Department of Mathematics and Computer & Information Science

Adolescence Education: Mathematics (7-12)

Bachelor of Science (B.S.) Degree in Adolescence Education: Mathematics

Total minimum required credits: 120

A. Major Requirements 20 Courses (86 Credits)

1. Mathematics Courses 12 Courses (48 Credits)

MA2310	Calculus and Analytic Geometry I	4
MA2320	Calculus and Analytic Geometry II	4
MA2500	History of Mathematics	4
MA3030	Discrete Mathematics	4
MA3160	Linear Algebra	4
MA3180	Foundations of Second. School Math	4
MA3210	Introduction to Probability & Statistics	4
MA3330	Calculus and Analytic Geometry III	4
MA3520	Transition to Advanced Mathematics	4
MA4510	Geometry	4
MA5120	Abstract Algebra I	4
MA5320	Advanced Calculus I	4

2. Education Courses 8 Courses (38 Credits)

ED3742	Middle Childhood & Adolescence	4
ED3900	Foundations of Education	4
ED4000	Foundations of Special Education	4
ED4230	Reading Across the Curriculum	4
ED4231	Reading Practicum	2
ED4082	Methods & Materials of Teaching Math	4
ED5890	Observation, Practicum, and Seminar	4
ED5900	Student Teaching & Seminar (7-12)	12

B. Mathematics Department Requirements

- A grade of C or higher is needed in all required mathematics courses

- Candidates who desire a Second Major in Mathematics must take: MA4360, CS2510 or CS2521, and one Math elective at 4000 or 5000 level. Transfer students must complete a minimum of 28 credits (7 courses) of the required mathematics courses at or above the 3000 level at Old Westbury.

C. Liberal Education Requirements

D. School of Education Requirements Refer to the School of Education Requirements for Adolescence Education: Mathematics

Reminders: **MA4510** and **ED4082** are offered in Spring and **MA3180** is offered in Fall of even numbered years.

ED4082 & **ED5890** must be taken together

ED4230 & ED4231 are recommended to be taken concurrently

ED3742 is cross listed as **PY3220**

Prerequisite Guide

COURSES	PREREQUISITE Grade of C or better
MA2310 Calculus and Analytic Geometry I	MA2090 Precalculus
MA2320 Calculus and Analytic Geometry II	MA2310 Calculus and Analytic Geometry I
MA2500 History of Mathematics	MA2310 Calculus and Analytic Geometry I
MA3030 Discrete Mathematics	MA2090 Precalculus **or** MA2080 Precalculus for Business & Economics
MA3160 Linear Algebra	MA2310 Calculus and Analytic Geometry I **or** MA2300 Calculus for Business & Economics
MA3180 Foundations of Sec. School Math	MA2320 Calculus and Analytic Geometry II MA3030 Discrete Mathematics MA3160 Linear Algebra
MA3210 Intro. to Probability & Statistics	MA2310 Calculus and Analytic Geometry I **or** MA2300 Calculus for Business & Economics
MA3330 Calculus and Analytic Geometry III	MA2320 Calculus and Analytic Geometry II
MA3520 Transition to Advanced Mathematics	MA2320 Calculus and Analytic Geometry II MA3030 Discrete Mathematics
MA4510 Geometry	MA2320 Calculus and Analytic Geometry II
MA5120 Abstract Algebra I	MA3160 Linear Algebra MA3520 Transition to Advanced Mathematics EC II English Composition II
MA5320 Advanced Calculus I	MA2320 Calculus and Analytic Geometry II MA3520 Transition to Advanced Mathematics EC II English Composition II

MA4100 Number Theory	MA3030 Discrete Mathematics
MA4160 Advanced Linear Algebra	MA3160 Linear Algebra
MA4360 Differential Equations	MA2320 Calculus and Analytic Geometry II
MA4910 Operations Research I	MA3160 Linear Algebra
MA5380 Complex Analysis	MA3330 Calculus and Analytic Geometry III
CS2510 Computer Programming I	MA1020 or MA2090