

*(For students admitted in 2021-22 under the 4-year degree)*

## **BSc in Quantitative Finance**

In addition to the requirements of their major programs, students are required to complete the University and School requirements for graduation. For details please refer to the respective sections on this website.

Unless approved by the Dean or the Dean's designate, students are not allowed to reuse courses that are counted towards the University Common Core or the School Requirements to also fulfill the Major or Option requirements.

Students may use no more than 6 credits earned from courses offered in self-paced online delivery mode to satisfy the graduation requirements of a degree program. This 6-credit limit does not apply to credits obtained through the credit transfer procedures of the University.

For students graduating with an additional major, they must take all the requirements specified for that major, within which they must complete at least 20 single-counted credits. These 20 credits cannot be used to fulfill any other requirements for graduation except for the 120-credit degree requirement.

### ***Major Requirements***

#### **Required Course(s)**

			<b>Credit(s) attained</b>
FINA	3103	Intermediate Investments	3
FINA	3203	Derivative Securities	3
FINA	3303	Intermediate Corporate Finance	3
FINA	3810	Bloomberg Market Concepts Certification	0
FINA	4803	Quantitative Trading	3
ECON	3334	Introduction to Econometrics	4
ISOM	3230	Business Programming in VBA	3
MATH		Note: MATH 1014 <u>OR</u> MATH 1024 (Students taken MATH 1020 to fulfill the School Requirements may be exempted from this requirement)	0-3
	MATH 1014	Calculus II	3
	MATH 1024	Honors Calculus II	3
MATH		Note: MATH 2011 <u>OR</u> MATH 2023	3-4
	MATH 2011	Introduction to Multivariable Calculus	3
	MATH 2023	Multivariable Calculus	4

## Elective(s)

			<b>Minimum credit(s) required</b>
QFIN		Restricted Electives (Courses from the specified elective list, of which at least 3 credits from Area A, at least 6 credits from Area B, and at least 9 credits from Area C)	18
Area A: Finance			
	FINA	Any FINA courses at 3000- or 4000-level	
Area B: Programming and Data Analysis			
	ISOM	3360 Data Mining for Business Analytics	3
	ISOM	3370 Big Data Technologies	3
	COMP	2011 Programming with C++	4
	COMP	2012 Object-Oriented Programming and Data Structures	4
	COMP	2012H Honors Object-Oriented Programming and Data Structures	5
	COMP	3211 Fundamentals of Artificial Intelligence	3
	COMP	4211 Machine Learning	3
	COMP	4221 Introduction to Natural Language Processing	3
	COMP	4331 Data Mining	3
	COMP	4332 Big Data Mining and Management	3
	COMP	4471 Deep Learning in Computer Vision	3
	RMBI	4310 Advanced Data Mining for Risk Management and Business Intelligence	3
Area C: Quantitative Skills (No more than 1 course within the same course group of ISOM 4520 / RMBI 4210 may be counted towards the elective requirement)			
	ECON	4304 Time Series Econometrics and Business Forecasting	4
	ISOM	3540 Introduction to Probability Models	3
	ISOM	4520 Statistics for Financial Risk Management	4
	ISOM	4530 Statistical Analysis of Financial Data in R/S-plus	4
	ISOM	4540 Time Series Analysis and Forecasting	4
	MATH	2111 Matrix Algebra and Applications	3
	MATH	2121 Linear Algebra	4
	MATH	2131 Honors in Linear and Abstract Algebra I	4
	MATH	2350 Applied Linear Algebra and Differential Equations	3
	MATH	2351 Introduction to Differential Equations	3
	MATH	2352 Differential Equations	4
	MATH	2421 Probability	4
	MATH	2431 Honors Probability	4
	MATH	3423 Statistical Inference	3
	MATH	4511 Quantitative Methods for Fixed Income Derivatives	3
	MATH	4512 Fundamentals of Mathematical Finance	3
	RMBI	4210 Quantitative Methods for Risk Management	3