## ACADEMIC ROADMAP Math Education Majors, 4+1

## Freshman Year FIRST SEMESTER Catalog **Course Title** Prerequisite(s) Number Calculus I (4) **MAT161** MAT 124 Using Technology to Explore **MAT163** Calculus I (1) Exceptional Ed EXE100 Intellectual Foundations (IF) course(s) College Writing I CWP 101

| SECOND SEMESTER                                |                   |                 |
|--|-------------------|-----------------|
| Course Title                                   | Catalog<br>Number | Prerequisite(s) |
| Calculus II (4)                                | MAT162            | Mat 161         |
| Using Technology to Explore<br>Calculus II (1) | MAT164            | Mat 163         |
| Introduction to Linear Algebra (3)             | MAT202            | MAT 161         |
| IF course(s)                                   |                   |                 |
| College Writing II                             | CWP 102           |                 |

Notes: Both semesters should total 17 credit hours

|   |                   | Soph            |
|---|-------------------|-----------------|
| THIRD SEMESTER                                  |                   |                 |
| Course Title                                    | Catalog<br>Number | Prerequisite(s) |
| Calculus III (4)                                | MAT263            | MAT 162         |
| Using Technology to Explore<br>Calculus III (1) | MAT264            | MAT 164         |
| Discrete Math (3)                               | MAT270            | MAT 161         |
| Field Experience in Secondary Math              | MED 200           |                 |
| IF course(s)                                    |                   |                 |
| FOURTH SEMESTER                                 |                   |                 |
| Course Title                                    | Catalog           | Prerequisite(s) |

| omore Year |  |         |                  |
|------------|--|---------|------------------|
| 7          |  | Number  |                  |
|            | PROBABILITY AND STATISTICS               | MAT 325 | MAT 162 &270     |
|            | LEARNING AND TEACHING<br>PROBLEM SOLVING | MED 383 | MAT 162 &270     |
|            | Technique of Proof (3)                   | MAT300  | MAT 161 & 270    |
|            | Upper Division Math Elective (3)         |         | Check the prereq |
|            | Educational Psychology                   | SPF 303 |                  |

Notes: One semester should total 16 credit hours and the other semester should total 15 credit hours

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|--------------------------------------|-------------------|------------------|--|
| FIFTH SEMESTER                       |                   |                  |  |
| Course Title                         | Catalog<br>Number | Prerequisite(s)  |  |
| Fundamentals of Abstract Algebra (3) | MAT301            | MAT 202 & 300    |  |
| Educational Psychology               | SPF303            |                  |  |
| Teaching Literacy                    | EDU416            |                  |  |
| Upper Division Math Elective (3)     |                   | Check the prereq |  |
| Modern Geometry                      | MAT 322           | MAT 270          |  |

| SIXTH SEMESTER                    |                   |                 |
|-----------------------------------|-------------------|-----------------|
| Course Title                      | Catalog<br>Number | Prerequisite(s) |
| Introduction to Real Analysis (3) | MAT417            | MAT 263         |
| History & Policy of Education     | SPF403            | SPF 303         |
| USES OF TECH TEACHING MATH        | MED 307           | Upper division  |
| Adolescent Literacy               | EDU417            | EDU 416         |
| Upper Division Math Elective (3)  |                   | Check the prere |

Notes: Each semester should total 15 credit hours. Taking MAT417 at the same time as MAT301 is highly discouraged. Don't put off these† classes to the semester before student teaching. NOTE: During SUMMER take 2 graduate courses (i.e. MAT 501, MAT 521 or MAT 581)

## Senior Year

| SEVENTH SEMESTER                                     |                   |                               |
|--|-------------------|-------------------------------|
| Course Title   | Catalog<br>Number | Prerequisite(s)               |
| FIELD EXP: METHODS TEACHING<br>SECONDARY MATHEMATICS | MED 300           |                               |
| METHODS TEACHING<br>SECONDARY MATHEMATICS            | MED 308           | Math GPA 2.75+<br>and MED 307 |
| Upper Division Math Elective (3)                     |                   | Check the prereq              |
| OPEN Elective  |                   |                               |
| GRADUATE course                                      |                   | Check the prereq              |

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|---|-------------------|-----------------|
| EIGHTH SEMESTER                                   |                   |                 |
| Course Title                                      | Catalog<br>Number | Prerequisite(s) |
| STUDENT TEACHING MATH IN JR<br>HI/MS              | MED 407           |                 |
| STUDENT TEACHING MATH IN SR<br>HS                 | MED 408           |                 |
| No other courses allowed during student teaching! |                   |                 |
|   |                   |                 |
| OVERALL total: 131 credit hours                   |                   |                 |

Notes:15 credit hours for the semester before ST and 12 credit hours during ST. MED308 and MED300 are taken concurrently during the LAST semester before a student expects to student teach. MED308 &300 require Instructor permission. Email the instructor during registration period to ask for permission. To be eligible students must have completed MED200 and MED307 as well as at least 3 more credits from EXE100, EDU416, EDU417, SPF303, and/or SPF403, and have at least a 2.5 GPA for these professional courses. Students must also have completed at least 30 credits of their mathematics courses with at least a 2.75 GPA in those courses. Note that GPAs for professional courses and mathematics courses are calculated separately. See Excel Sheet for 7-12 Math Education Majors at <a href="http://math.buffalostate.edu/math/StudentInfo/forms.html">http://math.buffalostate.edu/math/StudentInfo/forms.html</a> for more details. MED308 & MED300 currently requires students to keep their M-F mornings free until 10:00 am off-campus; plan for travel to & return to campus.