# SECONDARY SCIENCE PHYSICS EDUCATION MAJOR (2022 – 2023)

## College for Education
Bachelor of Science (BS) or Bachelor of Science in Education (BSE)

### FOUNDATIONS OF WRITTEN COMMUNICATION
(6 credit hours required – Writing Across the Curriculum - WAC)
Grade of “C” or higher is required in each course

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENC 1101</td>
<td>College Writing I (REQUIRED)</td>
<td></td>
</tr>
<tr>
<td>ENC 1102</td>
<td>College Writing II +</td>
<td></td>
</tr>
</tbody>
</table>

**THE FOLLOWING COURSES BELOW MAY BE SUBSTITUTED FOR ENC 1102:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENC 1939</td>
<td>Special Topic: College Writing</td>
</tr>
<tr>
<td>HIS 2050</td>
<td>Writing History</td>
</tr>
</tbody>
</table>

**Note:** Students must take four Writing-Across-the-Curriculum (WAC) courses, two of which must be taken from Foundations of Written Communication.

### FOUNDATIONS OF MATHEMATICS & QUANTITATIVE REASONING
(6 credit hours required – Grade of “C” or higher is required)
Student must take 2 of the following courses, 1 must be from group A. The second course may be from group A or group B.

**Group A**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGF 1106</td>
<td>Math for Liberal Arts 1</td>
</tr>
<tr>
<td>MGF 1107</td>
<td>Math for Liberal Arts 2</td>
</tr>
<tr>
<td>MAC 1105</td>
<td>College Algebra</td>
</tr>
<tr>
<td>STA 2023</td>
<td>Introductory Statistics</td>
</tr>
<tr>
<td>MAC 2311</td>
<td>Calculus with Analytic Geometry 1 (4 credits)</td>
</tr>
</tbody>
</table>

**REQUIRED**

*or any mathematics course for which one of the above courses is the direct prerequisite

**Group B**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COP 1034C</td>
<td>Computer Programming &amp; Data Literacy for Everyone</td>
</tr>
<tr>
<td>MAC 1147</td>
<td>Precalculus Algebra &amp; Trigonometry (4 credits)</td>
</tr>
<tr>
<td>MAC 2210</td>
<td>Intro Calculus w/Applications (4 credits) (Permit Only)</td>
</tr>
<tr>
<td>MAC 2233</td>
<td>Methods of Calculus</td>
</tr>
<tr>
<td>MAC 2241</td>
<td>Life Science Calculus 1 (4 credits)</td>
</tr>
<tr>
<td>MAC 2312</td>
<td>Calculus w/Analytic Geometry 2 (4 credits) (REQUIRED)</td>
</tr>
<tr>
<td>PHI 2102</td>
<td>Logic</td>
</tr>
</tbody>
</table>

### FOUNDATIONS OF SCIENCE & THE NATURAL WORLD
(6 credit hours required - One of the courses must have a lab)
Student must take 2 of the following courses, 1 must be from group A. The second course may be from group A or group B.

**Group A**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSC 1010 &amp; D</td>
<td>Biological Principles (4 cr. Incl. Lab &amp; Dis)</td>
</tr>
<tr>
<td>CHM 2045 &amp; L</td>
<td>General Chemistry 1 (4 cr. Incl. Lab)‡</td>
</tr>
<tr>
<td>PHY 2048 &amp; L</td>
<td>General Physics 1 (5 credits incl. Lab) *</td>
</tr>
</tbody>
</table>

**Group B**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSC 1011 &amp; D</td>
<td>Biodiversity (4 cr. incl Lab &amp; Dis)</td>
</tr>
</tbody>
</table>

**NOTE:** Must select either BSC 1011 & 1010 or CHM 2045 & 2046 (all with labs).

### FOUNDATIONS OF SCIENCE & HUMAN BEHAVIOR
(6 credit hours required)
Student must take 2 of the following courses, 1 must be from group A. The second course may be from group A or group B.

**Group A**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMH 2020 &amp; D</td>
<td>United States History Since 1877 Œ RECOMMENDED</td>
</tr>
<tr>
<td>ANT 2000 &amp; D</td>
<td>Introduction to Anthropology (WAC)</td>
</tr>
<tr>
<td>ECO 2013</td>
<td>Macroeconomic Principles §</td>
</tr>
<tr>
<td>POS 2041</td>
<td>Government of the United States Œ RECOMMENDED</td>
</tr>
<tr>
<td>PSY 1012</td>
<td>Introduction to Psychology</td>
</tr>
<tr>
<td>SYG 1000</td>
<td>Sociological Perspectives RECOMMENDED</td>
</tr>
</tbody>
</table>

**Group B**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMH 2010 &amp; D</td>
<td>United States History to 1877 RECOMMENDED</td>
</tr>
<tr>
<td>CCJ 2002</td>
<td>Law, Crime &amp; the Criminal Justice System ±</td>
</tr>
<tr>
<td>DIG 2202</td>
<td>Digital Culture</td>
</tr>
<tr>
<td>ECO 2023</td>
<td>Microeconomic Principles §</td>
</tr>
<tr>
<td>ECP 2002</td>
<td>Contemporary Economic Issues</td>
</tr>
<tr>
<td>EEX 2091</td>
<td>Disability and Society</td>
</tr>
<tr>
<td>EVR 1110</td>
<td>Climate Change: The Human Dimensions</td>
</tr>
<tr>
<td>EVR 2017</td>
<td>Environment and Society</td>
</tr>
<tr>
<td>LIN 2001</td>
<td>Introduction to Language (online course)</td>
</tr>
<tr>
<td>PAD 2013</td>
<td>Risk Resilience and Rising Seas ±</td>
</tr>
<tr>
<td>PAD 2258</td>
<td>Changing Environment of Soc., Bus., &amp; Gov’t</td>
</tr>
<tr>
<td>SYG 2010</td>
<td>Social Problems</td>
</tr>
<tr>
<td>URP 2051</td>
<td>Designing the City</td>
</tr>
</tbody>
</table>

(D) = Discussion, (L) = Lab
Courses indicating a (D) or (L) are linked with a lecture, a lab, and/or a discussion. If you select one of these courses, you must register for the lecture, lab, and/or discussion. You **must** attend the lecture, lab, and/or discussion.
### FOUNDATIONS IN GLOBAL CITIZENSHIP

(6 credit hours required)

Student must choose two (2) courses from among the following:

- **ANT 2410** .............. Culture and Society
- **EDF 2854** .............. Educated Citizen in Global Context
- **GEA 2000** .............. World Geography **RECOMMENDED**
- **INR 2002** .............. Introduction to World Politics
- **LAS 2000** .............. Intro to Caribbean & Latin American Studies
- **LIN 2607** .............. Global Perspectives on Language
- **POT 2000** .............. Global Political Theory ±
- **SYP 2450** .............. Global Society
- **SOW 1005** .............. Global Perspectives of Social Services
- **WOH 2012 & D** ...... History of Civilization 1 (WAC) ++
  **RECOMMENDED**
- **WOH 2022** .............. History of Civilization 2
- **WST 2351** .............. Gender and Climate Change

### FOUNDATIONS OF HUMANITIES

(6 credit hours required)

Student must take 2 of the following courses, 1 must be from group A. The second course may be from group A or group B.

**Group A**

- **ARH 2000** .............. Art Appreciation
- **MUL 2010** .............. Music Appreciation
- **PHI 2010 & D** ...... Introduction to Philosophy (WAC) ++
- **THE 2000** .............. Theatre Appreciation

**Group B**

- **ARC 2208** .............. Culture & Architecture
- **DAN 2100** .............. Appreciation of Dance
- **FIL 2000 & D** ...... Film Appreciation
- **HUM 2470** .............. Racism and Anti-Racism ±
- **LIT 2010** .............. Interpretation of Fiction (WAC) ++
- **LIT 2030** .............. Interpretation of Poetry (WAC) ++
- **LIT 2040** .............. Interpretation of Drama (WAC) ++
- **LIT 2070** .............. Interpretation of Creative Nonfiction (WAC) ++
- **LIT 2100** .............. Introduction to World Literature
- **SPC 2608** .............. Public Speaking ±

### Legend

+ - ENC 1101 is a prerequisite.
++ - Two Foundations of Written Communications classes are required before taking this course.
§ - Sophomore standing (30 credits earned) is a requirement to take this course.
* - MAC 2311 is a prerequisite for this course. If a lab is needed, then take General Physics 1 Lab (PHY 2048 Lab).
‡ - Co-requisite of College Algebra (MAC 1105) or a prerequisite of Introductory Chemistry (CHM 1025).
± - Starting Spring 2022 and afterwards.
◊ - See information box below regarding Civic Literacy Requirement

**WAC** - (WAC) Writing across the curriculum course.

**Writing Across the Curriculum (WAC)/Gordon Rule**

Students must attain grades of “C” or higher. 12 credits of writing (WAC) and 6 credits of mathematics are required.

Please note:

Students must take **four (4)** WAC courses. Two (2) courses are to be taken from Foundations of Written Communication. We strongly recommend the two additional WAC courses come from these courses: PHI 2010, WOH 2012, LIT 2010, LIT 2030, LIT 2040 and LIT 2070. See advisor for additional details.

**Courses indicating a (D) or (L) are linked with a lecture, a lab, and/or a discussion. If you select one of these courses, you must register for the lecture, lab, and/or discussion. You must attend the lecture, lab, and/or discussion.**

**Elective Credits**

The number of elective credits allowed varies by major. Please consult with an academic advisor to determine the number of elective credits required for your major. **Certain majors do not allow any electives.**

Go to MyFAU to:

Check e-mail
See FAU Announcements
FAU Self-Service:
- Course schedules
- Registration (drop/add classes) and withdrawals
- Student records and financial aid
- Tuition payments
- The University Course Catalog

[civic literacy](https://www.fau.edu/ugstudies/civic-literacy-requirement/)

Beginning in Fall 2018, students entering a Florida public institution as a degree-seeking student for the first time needs to demonstrate civic literacy through either taking a certain course (AMH 2020 or POS 2041) or passing an assessment exam. Beginning in Summer 2021, Florida Legislature amended the statute and now requires students to complete **both** a civic literacy course (AMH 2020 or POS 2041) and an assessment exam.
FOREIGN LANGUAGE (0 - 8 credits, 1 or more courses in the same language) - REQUIRED FOR BS MAJOR ONLY
Students with more than one year of a foreign language in high school should enroll in the second half of the beginners’ foreign language class (ARA/CHI/FRE/GER/HBR/ITA/JPN/LAT/SPN 1121) or a higher-level course. Proficiency for a first-level course can be earned by successfully completing a second-level course. For questions related to this requirement, consult an academic advisor. CLEP exam credits meet this requirement: see the catalog.
All students must meet the Admissions Foreign Language requirement.

**NOTE:** Native Speakers of a foreign language must consult the Languages, Linguistics, and Comparative Literature Department regarding this requirement.

**NOTE:** Honors Seminars SHALL BE ACCEPTED AS MEETING THE WAC/GRW REQUIREMENT. See the University Advising Services Office for details.

| 41 credits | Intellectual Foundations Program |
| 17 credits | Free Electives (Foreign Language taken for BS count as electives) |
| 9 credits | Lower-Division College Requirements |
| 24 credits | Professional Education |
| 29 credits | Major Content |
| **120 CREDITS** | **TOTAL** |

For additional information, please contact the College of Education Office for Academic and Student Services:
College of Education, Room 230
(561) 297-3570 or [http://www.coe.fau.edu/menu.htm](http://www.coe.fau.edu/menu.htm)

**Note:** To be admitted to a Teacher Education program, students must do the following:
1. Have a minimum GPA of 2.5 on a 4.0 scale on the lower division undergraduate general education component.
2. Submit passing scores on all sections of the General Knowledge (GK) test to the College of Education [www.fl.nesinc.com](http://www.fl.nesinc.com)
3. Meet the general university requirements for admission.
4. Complete FAU’s Intellectual Foundations Program or an AA Degree from a Florida State University or College.
5. Be interviewed and recommended for admission.
6. Be programmed by an assigned advisor.
7. Be approved for admission by the College of Education.
MAJOR COURSES, COLLEGE REQUIREMENTS and ELECTIVES

NON-MAJOR/FREE ELECTIVES (9 credits)
Courses in any college, any department, including Education, needed to meet the 120 credits required for graduation. Foreign language will count as an elective if taken for the BS major.

------------------ 8 credits in Biology or Chemistry are required: ------------------

Biology Department
___ BSC 1011 & L & D  Biodiversity (4 cr. incl. Lab and Discussion)
___ BSC 1010 & L & D  Biological Principles (4 cr. incl. Lab & Disc)

2 Biology or 2 Chemistry Courses

Chemistry Department
___ CHM 2045 & L & D‡  General Chemistry I (4 credits Incl. Lab & Discussion)
___ CHM 2046 & L  General Chemistry II (4 credits Incl. Lab)

LOWER DIVISION COLLEGE REQUIREMENTS (9 credits):
EDF 2005  Intro to the Teaching Profession (15 observation hours) (3 credits)
EDF 2085  Intro to Diversity for Educators (15 observation hours) (3 credits) (WAC)
EME 2040  Introduction to Technology for Educators (3 credits) – (Online Course)

PROFESSIONAL EDUCATION (24 credits)
EDF 3210  Applied Learning Theory (3 credits)
EDF 3430  Educational Measurement and Evaluation (3 credits)
TSL 4324  ESOL Strategies for Content Area Teachers (3 credits)
SCE 4360  Science: Middle and Secondary School (3 credits)
RED 4335  Reading in the Content Areas (3 credits)
ESE 3940  Secondary School Effective Instruct (3 credits, 90 - hours plus security) **
SCE 4944  Student Teaching: Physics 6 – 12 (6 - 12 credits) (Full-time internship, completed during a fall/spring term)

PHYSICS MAJOR CONTENT (29 credits)
PHY 1090  First Year Physics Seminar (1 credit)
PHY 2049 + L  General Physics II + Lab (5 credits) (Prerequisite of PHY 2048 + L & MAC 2312)
MAP 3305  Engineering Mathematics I (3 credits)
PHY 3101C  Survey to Modern Physics (4 credits) (Prerequisite MAP 3305 Engineering Mathematics I)
PHY 3323  Electromagnetism I (4 credits)
PHY 3722  Physical electronics (4 credits)

Upper –Division Physics and Mathematics Electives must be approved by advisor

SELECT TWO: (All courses are 4 credits each)
PHY 3503  Thermodynamics
PHY 4604  Quantum Mechanics I
       (Corequisite: PHZ 4113)
PHY 3221  Classical Mechanics

** Must be programmed and taken the fall/spring semester prior to student teaching.

IMPORTANT NOTES:

Students registered in Education courses must purchase “Live Text” which is an on-line tool that will be used to track individual student competency mastery (CAs) in initial certification programs. For detailed information, please visit: https://www.fau.edu/education/students/livetext/students/

Field experience is a required component of some Education courses. All students requiring a field experience placement must have evidence of current security clearance. For detailed information, please visit: http://www.fau.edu/education/students/oass/fieldexperience/