



BACHELOR of SCIENCE in MATHEMATICS (#730)
Middle Grades Mathematics Teacher Certification

Department of Mathematics
 Ogden College of Science and Engineering
 Western Kentucky University

The following four-year plan is an example of how to map your program in consultation with your faculty advisor. Every student will finish with a unique plan of his/her own depending on the electives selected.

Success Markers

SAMPLE - 4 year plan

| FIRST YEAR | Fall Semester | | Spring Semester | |
|------------|--|-----------|--|-----------|
| | MATH 117 – Trigonometry OR MATH 136* – Calculus I (F-QR) | 3-4 | MATH 136 – Calculus I OR MATH 137* - Calculus II | 4 |
| | SMED 101 – Introduction to Inquiry-Based Lesson Design | 1 | SMED 102 - Introduction to Inquiry-Based Lesson Design | 2 |
| | ENGL 100 Introduction to College Writing (F-W1) | 3 | HIST 101 World History I OR HIST 102 World History II (F-SB) | 3 |
| | COMM 145 Fund of Public Speaking and Communication (F-OC) | 3 | Arts & Humanities (E-AH) | 3 |
| | Social & Behavioral Studies (E-SB) | 3 | Natural & Physical Science (E-NS) | 3 |
| | World Language, if needed, OR General Elective | 3 | | |
| | TOTAL CREDIT HOURS | 16 | TOTAL CREDIT HOURS | 15 |

| SECOND YEAR | Fall Semester | | Spring Semester | |
|-------------|---|-----------|--|-----------|
| | MATH 183 – Introductory Statistics OR STAT 301 – Introductory Probability and Applied Statistics | 3 | MATH 206 – Fundamentals of Geometry for Teachers | 3 |
| | MATH 205* - Number Systems and Number Theory for Teachers | 3 | MATH 413 – Algebra and Technology for Middle Grades Teachers | 3 |
| | SMED 310 – Knowing and Learning in Mathematics and Science | 3 | SMED 320 – Classroom Interactions | 3 |
| | ENG 200 Intro to Literature (F-AH) | 3 | Connections: Social & Cultural (K-SC) | 3 |
| | Natural & Physical Science & Lab (E-NS, SB) | 4 | Connections: Local to Global (K-LG) | 3 |
| | TOTAL CREDIT HOURS | 16 | TOTAL CREDIT HOURS | 15 |

- **World Language Proficiency:** All students entering in fall 2014 or later must demonstrate proficiency in a world language at the Novice High level before completing 60 credit hours. Novice high is the ability to communicate in writing and speaking on familiar topics in simple sentences. To meet this requirement, students may take college language courses or take a proficiency test. For more information go to: [World Language Proficiency](#).
- **Colonnade Program:** All students entering in fall 2014 or later must complete 39 hours in 13 specific Colonnade areas. Colonnade areas are listed in parentheses marked in blue after the corresponding classes. Some areas may have specific course requirements while others can be chosen from selected lists of options. For more details and to see lists of options, go to [Colonnade Requirements](#).

| THIRD YEAR | Fall Semester | | Spring Semester | |
|------------|--|-----------|---|-----------|
| | MATH 308 – Rational Numbers and Data Analysis for Teachers | 3 | MATH 411 – Problem Solving for Elementary and Middle School Teachers OR MATH 421 – Problem Solving for Secondary Teachers | 3 |
| | MATH 323 – Geometry I OR MATH 403 – Geometry for Elementary and Middle School Teachers | 3 | SMED 360 – Research Methods for Math and Science Teachers | 3 |
| | SMED 340 – Perspectives on Mathematics and Science | 3 | General Electives | 9 |
| | ENG 300 Writing in the Disciplines (F-W2) | 3 | | |
| | Connections: Systems (K-SY) | 3 | | |
| | TOTAL CREDIT HOURS | 15 | TOTAL CREDIT HOURS | 15 |

| FOURTH YEAR | Fall Semester | | Spring Semester | |
|-------------|---|-----------|--|-----------|
| | MATH 304 – Functions, Applications and Explorations | 3 | SMED 489 – SMED Student Teaching Seminar | 3 |
| | MATH 490 – Seminar in Middle Grades Mathematics | 1 | MGE 490 – Student Teaching | 10 |
| | SMED 470 – Project-Based Instruction | 3 | | |
| | SPED 330 – Introduction to Exceptional Education: Diversity in Learning | 3 | | |
| | General Electives | 5 | | |
| | TOTAL CREDIT HOURS | 15 | TOTAL CREDIT HOURS | 13 |

Total Credit Hours:120

* Denotes prerequisite courses before admission

PLEASE NOTE: Prerequisites, Course Numbers, and Course Titles are subject to change.

Consult your advisor each semester.

Course Descriptions may be viewed at <http://www.wku.edu/catalog>

FOR ADDITIONAL INFORMATION, PLEASE CONTACT:

For more Information:

Department: Mathematics

Website: www.wku.edu/math

Phone: (270)745-3651

Email: math@wku.edu

Course Descriptions: <http://www.wku.edu/undergraduatecatalog/>

