B.S. IN ACTUARIAL SCIENCE AND FINANCE

The Actuarial Science and Finance degree at Bethel University provides a powerful combination of analytical expertise, financial acumen, and strategic decision-making skills. Students gain a deep understanding of risk management, predictive modeling, probability, statistics, and economics—essential tools for assessing financial uncertainty. Through rigorous coursework and hands-on experience with industry-standard software and programming, students develop technical proficiency in data analysis and financial forecasting. The program also emphasizes teamwork, communication, and ethical leadership, preparing graduates for high-impact careers as actuaries, financial analysts, risk consultants, and other roles where data-driven decision-making is critical. With a strong foundation in both finance and actuarial science, graduates are well-positioned to earn actuarial credentials and excel in a wide range of industries, including insurance, investment management, and corporate finance.

Code	Title	Credits
Major in Actuarial Science and Finance (B.S.)		
BUS 210	Financial Accounting [2]	4
BUS 220	Principles of Marketing	4
BUS 230	Managing Organizations and People	4
BUS 317	Business Analytics	4
BUS 344	Managerial Finance	4
BUS 352	Financial Modeling & Valuation	4
BUS 361	Business Law	2
BUS 440	Capital Markets	4
BUS 470	Finance Seminar	4
COS 111	Introduction to Programming	4
COS 211	Data Structures	4
COS 277	Software Development Fundamentals	4
COS 313	Database Systems	2
ECO 202	Principles of Microeconomics	2
ECO 203	Principles of Macroeconomics	2
MAT 124M	Calculus 1 [1]	4
MAT 125	Calculus 2	4
MAT 211	Linear Algebra	4
MAT 223	Multivariable Calculus	4
MAT 242	Introduction to Proofs	2
MAT 309	Financial Mathematics	3
MAT 330	Probability and Statistics	3
MAT 331	Advanced Probability and Statistics	3
MAT 376	Operations Research	3
Choose one of the following courses:		3-4
BUS 416	Machine Learning and Artificial Intelligence for Business [3]	
COS 334	Data Mining and Machine Learning	

Internship (135+ hours = 3 credits, 180+ hours = 4 credits)		3-4
One Actuarial Examination Successfully Passed		

Code	Title	Credits
Major		88-90
General Education [*]		44-52
Total Credits		**134-140**

[1] Placement at MAT 124M on the Math and Computer Science department placement exam; MAT 121M, concurrent enrollment in MAT 122, or equivalent high school or college course(s) is a prerequisite for this course.

[2] BUS 106 is a prerequisite for this course.

[3] COS 101 is a prerequisite for this course.

[*] Courses whose number is followed by a letter fulfill a General Education requirement.