

# SECONDARY EDUCATION

## PHYSICS EDUCATION FOR TEACHER LICENSURE

See the *College of Education and Health* page for additional requirements.

For licensure, students must achieve the minimum score on the Praxis II Specialty Area and Principles of Learning and Teaching Tests as determined by the Arkansas Department of Education. For further requirements see [Admission and Retention to Teacher Education](#) and also the [Criteria for Internships](#) located on the College of Education home page.

### Curriculum

The matrix below is a sample plan for all coursework required for this program.

#### Freshman

| Fall  | Credits   |
|---|-----------|
| ENGL 1013 Composition I <sup>1</sup>                                | 3         |
| PHSC 1053 Astronomy   | 3         |
| MATH 2914 Calculus I  | 4         |
| CHEM 2124 General Chemistry I and CHEM 2120 General Chemistry I Lab | 4         |
| PHSC 1001 Orientation to Physical Science                           | 1         |
| <b>Total Hours</b>  | <b>15</b> |

| Spring  | Credits   |
|---|-----------|
| ENGL 1023 Composition II <sup>1</sup>   | 3         |
| BIOL 1004 Principles of Environmental Science/ENVS 1004 Principles of Environmental Science/PHSC 1004 Principles of Environmental Science | 4         |
| MATH 2924 Calculus II   | 4         |
| CHEM 2134 General Chemistry II and CHEM 2130 General Chemistry II Lab   | 4         |
| PHSC 1011 Orientation to Physical Science II  | 1         |
| <b>Total Hours</b>  | <b>16</b> |

#### Sophomore

| Fall  | Credits   |
|---|-----------|
| HIST 1903 Survey of American History                                  | 3         |
| PHYS 2114 Calculus-Based Physics I and PHYS 2000 Physics Laboratory I | 4         |
| MATH 2934 Calculus III  | 4         |
| POLS 2003 American Government   | 3         |
| SEED 2002 Education as a Profession                                   | 2         |
| <b>Total Hours</b>  | <b>16</b> |

| Spring  | Credits   |
|---|-----------|
| COMM 2003 Public Speaking   | 3         |
| PHYS 2124 Calculus-Based Physics II and PHYS 2010 Physics Laboratory II | 4         |
| MATH 3243 Differential Equations I                                      | 3         |
| PHSC 2003 Physics in Society and the Environment                        | 3         |
| Electives   | 3         |
| <b>Total Hours</b>  | <b>16</b> |

**Junior**

| Fall  | Credits   |
|---|-----------|
| FAH 1XXX Fine Arts and Humanities Courses <sup>1</sup>                    | 6         |
| ANTH 2003 Cultural Anthropology   | 3         |
| PHYS 3213 Modern Physics or PHYS 3133 Theory of Electricity and Magnetism | 3         |
| PHYS, PHSC, CHEM or MATH Elective   | 3         |
| <b>Total Hours</b>  | <b>15</b> |

| Spring   | Credits   |
|--|-----------|
| COMS 2003 Microcomputer Applications or COMS 2803 Programming in C                           | 3         |
| PHYS 4113 Advanced Physics Laboratory or PHYS 4993 Special Problems in Physics and Astronomy | 3         |
| PHSC 3033 Meteorology  | 3         |
| PHSC 3252 The Nature and Context of Science  | 2         |
| SEED 3702 Introduction to Educational Technology   | 2         |
| <b>Total Hours</b>   | <b>13</b> |

**Senior**

| Fall  | Credits   |
|---|-----------|
| PHYS 3213 Modern Physics or PHYS 3133 Theory of Electricity and Magnetism                               | 3         |
| PHSC 3233 Science Education in the Secondary School/BIOL 3233 Science Education in the Secondary School | 3         |
| SEED 4054 Educating Developing, Diverse, and Exceptional Learners                                       | 4         |
| SEED 4556 Classroom Application of Educational Psychology   | 6         |
| <b>Total Hours</b>  | <b>16</b> |

| Spring  | Credits |
|---|---------|
| PHSC 4701 Special Methods in Physical Science | 1       |

| Spring                                     | Credits   |
|--|-----------|
| SEED 4503 Seminar in Secondary Education   | 3         |
| SEED 4909 Teaching in the Secondary School | 9         |
| <b>Total Hours</b>                         | <b>13</b> |

<sup>1</sup>See appropriate alternatives or substitutions in "General Education Requirements".

<sup>2</sup>For teacher licensure, students must achieve the minimum score on the Praxis II Specialty Area and Principles of Learning and Teaching Tests as determined by the Arkansas Department of Education. For further requirements please see the teacher education student services website. <https://www.atu.edu/teachereducation>