



2023-2024

## **MATHEMATICS GRADES 8-12 MAJOR, B.S.**

Mathematics Department; School of Science, Health, and Mathematics

The program content of the MATHEMATICS GRADES 8-12 MAJOR follows the recommendations of the Association of Mathematics Teacher Educators, the National Council of Teachers of Mathematics, and the Mathematical Association of America, and meets teacher certification requirements in most states. Teachers of mathematics in both public and private middle and high schools are very much in high demand.

*To graduate must complete all major requirements, foundational requirements, and additional electives needed for 124 hour minimum degree requirement.*

[Education majors must choose COM130 in the Foundations Communication pool due to state certification requirements.]

### **MAJOR REQUIREMENTS (76)**

|       |     |     |                               |        |
|-------|-----|-----|-------------------------------|--------|
| __ 2  | ED  | 200 | Intro to Education            |        |
| __ 2  | ED  | 220 | Tech for Education            |        |
| __ 2  | ED  | 230 | Human Growth/Development      |        |
| __ 1  | ED  | 301 | Guided Inquiry Clinical       |        |
| __ 3  | ED  | 320 | Exceptional Learner           |        |
| __ 3  | ED  | 385 | Read/Writ Across Curriculum   |        |
| __ 1  | ED  | 401 | Open Inquiry Clinical         |        |
| __ 3  | ED  | 405 | Learning/Perform Assess       |        |
| __ 3  | ED  | 410 | Classroom Management          |        |
| __ 3  | ED  | 420 | Content Methods               |        |
| __ 1  | ED  | 424 | Content Methods Lab           |        |
| __ 3  | ED  | 428 | Interventions/Differentiation |        |
| __ 12 | ED  | 499 | Student Teaching              |        |
|       |     |     |                               |        |
| __ 4  | MAT | 181 | Calculus I                    | __ Lab |
| __ 4  | MAT | 182 | Calculus II                   | __ Lab |
| __ 3  | MAT | 241 | Logic & Sets                  |        |
| __ 3  | MAT | 271 | Linear Algebra                |        |
| __ 4  | MAT | 361 | Probability & Stats           |        |
| __ 4  | MAT | 362 | Modern Geometry               |        |
| __ 4  | MAT | 364 | Math Technology for Teachers  |        |
| __ 4  | MAT | 371 | Algebraic Structures          |        |
| __ 3  | MAT | 462 | Topics in Sec Math            |        |

Choose one:

|      |     |     |                          |        |
|------|-----|-----|--------------------------|--------|
| __ 4 | MAT | 183 | Calculus III             | __ Lab |
|      | MAT | 463 | Topics in Elem & MS Math |        |

### **PLUS FOUNDATIONS REQUIREMENTS (44)**

(3 hours Math satisfied by required major courses; Foreign Language not required for B.S. MATE majors. Degree becomes B.A. with completion of Foreign Language.)

### **Plus electives needed for the 124 hour degree requirement (4)**