

# Earth Science Education

## Earth Science Education Major

**Teaching Option:** Curriculum emphasis is on the teaching of Earth science. Students preparing for teaching Earth science in the secondary schools must follow the School of Education (<http://www.ndsu.edu/education>) curriculum.

Students interested in Earth Science Education are encouraged to declare a double major in their discipline and in education (i.e., Earth Science and Geology). Such double majors may typically be earned by successful completion of a few additional credits. Students should contact their advisers or the Office of Registration and Records (<http://www.ndsu.edu/bulletin/offices/registrar>) for details, and are encouraged to declare their primary and secondary majors with the Office of Registration and Records, 110 Ceres Hall (<http://www.ndsu.edu/bulletin/buildings/ceres>).

## Major Requirements

### Major: Earth Science Education

**Degree Type:** B.A. or B.S.

**Required Degree Credits to Graduate:** 142

### General Education Requirements

#### First Year Experience (F):

HD&E 189	Skills for Academic Success (Students transferring in 24 or more credits do not need to take HD&E 189.)	1
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#### Communication (C):

ENGL 110	College Composition I	3
ENGL 120	College Composition II	3
ENGL 324	Writing in the Sciences	3
COMM 110	Fundamentals of Public Speaking	3

#### Quantitative Reasoning (R):

MATH 165	Calculus I	4
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#### Science & Technology (S):

The 10 credits required in the Science and Technology category will be satisfied by completing the requirements for the teaching specialty.

**Humanities & Fine Arts (A):** Select from current general education list 6

**Social & Behavioral Sciences (B):** Select from current general education list 6

**Wellness (W):** Select from current general education list 2

**Cultural Diversity (D):** Select from current general education list

#### Global Perspectives (G):

GEOL 105	Physical Geology	3
Total Credits		41

## Major Requirements

**General Education Requirements** 40

### Earth Science Education Requirements

GEOL 105 & 105L	Physical Geology and Physical Geology Lab	4
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GEOL 106 & 106L	The Earth Through Time and The Earth Through Time Lab	4
STAT 330	Introductory Statistics	3

### Professional Education Requirements

EDUC 321	Introduction to Teaching	3
EDUC 322	Educational Psychology	3
EDUC 451	Instructional Planning, Methods and Assessment	3
EDUC 481	Classroom Practice Methods of Teaching I:	3
EDUC 485	Student Teaching Seminar	1
EDUC 486	Classroom Management for Diverse Learners	3
EDUC 487	Student Teaching	9
EDUC 488	Applied Student Teaching	3
EDUC 489	Teaching Students of Diverse Backgrounds	3

### Teaching Speciality Requirements

BIOL 124 & 124L	Environmental Science and Environmental Science Laboratory	4
BIOL 150 & 150L	General Biology I and General Biology I Laboratory	4
BIOL 151 & 151L	General Biology II and General Biology II Laboratory	4
BIOL Elective		3
CHEM 121 & 121L	General Chemistry I and General Chemistry I Laboratory	4
CHEM 122 & 122L	General Chemistry II and General Chemistry II Laboratory	4
CHEM Elective		4
GEOL 350 or GEOL 440	Invertebrate Paleontology or Quaternary Biology	3-4
GEOL 412	Geomorphology	3
GEOL 420 & GEOL 421	Mineralogy and Mineralogy Laboratory	4
GEOL 422	Petrology	3
GEOL 423	Petrography	1
GEOL 491	Seminar	1
GEOL Electives		6
PHYS 110	Introductory Astronomy	3
PHYS 211 & 211L	College Physics I and College Physics I Laboratory	4
PHYS 212 & 212L	College Physics II and College Physics II Laboratory	4
SOIL 217	Introduction to Meteorology & Climatology	3
CSCI 122	Visual BASIC	3

Total Credits 148-149

## Degree Requirements and Notes

- Courses taken P/F may not be used to satisfy any requirements.
- GPA of 2.75 or better in the teaching specialty is required for placement in student teaching and exit from the program.
- A grade of 'C' or better is required in all Professional Education Requirement courses.
- A GPA of 2.75 or better in professional education as well as passing the appropriate Praxis II exam are required to exit the program.
- See School of Education for admission requirements.

**Bachelor of Arts (BA) Degree** – An additional 6 credits of Humanities and Social Sciences and two years of one modern foreign language at the college level or equivalent are required.