

## BACHELOR OF SCIENCE IN EARTH SCIENCE TEACHING

With option for combined BS/MEd in Secondary Level Science Teaching

2/18/21

This plan of study meets requirements for a BS in Earth Science Teaching and USBE endorsements in Earth Science, Physical Science and Physics. Additional electives can be taken to earn endorsements in Chemistry, Biology and Environmental Science. Additional coursework is required to obtain a teaching license and can be taken post-BS or as part of the joint BS/MEd program in Earth Science Teaching and Educational Psychology. Note that the BS/MEd option only adds one course to the requirements for licensure so most students will benefit from this pathway. Students should consult with an advisor early in the program to ensure that the appropriate pre-requisite, general education and endorsement courses are taken.

### REQUIRED GEOSCIENCE COURSES (24-26 CR)

COURSE	TITLE	CR
GEO 1100	EVOLVING EARTH	3
GEO 2100	REACTIVE EARTH	3
GEO 2500	WASATCH IN THE FIELD	3
GEO 3100	DYNAMIC EARTH	3
GEO 4500 OR GEO 3250	FIELD METHODS OR GEOLOGY OF UTAH (preferred)	3
GEO 3030	LIVING WITH EQ & VOLC	3
GEO 3010 OR GEO 4060	GEOPHYSICS OR STRUCTURAL GEOLOGY & TECTONICS	3 OR 4
GEO 1XXX-5XXX	GEOSCIENCE ELECTIVE	3-4

### REQUIRED MATH COURSES (11cr)

COURSE	TITLE	CR
MATH 1050 & MATH 1060 OR MATH 1080	COL ALGEBRA (4) & TRIGONOMETRY (3) OR PRECALCULUS	7 OR 5

MATH 1210	CALCULUS I	4
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### REQUIRED PHYSICS & ASTRONOMY COURSES (12 CR)

COURSE	TITLE	CR
ASTR 1050 OR ASTR 1060 OR ASTR 2060 OR ASTR 4060	THE SOLAR SYSTEM OR THE UNIVERSE OR POPULAR OBS ASTRON OR OBSERVATIONAL ASTRO	3
PHYS 2010 OR PHYS 2210	GEN PHYS I OR PHYS SCI ENG I	4
PHYS 2015 OR PHYS 2215	GEN PHYS I LAB OR PHYS SCI ENG I LAB	1
PHYS 2020 OR PHYS 2220	GEN PHYS II OR PHYS SCI ENG II	4

### CHEMISTRY COURSE (10 CR)

COURSE	TITLE	CR
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CHEM 1210	GEN CHEM I	4
CHEM 1215	GEN CHEM I LAB	1
CHEM 1220	GEN CHEM II	4
CHEM 1225	GEN CHEM II LAB	1

### BIOLOGY COURSES (3-4cr)

COURSE	TITLE	CR
BIOL 1620	FUND BIO II	3

### ATMOSPHERIC SCIENCE COURSES (3 CR)

COURSE	TITLE	CR
ATMOS 1010 OR ATMOS 1020	SEVERE UNUSUAL WEATHER OR CLIMATE CHANGE	3

TOTAL SCIENCE CREDITS = 63-66

### REQUIRED EDUCATION COURSES (17-18 CR)

COURSE	TITLE	CR
EDU 1010 OR SCI 3670 OR SCI 5050	INTRO TO TEACHING OR SCIENCE COMM & MENTORING OR SCIENCE OF LEARNING	2-3
ETHNC 2550 OR ETHNC 2570 OR ETHNC 2580 OR ETHNC 2590	AFRICAN AMER EXP (HF) OR AMER INDIAN EXP (HF) OR ASIAN PACIFIC AMER EXP (BF) OR PACIFIC ISLANDER EXP (HF)	3
ECS 2150	INTRO TO MULTICULTURAL ED	3
EDPS 3721	ADOLESCENT PSYCHOLOGY	3
EDU 5170	SECONDARY SCIENCE METHODS	3

ECS 5709	BUILDING FAMILY PARTNERSHIPS (32 field hours required)	3
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### OPTIONAL ELECTIVES FOR COMPLETION OF ENGLISH AS A SECOND LANGUAGE (ESL) ENDORSEMENT (9 CR)

COURSE	TITLE	CR
EDU 5200	TEACHER LANGUAGE AWARENESS	3
ECS 5645	ASSESSMENT OF LINGUISTICALLY DIVERSE POPULATIONS (PR: ECS 2150 OR ECS 5634 OR ECS 6634 OR ECS 5715 OR ECS 6715 AND SP ED 5021/6021 OR ECS 6035)	3
ECS 5647	INSTRUCTIONAL METHODS FOR LINGUISTICALLY DIVERSE POPULATIONS (PR: EDU 5200, ECS 5645)	3 (16 HRS FIELD)

\*ESL ENDORSEMENT REQUIRED TO TEACH IN GRANITE AND SALT LAKE CITY SCHOOL DISTRICTS. CAN BE TAKEN AFTER HIRE

TOTAL REQUIRED CREDITS FOR GEOLOGY TEACHING MAJOR = 80-84

NOTE: This plan of study fulfills USBE requirements for teaching endorsements in Earth Science, Physics and Physical Science. Students must also complete all General Education and Bachelor's degree requirements to total a minimum of 122 credit hours in order to graduate.

--END OF BS IN EARTH SCIENCE TEACHING REQUIREMENTS--

## REQUIREMENTS FOR MASTERS OF EDUCATION IN EDUCATIONAL PSYCHOLOGY with LICENSURE

(Combined BS/MEd in Secondary Level Science Teaching **only**)(29-32 cr)

(For information about the MEd program contact [sara.hatch@utah.edu](mailto:sara.hatch@utah.edu) at the Urban Institute for Teacher Education)

COURSE	TITLE	CR	SEM	REQUIREMENT
ED PS 6151	Educational Applications of Technology	3	1	Licensure, MEd
ED PS 6035	Instructional Assessments: Design, Implementation, and Analysis (online)	3	1	Licensure, MEd
SP ED 6022	Principles of Instruction & Behavior Support	3	1	Licensure, MEd
EDU 6201	Teaching Practices, Ethics & Professional Development (PPAT)	1	1	Licensure, MEd
EDU 6490	Field Practicum: Secondary (9 hours/week in field)	3	1	Licensure, MEd
EDU 6491	Professional Development & Teacher Research	3	2	Licensure, MEd
SP ED 5012	Teaching Students with Disabilities in Inclusive Secondary Classrooms	3	2 or 3	Licensure, Med
EDU 6495	Student Teaching: Secondary (12 weeks full-time)	9	2	Licensure, MEd
ED PS/EDU 5XXX- 6XXX or other	STEM Instruction Elective (see advisor)	1-3	2	MEd

**TOTAL REQUIRED MEd and LICENSURE**

CREDITS = 29-32

Students must complete a minimum of 30 hours to graduate