

B.A. in Earth Science: Earth Science Education Major (FIUteach) Fall 2020

Program Description

The Bachelor of Arts in Earth Sciences with an Earth Science Education Major provides you with a broad background in Earth Sciences for a career in science education or public or private administration dealing with Earth and environmental science issues. Upon completion of this program, you will be eligible for an Earth-Space Science (grades 6-12) Professional Teaching Certificate and be considered a highly qualified teacher. You can choose to teach, pursue graduate school or work in the various industries requiring a strong background in Earth Sciences.

Admission Requirements & Application

- A minimum lower-division GPA of 2.5 or better on a 4.0 scale
- Successful completion of 60 credit hours of lower-division coursework or an AA degree from an accredited institution
- A passing score on all sections of the FTCE: General Knowledge Exam (GK) (*All students must pass the General Knowledge Exam (GK) by the time they reach 72 credits in their program of study*)
- University Core Curriculum/General Education must be completed
- Major Pre-requisites (listed below) must be taken and passed with a minimum grade of C

FIU Course(s):		Credit Hours:	✓
BSC 2011 & BSC 2011L OR GLY 1101 & GLY 1101L	General Biology II & Lab OR History of Life & Lab	3&1	
ESC 1000 & ESC 1000L OR GLY 1010 & GLY 1010L OR GLY 3039 & GLY 3039L	Introduction to Earth Sciences & Lab OR Physical Geology & Lab OR Environmental Geology & Lab	3&1	
CHM 1045	General Chemistry I	3	
CHM 1045L	General Chemistry I Lab	1	
CHM 1046	General Chemistry II	3	
CHM 1046L	General Chemistry II Lab	1	
PHY 2048/ PHY 2053	Physics with Calculus I or Physics without Calculus	4	
PHY 2048L	General Physics Lab I	1	
PHY 2049/ PHY 2054	Physics with Calculus II or Physics without Calculus	4	
PHY 2049L	General Physics Lab II	1	
MAC 1114 OR MAC 1147	Trigonometry OR Pre-Calculus Algebra and Trigonometry	3 or 4	
MAC 2311 OR STA 2023 OR STA 2122 OR STA 3111	Calculus I OR Stats for Business and Economics OR Stats for Behavioral Science I OR Statistics I	3 or 4	
AST 2003	Solar System Astronomy	3	
AST 2003L	Solar System Astronomy Lab	1	
ISC 1056	First Year Seminar (F,S)	1	
SMT 2661* AND SMT 2662*	Step 1: Inquiry Approaches to Teaching Mathematics and Science (Prerequisite: Freshman/Sophomore standing) Step 2: Inquiry-Based Lesson Design in Mathematics and Science (Prerequisite: SMT 2661)	1	
OR SMT 2044*	 1 & 2 Combined: Inquiry-Based Approaches and Lesson Design for Teaching Mathematics and Science (Prerequisite: Junior/Senior standing)	1	
		2	

Program of Study

The program of studies is as follows:

- Total credits:120
 - The balance of the 120-credit hour requirement for graduation should be chosen in consultation with the student's departmental and/or advisor(s)
- All courses and FTCE tests must be taken prior to student teaching
- All program courses must be completed with a minimum grade of "C"

Course:		Credit Hours:	✓
Upper Division Program – Required Courses (47 credits minimum)			
List 1: Required (14 credits)			
GLY 3112	Earth Through Time (S)	3	
GLY 3202	Earth Materials (F) prerequisites: (ESC 1000 or GLY 1010 or GLT 3039), CHM 1045	3	
GLY 3202L	Earth Materials Lab (F) prerequisites: (ESC 1000 or GLY 1010 or GLT 3039), CHM 1045	3	
OCE 3014 OR OCP 3002	Oceanography (F,S,SS)— GL OR Physical Oceanography (F) pre-requisites: CHM 1045 and (PHY 2048 or PHY 2053)	3	
MET 3003	General Meteorology (F) prerequisites: PHY 2048 or PHY 2053	3	
ISC 4935	Senior Seminar (F,S) prerequisites: Must be in final year or study. Permission of the instructor required.	1	
List 2: ONE of the following (3-4 credits)			
GLY 4511	Stratigraphy (F)	3	
GLY 4511L	Stratigraphy Lab (F)	1	
GLY 4300	Petrology (S) prerequisites: GLY 3202	3	
GLY 4300L	Petrology Lab (S) prerequisites: GLY 3202	1	
GLY 4400	Structural Geology (F) Prerequisites: ESC1000 or GLY1010 or GLY3039) and (MAC1114 or MAC1147)	3	
GLY 4400L	Structural Geology Lab (F) Prerequisites: ESC1000 or GLY1010 or GLY3039) and (MAC1114 or MAC1147)	1	
GLY 4822	Introduction to Hydrogeology (S) Prerequisites: (PHY2048 or PHY2053), CHM1045, MAC2311	3	
List 3: ONE of the following (3-4 credits)			
EVR 3013	Ecology of South Florida	3	
EVR 3013L	Ecology of South Florida	1	
EVR 4211	Water Resources (F) Prerequisites: CHM1045, CHM1046 or equivalent, BSC1010	3	
EVR 4211L	Water Resources Lab (F) Prerequisites: CHM1045, CHM1046 or equivalent, BSC1010	1	
EVR 4310	Energy Resources Prerequisites: EVR 3010 or PHY2023 or equivalent	3	
EVR 4592	Soils & Ecosystems Prerequisites: BSC 2010 and CHM1045	3	
GEO 3510	Earth Resources— GL (F,S)	3	
GLY 3034	Natural Disasters (F,S)	3	
GLY 4881	Coaster Hazards—GL (F)	3	
List 4: Education Coursework (27 credits)			
SMT 3100	Knowing & Learning (F,S,SS) (Prerequisites or Corequisites SMT 2661 or SMT 2044)	3	
SCE 4194	Perspectives in Science and Mathematics Education (GL) (S)	3	
SMT 4301*	Classroom Interactions (F, S) (Prerequisites: SMT 3100)	3	
RED 4325*	Subject Area Reading (F,S,SS)	3	
TSL 4324*	ESOL Issues and Strategies for Content Teachers (GL) (F,SS)	3	
SMT 4664*	Project-Based Instruction (F,S) (Prerequisites: SMT 3100 and SMT 4301)	3	
ISC 3523	Research Methods (F)	3	
SCE 4944*	Student Teaching (Spring/Fall)	6	

***Course require field experience hours. Other courses may also have field requirements.**

Student Teaching

All courses must be completed prior the start of student teaching and both the FTCE: Professional Exam and FTCE: Subject Area Exam must be taken, passed, and official scores received by FIU three weeks prior to student teaching. Students must be FULLY admitted to their program in order to apply for student teaching. Student may apply for student teaching in the Office of Field Experiences ZEB 130 by February 1st for the Fall semester student teaching and June 1st for Spring semester student teaching.

Graduation Requirements

1. FIU cumulative GPA of 2.5 or better on a 4.0 scale
2. University Foreign Language Requirement (FLENT/FLEX) must be met
3. University Summer Enrollment Requirement must be met
4. Global Learning Requirement must be met
5. 45 semester hours must be in upper division courses
6. All program and University requirements must be met