## Science Education, Physics (9-12) Concentration 2025-2026

|     | Freshman Year         |                                   |         |  |   |                                    |         |  |  |
|-----|-----------------------|-----------------------------------|---------|--|---|------------------------------------|---------|--|--|
|     | Fall                  |                                   |         |  | Spring                                  |                                    |         |  |  |
|     | Course Number         | Course Title                      | Credits |  | Course Number                           | Course Title                       | Credits |  |  |
|     | UNV 1000              | Freshman Seminar                  | 1       |  | ENG 1060                                | Composition II                     | 3       |  |  |
|     | ENG 1050              | Composition 1                     | 3       |  | General<br>Education                    | Social Science                     | 3       |  |  |
|     | MAT 1090 <sup>3</sup> | Precalculus                       | 4       |  | MAT 2210                                | Calculus I                         | 4       |  |  |
|     | CHM 1300              | General Chemistry I               | 3       |  | CHM 1310                                | General Chemistry II               | 3       |  |  |
|     | CHM 1100              | General Chemistry<br>Laboratory I | 1       |  | CHM 1110                                | General Chemistry<br>Laboratory II | 1       |  |  |
|     |                       |                                   |         |  | General<br>Education (ICC) <sup>1</sup> | Fine Art                           | 3       |  |  |
|     | General Education     | Social Science                    | 3       |  |   |                                    |         |  |  |
|     | General Education     | Physical Education                | 1       |  |   |                                    |         |  |  |
| Tot | Total Credits         |                                   |         |  | Total Credits                           |                                    | 17      |  |  |

## Sophomore Year

- Keep your grades high. You need a 2.7 GPA for admission to the Teacher Education Program
- Study for the Praxis CORE if you do not have the SAT or ACT scores for exemption from taking the Praxis Core.
- Plan to take Praxis CORE during the Fall of your Sophomore year
- Plan to apply to Admission to Teacher Education Program Spring of Sophomore year
  - O You must have a 2.7 GPA or higher
  - o You must have successful completion of EDN 2100
  - O You must have less than 9 hours of General Education courses remaining
  - You must have passing Praxis Core, SAT or ACT scores

|     |                              | Fall                      | Spring  |  |                      |                       |         |
|-----|------------------------------|---------------------------|---------|--|----------------------|-----------------------|---------|
|     | Course Number                | Course Title              | Credits |  | Course               | Course Title          | Credits |
|     |                              |                           |         |  | Number               |                       |         |
|     | EDN 2100                     | Introduction to Education | 3       |  | EDN 3150             | Developmental         | 3       |
|     |                              |                           |         |  |                      | Perspectives of       |         |
|     |                              |                           |         |  |                      | Educational           |         |
|     |                              |                           |         |  |                      | Psychology (K-12)     |         |
|     | General                      | History                   | 3       |  | PHY 2010             | University Physics II | 3       |
|     | Education (ICC) <sup>1</sup> | -                         |         |  |                      |                       |         |
|     | MAT 2220                     | Calculus II               | 4       |  | PHY 2070             | University Physics II | 1       |
|     |                              |                           |         |  |                      | Lab                   |         |
|     | PHY 2000                     | University Physics I      | 3       |  | SED 3310             | Introduction to       | 3       |
|     |                              |                           |         |  |                      | Exceptional Children  |         |
|     | PHY 2060                     | University Physics I Lab  | 1       |  | PHS 1560             | Astronomy             | 3       |
|     |                              | •                         |         |  |                      |                       |         |
|     | General                      | Literature                | 3       |  | PHS 1570             | Astronomy Lab         | 1       |
|     | Education                    | Eliciature                | 3       |  |                      |                       |         |
|     |                              |                           |         |  | General              | Physical Education    | 1       |
|     |                              |                           |         |  | Education            | i nysicai Education   | 1       |
| Tot | Total Credits                |                           |         |  | <b>Total Credits</b> |                       | 15      |

<sup>&</sup>lt;sup>1</sup> Indigenous Cultures and Communities (ICC): Students entering the university in Fall 2023 or later shall complete the ICC requirement for graduation. Students may satisfy this requirement by completing two 3-credit hour ICC-designated courses. Students who transfer over 60 or more hours shall complete one 3-credit hour ICC course. Designated ICC courses can satisfy other graduation requirements such as gen. eds or major requirements.

|    | Junior Year Apply for the Professional Semester and Graduation during the Spring of Junior Year |                        |         |  |                               |                       |         |  |  |
|----|---|------------------------|---------|--|-------------------------------|-----------------------|---------|--|--|
|    | Fall  |                        |         |  |                               | Spring                |         |  |  |
|    | Course Number   | Course Title           | Credits |  | Course Number                 | Course Title          | Credits |  |  |
|    | General Education   | Elective- Arts and     | 3       |  | GLY 1150                      | Earth Science         | 3       |  |  |
|    |   | Humanities or Social   |         |  |                               |                       |         |  |  |
|    |   | Sciences               |         |  |                               |                       |         |  |  |
|    | BIO 1000  | Principles of Biology  | 3       |  | GLYL 1150                     | Earth Science Lab     | 1       |  |  |
|    | BIOL 1000   | Laboratory             | 1       |  | SCE 3010                      | Early Laboratory      | 2       |  |  |
|    |   | Investigation and      |         |  |                               | Experiences for       |         |  |  |
|    |   | Experiences in General |         |  |                               | Prospective Science   |         |  |  |
|    |   | Biology                |         |  |                               | Teachers              |         |  |  |
|    | PHY 2560 (WE) <sup>2</sup>  | Modern Physics         | 4       |  | General Education             | Social Science        | 3       |  |  |
|    | PHY 3000  | Classical Mechanics    | 3       |  | **EDN 3130                    | Content Area Literacy | 3       |  |  |
|    | SCE 3000  | Early Experiences for  | 1       |  | PHY 2180                      | Optics                | 3       |  |  |
|    |   | Prospective Science    |         |  |                               |                       |         |  |  |
|    |   | Teachers               |         |  |                               |                       |         |  |  |
|    |   |                        |         |  | Science Elective <sup>4</sup> |                       | 1       |  |  |
| Te | Total Credits   |                        |         |  | otal Credits                  |                       | 16      |  |  |

|               | Senior Year                |  |         |               |                            |  |         |  |  |
|---------------|----------------------------|--|---------|---------------|----------------------------|--|---------|--|--|
|               | Fall                       |  |         |               | Spring                     |  |         |  |  |
|               | Course Number              | Course Title                                   | Credits |               | Course Number              | Course Title   | Credits |  |  |
|               | PHY 3260                   | Heat and<br>Temperature                        | 3       |               | SCE 4490                   | Internship in Science<br>in Middle/ Secondary<br>Schools           | 9       |  |  |
|               | SCE 4000                   | Teaching Science<br>in the Secondary<br>School | 3       |               | SCE 4750 (WD) <sup>2</sup> | Professional Seminar<br>in Science in Middle/<br>Secondary Science | 3       |  |  |
|               | PHY 4200 (WD) <sup>2</sup> | Advanced<br>Laboratory                         | 3       |               |                            | •  |         |  |  |
|               | General Education          | Philosophy and Religion                        | 3       |               |                            |  |         |  |  |
|               | BIO 1010 or BIO<br>1020    | General Botany or<br>General Zoology           | 4       |               |                            |  |         |  |  |
| Total Credits |                            |  | 16      | Total Credits |                            |  | 12      |  |  |

<sup>&</sup>lt;sup>2</sup> Writing Intensive Program: Students must complete a combined total of 9 credit hours of Writing Enriched (WE) and Writing in the Discipline (WD) coursework. One course must be a WD course. This degree includes required courses that cover your needs for this requirement (SED 3310 WE, SCE 4750 WD, PHY 4200 WD). You will not need to take additional Writing Intensive courses. Double majors need only fulfill the Writing Intensive Program requirement once. NOTE: Successful completion (grade of "C" or better) of ENG 1050 is a prerequisite for all WE or WD courses.

## **Additional Notes**

- ALL GENERAL EDUCATION COURSES CAN BE INTERCHANGED
- \*Note: C or higher is required in BIO 1000 to matriculate to other BIO Courses in the major
- \*\*Must be admitted to the Teacher Education Program to take EDN 3130. A GPA of 2.7 or better and passing praxis scores are required to be admitted to the Teacher Education Program)
- Twelve hours of natural sciences and mathematics within this degree count toward gen. ed. requirements. Students should only take those natural sciences and mathematics courses required by the degree program.
- QPA Requirements for Baccalaureate Graduation: "Have a minimum overall cumulative quality point average of 2.0 and have a minimum cumulative quality point average of 2.0 in all work attempted at the University of North Carolina at Pembroke; Have a minimum overall cumulative quality point average of 2.0 in the major field of study"

<sup>&</sup>lt;sup>3</sup> Mathematics Requirements: MAT 2210 and 2220 are required for this degree. MAT 1090 is a prerequisite for MAT 2210. Students with high math placement test scores may not need to take this course.

<sup>&</sup>lt;sup>4</sup> **Science Elective:** Minimum 1 hour of science elective can be selected from BIO, PHY, or CHM. BIO 4950 is a 1-hour seminar course offered every spring that could fulfill this category.