

# Earth Science—Composite Teaching - BS

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## College of Science

### Department of Geology

#### Admission Requirements For This Major

New freshmen admitted to USU in good standing qualify for admission to this major. A cumulative 3.0 GPA, ACT scores of 21 composite and 20 verbal/English and 19 mathematics/quantitative and 60 credits of coursework are required for admission to the Secondary Teacher Education Program (STEP). Students should contact the School of Teacher Education and Leadership (TEAL) for information on additional admission criteria.

Transfer students from other institutions or other USU majors need a cumulative 3.0 GPA, ACT scores of 21 composite and 20 verbal/English and 19 mathematics/quantitative to be admitted to the major. They also need 60 credits of coursework to be admitted to the STEP. Students should contact the School of Teacher Education and Leadership (TEAL) for information on additional admission criteria.

#### The Program

A bachelor's degree in the Earth Science—Composite Teaching Major includes: University Studies, as required by the College of Science; the Composite Teaching Major; and the Secondary Teacher Education Program (STEP). Students majoring in the Earth Science—Composite Teaching Major will complete courses which provide an in-depth understanding of geological principles.

The Earth Science—Composite Teaching Major program is fully accredited by the Utah State Office of Education and the National Council for Accreditation of Teacher Education.

#### Career Opportunities

Through the bachelor's degree program in the Earth Science—Composite Teaching Major, students are prepared for public school teaching at the secondary level. Students completing the program are eligible to apply for secondary licensure in the State of Utah. Utah also has reciprocal agreements with many other states.

#### Graduation Requirements:

Students must complete the Minimum University Graduation and University Studies General Education and Depth Requirements.

Students must complete the [General Education Requirements](#):

- [GEO 1110](#) in conjunction with [CHEM 1220](#) will fulfill the Exploration requirement
- [MATH 1210](#) will fulfill the Quantitative Literacy (QL) requirement
- [PHYS 1040](#) will fulfill the Breadth Physical Sciences (BPS) requirement
- [ENGL 1010](#) and [ENGL 2010](#) will fulfill the Communications Literacy requirement
- Three credits of approved courses in: American Institutions (BAI), Creative Arts (BCA), Humanities (BHU), Life Sciences (BLS) and Social Sciences (BSS)

Students must also complete the [University Studies Depth Requirements](#):

- [SCED 3210](#) and [SCED 4200](#) will fulfill the Communications Intensive (CI) requirement
- [STAT 3000](#) will fulfill the Quantitative Intensive (QI) requirement
- [GEO 3200](#) will fulfill the Life and Physical Sciences (DSC) requirement
- [SCED 3210](#) will fulfill the Social Sciences (DSS) requirement
- Two credits of approved 3000-level or above courses in Humanities and Creative Arts (DHA)

## Earth Science—Composite Teaching Major, BS/BA (100 credits)

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To graduate, a candidate for the Earth Science-Composite Teaching Major must have an overall cumulative GPA of 3.0, and have a grade of C or better in all graded STEP courses and in all content courses for the major located in the Geology Department. The Earth Science—Composite Teaching Major leads to licensure to teach in secondary schools. **Note:** All USU teacher education candidates will be required to take and pass the PRAXIS content exam approved by the Utah State Office of Education in their major (and minor if applicable) content area prior to student teaching. The Earth Science—Composite Teaching course requirements are as follows:

#### Requirements:

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- [GEO 1110 - Physical Geology \(BPS\)](#) **3**
- [GEO 1115 - Physical Geology Laboratory](#) **1**
- [GEO 3200 - The Earth Through Time \(DSC\)](#) **3**
- [GEO 3205 - The Earth Through Time Laboratory](#) **1**
- [GEO 3500 - Minerals and Rocks](#) **4**
- [GEO 3550 - Sedimentation and Stratigraphy](#) **4**

- GEO 3600 - Geomorphology **4**
- GEO 3700 - Structural Geology **4**
- PHYS 1040 - Introductory Astronomy (BPS) **3**
- PHYS 2210 - Physics for Scientists and Engineers I (QI) **4**
- PHYS 2215 - Physics for Scientists and Engineers Lab I **1**
- PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) **4**
- PHYS 2225 - Physics for Scientists and Engineers Lab II **1**
- CHEM 1210 - Principles of Chemistry I **4**
- CHEM 1215 - Chemical Principles Laboratory I **1**
- CHEM 1220 - Principles of Chemistry II (BPS) **4**
- CHEM 1225 - Chemical Principles Laboratory II **1**
  
- ENVS 4610 - Foundations of Environmental Education **3 or**
- WILD 2200 - Ecology of Our Changing World (BLS) **3**
  
- PSC 2000 - The Atmosphere and Weather (BPS) **3 or**
- PSC 3820 - Climate and Climate Change (DSC/QI) **3**
  
- MATH 1210 - Calculus I (QL) **4**
- STAT 3000 - Statistics for Scientists (QI) **3**

### Students must also complete the Secondary Teacher Education Program (STEP)

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#### Note:

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To begin the admission process to the STEP, students should see their advisor at least two semesters before they begin Level 1 coursework. STEP admission deadlines are March 1 for fall and October 1 for spring.

#### Level 1:

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- ITLS 5500 - Innovative Integration of Technology in Teaching **3**
- SCED 3100 - Motivation and Classroom Management **3**
- SCED 3210 - Educational and Multicultural Foundations (DSS/CI) **3**
- SCED 3300 - Clinical Experience I **1**
- SCED 3400 - Teaching Science I **3**

#### Level 2:

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- SPED 4000 - Education of Exceptional Individuals **2**
- SCED 4200 - Language, Literacy and Learning in the Content Areas (CI) **3**
- SCED 4210 - Assessment and Curriculum Design **3**
- SCED 4300 - Clinical Experience II **1**
- SCED 4400 - Teaching Science II **3**

- TEAL 4710 - Language and Cultural Diversity in Education **3 or**
- TEAL 4745 - Second Language/Literacy Acquisition and Development **3**

### Level 3:

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- SCED 5500 - Student Teaching Seminar **2**
- SCED 5630 - Student Teaching in Secondary Schools **10**

### Notes:

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Students should be certain that they have the proper background to enroll in [MATH 1210](#). See the General Catalog for prerequisites or contact the Department of Mathematics and Statistics.

The Teaching Science I and II courses ([SCED 3400](#) and [SCED 4400](#)) are only taught once a year. Therefore, it is important for students to consult with their advisor to fit these courses in the correct sequence into their plan of study.

## Earth Science—Composite Teaching Major Four Year Plan (Suggested Schedule)

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Please meet with your advisor to complete your specific four year plan.

### Freshman Year (31 credits)

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#### Fall Semester (16 credits)

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- CHEM 1210 - Principles of Chemistry I **4**
- CHEM 1215 - Principles of Chemistry Laboratory I **1**
- GEO 1110 - Physical Geology (BPS) **3**
- GEO 1115 - Physical Geology Laboratory **1**
- MATH 1210 - Calculus I (QL) **4**
- ENGL 1010 - Introduction to Writing: Academic Prose (CL1) **3**

#### Spring Semester (15 credits)

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- CHEM 1220 - Principles of Chemistry II (BPS) **4**
- CHEM 1225 - Principles of Chemistry Laboratory II **1**
- GEO 3200 - The Earth Through Time (DSC) **3**
- GEO 3200 - The Earth Through Time Laboratory **1**
- ENGL 2010 - Intermediate Writing: Research Writing in a Persuasive Mode (CL2) **3**
- Breadth American Institutions (BAI) course **3**

### Sophomore Year (31 credits)

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#### Fall Semester (16 credits)

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- GEO 3600 - Geomorphology **4**
- PHYS 1040 - Introductory Astronomy (BPS) **3**
- PSC 2000 - The Atmosphere and Weather (BPS) **3 or** PSC 3820 - Climate and Climate Change (DSC/QI) **3**
- Breadth Creative Arts (BCA) course **3**
- Breadth Humanities (BHU) course **3**

#### Spring Semester (15 credits)

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- GEO 3500 - Minerals and Rocks **4**
- PHYS 2210 - Physics for Scientists and Engineers I (QI) **4**
- PHYS 2215 - Physics for Scientists and Engineers Lab I **1**
- Breadth Life Sciences (BLS) course **3**
- Breadth Social Sciences (BSS) course **3**

## Junior Year (33 credits)

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### Fall Semester (16 credits)

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- GEO 3550 - Sedimentation and Stratigraphy **4**
- PHYS 2220 - Physics for Scientists and Engineers II (BPS/QI) **4**
- PHYS 2225 - Physics for Scientists and Engineers Lab II **1**
- SCED 3300 - Clinical Experience I **1**
- SCED 3400 - Teaching Science I **3**
- Depth Humanities and Creative Arts (DHA) course **3**

### Spring Semester (17 credits)

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- GEO 3700 - Structural Geology **4**
- ITLS 5500 - Innovative Integration of Technology in Teaching **3**
- SCED 3100 - Motivation and Classroom Management **3**
- SCED 3210 - Educational and Multicultural Foundations (DSS/CI) **3**
- SCED 4300 - Clinical Experience II **1**
- SCED 4400 - Teaching Science II **3**

## Senior Year (29 credits)

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### Fall Semester (14 credits)

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- STAT 3000 - Statistics for Scientists (QI) **3**
- SCED 4200 - Language, Literacy and Learning in the Content Areas (CI) **3**
- SCED 4210 - Assessment and Curriculum Design **3**
- SPED 4000 - Education of Exceptional Individuals **2**
- TEAL 4710 - Language and Cultural Diversity in Education **3** or TEAL 4745 - Second Language/Literacy Acquisition and Development **3**

### Spring Semester (15 credits)

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- ENVS 4610 - Foundations of Environmental Education **3** or WILD 2200 - Ecology of Our Changing World (BLS) **3**
- SCED 5500 - Student Teaching Seminar **2**
- SCED 5630 - Student Teaching in Secondary Schools **10**

### Notes:

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Students may need to complete prerequisite courses prior to enrolling in MATH 1210. See the General Catalog for prerequisites or contact the Department of Mathematics and Statistics.

A separate Breadth Life Sciences (BLS) course will not be required if WILD 2200 is taken.

## Minimum University Requirements

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Total Credits	120
Grade Point Average (most majors require higher GPA)	2.00 GPA
Credits of C- or better	100
Credits of upper-division courses (#3000 or above)	40
USU Credits (30 USU credits, 20 of which must be upper-division courses, 10 of which must be courses required for student's major)	30 USU credits
Completion of approved major program of study	See college advisor
Credits in minor (if required)	12
Credits in American Institutions (ECN 1500; HIST 1700, HIST 2700 or HIST 2710; HONR 1300; POLS 1100; or USU 1300)	3
<a href="#">General Education Requirements</a> and <a href="#">University Studies Depth Requirements</a>	