**STATE OF ALABAMA DEPARTMENT OF EDUCATION**  
**TEACHER EDUCATION AND CERTIFICATION**  

(Required certification sequence for UABTeach Program for Mechanical Engineering Majors)

**Program:** GENERAL SCIENCE (6-12)  
Total Hours: *  

*This certification requires a minimum of 120-hours for degree including 21 hours of UAB Teach courses.*

### CLASS B EDUCATION PROGRAM CHECKLIST

**Institution:** UNIVERSITY OF ALABAMA AT BIRMINGHAM  
**Date Approved:** 06/09/2022  
**Date Expires:** 02/28/2028

<table>
<thead>
<tr>
<th>General Studies</th>
<th>Professional Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Humanities:</strong></td>
<td>These courses must be taken prior to admission to TEP.</td>
</tr>
<tr>
<td>EH 101 English Composition I</td>
<td>EHS 125 Step 1: Inquiry Approaches to Teaching</td>
</tr>
<tr>
<td>EH 102 English Composition II</td>
<td>EHS 126 Step 2: Inquiry Approaches to Teaching</td>
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<tr>
<td>Literature (See AGSC List)</td>
<td>EHS 325 Knowing and Learning in Science and Mathematics</td>
</tr>
<tr>
<td>Humanities/Fine Arts (See AGSC List)</td>
<td>EHS 326 Classroom Interactions</td>
</tr>
<tr>
<td>Fine Arts (See AGSC List)</td>
<td><strong>Total:</strong> 3</td>
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<tr>
<td><strong>Social Science:</strong></td>
<td>These courses require admission to TEP before they can be taken.</td>
</tr>
<tr>
<td>History</td>
<td>EHS 270 Problem-Based Instruction</td>
</tr>
<tr>
<td>Non-History Social Science</td>
<td><strong>Total:</strong> 3</td>
</tr>
<tr>
<td><strong>Science:</strong></td>
<td><strong>Internship:</strong></td>
</tr>
<tr>
<td>BY 123 Introductory Biology with Lab</td>
<td>Students must take EHS 425 and EHS 426 in the same term.</td>
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<tr>
<td>CH 115/116 Chemistry I with Lab</td>
<td>EHS 425 Apprentice Teaching</td>
</tr>
<tr>
<td>CH 117/118 Chemistry II with Lab</td>
<td>EHS 426 Apprentice Teaching Seminar</td>
</tr>
<tr>
<td>PH 221 General Physics I and Lab</td>
<td><strong>Total:</strong> 6</td>
</tr>
<tr>
<td>PH 222 General Physics II and Lab</td>
<td><strong>Total:</strong> 1</td>
</tr>
<tr>
<td><strong>Mathematics:</strong></td>
<td><strong>Teaching Field</strong></td>
</tr>
<tr>
<td>MA 125 Calculus I</td>
<td>Must include at least 30 semester hours in the teaching field with a minimum of 18 hours at the upper division level. (List all courses required for the teaching field.)</td>
</tr>
<tr>
<td><strong>Other:</strong></td>
<td><strong>See attached requirements on page 2.</strong></td>
</tr>
<tr>
<td>PHI 270 Science, Knowledge, and Reality</td>
<td><strong>Dean of Education:</strong> Michelle Robinson</td>
</tr>
<tr>
<td>OR</td>
<td><strong>Date:</strong> 10/13/2022</td>
</tr>
<tr>
<td>HY 275 Perspectives on Science and Mathematics</td>
<td><strong>Total:</strong> 3</td>
</tr>
</tbody>
</table>

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

*For candidates pursuing general science certification, completion of courses in biology, chemistry, Earth and space sciences, and physics is required.

Prospective and admitted students should NOT begin any coursework without seeking advisement from the UABTeach Advisor/Academic Coach each term. Students who ignore this admonition assume responsibility for their own mistakes.
Class B General Science (6-12) Program Checklist: 30/18 Teaching Field Analysis

**Lower Division Courses**
Choose two (2) of the following:
- BY 123 Introductory Biology I 4
- CH 115/116 Chemistry I with Lab 4
- CH 117/118 Chemistry II with Lab 4
- PH 221 General Physics I with Lab 4
- PH 221 General Physics II with Lab 4

Choose two (2) of the following:
- CE 210 Statics 3
- CE 220/221 Mechanics of Solids with Lab 3
- ME 241 Thermodynamics I 3
- ME 242 Thermodynamics II 3
- ME 215 Dynamics 3

**14 Hours**

**Upper Division Courses**
- ME 321 Introduction to Fluid Mechanics 3
- ME 360 System Modeling and Controls 3
- ME 370 Kinematics and Dynamics of Machinery 3
- Mechanical Engineering Research Methods OR Mechanical Engineering Capstone 3

Choose three (3) of the following:
- ME 322 Introduction to Heat Transfer 3
- ME 361 Thermo-Fluids Systems 3
- ME 364 Linear Algebra & Numerical Methods 3
- ME 371 Machine Design 3
- ME 461 Mechanical Systems and Lab 3

**21 hours**

**FOR GENERAL SCIENCE CERTIFICATION (If not included on major checklist)**

**One Course and Lab Sequence from the Following:**
- BY 123 Introductory Biology I and Lab
- BY 124 Introductory Biology II and Lab

**One Course and Lab Sequence from the Following:**
- CH 115/116 General Chemistry I and Lab
- CH 117/118 General Chemistry II and Lab

**One Course and Lab Sequence from the Following:**
- PH 202 College Physics and Lab
- PH 221 General Physics I and Lab
- PH 222 General Physics II and Lab

**One Course and Lab Sequence from the Following:**
- AST 101/111 Astronomy of the Universe and Lab
- AST 102/112 Astronomy of Stellar Systems and Lab
- ES 101/102 Physical Geology and Lab
- ES 103/104 History of the Earth and Lab