

# FINANCIAL RISK MANAGEMENT, CERTIFICATE

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Requirements for an undergraduate certificate may be completed at any campus location offering the specified courses for the certificate.

## Certificate Learning Objectives

- **Statistical Methods:** Understand the importance of linear and multiple regression in many business applications. Coverage includes the understanding of the dependent variable in terms of actual, predicted, and average values. MS Excel is used to develop the regression model after basic understanding of the formulas is covered. Significant time is spent interpreting the significance of the global model and each independent variable. Model building is introduced.
- **Assess Market Risk for Investors:** Have a clear understanding and appreciation of a wide variety of risk types including market (systematic) risk, security (diversifiable) risk, psychological risks for investors, and several unique risks for different securities such as fixed-income securities. This class measures risk in terms of standard deviation (and variance) and in terms of beta. The classes explore a few common risk management techniques including diversification and beta-specific strategies.
- **Quantify Risk Management Measures:** Understand and quantify the role of risk management in two key ways. First, students will explore a variety of securities that would allow an investor or firm to hedge different risks and create value with risk management. Second, applied risk management projects ask students to identify firms that could benefit from management strategies.
- **Understand Derivative Instruments:** Understand the entire spectrum of derivatives including those based on fixed-income securities, interest rates, foreign exchange, and equities. Master the basic techniques for the valuation of forwards, futures, swaps, and vanilla options (calls and puts).
- **Value-at-Risk (VaR) Model:** Understand and apply the Value-at-Risk (VaR) model and how it applies to scenarios and real market historical value.