



(Required Certification Sequence for UABTeach Candidates Majoring in Materials Engineering)

Program: **GENERAL SCIENCE**

11/4/19

Total Hours: *

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

CLASS B EDUCATION PROGRAM CHECKLIST

Institution: UNIVERSITY OF ALABAMA AT BIRMINGHAM

Date Approved: 7/8/2014

Date Expires: 5/31/2021

Revisions:

6/22/2017 6/17/2018 2/13/2020

General Studies

*Refer to the UAB Catalog for Core Curriculum requirements

EH 101 English Composition I 3
EH 102 English Composition II 3

Humanities: (9 Hours)

Literature 3-6
Humanities 3-6
Fine Arts 3

Mathematics: (4 Hours)

MA 125 Calculus I 4

Science: (Choose 8 Hours from the following)

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
BY 115-499 3-4

Social Science: (9 Hours)

History 3-6
Non-History Social Science 3-9

Other: (3 Hours)

PHL 270 Science, Knowledge, and Reality
OR
HY 275 Perspectives on Science and Mathematics 3

SPECIAL NOTES:

To be eligible for Class B certification in General Science, candidates will need to complete all courses on this checklist, met Teacher Education Program requirements for certification, AND complete all degree requirements for Materials Engineering.

General Science certification requires candidates to complete courses in biology, chemistry, Earth and space sciences, and physics.

Prospective and admitted students should NOT begin any coursework without seeking advisement from the UABTeach Academic Coach (drparker@uab.edu) each term. Students who ignore this admonition assume responsibility for their own mistakes.

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 Approaches to Teaching 1
EHS 325 Knowing and Learning in Science and Mathematics 3
EHS 326 Classroom Interactions 3

These courses require admission to TEP before they can be taken.

EHS 327 Problem-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 Requirements

Dean of Education: Scott Syon

Date: 11/14/19



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**Class B General Science Education Program Checklist
Teaching Field Courses**

Lower Division Courses

Choose four (4) of the following:

| | |
|---|---------------------------|
| 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 222 General Physics II with Lab | 4 |
| CE 210 Statics | 3 |
| CE 220/221 Mechanics of Solids with Lab | 3 |
| MSE 280 Engineering Materials | 3 |
| MSE 281 Physical Materials I with Lab | 4 |
| | <u>13-16 Hours</u> |

Upper Division Courses

| | |
|---|------------------------|
| MSE 380 Thermodynamics of Materials | 3 |
| MSE 381 Physical Materials | 3 |
| MSE 382 Mechanical Behavior of Materials | 3 |
| MSE 401 Materials Processing <u>OR</u> | |
| MSE 430 Polymeric Materials | 3 |
| MSE 465 Characterization of Materials with Lab <u>OR</u> | |
| MSE 470 Ceramic Materials with Lab | 4 |
| Materials Engineering Research Methods <u>OR</u> | |
| Materials Engineering Capstone | 3 |
| | <u>19 Hours</u> |