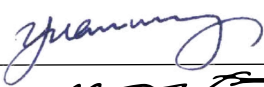
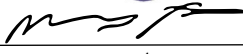
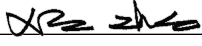


 FLORIDA ATLANTIC UNIVERSITY	NEW/CHANGE PROGRAM REQUEST		UGPC Approval _____
	Graduate Programs		UFS Approval _____
	Department		Banner _____
	College		Catalog _____
Program Name	New Program*	Effective Date	
	Change Program*	(TERM & YEAR)	
Please explain the requested change(s) and offer rationale below or on an attachment.			
*All new programs and changes to existing programs must be accompanied by a catalog entry showing the new or proposed changes.			
Faculty Contact/Email/Phone	Consult and list departments that may be affected by the change(s) and attach documentation		
Approved by			Date
Department Chair 			10/17/2023
College Curriculum Chair 			10/23/2023
College Dean 			10/23/2023
UGPC Chair _____			_____
UGC Chair _____			_____
Graduate College Dean _____			_____
UFS President _____			_____
Provost _____			_____

COMBINED PROGRAMS

MATHEMATICS

BACHELOR OF SCIENCE (B.S.) TO MASTER OF SCIENCE (M.S.) COMBINED PROGRAM

(Minimum of 150 credits required)

This accelerated, five-year program leads to both Bachelor of Science (B.S.) and a Master of Science (M.S.) degrees. The combined degree program is 150 credits: 120 credits for the undergraduate degree and 30 for the master's degree, with a maximum of 12 credits of graduate coursework used to satisfy both degrees. Once admitted into the program, students shall follow the suggested course sequence. To allow for maximum flexibility in career aspirations, students may select from five concentrations.

- Pure Mathematics
- Applied Analysis
- Biostatistics
- Cryptology and Information Security
- Financial Mathematics

Once admitted into the program, students shall follow the suggested course sequence within a single concentration. The baccalaureate degree will be conferred before the master's degree.

Students must maintain a GPA of 3.0 in upper-division and graduate courses. Students interested in the combined B.S./M.S. should consult with the graduate advisor before taking upper-division mathematics coursework to ensure that their coursework will apply toward the combined degree. Students must ~~take the GRE and~~ apply for admission to candidacy by the end of their junior year.

Prerequisite Coursework for Transfer Students

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the Intellectual Foundations Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also

complete the prerequisite courses for their major as outlined in the [Transition Guides](#).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

B.S. Curriculum

Students must complete the requirements of the B.S. degree in Mathematics. Twelve graduate credits will count toward both B.S. and M.S. degree requirements. Students must select 12 credits from the graduate courses within a single concentration.

Pure Mathematics Concentration

Choose four courses from the following list.

Introductory Analysis 1	MAA 5228
Introductory Analysis 2	MAA 5229
Linear Algebra	MAS 5145
Introductory Abstract Algebra 1	MAS 5311
Introductory Abstract Algebra 2	MAS 5312

Applied Analysis Concentration

Choose four courses from Lists A and B, with at least one from List A.

List A

Introductory Analysis 1	MAA 5228
Linear Algebra	MAS 5145
Computational Mathematics	MAD 6403
Numerical Analysis	MAD 6407
Ordinary Differential Equations	MAP 6336
Partial Differential Equations	MAP 6345

List B

Introduction to Data Science	CAP 5768
Multivariable Analysis	MAA 5105
Introductory Analysis 2	MAA 5229
Real Analysis	MAA 6306
Complex Analysis 1	MAA 6406
Introduction to Dynamical Systems and Chaos 1	MAP 6211
General Topology 1	MTG 6313
Regression Analysis	STA 6236

Mathematical Statistics	STA 6326
Mathematical Probability	STA 6444
Applied Time Series Analysis	STA 6857

Biostatistics Concentration

Choose four courses from Lists A and B, with at least one from List A.

List A

Linear Algebra	MAS 5145
Biostatistics	STA 5195
Mathematical Statistics	STA 6326
Mathematical Probability	STA 6444

List B

Introduction to Data Science	CAP 5768
Multivariable Analysis	MAA 5105
Numerical Analysis	MAD 6407
Linear Algebra	MAS 5145
Statistical Computing	STA 6106
Survival Analysis	STA 6177
Biostatistics - Longitudinal Data Analysis	STA 6197
Applied Statistical Methods	STA 6207
Regression Analysis	STA 6236
Topics in Probability and Statistics (Stochastic Calculus)	STA 6446
Applied Time Series Analysis	STA 6857

Cryptography and Information Security Concentration

Choose four courses from Lists A and B, with at least one from List A.

List A

Introduction to Cryptology and Information Security	MAD 5474
Cryptanalysis	MAD 6478
Coding Theory	MAD 6607
Linear Algebra	MAS 5145

List B

Introductory Analysis 1	MAA 5228
Introductory Analysis 2	MAA 5229
Enumerative Combinatorics	MAD 6206
Graph Theory	MAD 6307
Computational Mathematics	MAD 6403
Cryptography	MAD 6477
Introductory Abstract Algebra 1	MAS 5311

Introductory Abstract Algebra 2	MAS 5312
Algebraic Number Theory	MAS 6215
Algebraic Curves	MAS 6315
Commutative Algebra	MAS 6333
Topics in Algebra	MAS 6396
Special Topics	MAS 6933
Mathematical Statistics	STA 6326
Mathematical Probability	STA 6444

Financial Mathematics Concentration

Choose four courses from Lists A and B, with at least one from List A.

List A

Introductory Analysis 1	MAA 5228
Linear Algebra	MAS 5145
Mathematical Statistics	STA 6236
Mathematical Probability	STA 6444

List B

Multivariable Analysis	MAA 5105
Introductory Analysis 2	MAA 5229
Statistical Computing	STA 6106
Applied Statistical Methods	STA 6207
Regression Analysis	STA 6236
Topics in Probability and Statistics	STA 6446
Applied Time Series Analysis	STA 6857
Directed Independent Study	STA 6907

The 12 graduate credits may be counted as upper-division math electives or as a substitute for a required course as follows:

MAA 5228 may be substituted for MAS 3156

MAA 6406 may be substituted for MAA 4402

MAS 5145 may be substituted for MAS 4107

MAS 5311 may be substituted for MAS 4301

M.S. Curriculum

Students complete all requirements for the M.S. degree with major in Mathematics.