

B.S.ED. IN EARTH AND SPACE SCIENCES

College of Education and Social Work

Curriculum

All students seeking a B.S.Ed. must formally apply for Teacher Candidacy. See the "Educator Preparation Programs (<http://catalog.wcupa.edu/undergraduate/education-social-work/educator-preparation-programs/>)" section of this catalog for an explanation of related requirements. Only those students who achieve Teacher Candidacy will be eligible to enroll in SED 360/SCB 350. Once Teacher Candidacy has been achieved, students must maintain the minimum GPA specified by the College of Education and Social Work in order to continue taking advanced professional course work. If a student falls below the minimum GPA, they will be permitted to retake - in accordance with University policy - professional course work that contributed to the fall below the minimum GPA but will not be permitted to take additional work until the minimum is met.

Code	Title	Credits
General Education Requirements (http://catalog.wcupa.edu/undergraduate/general-education-requirements/)		
First Year Experience		4
Academic Foundations		
English Composition requirement		6
Mathematics requirement		3
Interdisciplinary requirement		3
Diverse Communities requirement		3
Distributive Requirements		
Science requirement		6
Behavioral & Social Science requirement		6
Humanities requirement ¹		6
Arts requirement		3
Additional Baccalaureate Requirements		
Writing Emphasis requirement		9
Speaking Emphasis requirement		9
Ethics requirement		3
Major Core Requirements ²		
ESS 101	Introduction to Geology	3
ESS 201	Field Geology	3
ESS 204	Historical Geology	3
ESS 301	Environmental Geochemistry	3
ESS 302	Mineralogy	3
ESS 343	Geomorphology	3
ESS 405	Igneous and Metamorphic Petrology	3
ESS 439	Hydrogeology	3
ESS 450	Sedimentation & Stratigraphy	3
ESS/ENV/SCB 102 or SCB 210	Humans and the Environment The Origin of Life and the Universe	3
ESS 311	Introduction to Astronomy	3
ESS 330	Introduction to Oceanography	3
ESS 347	Earth & Space Science Seminar	1
ESS 370	Introduction to Meteorology	3
Required Supporting Math & Science Coursework ²		
MAT 115 or MAT 131	Algebra, Functions, and Trigonometry Precalculus	3
MAT 121	Introduction to Statistics I	3
BIO 110	General Biology I	4
CHE 103	General Chemistry I	3

CRL 103	General Chemistry I Lab	1
PHY 130 or PHY 170	General Physics I Physics I	4

Education Requirements

EDF 300	Democracy and Education	3
EDP 280	Developmental and Psychological Perspectives in Education	3
EDA 103	Foundations of Special Education	3
EDA 303	Special Ed: Processes/Procedures for General Educators	2
EDR 347	Literacy Development and Secondary Students with Disabilities in Inclusive Classrooms	3
LAN/ENG 382	Teaching English Language Learners PK-12	3
ERM 355	Ethical and Effective Assessment for Learning 7-12	3

Students may obtain additional certification in general science and/or environmental education in addition to earth and space science

SED 100	An Exploration of Secondary Education	3
SED 200	Learning Environments and Field Experience in Secondary Schools	3
SED 300	Principles of Teaching and Technology in the Secondary Classroom	3
SED 360	Science Education in the Secondary School	3

Capstone Requirement

SED 411	Student Teaching Sec - 1st Half ³	6
SED 412	Student Teaching Sec - 2nd Half ³	6

Total Minimum Credits Required 127

¹ A LIT course is required for this program.

² A grade of C- or better must be achieved for all required courses

³ This course fulfills the general education Capstone requirement.

Sample Course Plan

To track their individual degree progress, students are advised to access their Degree Progress Report (DPR) via myWCU regularly. For more information, visit wcupa.edu/DegreeProgressReport (<http://wcupa.edu/degreeprogressreport/>).

The following is a sample suggested course sequence for this program; course offerings and availability are not guaranteed. Students should consult their academic advisor with any questions.

Course	Title	Credits
Year One		
Semester One		
ESS 101	Introduction to Geology	3
MAT 115 or MAT 121	Algebra, Functions, and Trigonometry or Introduction to Statistics I	3
WRT 120	Effective Writing I	3
FYE 100X	First Year Experience	4
Behavioral & Social Science Gen Ed		3
Credits		16
Semester Two		
ESS 102 or SCB 102	Humans and the Environment or Humans and the Environment	3

MAT 121 or MAT 115	Introduction to Statistics I or Algebra, Functions, and Trigonometry	3
SED 100	An Exploration of Secondary Education	3
EDP 280	Developmental and Psychological Perspectives in Education	3
WRT 2XX	200-Level WRT Course	3
Credits		15

Year Two**Semester Three**

ESS 201	Field Geology	3
ESS 204	Historical Geology	3
CHE 103 & CRL 103	General Chemistry I and General Chemistry I Lab	4
EDA 103	Foundations of Special Education	3
EDF 300	Democracy and Education	3
Credits		16

Semester Four

ESS 301	Environmental Geochemistry	3
ESS 330	Introduction to Oceanography	3
ESS 343	Geomorphology	3
SED 200	Learning Environments and Field Experience in Secondary Schools	3
EDA 303	Special Ed: Processes/Procedures for General Educators	2
Humanities Gen Ed (LIT course)		3
Credits		17

Year Three**Semester Five**

ESS 302	Mineralogy	3
ESS 311	Introduction to Astronomy	3
ESS 347	Earth & Space Science Seminar	1
PHY 130	General Physics I	4
LAN 382 or ENG 382	Teaching English Language Learners PK-12 or Teaching English Language Learners PK-12	3
Behavioral & Social Science Gen Ed		3
Credits		17

Semester Six

ESS 405	Igneous and Metamorphic Petrology	3
ESS 439	Hydrogeology	3
BIO 110	General Biology I	4
SED 300	Principles of Teaching and Technology in the Secondary Classroom	3
ERM 355	Ethical and Effective Assessment for Learning 7-12	3
Credits		16

Year Four**Semester Seven**

ESS 370	Introduction to Meteorology	3
ESS 450	Sedimentation & Stratigraphy	3
SED 360	Science Education in the Secondary School ¹	3
EDR 347	Literacy Development and Secondary Students with Disabilities in Inclusive Classrooms	3
Arts Gen Ed		3

Humanities Gen Ed		3
Credits		18
Semester Eight		
SED 411	Student Teaching Sec - 1st Half ¹	6
SED 412	Student Teaching Sec - 2nd Half ¹	6
Credits		12
Total Credits		127

¹ Field course. Clearances required.