

## Mathematics Education: Computer Science Specialization (9-12)

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

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

### English and Communication

- \_\_\_\_ (4) ENG 101 Academic Writing & Research  
*C- or better required*  
 \_\_\_\_ (3) COM 112 Interpersonal Communication

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

- \_\_\_\_ (4) MA 141 Calculus I  
 \_\_\_\_ (4) MA 241 Calculus II  
*Prerequisite: MA 141 with grade of C- or better*  
 \_\_\_\_ (4) MA 242 Calculus III  
*Prerequisite: MA 241 with grade of C- or better*  
 \_\_\_\_ (3) MA 405 Linear Algebra  
*Prerequisite: MA 241*  
 \_\_\_\_ (3) MA 403 Introduction to Modern Algebra (**FALL ONLY**)  
*Prerequisite: CSC 226*  
 \_\_\_\_ (3) MA 408 Foundations of Euclidean Geometry  
*Prerequisite: CSC 226*  
 \_\_\_\_ (3) ST 311 Introduction to Statistics  
 \_\_\_\_ (3) ST 312 Introduction to Statistics II  
 \_\_\_\_ (1) ST 307 Introduction to Stat Programming - SAS

### Computer Science Specialization (*C or better required*)

- \_\_\_\_ (1) E 115 Computing Environment  
 \_\_\_\_ (3) CSC 110 Computer Science Principles (first CSC course)  
 \_\_\_\_ (3) CSC 116 Intro Comp Java  
 \_\_\_\_ (4) CSC 216 Programming Concepts Java and  
 CSC 217 Software Development Fundamentals Lab  
 \_\_\_\_ (3) CSC 226 Discrete Math CSC  
 \_\_\_\_ (3) CSC 316 Data Structures for Computer Scientists

### Natural Sciences

- \_\_\_\_ (4) CH 101/102 and \_\_\_\_ (4) CH 201/202  
 OR  
 \_\_\_\_ (4) BIO 181 and \_\_\_\_ (4) BIO 183  
 OR  
 \_\_\_\_ (4) PY 205/206 and \_\_\_\_ (4) PY 208/209  
 OR  
 \_\_\_\_ (4) PY 211 and \_\_\_\_ (4) PY 212  
 \_\_\_\_ (3) \_\_\_\_\_GEP Natural Science course

### 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 (*Strongly Recommend ECI 305*)  
 \_\_\_\_ (2-3) \_\_\_\_\_ Interdisc Perspectives (ECI 305 Equity and Education\*USD)

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 Electives

- \_\_\_\_ (1) Free Elective \_\_\_\_\_  
 \_\_\_\_ (1) Free Elective \_\_\_\_\_

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

### SOPHOMORE YEAR

#### Fall Semester

- \_\_\_\_ (2) EMS 204 Intro to Mathematics Education  
*B- or better required*  
 \_\_\_\_ (2) ED 204 Intro to 21<sup>st</sup> Century Teaching

#### Spring Semester

- \_\_\_\_ (3) EDP 304 Education Psychology

### JUNIOR YEAR

#### Fall Semester

- \_\_\_\_ (3) ELP 344 School and Society  
 \_\_\_\_ (3) ECI 416 Teaching Exceptional Students

#### Spring Semester

- \_\_\_\_ (3) EMS 480 Teaching Mathematics with Technology (**Spring only**)  
*Prerequisite: EMS 204 with a B- or better; MA 131 or 141*  
 \_\_\_\_ (2) ED 311 Classroom Assessment *Prerequisite: ATC*  
 \_\_\_\_ (1) ED 312 Classroom Assessment Lab *Prerequisite: ATC*

### SENIOR YEAR

#### Fall Semester

- \_\_\_\_ (3) EMS 472 Teaching Math Topics in High School (**Offered Fall & Spring**)  
*Co-requisite: EMS 470*  
*Prerequisite: EMS 480 passed with a C or better*  
 \_\_\_\_ (3) EMS 490 School Math from an Adv. Perspective  
 \_\_\_\_ (3) EMS 470 Methods & Materials for Teaching Math  
*Co-requisite: EMS 472*

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

- \_\_\_\_ (10) EMS 471 Student Teaching (**Spring Only**)  
 \_\_\_\_ (2) EMS 495 Senior Seminar (**Spring Only**)

- Take EMS 480 *before* the semester in which you take EMS 470/472/490. (Professional Semester 1)
- At most one grade below a C- is permitted in the courses satisfying the science requirement.
- At most one grade below a C is permitted in the mathematics, statistics, and computer science courses.

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 204/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