

# Bachelor of Science in Physical Science Composite Teaching - Secondary Education Licensure

The Bachelor of Science in Physical Science Composite Teaching degree has six basic components:

1. General Education and Institutional Requirements (some may be included in program requirements)
2. Secondary Education Program Requirements
3. Physical Science Core Requirements
4. Secondary Education Program Admission and Professional Requirements
5. Electives (if applicable): college-level courses from any prefix to meet Graduation Requirements (p. 3)

## DSU General Education & Institutional Requirements

All DSU General Education and Institutional requirements must be fulfilled. A previously earned degree may fulfill those requirements, but courses must be equivalent to DSU's minimum General Education standards in American Institutions, English, and Mathematics.

| Code  | Title  | Hours |
|---|--|-------|
| <b>Institutional Requirement in Computer Literacy</b> (catalog.dixie.edu/programs/generaleducation/#gerequirementstext) |  |       |
|   | Computer Literacy  | 0-6   |
| <b>General Education Core Requirements</b> (catalog.dixie.edu/programs/generaleducation/#gerequirementstext)            |  |       |
|   | English  | 3-7   |
|   | Information Literacy   | 0-1   |
|   | Mathematics  | 3-5   |
|   | American Institutions  | 3-6   |
|   | Life Sciences  | 3-10  |
|   | Physical Sciences  | 3-5   |
|   | Laboratory Science   | 0-1   |
|   | Fine Arts  | 3     |
|   | Literature/Humanities  | 3     |
|   | Social & Behavioral Sciences   | 3     |
|   | Exploration  | 3-5   |
|   | Two (2) Global & Cultural Perspectives Courses   | 0-6   |
| <b>Secondary Education Program Requirements</b>   |  |       |
| Complete one of the following through General Education or elective credit:   |  |       |
| HIST 1700<br>or POLS 1100   | American Civilization<br>American Government   | 3     |
| Complete one of the following through General Education or elective credit:   |  |       |
| FSDH 1500<br>or PSY 1010<br>or PSY 1100   | Human Development Lifespan<br>General Psychology<br>Human Development Through Lifespan | 3     |
| Complete the following program prerequisite courses:  |  |       |
| EDUC 1010   | Foundations/Intro to Education   | 3     |
| EDUC 2010   | Intro to Exceptional Learners  | 3     |
| EDUC 2400   | Foundations Multicultural/ESL  | 3     |
| EDUC 2500   | Instructional Technology in K-12 Classrooms  | 3     |
| EDUC 3110   | Educational Psychology   | 3     |
| <b>Physical Science Core Requirements</b>   |  |       |
| Complete the following Chemistry requirements:  |  |       |
| CHEM 1210<br>& CHEM 1215  | Principles of Chemistry I<br>and Principles of Chemistry I Lab                         | 5     |

|  |  |     |
|--|--|-----|
| CHEM 1220<br>& CHEM 1225                             | Principles of Chemistry II<br>and Principles of Chemistry II Lab                     | 5   |
| Complete one of the following:                       |  |     |
| CHEM 2310<br>& CHEM 2315<br>or CHEM 3000             | Organic Chemistry I<br>and Organic Chemistry I Lab<br>Quantitative Chemical Analysis | 4-5 |
| Complete the following Geology requirements:         |  |     |
| GEO 1110<br>& GEO 1115                               | Physical Geology<br>and Physical Geology Lab   | 4   |
| GEO 1220<br>& GEO 1225                               | Historical Geology<br>and Historical Geology Lab                                     | 4   |
| GEO 3060   | Environmental Geology  | 3   |
| Complete the following Physics requirements:         |  |     |
| PHYS 1040<br>& PHYS 1045                             | Elementary Astronomy<br>and Elementary Astronomy Lab                                 | 4   |
| PHYS 2210<br>& PHYS 2215                             | Physics/Scientists Engineers I<br>and Physics/Scientists Engineers Lab               | 5   |
| PHYS 2220<br>& PHYS 2225                             | Physics/Scientists Engineers II<br>and Physics/Scientists Engineers II Lab           | 5   |
| PHYS 3710  | Intermediate Modern Physics  | 3   |
| Complete the following Math/Science support courses: |  |     |
| BIOL 1610<br>& BIOL 1615                             | Principles of Biology I<br>and Principles of Biology I Lab                           | 5   |
| MATH 1210  | Calculus I   | 4   |
| MATH 1220  | Calculus II  | 4   |
| SCI 2600   | Lab Safety for Teachers  | 1   |
| SCI 3570   | Foundation of Science Education  | 3   |
| SCI 4800R  | Independent Research   | 1-3 |
| Complete one of the following:                       |  |     |
| CHEM 3510<br>or PHYS 3400                            | Biochemistry I<br>Classical Mechanics  | 3   |

**NOTE:**

Students who complete BIOL 3040 General Ecology and BIOL 3045 General Ecology Lab will also meet the requirements for an Earth Science endorsement.

## Secondary Education Program Admission

To be admitted to the Secondary Education Program and enroll in professional courses:

- USOE R277-504-3 A(3) "requires candidates to maintain a cumulative university GPA of 3.0, and receive a C or better in all education related courses and major required content courses"

and students must pass the appropriate PRAXIS II content area subject test(s). In addition, one of the following must be completed:

- Students with BA/BS degrees in progress must have completed at least 95% of major coursework and have approval of major academic content area department advisor
- Students with completed BA/BS or higher degrees must have their transcripts reviewed by content area department advisor

### Secondary Education Program Professional Requirements

Complete the following:

#### Semester I

|           |   |   |
|-----------|---|---|
| SCED 3720 | Reading Writing Content Areas           | 3 |
| SCED 4100 | Curriculum, Instruction, and Assessment | 3 |
| SCED 4600 | Classroom Management                    | 3 |

Complete the following:

|          |                                    |   |
|----------|------------------------------------|---|
| SCI 4700 | Secondary Science Teaching Methods | 3 |
|----------|------------------------------------|---|

#### Semester II

|           |                            |    |
|-----------|----------------------------|----|
| SCED 4900 | Secondary Student Teaching | 10 |
| SCED 4989 | Student Teaching Seminar   | 2  |

## Graduation Requirements

1. Complete a minimum of 122 college-level credits (1000 and above).
2. Complete at least 40 upper-division credits (3000 and above).
3. Complete at least 30 upper-division credits at DSU for institutional residency.
4. Cumulative university GPA 3.0 or higher.
5. USOE R277-504-3 A(3) "requires candidates to maintain a cumulative university GPA of 3.0, and receive a C or better in all education related courses and major required content courses"
6. 3.0 GPA in program prerequisite and professional courses.

## Graduation Plan

| Course  | Title   | Hours |
|---|---|-------|
| <b>1st Year</b>   |   |       |
| <b>Fall Semester</b>  |   |       |
| CHEM 1210<br>& CHEM 1215  | Principles of Chemistry I<br>and Principles of Chemistry I Lab            | 5     |
| ENGL 1010   | Introduction to Writing   | 3     |
| LIB 1010  | Information Literacy  | 1     |
| MATH 1210   | Calculus I  | 4     |
| SCI 1001  | FYE: Science/Pre-Professional   | 1     |
| Hours   |   | 14    |
| <b>Spring Semester</b>  |   |       |
| SCI 2600  | Lab Safety for Teachers   | 1     |
| CHEM 1220<br>& CHEM 1225  | Principles of Chemistry II<br>and Principles of Chemistry II Lab          | 5     |
| ENGL 2010   | Interm Writing Selected Topics:   | 3     |
| MATH 1220   | Calculus II   | 4     |
| General Education (American Institutions) ( <a href="http://catalog.dixie.edu/programs/generaleducation/#gerequirementstext">catalog.dixie.edu/programs/generaleducation/#gerequirementstext</a> ) <sup>1</sup> |   | 3     |
| Hours   |   | 16    |
| <b>2nd Year</b>   |   |       |
| <b>Fall Semester</b>  |   |       |
| BIOL 1610<br>& BIOL 1615  | Principles of Biology I<br>and Principles of Biology I Lab                | 5     |
| GEO 1110<br>& GEO 1115  | Physical Geology<br>and Physical Geology Lab                              | 4     |
| PHYS 1040<br>& PHYS 1045  | Elementary Astronomy<br>and Elementary Astronomy Lab                      | 4     |
| PHYS 2210<br>& PHYS 2215  | Physics/Scientists Engineers I<br>and Physics/Scientists Engineers Lab    | 5     |
| Hours   |   | 18    |
| <b>Spring Semester</b>  |   |       |
| GEO 1220<br>& GEO 1225  | Historical Geology<br>and Historical Geology Lab                          | 4     |
| PHYS 2220<br>& PHYS 2225  | Physics/Scientists EngineersII<br>and Physics/Scientists Engineers II Lab | 5     |
| CIS 1201  | Computer Literacy Exam  | 0     |
| General Education (Fine Arts) ( <a href="http://catalog.dixie.edu/programs/generaleducation/#gerequirementstext">catalog.dixie.edu/programs/generaleducation/#gerequirementstext</a> )                          |   | 3     |
| General Education (Literature/Humanities/GLOCUP) ( <a href="http://catalog.dixie.edu/programs/generaleducation/#gerequirementstext">catalog.dixie.edu/programs/generaleducation/#gerequirementstext</a> )       |   | 3     |
| Hours   |   | 15    |

**3rd Year****Fall Semester**

|   |   |    |
|---|---|----|
| GEO 3060  | Environmental Geology                       | 3  |
| PHYS 3400<br>or CHEM 3510   | Classical Mechanics<br>or Biochemistry I    | 3  |
| EDUC 1010   | Foundations/Intro to Education              | 3  |
| EDUC 2500   | Instructional Technology in K-12 Classrooms | 3  |
| General Education (Social & Behavioral Sciences) ( <a href="http://catalog.dixie.edu/programs/generaleducation/#gerequirementstext">catalog.dixie.edu/programs/generaleducation/#gerequirementstext</a> ) |   | 3  |
| Hours   |   | 15 |

**Spring Semester**

|           |  |    |
|-----------|--|----|
| PHYS 3710 | Intermediate Modern Physics            | 3  |
| SCI 3570  | Foundation of Science Education        | 3  |
| EDUC 2010 | Intro to Exceptional Learners          | 3  |
| EDUC 2400 | Foundations Multicultural/ESL (GLOCUP) | 3  |
| EDUC 3110 | Educational Psychology                 | 3  |
| Hours     |  | 15 |

**4th Year****Fall Semester**

|           |   |    |
|-----------|---|----|
| CHEM 3000 | Quantitative Chemical Analysis          | 4  |
| SCI 4700  | Secondary Science Teaching Methods      | 3  |
| SCI 4800R | Independent Research                    | 1  |
| SCED 3720 | Reading Writing Content Areas           | 3  |
| SCED 4100 | Curriculum, Instruction, and Assessment | 3  |
| SCED 4600 | Classroom Management                    | 3  |
| Hours     |   | 17 |

**Spring Semester**

|             |                            |     |
|-------------|----------------------------|-----|
| SCED 4900   | Secondary Student Teaching | 10  |
| SCED 4989   | Student Teaching Seminar   | 2   |
| Hours       |                            | 12  |
| Total Hours |                            | 122 |