

Baruch COLLEGE

BS IN FINANCIAL MATHEMATICS

43 Pathways Credits

9 Pre-Weissman Credits

21 Program Pre-requisite Credits

43 Major Credits

4 Elective Credits

The degree map is a suggested term-by-term sample course schedule. Use the Degree Map along with DegreeWorks as tools to assist you in planning your academic path to graduation. You should customize your Degree Map to fit your individual needs.

Career related information can be found on the last page.

NOTE: A minimum 120 credits is required for the Bachelor of Science in Financial Mathematics (BSFM) degree. **A minimum of 90 liberal arts credits is required for the BSFM.** FYS 1000 is a requirement for the first term at Baruch College and **MUST** be completed in order to graduate.

FALL

ENG 2100 Writing I ENGLISH COMPOSITION I	3 CR
MTH 2610 Calculus I MATH & QUANTITATIVE REASONING	4 CR
Flexible Core Course PATHWAYS REQUIREMENT	3 CR
Flexible Core Course PATHWAYS REQUIREMENT	3 CR
Flexible Core Course PATHWAYS REQUIREMENT	3 CR
FYS 1000 First Year Seminar DEGREE REQUIREMENT	0 CR

FRESHMAN

SPRING

ENG 2150 Writing II ENGLISH COMPOSITION II	3 CR
Flexible Core Course PATHWAYS REQUIREMENT	3 CR
MTH 3010 Calculus II PROGRAM PRE-REQUISITE REQUIREMENT	4 CR
Foreign Language I 1st Semester of Foreign Language PRE-WEISSMAN REQUIREMENT	3 CR
Flexible Core Course PATHWAYS REQUIREMENT	3 CR

16 FALL CREDITS + 16 SPRING CREDITS = 32 CREDITS

FALL

MTH 3050 Multi-Variable & Vector Calculus PROGRAM PRE-REQUISITE REQUIREMENT	4 CR
Foreign Language II 2nd Semester of Foreign Language PRE-WEISSMAN REQUIREMENT	3 CR
ECO 1001 Microeconomics PROGRAM PREREQUISITE TO ENROLL IN FIN 3000	3 CR
Liberal Arts Elective ELECTIVE REQUIREMENT	4 CR
COM 1010 Speech Communication PRE-WEISSMAN REQUIREMENT	3 CR

SOPHOMORE

SPRING

ECO 1002 Macroeconomics PROGRAM PREREQUISITE TO ENROLL IN FIN 3000	3 CR
MTH 4000 Bridge to Higher Mathematics PROGRAM PRE-REQUISITE REQUIREMENT	4 CR
ACC 2101 Principles of Accounting PROGRAM PREREQUISITE TO ENROLL IN FIN 3000	3 CR
MTH 3300 Algorithms, Computers, & Prog. I MAJOR REQUIREMENT	3 CR
MTH 4100 Linear Algebra MAJOR REQUIREMENT	3 CR

32 PRIOR CREDITS + 17 FALL CREDITS + 16 SPRING CREDITS = 65 CREDITS

*Free Electives can be any business, liberal arts, or public affairs course

FALL

SPRING

JUNIOR

**ENG 2800, CMP 2800,
ENG 2850, or CMP 2850** 3 CR
Great Works of Literature I or II
PATHWAYS COLLEGE OPTION REQUIREMENT

MTH 4115 (offered in Spring only) 4 CR
Numerical Methods for Differential
Equations in Finance
MAJOR REQUIREMENT

Liberal Art Minor Course 3 CR
PATHWAYS COLLEGE OPTION REQUIREMENT

FIN 3000 3 CR
Principles of Finance
MAJOR REQUIREMENT

MTH 4120 4 CR
Introduction to Probability
MAJOR REQUIREMENT

MTH 4125 4 CR
Intro to Stochastic Processes
MAJOR REQUIREMENT

MTH 4300 3 CR
Algorithms, Computers, and Prog. II
MAJOR REQUIREMENT

Liberal Art Minor Course 3 CR
PATHWAYS COLLEGE OPTION REQUIREMENT

MTH 4130 4 CR
Mathematics for Statistics
MAJOR REQUIREMENT

65 PRIOR CREDITS + 13 FALL CREDITS + 18 SPRING CREDITS = 96 CREDITS

FALL

SPRING

SENIOR

FIN 3610 3 CR
Corporate Finance
MAJOR REQUIREMENT

MTH 4600 4 CR
Data Analysis and Simulation
MAJOR REQUIREMENT

MTH 4500 4 CR
Introductory Financial Mathematics
MAJOR REQUIREMENT

MTH 5500 4 CR
Stochastic Calculus for Finance
MAJOR REQUIREMENT

Life and Physical Sciences 3 CR
Natural Sciences Lab Course
PATHWAYS REQUIREMENT

Liberal Art Minor Capstone 3 CR
PATHWAYS COLLEGE OPTION REQUIREMENT

Scientific World 3 CR
Natural Sciences Lecture Course
PATHWAYS REQUIREMENT

96 PRIOR CREDITS + 13 FALL CREDITS + 11 SPRING CREDITS = 120 CREDITS

*Free Electives can be any business, liberal arts, or public affairs course

THINGS TO TAKE NOTE OF

General Notes

- Be sure to consult with the Math Department faculty advisor regarding specific major requirements (VC 6-230). Major courses must be approved by the faculty advisor.
- You must complete a liberal arts minor as part of the College Option requirement to graduate
- Consult with the Undergraduate Bulletin to check course descriptions for prerequisites and restrictions: <https://www.baruch.cuny.edu/bulletin/>

The following subjects are considered liberal arts and can be taken at any level to satisfy liberal arts electives:

AAS	ANT	ART	BIO	BLS	CHM	COM
CMP	ECO	ENG	ENV	FLM	FPA	GLS
HED	HIS	HSP	IDC	JRN	LACS	LIB
LTS	MSC	MTH	NMA	PHI	PHY	POL
PSY	REL	SOC	THE	WSM	ALL MODERN LANGUAGES	

The following courses are **not** considered liberal arts:

ART 5010	ART 5011	COM 4059	ECO 5010	ECO 5011	FPA 5070	FPA 5071	HED 1810
HED 2920	MSC 2061	MSC 2062	MSC 2063	MSC 2064	MSC 5050	MSC 5051	SOC 4085
SOC 4086	THE 3046	THE 3056	ART/MSC/THE Studio Elective Courses				

Notes about the Major

- A combined GPA of 3.5 or higher in MTH 2610 (Calculus I) and MTH 3010 (Calculus II) is required to complete the pre-requisite requirement for the major.
- Students must pass MTH 3010 with a B+ or higher in order to take MTH 3050 (Multi-Variable and Vector Calculus).
- To gain official admission to the program, students must complete MTH 3050 and MTH 4000 (Bridge to Higher Mathematics) with a minimum grade of B in each course.
- Completion of MTH 4120 (Introduction to Probability) satisfies the STA 2000 (Business Statistics) prerequisite for FIN 3000.
- The BSFM is the only Bachelor of Science (BS) Program offered through the Weissman School of Arts and Sciences and follows the Weissman base curriculum.

Career Exploration

5 Career Options for Financial Mathematics Majors

1. Data Analyst
2. Financial Consultant
3. Programmer
4. Research Scientist
5. Public Policy Analyst

5 Top Skills for Financial Mathematics Majors

1. Problem Solving
2. Technical/Computational
3. Analysis
4. Communication
5. Result Projection & Forecasting

[Additional Career Information for Financial Mathematics Majors](#)