**FALL 2021**

**Math Teaching 5-year Urban ELE/ECE programs guide** (Calculus)

(To be used in conjunction with advising and sequence sheets offered in your Education major)

All Math Teaching majors will be required to take a minimum of 13 MAT/STA course units and an orientation to the major. The 13 course units will consist of 12 required courses and one option:

MAT 099/Orientation to Mathematics and Statistics 0 course unit

MAT 105/Math Structures and Algorithms for Educators I 1 course unit

MAT 127/Calculus A (Prerequisite: PreCalculus) 1 course unit

MAT 128/Calculus B 1 course unit

MAT 200/Proof Writing through Discrete Mathematics 1 course unit

MAT 205/Linear Algebra 1 course unit

MAT 229/Multivariable Calculus 1 course unit

MAT 255/Perspectives on the Development of Mathematics1 course unit

MAT 301/Number Theory 1 course unit

MAT 305/Abstract Algebra 1 course unit

MAT 310/Real Analysis 1 course unit

MAT 351/Geometry 1 course unit

STA 216/Statistical Inference and Probability 1 course unit

one MAT/STA option which can be any MAT/STA

course at the 300/400 level (see department website) 1 course unit

**SUGGESTED MATH COURSE SCHEDULE**

FRESHMAN YEAR UNITS

(FALL)

MAT 099 Orientation for Math/Stat Majors 0

MAT 127 Calculus A (LL)1 1

MAT 105 Mathematical Structures and Algorithms for Educators I 1

(SPRING)

MAT 128 Calculus B 1

MAT 200 Proof Writing through Discrete Mathematics 1

SOPHOMORE YEAR

(FALL)

MAT 229 Multivariable Calculus 1

(SPRING)

STA 216 Statistical Inference & Probability (Spring only) 1

MAT 205 Linear Algebra 1

JUNIOR YEAR

(FALL)

MAT 301 Number Theory 1

(SPRING)

MAT 255 Perspectives on the Development of Math (Spring only) MAT 305 Abstract Algebra 1

SENIOR YEAR

(FALL)

MAT 351 Geometry 1

MAT 310 Real Analysis 1

(SPRING)

MAT/STA Mathematics/Statistics Option\*  1

\*See department website for MAT/STA options

1Placement based on SAT/ACT scores or placement test. See department website.

Note: If your program doesn’t allow in any one year for the number of courses we recommend to be taken in that year, courses can be postponed to the following year. Please keep in mind the following requirements:

* Discrete mathematics is a prerequisite for most upper level courses so it should be taken in the freshman year or as soon as possible thereafter.
* Calculus A is a prerequisite for Calculus B and Calculus B is a prerequisite for Multivariable Calculus.
* Multivariable Calculus is a prerequisite for Geometry.
* Linear Algebra is a prerequisite for Abstract Algebra. We also recommend that you take Number Theory before taking Abstract Algebra.

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