td>3</td>
</tr>
<tr>
<td>BME 423</td>
<td>Living Systems Analysis</td>
<td>3</td>
</tr>
<tr>
<td>BME 498</td>
<td>Senior Design I Product Development</td>
<td>3</td>
</tr>
<tr>
<td>BME 499</td>
<td>Capstone Design II</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL** 33 hours*

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*Minimum of 10 hours of lower division courses in lower division courses as outlined above

*Minimum of 23 hours of upper division courses in upper division courses as outlined above