**Mathematics Education: Mathematics Specialization (9-12)**

**Intro to Education (C or better required)**
- (2) ED 100 (Fall Freshmen) OR ED 105 (Fall & Spring Freshmen)
- (2) ED 150/151-SAY Village (Fall & Spring Freshmen)

**Introduction to Computing**
- (1) E 115 or COS 100

**Programming Elective**
- (3) CSC 110, CSC 112, CSC 114, CSC 116, or MA 116

**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 351 Intro Discrete Math (FALL ONLY)
  - MA 341 is an approved substitution. Recommended take Junior year
  - Prerequisite: MA 224, 225, 231 or 241
- (3) MA 225 Foundations of Advanced Math
  - Prerequisite: MA 241
- (3) MA 405 Linear Algebra
  - Prerequisite: MA 241
- (3) MA 403 Introduction to Modern Algebra (FALL ONLY)
  - Prerequisite: MA 225
- (3) MA 408 Foundations of Euclidean Geometry (Fall Senior Year)
  - Prerequisite: MA 225
- (3) Mathematics Elective (see degree audit)
- (3) Mathematics Elective (see degree audit)
- (3) ST 311 Introduction to Statistics
- (3) ST 312 Introduction to Statistics II
- (1) ST 307 Introduction to Stat Programming - SAS

**Natural Sciences**
- (4) CH 101/102 and (4) CH 201/202
- (4) BIO 181 and (4) BIO 183
- (4) PY 205/206 and (4) PY 208/209
- (4) PY 211 and (4) PY 212

**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

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

**Foreign Language Proficiency**

_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 21st Century Teaching

**Spring Semester**
- (3) ECI 305 Education and Equity

**JUNIOR YEAR**

**Fall Semester**
- (3) ELP 344 School and Society
- (3) EDP 304 Education Psychology
- (2) ED 311 Classroom Assessment Prerequisite: ATC
- (1) ED 312 Classroom Assessment Lab

**Spring Semester**
- (3) EMS 480 Teaching Mathematics with Technology (SPRING ONLY)
  - Prerequisite: EMS 204 with a B- or better; MA 131 or 141
- (3) EMS 472 Teaching Math Topics in High School
- (3) ECI 416 Teaching Exceptional Students

**SENIOR YEAR**

**Fall Semester**
- (3) EMS 490 School Math from an Adv. Perspective
- (3) EMS 470 Methods & Materials for Teaching Math
  - Co-require: EMS 472

**Spring Semester**
- Prior admission to Professional Semester required
- (10) EMS 471 Student Teaching (Spring Only)
- (2) EMS 495 Senior Seminar

Take EMS 472 & 480 before the semester in which you take EMS 470 & 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/](https://ced.ncsu.edu/academics/professional-education/professional-development/)

Updated 2/11/2021
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