

Secondary Earth Sciences Education, BA

with Concurrent[†] Major in Earth System Science



University of Wyoming, 2015-16

*The College of Education maintains rigorous admission standards to ensure the quality of preparation for future educators. **New, first time students** who meet the University of Wyoming's standards for admission may declare a major in elementary education, secondary or K-12 education in a specific content area, or education undecided provided they have a minimum ACT composite score of 21 and ACT math score of 21; a lower ACT math score can be replaced by a UW Math Placement Exam (MPE) score of 2 or higher. If electing to pursue education undecided, it is recommended that students decide on their teaching content area no later than the first semester of their sophomore year.*

***Current UW students wishing to change their major, students seeking re-admission to UW, or those transferring to UW from another institution** can learn more about the specific admission requirements for these groups at www.uwyo.edu/tead/admission_requirements.html.*

***All students** must undergo and pass an initial criminal background check prior to full admission to the College of Education. Any costs associated with the background check are the responsibility of the student. A second background check is included as part of the state application process for the Wyoming Substitute Teaching Permit, which is required for admission to Phase II of UW's teacher education program. Criminal background checks are a standard for the profession.*

Freshman Fall Semester			Hrs	Min Grade	Notes
USP First-Year Seminar			3	C	FY
USP US & Wyoming Constitutions			3		V
CHEM	1020	General Chemistry I *	4	C	PN
EDST	2450	Foundations of Development and Learning **	3	C	H
MATH	2200	Calculus I ***	4	C	Q
Credit hours subtotal:			<u>17</u>		

Freshman Spring Semester			Hrs	Min Grade	Notes
CHEM	1030	General Chemistry II	4	C	
ENGL	1010	College Composition and Rhetoric	3	C	C1
GEOL	1100	Physical Geology	4	C	Can substitute ENR/GEOL 1500 (Water, Dirt, & Earth's Env) or GEOG 1010 (Intro to Physical Geography).
LIFE	1010	General Biology	4	C	PN; can substitute ENR 1200 (Environment).
Credit hours subtotal:			<u>15</u>		

Sophomore Fall Semester			Hrs	Min Grade	Notes
GEOL	2000	Geochemical Cycles and the Earth System	4	C	Cross listed with ESS 2000.
ITEC	2360	Teaching with Technology	3	C	Prerequisite: of a 2.5 cumulative UW gpa.
PHYS	1110	General Physics I	4	C	
Biosphere Elective 1 of 2 ****			4	C	
Credit hours subtotal:			<u>15</u>		

Sophomore Spring Semester			Hrs	Min Grade	Notes
EDEX	2484	Introduction to Special Education	3	C	Admission to Phase I of the program required. #
EDST	2480	Diversity and the Politics of Schooling	4	C	H; admission to Phase I of the program required. #
Biosphere Elective 2 of 2 ****			4	C	
Electives			7	C	
Credit hours subtotal:			<u>18</u>		

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Junior Fall Semester			Hrs	Min Grade	Notes
EDST	3550	Educational Assessment	2	C	Prerequisite of a 2.75 cumulative UW gpa.
		Anthrosphere Elective *****	3	C	
		Atmosphere Elective *****	3	C	
		Electives	9	C	
Credit hours subtotal:			<u>17</u>		

Junior Spring Semester			Hrs	Min Grade	Notes
EDST	3000	Teacher as Practitioner	6	C	C2; admission to Phase II of the program required. #
		GIS/Remote Sensing Elective *****	3	C	
		Lithosphere Elective 1 of 2 *****	3	C	
		Elective	3	C	
Credit hours subtotal:			<u>15</u>		

Senior Fall Semester			Hrs	Min Grade	Notes
EDSE	3275	Methods I: Secondary Science Education	3	C	Admission to Phase IIIa of the program required. #
EDSE	4275	Methods II: Secondary Science Education	4	C	C3; admission to Phase IIIa of the program required. #
		Data Analysis Elective *****	3	C	
		Lithosphere Elective 2 of 2 *****	3	C	
		Elective	3	C	
Credit hours subtotal:			<u>16</u>		

Senior Spring Semester			Hrs	Min Grade	Notes
EDSE	4500	Residency in Teaching	15	S	Admission to Phase IIIb of the program required; offered S/U only; fulfills requirement of ESS 4970 (Internship) with successful completion of the course. #
Credit hours subtotal:			<u>15</u>		

TOTAL CREDIT HOURS: 128

This is a guide for course work in the major; actual course sequence may vary by student. Please refer to the online student degree evaluation, and consult with an academic advisor. • Not all courses are offered every semester and some electives may have prerequisites. Students should review the course descriptions in the *University Catalog* and consult with their academic advisor to plan accordingly.

University of Wyoming requirements:

Students must have a minimum cumulative GPA of 2.0 to graduate. • Students must complete 42 hours of upper division (3000-level or above) coursework, 30 of which must be from the University of Wyoming. • Courses must be taken for a letter grade unless offered only for S/U. • University Studies Program (USP) Human Culture (H) and Physical & Natural World (PN) courses must be taken outside of the major subject, but can be cross-listed with the major.

College of Education requirements:

This plan assumes student college readiness. Students should be able to start taking 1000 level courses the first semester of college. • All professional education courses must be completed with a grade of C or higher. Grades of C- or lower will not satisfy this requirement.

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† **Concurrent Majors.** Students may pursue a concurrent major in one or more colleges. Only one degree (BA, BS, etc.) will be awarded from the college of the primary major. All university curricular requirements, including the University Studies Program requirements, must be met only once. Requirements for secondary major/s will be established by the academic departments and may include college requirements, in addition to all major requirements. An academic advisor in each major is required and each adviser must review requirements. The degree will be granted on one date only and only one diploma will be awarded. Both majors will be indicated on the academic transcript and diploma.

The Wyoming Teacher Education Program operates in a series of phases: Phase I, Phase II, Phase IIIa, and Phase IIIb. Continuation in the program in any content area is dependent upon the successful completion of prerequisites for each phase. Specific information about these requirements can be found on the program sheets for each content area that are located at www.uwyo.edu/ted/majors-and-program-sheets.

Secondary Earth Sciences Education with Concurrent Major in Earth Systems Science Program Notes:

• A minimum 2.5 gpa is required in major content. All major content courses must be completed with a grade of C or higher. Grades of C- or lower will not satisfy this requirement.

* Requires MATH ACT ≥ 23 , MATH SAT ≥ 600 , Math Placement Exam ≥ 3 , or concurrent enrollment in MATH 1400, 1405, or 1450. (University standard)

** The prerequisite of a 2.50 cumulative UW gpa is waived for new, incoming freshmen who have declared education as their major.

*** Requires MATH ACT ≥ 27 , MATH SAT ≥ 600 , Math Placement Exam ≥ 5 , or $\geq C$ in MATH 1405 or MATH 1450. (University Standard)

**** **Biosphere Electives.** Choose two (2) courses from the following:

GEOG 4460	Biogeography (3 hrs)	LIFE 3400	General Ecology (3 hrs)
LIFE 2022	Animal Biology (4 hrs)	MICR/MOLB 2012	General Microbiology (4 hrs)
LIFE 2023	Plant & Fungal Biology (4 hrs)		

***** **Anthrosphere Elective.** Choose one (1) course from the following:

ANTH/ENR 4310	Environmental Anthropology (3 hrs)	ENR/GEOG 4040	Conservation of Nat Resources (3 hrs)
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***** **Atmosphere Elective.** Choose one (1) course from the following:

ATSC 2100	Atmospheric Change: Comp & Climate (3 hrs)	GEOG 3500	Global Change: A Geo Perspective (3hrs)
GEOG 3450	Weather & Climate (3 hrs)		

***** **GIS/Remote Sensing Elective.** Choose one (1) course from the following:

BOT/GEOG 3150	Survey of Remote Sensing Apps (3 hrs)	GEOG 2150	Foundation of GIS & Technology (4 hrs)
BOT/GEOG 4111	Remote Sensing/Environment (3 hrs)	GEOG 4200	Introduction to GIS (4 hrs)

***** **Lithosphere Electives.** Choose one (1) course from the Environmental Change option and one (1) course from the Hydrology & Surface Processes option:

Environmental Change Option

GEOG 3480	Environmental Change (3 hrs)
GEOG 3500	Global Change: A Geo Perspective (3 hrs)

Hydrology & Surface Processes Option

GEOG 3010	Geomorphology/Earth's Landscape (3 hrs)
GEOG 4450	Fluvial Geomorphology (3 hrs)
GEOG 2150	Geomorphology (4 hrs)
REWM/ENR 4285	Wildland Hydrology (3 hrs)

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Secondary Earth Sciences Education Notes con't:

***** **Data Analysis Elective.** Choose one (1) course from the following:

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| ENR 4500 | Risk Analysis (3 hrs) |
| ENR/GEOL 4525 | Environmental Data Analysis (3 hrs) |