Four-Year Degree Plan: Bachelor of Science in Mathematics with Mathematics Education Concentration

College of
LETTERS,
ARTS AND
SCIENCES Catalog Year: 2023-2024

This is a degree plan for completing a Bachelor of Science in Mathematics with Mathematics Education Concentration in eight semesters. This document is meant to be used as a guide for planning purposes only and is intended for use in consultation with a Professional Academic or Faculty advisor. Students are responsible for consulting advisors and the MSU Denver catalog for degree requirements.

| Year One |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Semester 1 |  | $\begin{gathered} \hline \text { Credits } \\ \hline \hline 4 \end{gathered}$ | Semester $2 \quad$ Spring |  | $\begin{gathered} \text { Credits } \\ \hline \hline 4 \end{gathered}$ |
| MTH 1410 | Calculus I |  | MTH 2410 | Calculus II |  |
| -- | Written Communication I | 3 | MTH 3210 | Probability \& Statistics | 4 |
| -- | Oral Communication | 3 | -- | Written Communication II | 3 |
| -- | Arts and Humanities I | 3 | -- | Arts and Humanities II | 3 |
| -- | Historical | 3 | -- | Any course to satisfy hours reqs. | 3 |
|  | Semester 1 Total | 16 |  | Semester 2 Total | 17 |


| Year Two |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Semester 3 | Fall | Credits | Semester 4 | Spring | Credits |
| MTH 3100 | Introduction to Proofs | 3 | MTH 3140 | Linear Algebra | 4 |
| MTH 2420 | Calculus III | 4 | MTH 3470 | Discrete Math \& Modeling | 4 |
| ED 3130 | Found of ED Psych and Phil | 4 | EDT 3010 | Ed Tech into Teaching | 3 |
| ED 3140 | Field Experience | 1 | EDS 3150 | Issues in Multicultural Ed | 3 |
| -- | Natural and Physical Sciences I | 3 | -- | Natural and Physical Sciences II | 3 |
|  | Semester 3 Total | 15 |  | Semester 4 Total | 17 |


| Year Three |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Semester 5 | Fall | Credits | Semester | Spring | Credits |
| MTH 3110 | Abstract Algebra | 4 | MTL 3620 | Math of Secondary Curriculum | 4 |
| MTH 3650 | Foundations of Geometry | 3 | *** | Math or CS Elective | 3 |
| CLD 3510 | Perspectives CLD | 3 | SED 3600 | Exceptional Learners | 3 |
| EDS 3210 | Class Management | 3 | -- | Any courses to satisfy hours reqs. | 4 |
| EDS 3240 | Field | 1 |  |  |  |
| -- | Any course to satisfy hours reqs. | 3 |  |  |  |
|  | Semester 5 Total | 17 |  | Semester 6 Total | 14 |


| Year Four |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Semester 7 | Fall | Credits | Semester 8 | Spring | Credits |
| MTL 4630 | Teaching Secondary Math | 3 | MTH 4690 | Student Teaching Seminar | 12 |
| MTL 3638 | Secondary Math Field Exp | 2 |  |  |  |
| EDS 3280 | Literacy in CLD Schools | 3 |  |  |  |
| MTH 3640 | History of Math | 4 |  |  |  |
|  | Semester 7 Total | 12 |  | Semester 8 Total | 12 |

## Program Total: 120

Students must complete all courses in the major with a grade of C- or better. A minor is required for students who are not dual majors or completing a concurrent or second degree. Students can take EDT 3010, CLD 3510, and SED 3600 in a different order. Students must meet with a faculty advisor to declare the mathematics major and to register for Introduction to Proofs (MTH 3100).

Advisor Contact Information: Leah Butler, Ibutle14@msudenver.edu, 303-605-7526, or visit CLAS Academic Advising

Detailed Course Listing

| General Studies |  |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
| -- | Written Communication | 6 |  |  |  |
| -- | Oral Communication | 3 |  |  |  |
| -- | Arts and Humanities | 6 |  |  |  |
| -- | Social and Behavioral Sciences | 6 |  |  |  |
| -- | Natural and Physics Sciences | 6 |  |  |  |
| -- | Historical | 3 |  |  |  |
| -- | Global Diversity | 3 |  |  |  |
|  |  | General Studies Total |  |  |  |


| Mathematics Major Requirements |  |  |
| :--- | :--- | :---: |
| MTH 1410 | Calculus I | 4 |
| MTH 2410 | Calculus II | 4 |
| MTH 2420 | Calculus III | 4 |
| MTH 3100 | Introduction to Proofs | 3 |
| MTH 3110 | Abstract Algebra I | 4 |
| MTH 3140 | Linear Algebra | 4 |
| MTH 3210 | Prob \& Stats | 4 |
| MTH 3470 | Discrete | 4 |
| MTH 3650 | Geometry | 4 |
| MTH 3640 | History | 3 |
| MTL 3620 | Math of Sec. Curriculum | 4 |
| MTL 4630 | Teaching Sec. Math | 4 |
| $* * *$ | Math or CS Elective | Mathematics Major Requirements Total |


| Educational Foundations and Methods |  |  |
| :--- | :--- | :---: |
| EDS 3130 | Found. OF Ed Psych |  |
| EDS 3140 | Field Experience | 4 |
| EDS 3150 | Issues in Multicultural Ed | 1 |
| EDS 3010 | Integrating Ed Tech | 3 |
| CLD 3510 | CLD Learners | 3 |
| EDS 3210 | Classroom Management | 3 |
| EDS 3240 | Field Experience | 3 |
| SED 3600 | Exceptional Learners | 1 |
| EDS 3280 | Literacy CLD | 3 |
| MTL 3638 | Math Field | 3 |
| MTL 4690 | Student Teaching | 2 |
|  |  | 12 |

Mathematics Major Requirements 48
Educational Foundations and Methods 38
Unrestricted Electives 7
Minimum Total to Graduate 120

