

**MSc in Financial Mathematics**  
**Program Intended Learning Outcomes (PILOs)**

**Program Objectives**

The MSc in Financial Mathematics program prepares students with Science or Engineering backgrounds for rewarding careers in the financial industries. Graduates from this program would fit jobs related to financial product development and pricing (e.g. customized derivatives and insurance contracts), investment decision making and fund management (e.g. asset allocation, portfolio selection), risk management (e.g. risk measurement, stress testing, hedging risk exposure in Forex, and interest rates).

**PILOs**

Upon successful completion of the program, students should be able to:

1. Apply advanced knowledge in probability, statistics, stochastic calculus and numerical methods for financial applications.
2. Demonstrate a broad knowledge of the financial securities as well as practical aspects of risk management.
3. Construct quantitative models for derivative pricing, quantitative trading strategies, risk management, and scenario simulations.
4. Communicate effectively with potential clients and peers.