

Earth Science Education

Department Information

- **Department Location:**
210 Family Life Center
- **Department Phone:**
701-231-7921
- **Department Web Site:**
www.ndsu.edu/education/ (<http://www.ndsu.edu/education/>)
- **Credential Offered:**
B.S.; B.A.
- **Sample Program Guide:**
catalog.ndsu.edu/programs-study/undergraduate/earth-science-education/#planofstudytext (<http://catalog.ndsu.edu/programs-study/undergraduate/earth-science-education/#planofstudytext>)

Major Requirements

Major: Earth Science Education

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

Minimum Degree Credits to Graduate: 120

University Degree Requirements

1. Satisfactory completion of all requirements of the curriculum in which one is enrolled.
2. Earn a minimum total of 120 credits in approved coursework. Some academic programs exceed this minimum.
3. Satisfactory completion of the general education requirements as specified by the university.
4. A minimum institutional GPA of 2.00 based on work taken at NDSU.
5. At least 36 credits presented for graduation must be in courses numbered 300 or higher.
6. Transfer Students: Must earn a minimum of 60 credits from a baccalaureate-degree granting or professional institution.
 - a. Of these 60, at least 36 must be NDSU resident credits as defined in #7.
 - b. Within the 36 resident credits, a minimum of 15 must be in courses numbered 300 or higher and 15 credits in the major field of study.
7. At least 36 credits must be NDSU resident credits. Resident credits include credits registered and paid for at NDSU.

For complete information, please refer to the Degree and Graduation Requirements (<http://catalog.ndsu.edu/academic-policies/undergraduate-policies/degree-and-graduation/>) section of this Bulletin.

University General Education Requirements

| Code | Title | Credits |
|--|---------------------------------|-----------|
| Communication (C) | | 12 |
| ENGL 110 | College Composition I | |
| ENGL 120 | College Composition II | |
| COMM 110 | Fundamentals of Public Speaking | |
| Upper Division Writing [†] | | |
| Quantitative Reasoning (R) [†] | | 3 |
| Science and Technology (S) [†] | | 10 |
| Humanities and Fine Arts (A) [†] | | 6 |
| Social and Behavioral Sciences (B) [†] | | 6 |
| Wellness (W) [†] | | 2 |
| Cultural Diversity (D) ^{**†} | | |
| Global Perspectives (G) ^{**†} | | |
| Total Credits | | 39 |

* May be satisfied by completing courses in another General Education category.

† General education courses may be used to satisfy requirements for both general education and the major, minor, and program emphases, where applicable. Students should carefully review major requirements to determine if specific courses can also satisfy these general education categories.

- A list of university approved general education courses and administrative policies are available here (<http://catalog.ndsu.edu/academic-policies/undergraduate-policies/general-education/#genedcoursestext>).

Major Requirements

| Code | Title | Credits |
|--|---|---------|
| Teaching Specialty Requirements | | |
| BIOL 150 & 150L | General Biology I and General Biology I Laboratory | 4 |
| BIOL 151 & 151L | General Biology II and General Biology II Laboratory | 4 |
| CHEM 121 & 121L | General Chemistry I and General Chemistry I Laboratory | 4 |
| CHEM 122 & 122L | General Chemistry II and General Chemistry II Laboratory | 4 |
| ENGL 324 | Writing in the Sciences | 3 |
| GEOL 105 & 105L | Physical Geology and Physical Geology Lab | 4 |
| GEOL 106 & 106L | The Earth Through Time and The Earth Through Time Lab | 4 |
| GEOL 350 & GEOL 303 | Invertebrate Paleontology and Paleontology Field Course | 4 |
| GEOG 412 | Geomorphology | 3 |
| GEOL 420 & GEOL 421 | Mineralogy and Mineralogy Laboratory | 4 |
| GEOL 422 & GEOL 423 | Petrology and Petrography | 4 |
| Pick one of the following math courses: | | 3-4 |
| MATH 105 | Trigonometry | |
| MATH 165 | Calculus I | |
| PHYS 110 & 110L | Introductory Astronomy and Introductory Astronomy Lab | 4 |
| Pick one of the following: | | 4 |
| PHYS 120 & 120L | Fundamentals of Physics and Fundamentals of Physics Laboratory | |
| PHYS 211 & 211L | College Physics I and College Physics I Laboratory | |
| SOIL 210 | Introduction to Soil Science | 3 |
| SOIL 217 | Introduction to Meteorology & Climatology | 3 |
| 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 475 | Reading in the Content Area | 2 |
| EDUC 481 | Classroom Practice Methods of Teaching I: (Science) | 3 |
| EDUC 482 | Classroom Practice/Methods of Teaching II: (Science) | 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 |

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| EDUC 489 | Teaching Students of Diverse Backgrounds | 3 |
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Total Credits **98-99**

Degree Requirements and Notes

- See School of Education (<https://www.ndsu.edu/education/>) for admission requirements.
- Courses taken P/F may not be used to satisfy any requirements.
- A grade of 'C' or better is required in all professional education courses.
- To be placed in student teaching, a 2.75 cumulative GPA and a 2.75 GPA in professional education coursework is required.
- To exit the program, a 2.75 cumulative GPA and a 2.75 GPA in professional education coursework is required as well as completing the Praxis Subject test and the Principles of Learning and Teaching test.