# Mathematics Education: Statistics Specialization (9-12)

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

## Introduction to Computing
- **C or better required**
  - (1) E 115 or COS 100
  - Programming Elective
    - (3) CSC 112, CSC 116, or MA 116
  - 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
      - Prerequisite: MA 141 with grade of **C or better**
    - (4) MA 241 Calculus II
      - Prerequisite: MA 141 with grade of **C or better**
    - (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
      - Prerequisite: MA 225
    - (3) MA 351 Intro Discrete Math (complete in junior year)
      - Prerequisite: MA 224, 225, 231 or 241

*At most one grade below a C is permitted in the mathematics, statistics, and computer science courses.*

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## Statistics Specialization **C or better required**
- (3) ST 311 Introduction to Statistics
- (3) ST 312 Introduction to Statistics II
- (1) ST 307 Introduction to Stat Programming – SAS
- (3) ST 421 Intro Math Stat I
- (3) ST 422 Intro Math Stat II

## 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
- (3) GEP Natural Science course

*At most one grade below a C is permitted in the courses satisfying the science requirement.*

## 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 Health & Exercise Course
- (3) Additional Breadth – Choose one GEP Humanities, Social Sciences, or Visual Performing Arts course (Strongly Recommend ECI 305)
- (2-3) Interdisc Perspectives
- (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

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## SOPHOMORE YEAR

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<tr>
<th>Fall Semester</th>
<th>Spring Semester</th>
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<tr>
<td><strong>(2)</strong> EMS 204 Intro to Mathematics Education <strong>B or better required</strong></td>
<td><strong>(3)</strong> EDP 304 Education Psychology</td>
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## JUNIOR YEAR

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<th>Fall Semester</th>
<th>Spring Semester</th>
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<tr>
<td><strong>(3)</strong> ELP 344 School and Society</td>
<td><strong>(3)</strong> EMS 480 Teaching Mathematics with Technology <strong>SPRING ONLY</strong></td>
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<tr>
<td>Prerequisite: EMS 480 with a C or better</td>
<td><strong>(2)</strong> ED 311 Classroom Assessment <strong>Prerequisite: ATC</strong></td>
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<tr>
<td><strong>(1)</strong> EMS 481 Student Teaching <strong>Spring Only</strong></td>
<td><strong>(1)</strong> ED 312 Classroom Assessment Lab <strong>Prerequisite: ATC</strong></td>
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## SENIOR YEAR

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<tr>
<th>Fall Semester</th>
<th>Spring Semester</th>
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<tr>
<td><strong>(3)</strong> EMS 472 Teaching Math Topics in High School <strong>Offered Fall &amp; Spring</strong></td>
<td>Prior admission to Professional Semester required</td>
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<tr>
<td>Co-requisite: EMS 470</td>
<td><strong>(10)</strong> EMS 471 Student Teaching <strong>Spring Only</strong></td>
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<tr>
<td><strong>(2)</strong> EMS 490 Senior Seminar <strong>Spring Only</strong></td>
<td><strong>(2)</strong> EMS 495 Senior Seminar <strong>Spring Only</strong></td>
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Take EMS 480 before the semester in which you take EMS 470/472/490. (Professional Semester 1)

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**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

**ATC REQUIREMENTS (Admission to Teacher Candidacy):**
- ENG 101 **2 Math courses**
- EMS 204/ED 204
- GPA at least 2.75
- Praxis I

Must have ATC in order to register for ED 311/312. View your progress in SAGE → “Gateways” tab