BACHELOR OF ARTS IN MATHEMATICS
WITH A MATHEMATICS EDUCATION MAJOR

Requirements for Admission into the Major:

1. Completion of 60 hours
2. Completion of all UCC requirements
3. Minimum 2.5 GPA
4. Students in the major must pass all four parts of the General Knowledge Test prior to admission into the degree program.

Curricular Requirements of the Degree

Total number of hours: **120**

**UCC courses:** 38/39 hours

**Common Pre-requisites:**

- **Quantitative Reasoning:**
  - MAC 2311 Calculus I 4
  - MAC 2312 Calculus II 4
- **Physical Sciences:**
  - PHY 2048 & 2048L Physics with Calculus I & Lab 5
    OR
    - PHY 2049 & 2049L Physics with Calculus II & Lab 5
    OR
    - CHM 1045 & 1045L General Chemistry I & Lab 4
    OR
    - CHM 1046 & 1046L General Chemistry I & Lab 4
- **Life Sciences:**
  - BSC 1010 & 1010L General Biology I & Lab 4
  OR
  - BSC 1011 & 1011L General Biology II & Lab 4

**Recommended:**

- Social Inquiry: DEP 2000 Human Growth and Development 3

**Other UCC courses:** 19 additional hours

* Courses suggested above satisfy both UCC and the Math/Stat department’s science requirement. The BA in Mathematics requires completion of two of the following courses with accompanying labs (BSC 1010, BSC 1011, CHM 1045, CHM 1046, PHY 2048, PHY 2049)

**Other Common Pre-Requisites:** 10/11 hours

- MAC 2313 Multivariable Calculus 4
- MAP 2302 Differential Equations 3
- COP 2210 Introduction to Programming 4
  OR
  - COP 2250 Programming in Java 3
  OR
  - COP 2270 C for Engineers 3

**Additional Lower Division Courses:** 3 hours

- MAD 2104 Discrete Mathematics 3

**Mathematics Coursework:** 27 hours

- MAE 3893 Mathematics Education Seminar 1
- MAE 3894 Early Teaching Experience 1
- MAS 3105 Linear Algebra 3
- MHF 3404 History of Mathematics 3
- MAA 3200 Introduction to Advanced Mathematics 3
- MAP 3103 Mathematics Modeling 3
MAP 3103L  Mathematics Modeling Lab    1
MAS 4203  Number Theory        3
MAT 4510  Problem Solving Seminar  3
MTG 3212  College Geometry      3
STA 3163  Statistical Methods I  3

OR

STA 4321  Intro to Mathematical Statistics I  3

College of Education Coursework: 28 hours

MAE 4393  Nature of Math and Science  3
MAE 4394  Perspectives on Math and Science Education \(^{(GL)}\)  3
RED 4325  Subject Area Reading \(^{f}\)  3
TSL 4324  ESOL for Content Area Teachers \(^{(GL)}\)  3
MAE 3651  Learning Mathematics with Technology  3
MAE 4330  Teaching and Learning Secondary Mathematics  4
MAE 4942  Student Teaching \(^{f}\)  9

\(^{f}\) These courses require field experience. Please speak to your advisor regarding the requirements for field experiences.

Additional Electives: The balance of the 120 credit hour requirement for graduation should be chosen in consultation with the student’s departmental and/or teacher preparation advisor(s).

Other Arts and Sciences Requirements:
1. A minimum of 120 semester hours in acceptable coursework is required.
2. At least half of the upper division credits in any major must have been taken in at FIU.
3. In the last 60 semester hours of enrollment, students must earn nine semester hours of elective credits through coursework outside the major, six of which are to be taken outside the department sponsoring the program.
4. Students must earn a grade of \(C\) or higher in all courses required for the major. A grade of \(C-\) or lower is not acceptable in any required course.
5. Of the total number of hours submitted for graduation, a minimum of 48 semester hours must be in upper division courses.
6. Students must demonstrate competency in a foreign language or in American Sign Language at the level of the second semester of a college language sequence. (High school courses cannot be used to fulfill this requirement.) This requirement may be met by successfully completing with a grade of \(C\) or better (\(C-\) does not count): a) the second semester of a two-semester sequence basic language course or b) any second-year or third-year foreign language course. This requirement may also be fulfilled by presenting acceptable scores in the Advanced Placement Exam, the SAT II, the CLEP exam, or other approved instruments. Students should consult their advisors for more specific information.
7. One- and two-credit physical activity courses (with the prefixes PEL, PEM, PEN) cannot be included as part of the hours needed for graduation.

Additional Graduation Requirements:
All majors are required to meet the following requirements before they can graduate from this teacher education program:

1. Have an overall GPA of 2.5
2. Successfully demonstrate all the Florida Educator Accomplish Practices at the pre-professional level. This is done throughout your coursework in the College of Education.
3. Pass the FTCE General Knowledge, Professional Educator, and Subject Area exams prior to graduation.