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

BSc in Risk Management and Business Intelligence

Students taking the BSc Program in Risk Management and Business Intelligence as their first major are exempted from the School Requirements. However, they are still required to complete the University requirements in addition to the major requirements for graduation. For details please refer to the respective sections on this website.

Some courses can be used to fulfill both Major and University Common Core Requirements. Students may reuse a maximum of 6 credits of these courses to count towards both Requirements.

Students may use no more than 6 credits earned from courses offered in pure 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)

				Credit(s) attained	
RMBI	2001	Academic and Professional Development in Risk Management and Business Intelligence		0	
RMBI	3110	Introduction to Risk Management and Business Intelligence		3	
RMBI	4210	Quantitative Methods for Risk Management		3	
RMBI	4310	Advanced Data Mining for Risk Management and Business Intelligence		3	
RMBI	4980	Risk Management and Business Intelligence Capstone Project I		4	
RMBI	4990	Risk Management and Business Intelligence Capstone Project II		4	
ACCT	2010	Principles of Accounting I		3	
ECON		Note: ECON 2103 OR ECON 2113		3	
ECON	2103	Principles of Microeconomics	3		
ECON	2113	Microeconomics	3		
ECON	2123	Macroeconomics		3	
FINA	2303	Financial Management		3	
ISOM	2010	Introduction to Information Systems		3	
ISOM	2700	Operations Management		3	
ISOM/COMP		Note: ISOM 3360 OR COMP 4331		3	
ISOM	3360	Data Mining for Business Analytics	3		
COMP	4331	Data Mining	3		
ISOM/COMP		Note: ISOM 3370 OR COMP 4651		3	
ISOM	3370	Big Data Technologies	3		
COMP	4651	Cloud Computing and Big Data Systems	3		

ISOM	3540	Introduction to Probability Models	3
ISOM	3710	Business Modeling and Optimization	4
MGMT	2010	Business Ethics and the Individual	2
MGMT	2130	Business Ethics and Social Responsibility	2
COMP		Note: COMP 1021 OR COMP 1022P	3
COMP	1021	Introduction to Computer Science	3
COMP	1022P	Introduction to Computing with Java	3
LABU	2051	Business Case Analyses I	2
LABU	2052	Business Case Analyses II	2
MATH		Note: [(MATH 1012 OR MATH 1013 OR MATH 1023) AND (MATH 1014 OR MATH 1024)] OR [MATH 1020]	4-7
MATH	1012	Calculus IA	4
MATH	1013	Calculus IB	3
MATH	1014	Calculus II	3
MATH	1020	Accelerated Calculus	4
MATH	1023	Honors Calculus I	3
MATH	1024	Honors Calculus II	3
MATH	2011	Introduction to Multivariable Calculus	3
MATH		Note: MATH 2111 OR MATH 2121	3-4
MATH	2111	Matrix Algebra and Applications	3
MATH	2121	Linear Algebra	4
MATH	2411	Applied Statistics	4

Elective(s)

			Minimum credit(s) required
RMBI/FINA/ ISOM/IEDA/ MATH		Risk Management and Business Intelligence Electives (Courses from the specified electives list, of which at least 1 course should be taken from each area and at least 6 credits at 3000-level or above)	9
Area 1: Risk Management			
RMBI	4220	Life Contingencies Models and Insurance Risk	3
FINA	3103	Intermediate Investments	3
FINA	3203	Derivative Securities	3
FINA	4103	Financial Markets Trading and Structure	3
ISOM	4520	Statistics for Financial Risk Management	4
ISOM	4540	Time Series Analysis and Forecasting	4
ISOM	4840	Financial Service Operations Management	3
IEDA	4510	Systems Risk Management	3
MATH	4427	Loss Models and their Applications	3
MATH	4428	Bayesian Analysis and Credibility Theory	3
MATH	4511	Quantitative Methods for Fixed Income Derivatives	3

MATH	4512	Fundamentals of Mathematical Finance	3
MATH	4514	Financial Economics in Actuarial Science	3

Area 2: Business Intelligence

ISOM	3260	Database Design and Administration	4
ISOM	4720	Simulation in Business and Management	3
COMP	2011	Programming with C++	4
COMP	2012	Object-Oriented Programming and Data Structures	4
COMP	3311	Database Management Systems	3
COMP	4221	Introduction to Natural Language Processing	3
COMP	4321	Search Engines for Web and Enterprise Data	3
COMP	4462	Data Visualization	3
COMP	4641	Social Information Network Analysis and Engineering	3

Students may opt to graduate with or without an option. Students who take an option MUST complete all requirements specified in addition to the major requirements.

Option(s)

Financial Technology Option

Required Course(s)

			Credit(s) attained
ISOM/IEDA		Note: ISOM 3350 <u>OR</u> IEDA 4500	3
ISOM	3350	FinTech and Cryptoventures	3
IEDA	4500	Engineering Foundations of FinTech	3

Elective Course(s)

			Minimum credit(s) required
RMBI/ISOM/ COMP/MATH		Financial Technology Electives (Courses from the specified elective list. Courses taken as Major Electives may not be counted toward this requirement)	6
RMBI	4220	Life Contingencies Models and Insurance Risk	3
ISOM	3000B	Blockchain Entrepreneurship for Social Impact	3
ISOM	3340	Developing AI Applications	1
ISOM	4020	Innovation Management and Technology Entrepreneurship	3
ISOM	4200	Information and Cyber Security Management	3
COMP	3211	Fundamentals of Artificial Intelligence	3
COMP	3632	Principles of Cybersecurity	3
COMP	4221	Introduction to Natural Language Processing	3
COMP	4632	Practicing Cybersecurity: Attacks and Counter-measures	3
COMP	4911	IT Entrepreneurship	3
MATH	4514	Financial Economics in Actuarial Science	3