**Mathematics Secondary Education**

**Typical Four-Year Sequence**

|  |  |  |  |
| --- | --- | --- | --- |
| **Freshman Year** | | | |
| **Fall Term** | | **Spring Term** | |
| **Course** | **Units** | **Course** | **Units** |
| SEMS110 Introduction to STEM Teaching I: Inquiry Approaches to Teaching | 1 | SEMS 120 Introduction to STEM Teaching II: Inquiry-Based Lesson Design | 1 |
| MATH 273 Calculus I | 4 | MATH 265 Elementary Linear Algebra | 4 |
| TSEM 102 **(Core Category 1)** | 3 | MATH 274 Calculus II **(Core Category 3)** | 4 |
| Core Curriculum | 3 | ENGL 102 **(Core Category 2)** | 3 |
| Core Curriculum | 3 | Core Curriculum | 3 |
| Core Curriculum | 3 |  |  |
| **Total** | **17** | **Total** | **15** |

|  |  |  |  |
| --- | --- | --- | --- |
| **Sophomore Year** | | | |
| **Fall Term** | | **Spring Term** | |
| **Course** | **Units** | **Course** | **Units** |
| SEMS 230 Knowing and Learning | 3 | SEMS 240 Classroom Interactions | 3 |
| MATH 267 Introduction to Abstract Mathematics | 4 | MATH 369 Intro to Abstract Algebra | 4 |
| MATH 275 Calculus III | 4 | PHYS 241 General Physics I **(Core Category 7)** | 4 |
| MATH 223 PCK for MS Math | 2 | Core Curriculum | 3 – 4 |
| Core Curriculum | 3 | Core Curriculum | 3 |
| **Total** | **16** | **Total** | **17 – 18** |

**The total number of units required for graduation is 119-122.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Junior Year** | | | |
| **Fall Term** | | **Spring Term** | |
| **Course** | **Units** | **Course** | **Units** |
| SEMS 250 Perspectives on Science and Math  **(Core Category 5)** | 3 | SEMS 370 Project-Based Instruction | 3 |
| MATH 330 Introduction to Statistical Methods | 4 | MATH 310 Functions and Modeling **(Core 9)** | 3 |
| MATH 353 Euclidean and Non-Euclidean Geometries | 3 | MATH 420 Applications of Technology for Secondary School Teachers | 3 |
| SCED 460 Using Reading & Writing in the Secondary Schools | 4 | Mathematics  Content Elective | 3 – 4 |
| Core Curriculum | 3 |  |  |
| **Total** | **17** | **Total** | **12-13** |

|  |  |  |  |
| --- | --- | --- | --- |
| **Senior Year** | | | |
| **Fall Term** | | **Spring Term** | |
| **Course** | **Units** | **Course** | **Units** |
| SEMS 498 Internship in Mathematics and Science Secondary Education | 3 | MATH 426 Student Teaching in Secondary Education – Mathematics | 12 |
| MATH 423 Teaching Mathematics in the Secondary Schools | 3 |
| Mathematics  Content Elective | 3 – 4 | MATH 430 Seminar in Student Teaching – Mathematics | 1 |
| SCED 461 Teaching Reading in the Secondary Content Areas | 3 |
| **Total** | **12-13** | **Total** | **13** |