

## Science Education: Biology 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 121 or MA 131 Calculus I  
*(BLS double major choose MA 131)*
- \_\_\_\_ (3) MA 231 Calculus II or ST 311 Intro to Statistics  
*(BLS double major choose ST 311)*

### Sciences (*C or better required*)

- \_\_\_\_ (4) BIO 181 Intro Biology: Ecology, Evolution, and Biodiversity
- \_\_\_\_ (4) BIO 183 Intro Biology: Cellular and Molecular
- \_\_\_\_ (4) BIO 360 (AEC 360 or PB 360) Ecology
- \_\_\_\_ (4) CH 101/102 Chemistry
- \_\_\_\_ (4) CH 201/202 Quantitative Chemistry
- \_\_\_\_ (4) CH 221/222 Organic Chemistry I
- \_\_\_\_ (4) GN 311 Principles of Genetics
- \_\_\_\_ (4) MEA 101/MEA 110 Geology
- \_\_\_\_ (4) PY 211 College Physics I
- \_\_\_\_ (4) PY 212 College Physics II
- \_\_\_\_ (3) ES 200 Climate Change and Sustainability
- \_\_\_\_ (4) BCH 451 Biochemistry or MB 351/352 Microbiology  
*(BLS double major choose MB 351/352)*
- \_\_\_\_ (3) BIO/ZO 250, BIO 414, PB 321, PB 414 or PB 421 (Bio Elec. I)  
*(BLS double major choose BIO/ZO 250 or PB 321)*

**\*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 GEP Humanities, Social Sciences, or Visual Performing Arts course

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 \_\_\_\_\_

### Free Elective

- \_\_\_\_ (1) \_\_\_\_\_

***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

- \_\_\_\_ (3) EMS 373 Instr. Materials in Science
- \_\_\_\_ (3) ELP 344 School and Society

#### Spring Semester

- \_\_\_\_ (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

- \_\_\_\_ (3) EMS 475 Methods of Teaching Science (Fall Only)  
*B- or better required*  
*Prerequisite: EMS 375*

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

- \_\_\_\_ (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

