

## Science Education: Earth Science Concentration (9-12)

**Intro to Education (C or better required)**

- \_\_\_\_ (2) ED 100 (Fall Freshmen) OR
- \_\_\_\_ (2) ED 150/151-SAY Village (Fall & Spring Freshmen)

**Academic Writing/Communication**

- \_\_\_\_ (4) ENG 101 Academic Writing & Research  
*C- or better required*
- \_\_\_\_ (3) COM 110 Public Speaking

**Mathematics**

- \_\_\_\_ (3) MA 131 or MA 141 Calculus I
- \_\_\_\_ (3) MA 231 or MA 241 Calculus II

**Sciences (C or better required)**

- \_\_\_\_ (4) BIO 181 Intro Biology: Ecology, Evolution, and Biodiversity
- \_\_\_\_ (4) BIO 183 Intro Biology: Cellular and Molecular
- \_\_\_\_ (4) CH 101/102 Chemistry
- \_\_\_\_ (4) CH 201/202 Quantitative Chemistry
- \_\_\_\_ (4) MEA 101/MEA 110 Geology
- \_\_\_\_ (3) MEA 130 Weather and Climate
- \_\_\_\_ (3) MEA 202 Geology II
- \_\_\_\_ (3) MEA 200 Intro Oceanography
- \_\_\_\_ (4) MEA 410 Intro Mineralogy and Petrology
- \_\_\_\_ (4) MEA 451 Structural Geology
- \_\_\_\_ (4) PY 211 College Physics I
- \_\_\_\_ (4) PY 212 College Physics II
- \_\_\_\_ (3) PY 123 or 124 Astronomy
- \_\_\_\_ (3) ES 200 Climate Change and Sustainability

**\*A grade of C (2.0) or better is required for science core content courses, up to two courses with a grade below a C is permitted.**

**History/Philosophy of Science and Social Science Elective**

- \_\_\_\_ (3) HI 321, HI 322, HI 341, PHI 340, or STS 301
- \_\_\_\_ (3) \_\_\_\_\_ Social Sciences Elective (*see degree audit*)

**GEP Courses**

- \_\_\_\_ (3) \_\_\_\_\_ Choose a course from the GEP Humanities list
- \_\_\_\_ (3) \_\_\_\_\_ Choose a course from the GEP Humanities list
- \_\_\_\_ (1) \_\_\_\_\_ Any 100 level Health & Exercise Studies
- \_\_\_\_ (1) \_\_\_\_\_ Any HE Course
- \_\_\_\_ (3) \_\_\_\_\_ Additional Breadth – Choose one Humanities, Social Sciences, or Visual Performing Arts course from the GEP list

USD and GK may “double-count” for both co-req and another GEP Requirement

- \_\_\_\_ US Diversity Co-Requisite \_\_\_\_\_
- \_\_\_\_ Global Knowledge Co-Requisite \_\_\_\_\_
- \_\_\_\_ Foreign Language Proficiency \_\_\_\_\_

**C or better required in all courses below unless otherwise stated**

**SOPHOMORE YEAR**

**Fall Semester**

**Spring Semester**

- \_\_\_\_ (2) EMS 205 Intro to Teaching Science  
*B- or better required*
- \_\_\_\_ (2) ED 204 Intro to 21<sup>st</sup> Century Teaching
- \_\_\_\_ (3) EDP 304 Education Psychology

**JUNIOR YEAR**

**Fall Semester**

**Spring Semester**

- \_\_\_\_ (3) EMS 373 Instr. Materials in Science
- \_\_\_\_ (3) ELP 344 School and Society
- \_\_\_\_ (3) EMS 375 Methods in Teaching Science  
*Prerequisite: EMS 205, ED 204*
- \_\_\_\_ (3) ECI 416 Teaching Exceptional Students
- \_\_\_\_ (2) ED 311 Classroom Assessment  
*Prerequisite: ATC*
- \_\_\_\_ (1) ED 312 Classroom Assessment Lab

**SENIOR YEAR**

**Fall Semester**

**Spring Semester *Prior admission to Professional Semester required***

- \_\_\_\_ (3) EMS 475 Methods of Teaching Science (Fall Only)  
*B- or better required*  
*Prerequisite: EMS 375*
- \_\_\_\_ (10) EMS 476 Student Teaching in Science (Spring Only)  
*Prerequisite: EMS 475; and Corequisite: EMS 495*
- \_\_\_\_ (2) EMS 495 Senior Seminar in Math/Science Edu (Spring Only)

Completed \_\_\_\_\_ out of 4.5

**PROFESSIONAL GROWTH UNITS (PGU's):** must earn 4.5 PGU's by graduation. Register for sessions and track PGU's in SAGE → “Professional Development” tab  
PGU events and details can be found at: <https://ced.ncsu.edu/academics/professional-education/professional-development/>

**ATC REQUIREMENTS (Admission to Teacher Candidacy):** \_\_\_\_ ENG 101 \_\_\_\_ 2 Math courses \_\_\_\_ EMS 205/ED 204 \_\_\_\_ GPA at least 2.75 \_\_\_\_ Praxis I  
**Must have met ATC in order to register for ED 311/312.** View your progress in SAGE → “Gateways” tab