## CURRICULUM GUIDE

**Mathematics/Teaching, B.S. (Mathematics Teaching Concentration)**

**2015-2016**

Website: www.math.eku.edu  
Email Contact: daniel.mundfrom@eku.edu

The schedule below is an **EXAMPLE** of how you can arrange your class schedule. You are strongly advised to meet with the Chair of the Department Mathematics & Statistics or with your academic advisor prior to registration for appropriate placement in MAT courses.

### Upper division courses: All students are required to have a minimum of 42 hrs. upper division (300 level or above) courses distributed throughout Major/Supporting/Gen Ed/Free Electives categories.

Refer to the University Catalog at http://www.catalogs.eku.edu/ regarding University and General Education Requirements. All baccalaureate degree seeking students who enter the University are required to successfully complete one writing intensive course following completion of the ENG 102, ENG 105, or HON 102/103. Writing intensive courses are designated with the suffix “W” following the course prefix and number (e.g. HUM 300W).

**Applied Critical & Creative Thinking (ACCT) Requirement:** Math Teaching majors will fulfill ACCT with CED 499. (Credit hours may be incorporated into program requirements.)

### Fall Semester  

<table>
<thead>
<tr>
<th>Freshman Year</th>
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| ASO 100 T    | 1  
| MAT 234 or 234H | 4  
| STA 270 (fulfills Gen. Ed. 2) | 3  
| Gen. Ed. 1A (ENG 101) | 3  
| Gen. Ed. 1C (Oral Comm.) | 3  
| **TOTAL** | 14  

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<thead>
<tr>
<th>Sophomore Year</th>
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| MAT 254 or 254H | 4  
| MAT 301 | 3  
| Gen. Ed. 4 (Nat. Sci.) | 3  
| Gen. Ed. 5B (Soc. & Behav. Sci.) | 3  
| Gen. Ed. 6 (G'vency) | 3  
| 30 hrs complete + apply to professional education program | 16  
| **TOTAL** | 16  

<table>
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<tr>
<th>Junior Year</th>
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| EDF 204 | 2  
| CED 300 | 0.5  
| EMS 300W | 3  
| MAT 308 (fall only) | 3  
| Wellness | 3  
| Gen Ed. 5A (History) | 3  
| Combination 1: Core elective or | 3  
| Combination 2: STA Course |  
| **TOTAL** | 17.5  

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<tr>
<th>Senior Year</th>
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| ESE/MAT 550 (fall only) | 3  
| CED 450 (fall only) | 1  
| SED 402 | 2  
| MAT 334 (fall only) | 3  
| MAE 475 (fall only) | 3  
| Gen Ed. 3A (Arts) | 3  
| **APPLY FOR STUDENT TEACHING** |  
| **TOTAL** | 15  

### Spring Semester  

<table>
<thead>
<tr>
<th>Freshman Year</th>
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</table>
| EDF 203 | 3  
| CED 100 | 0.5  
| STA 104 (fulfills Gen. Ed. 6) | 3  
| MAT 239 | 3  
| MAT 244 or 244H | 4  
| Gen. Ed. 1B (ENG 102) | 3  
| **TOTAL** | 16.5  

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<thead>
<tr>
<th>Sophomore Year</th>
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</table>
| EDF 219 | 3  
| CED 200 | 3  
| MAT 306 (spring only) | 3  
| CSC 160, 177 or 190 | 3  
| Gen Ed. 3B (Handwriting) | 3  
| Gen Ed. 4 (Nat. Sci.) | 3  
| **TOTAL** | 15.5  

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<tr>
<th>Junior Year</th>
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| EDF 413 | 3  
| EMS 490 (spring only) | 3  
| CED 400 | 3  
| MAT 380 (spring only) | 4  
| Combination 1: MAT 315 (spring only) or Combination 2: STA Course | 3  
| Combination 2: STA Course #2 | 3  
| **TOTAL** | 13.5  

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<th>Senior Year</th>
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</table>
| CED 499 (ACCT) | 9  
| EMS 474 | 3  
| **TOTAL** | 12  

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* PREREQUISITES: Consult with your advisor and/or the University catalog regarding prerequisites for upper division MAT courses.

Student must have completed 30 hours by the end of the second semester and apply for admission to Professional Education Program.

Must be completed before enrolling in CED 300 and applying to the Teacher Ed. program.

**TOTAL HOURS TO DEGREE COMPLETION 120-122**

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<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Name</th>
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<tbody>
<tr>
<td>ASO 100T</td>
<td>Student Success Requirements (40)</td>
</tr>
<tr>
<td>MAT 234 or 234H</td>
<td>Calculus I (4)</td>
</tr>
<tr>
<td>MAT 301</td>
<td>Linear Algebra and Matrices</td>
</tr>
<tr>
<td>MAT 244 or 244H</td>
<td>Calculus II (4)</td>
</tr>
<tr>
<td>MAT 306</td>
<td>Discrete Mathematics</td>
</tr>
<tr>
<td>MAT 308</td>
<td>Modern Algebra I</td>
</tr>
<tr>
<td>MAT 334</td>
<td>Modern College Geometry</td>
</tr>
<tr>
<td>MAT 380</td>
<td>Mathematics in a Historical Setting</td>
</tr>
<tr>
<td>MAT 475</td>
<td>Math Teaching Senior Seminar</td>
</tr>
</tbody>
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**MATHEMATICS TEACHING CONCENTRATION REQUIREMENTS (20-13)**

† PLUS ONE (1) of the following combinations:

- Combination 1: (generally):
  - MAT 315 Introduction to Analysis
  - Combination 3: (statistics):
    - STA 320 Applied Statistics II
    - STA 370 Applied Probability
    - STA 520 Mathematical Statistics I
    - STA 375 Sampling Methods
    - STA 585 Experimental Design

**SUPPORTING COURSE REQUIREMENTS (MATHEMATICS TEACHING) (3)**

- CSC 160 Introduction to Programming
- CSC 177 or 190 Introduction to Visual Basic
- CSC 190 Object-Oriented Programming I
- STA 270 Teaching Statistics

**PROFESSIONAL EDUCATION REQUIREMENTS (17)**

- EDF 203 Pedagogical & Historical Found. of Ed.
- EDF 204 Emerging Instructional Technologies (2)
- EDF 219 Human Development and Learning
- EDF 413 Assessment in Education
- EDF 416 Classroom and Instructional Design
- EMS 474 Teaching Content Reading
- EMS 490 Classroom & Behavior Management in P-12
- SED 104 or 105 Teaching Math. in the Secondary Schools
- SED 402 Exceptional Learners in Inclusive Classrooms (2)
- ESE 550/MAT 550 Teaching Social Studies
- ESE 550/MAT 550 Teaching Math. in the Secondary Schools
- SED 104 or 105 Teaching Math. in the Secondary Schools
- SED 402 Exceptional Learners in Inclusive Classrooms (2)

**PLUS TWELVE (12) HOURS OF CLINICAL EXPERIENCE TO INCLUDE:**

- CED 450 Clinical I: Intro to the Education Prof. (1.5)
- CED 200 Clinical II: Understanding the Learner (1.5)
- CED 300 Clinical III: Curriculum and Instruction. Des. (3.5)
- CED 400 Clinical IV: Diagnosis & Perception (1.5)
- CED 450 Clinical V: Practicum Teaching (1)
- CED 499 Supervised Student Teaching P-12 (9)

**FREE ELECTIVES (0-3)**

All courses listed above are worth 3 credit hrs. unless otherwise noted.

* ESE 550 and MAT 550 are cross listed.

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