ACTUARIAL SCIENCE (ASM)

ASM 101 Mathematical Theory of Actuari   3 sem. hrs.
Actuaries focus on using math and statistics to evaluate risk and make strategic decisions. This course covers a range of topics relevant to actuaries, including measurement of interest rates, interest theory, and the pricing of bonds, mortgages, annuities, and other financial instruments. This course will also fully prepare you to successfully take the Society of Actuaries Financial Mathematics (FM) Exam and its equivalents. This online class has optional live sessions. Prerequisite: MATH 210A

ASM 201 Probability for Actuaries   3 sem. hrs.
Actuaries and quantitative professionals deal primarily in probabilities. This course will cover a wide range of topics and introduce you to core probability concepts needed for actuarial and quantitative work. You will be able to apply to concepts of probability to real-world scenarios. This course will also fully cover all content required by the Society of Actuaries P Exam and its equivalents. This online class has optional live sessions. Prerequisites MATH 210A: Calculus I MATH 211: Calculus II MATH 310A: Calculus III

ASM 301 Actuarial Sci & Risk Manag w R   3 sem. hrs.
This course focuses on team-based problem solving in actuarial science & risk management. Students will learn the fundamentals of the R programming language, RStudio and R Markdown, and use these tools to complete a range of projects. Projects vary, but may include bond and loan amortization, analysis of the efficient frontier and the capital asset pricing method, insurance liability & estimates of expected loss. This course culminates in a capstone project that ties together skills from throughout the Actuarial Sciences program. This online class has optional live sessions. Prerequisites MATH 210A: Calculus I MATH 340: Mathematical Theory of Interest