

Essex County College
Associate of Arts - Mathematics

New Jersey City University
Bachelor of Arts - Mathematics

COURSE NUMBER	COURSE NAME	CREDITS		COURSE NUMBER	COURSE NAME	CREDITS
ENG101	College Composition I	3	=	ENGL101	English Composition I	3
ENG102	College Composition II	3	=	ENGL102	English Composition II	3
MTH121	Calculus with Analytic Geometry I	4	=	MATH192	Calculus and Analytical Geometry I	4
PHY103	General Physics I	4	=	PHYS140+1140	Principles of Physics I - Lecture + Lab	4
PHY104	General Physics II	4	=	PHYS141+1141	Principles of Physics II - Lecture + Lab	4
Select one of the following ECO courses:						
ECO101	Principles of Economics I	3	=	ECON207	Principles of Economics:Macro	3
ECO102	Principles of Economics II	3	=	ECON208	Principles of Economics:Micro	3
1 Society and Human Behavior Elective		3	=	TBD		3
1 Humanistic Perspective Elective (or ENG Lit Course)		3	=	TBD		3
1 Historical Perspective Elective		3	=	TBD		3
Major Requirements:						
MTH122	Calculus with Analytic Geometry II	4	=	MATH193	Calculus and Analytical Geometry II	4
Major Electives						
MTH136	Discrete Mathematics	3	=	CS202	Discrete Structures I	3
MTH141	Mathematical Statistics	3	=	MATH330	Mathematical Statistics I	3
MTH239	Introduction to Linear Algebra	3	=	MATH260	Linear Algebra	3
CSC121	Computer Science I	3	=	CS101	Computer Science I	3
Complete Additional Major Courses:						
ENG105	Technical Writing	3	=	ENGL361	Technical Writing	3
MTH221	Calc with Analytic Geom III	4	=	MATH292	Calculus & Analytical Geometry III	4
MTH222	Differential Equations	4	=	MATH311	Differential Equations for Engineers	4
Select one of the following:						
CSC100	Fundamental of Computer Science	3	=	CS1XX	Computer Science Elective Credits	3
CSC137	Intro to Programming in Java	3	=	CS1XX	Computer Science Elective Credits	3

Total Credits - 60

General Education Waived

Remaining NJCU Courses

COURSE NUMBER	COURSE NAME	CREDITS	COURSE NUMBER	COURSE NAME	CREDITS
Required Courses		6	9 credits must be selected from Mathematics courses numbered 300 or higher.		
MATH 192	Calculus and Analytic Geometry I	0 *	MATH307	Finite Mathematics	3
MATH 193	Calculus and Analytic Geometry II	0 *	MATH320	Modern Geometry I	3
MATH 260	Linear Algebra	0 *	MATH321	Modern Geometry II	3
MATH 292	Calculus & Analytical Geometry III	0 *	MATH331	Mathematical Statistics II	3
MATH 295	Survey of Modern Mathematics	3	MATH350	Elements of Numerical Analysis	3
MATH 311	Differential Equations for Engineers	0 *	MATH380	Real Analysis	3
MATH 330	Mathematical Statistics I	0 *	MATH385	Reading in Mathematics	3
MATH 370	Abstract Algebra	3	MATH407	Teaching Mathematics in Secondary Schools	3
			MATH410	History of Mathematics	3
			MATH430	Topology	3
			MATH440	Number Theory	3
			MATH445	Complex Variables	3
			MATH450	Advanced Calculus I	3
			MATH451	Advanced Calculus II	3
			MATH482	Mathematics in Junior High School	3
			MATH501	Mathematics Content PRAXIS Review	1
			MATH503	Computers in Mathematics	3
			MATH508	Professionalized Subject Matter in Arithmetic	3
			MATH510	Professionalized Subject Matter in Algebra	3
			MATH511	Professionalized Subject Matter in Middle School Mathematics	3
			MATH512	Professionalized Subject Matter in Geometry	3
			MATH514	Professionalized Subject Matter in Pre-Calculus Mathematics	3
			MATH515	Math Manipulatives I	3
			MATH516	Mathematics Manipulative II	3
			MATH517	Calculators in the K-8 Classroom	3
			MATH518	Calculators in the Secondary Classroom	3
			MATH526	Algorithmic Number Theory	3
			MATH531	Numerical Analysis	3
			MATH536	Mathematical Modeling	3
			MATH540	Graph Theory	3
			MATH598	Mathematical Princ. of Computer Graphics	3

Free Elective Courses 45

NJCU Recommends enrolling in a minor program or a double major

Notes:

* This course will transfer