**Requirements for Teachers of Mathematics, Grades 5-12** (updated May 2023)

*Mathematics Major, Secondary Education Minor*

**Required Mathematics Courses** (40 credits)

MATH 119 Calculus I (4 credits) (every semester) **[AS, M1]**

MATH 120 Calculus II (4 credits) (every semester) **[AS, M1]**

MATH 239 Linear Algebra (4 credits) (every semester) **[AS]**

MATH 304(formerly 241) Foundations and Structures of Mathematics (4 credits) (every semester) **[AS, T3]**

MATH 331 Algebraic Structures (4 credits) (offered spring and fall of even years)

MATH 333 Geometry I (4 credits) (offered as an ILP)

MATH 343 Analysis I (4 credits) (offered spring and fall of odd years)

MATH 345 Mathematical Statistics (4 credits) (offered fall only)

Plus **8 additional elective credits** in Mathematics:

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Additionally, **encouraged** (not required):

* Grading assistantship for a MATH 124 professor
* Teaching assistantship for a Calculus professor

**Foundational Education Courses Required for Licensure** (45-47 credits)

EDUC 111 Introduction to Teaching and Learning in a Diverse World **[CI, EX]** (4 credits)

EDUC 203 Human Growth and Development (4 credits) **[SW, J1]** Pre-req: EDUC 111

EDUC 213 Clinical Experience 5-12/K-12 (1 or 2 credits)

* Pre-req: EDUC 111 and First-Year Teacher Shadow

\_\_\_\_\_\_\_\_EDUC 305 Human Exceptionalities (1 credit) Pre-req: EDUC 203

\_\_\_\_\_\_\_ EDUC 352 Teaching Reading in the Middle/Secondary Classroom (1-2 credits)

EDUC 355C Math Pedagogy 9-12 (4 credits) (**Fall, even years only**)

* Acceptance to the 5-12 Education Program

EDUC 358D Middle Level Literacy and Pedagogy in Math (4 credits) (**Fall only**)

* Pre-req: Acceptance to the 5-12 Education Program.

EDUC 359 Issues in Education K-12 (1 credit) (Take semester prior to student teaching.)

* Pre-req: Unconditional acceptance to the Education Program

EDUC 379A Educ Psychology(4 credits) **[SW, QR, TF]** Pre-req: EDUC 111, taken with pedagogy course

* Pre-req for non-Educ majors is Sophomore standing and CI

EDUC 390 Ethics in Human Relations **[CS]** (4 credits)

* Pre-req: EDUC 379A and acceptance to the 5-12 Education Program

\_\_\_\_\_\_\_\_MTLE Content and Pedagogy Exams

*Capstone Experience* Pre-req: successful completion of all requirements

EDUC 362 Student Teaching 5-12 (16 credits)

* Pre-req: All required major and minor courses and requirements

**Even Fall Semesters:**

* Math 239 Linear Algebra
* Math 241 or 304 Foundations and Structures of Mathematics
* Math 305 Multivariable Calculus
* Math 315 Operations Research
* Math 331 Algebraic Structures I
* Math 340 Topics in Advanced Mathematics
* Math 345 Mathematical Statistics I
* Math 395 Capstone

**Odd Spring Semesters:**

* Math 239 Linear Algebra
* Math 241 or 304 Foundations and Structures of Mathematics
* Math 322 Combinatorics / Graph Theory
* Math 332 Algebraic Structures II
* Math 337 Differential Equations
* Math 341 Fourier Series and Boundary Value Problems
* Math 343 Analysis I
* Math 346 Mathematical Statistics II
* Math 395 Capstone

**Odd Fall Semesters:**

* Math 239 Linear Algebra
* Math 241 or 304 Foundations and Structures of Mathematics
* Math 305 Multivariable Calculus
* Math 339 Mathematical Modeling
* Math 343 Analysis I
* Math 345 Mathematical Statistics I
* Math 395 Capstone

**Even Spring Semesters:**

* Math 239 Linear Algebra
* Math 241 or 304 Foundations and Structures of Mathematics
* Math 318 Applied Statistical Models
* Math 331 Algebraic Structures I
* Math 337 Differential Equations
* Math 338 Numerical Analysis
* Math 340 Topics in Advanced Mathematics
* Math 348 Complex Analysis
* Math 395 Capstone

Independent Learning Project:

* Math 333 Geometry