

EARTH SCIENCE, B.S.E.

Interested in pursuing a career as a high school teacher? The Department of Earth Sciences offers a 126-credit program leading to the Bachelor of Science in Secondary Education in the Earth Sciences.

This program is for students interested in pursuing careers as a high school educator in the field of earth sciences including environmental earth science, geology, meteorology, and oceanography. Students obtain certification in earth science upon completion of the program and successful completion of state examinations. Education courses and student teaching experiences are offered in conjunction with the department of Educational Foundations in the College of Education and Human Services (Educational Foundations | Millersville University (<https://www.millersville.edu/edfoundations/>)).

Major in Earth Science, BSE

Code	Title	Hours
Credits Required for Major		
	true	
Minimum GPA 2.0 for Major		
	true	
Minimum Residency 50% of Major Courses		
	true	
ESCI 221	Physical Geology (C- minimum)	0
ESCI 222	Historical Geology	0
ESCI 241	Meteorology (C- minimum)	0
ESCI 245	Environmental Meteorology	3
ESCI 261	Introduction to Oceanography (C- minimum)	0
Ocean Resources		3
ESCI 366	Marine Resources and Policy	
Planetary Geology or The Earth in Space - Choose 1 of the following:		3
ESCI 428	Planetary Geology	
ESCI 202	The Earth in Space	
Advisor approved ESCI course		
Choose one ESCI course		
Total Hours		9

Professional Education

Code	Title	Hours
EDUCATIONAL FOUNDATIONS		
EDFN 211	Foundations Modern Education	3
EDFN 241	Psychological Foundations of Teaching	3
REQUIRED EDUCATION COURSES		
EDSE 321	Issues in Secondary Education	3
EDFN 330	Instructional Technology, Design & Assessment	3
EDSE 435	Teaching of Science in Secondary Schools	3
ACCOMMODATIONS AND ADAPTATIONS		
EDSE 340	Content Area Literacy for Diverse Classrooms	3

SPED 346	Secondary Students w/Disabilities in Inclusive Settings	3
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STUDENT TEACHING

EDSE 471	Student Teaching Seminar	3
Student Teaching		9
EDSC 461	Student Teaching in Science	

Total Hours **33**

Req Related for Earth Science, BSE

Code	Title	Hours
MATHEMATICS		
MATH 160	Precalculus	4
MATH 161	Calculus 1 (C- minimum)	4
PHYSICS		
PHYS 131	Physics 1 with Algebra (C- minimum)	0
PHYS 132	Physics 2 with Algebra	0
General Astronomy or Intro to Astronomy Astrophysics - Choose 1 of the following:		3
PHYS 117	General Astronomy	
PHYS 317	Introduction to Astronomy	
CHEMISTRY		
CHEM 111	Introductory Chemistry 1 (C- minimum)	0
CHEM 112	Introductory Chemistry 2	0
BIOLOGY		
Demonstrated Competency in Biology		
Competency may be demonstrated by: 1) a course grade of 'A' or 'B' in AP Bioogy; 2) a score of 3 or better in the national AP exam; 3) a successful score on the CLEP exam; 4) a successful score on a General Biology challenge or placement examination; 5) a passing grade for General Biology (BIOL 100)		
Principles of Ecology		3
BIOL 241		
Total Hours		14

Advanced Professional Studies, BSE

Code	Title	Hours
*Clearances are valid for one year from the date that appears in the header of this degree audit in the field 'Clearance Date.' Clearances cannot expire in the middle of a semester.		
APS REQUIREMENTS		
English Composition - Choose 1 of the following:		3
ENGL 110	Intro to College Writing	
ENGL 110H	Hnrs:Intro to College Writing	
English Literature - Choose 1 of the following:		3
ENGL 230	Introduction to Literature	
ENGL 231	World Literature 1	
ENGL 232	World Literature 2	
ENGL 233	Early British Literature	
ENGL 234	Later British Literature	
ENGL 235	American Literary Tradition I	
ENGL 236	American Literary Tradition II	
ENGL 241H	H:Explorations in World Lit	
ENGL 242	Reading Our World:	
ENGL 292	Science Fiction	

ENGL 333	African-American Literature 1	
ENGL 333H	Hnrs:African American Lit 1	
ENGL 334	African American Literature 2	
ENGL 334H	Hnrs:African American Lit 2	
ENGL 336	New Dimensions to World Lit	
ENGL 338	Folklore and Literature	
ENGL 401	Old Eng Lang and Literature	
ENGL 402	Middle Eng Lang and Literature	

Mathematics

Two Mathematics courses are required for BSE students. You have taken 0 course(s). It is preferable to take two courses designated as G2. Click here to search for MATH courses on the current web schedule. BIOL 375 will fulfill one Mathematics course for BSE BIOL students.

EDFN 211	Foundations Modern Education	6
& EDFN 241	and Psychological Foundations of Teaching	
48 earned (transcript) credit hours are required		

APS registration status

You ARE NOT eligible to register for courses requiring APS status.

ACT 126 - Educator Ethics Training

You must submit your Educator Ethics Training.

Pre-Service Testing Required

Pre-Service Testing Status is indicated by one of the following: 1.) PSTA - Pre-Service Testing Accomplished: Verified passing pre-service test scores meet the requirement. 2.) PSTI - Pre-Service Testing Incomplete: Non-passing pre-service test scores were submitted prior to the August 1, 2015 policy change. Passing scores must still be achieved in order to meet the PA certification requirements. 3.) PSTU - Pre-Service Testing Unverified: Unofficial copies of pre-service test scores were submitted. Official scores must be sent from the testing company in order to meet PA certification requirements. 4.) PSTX - Pre-Service Testing Waived: Per PDE - ACT 136, the Pre-Service Testing Requirement has been waived.

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Your GPA is below 3.0 - please see an advisor

If you are given the 2.8 GPA Exception for graduation and you graduate with a GPA lower than 3.0, you must have higher certification test scores in order to meet PA state certification requirements.

No dispositions-related holds

If the requirement above is checked as complete, then there are currently no dispositions-related holds on your APS Status. Registration for APS courses is permitted when all APS requirements have been met. If it is incomplete, you have a hold and APS registration will not be allowed.

Full Admission to APS

When all requirements are met, you must submit application for admission to APS status. Click here for the application.

Total Hours

12