

**Course:** FINA 6522 Intro to Derivatives & Financial Risk Management  
**Credits:** 2 credits  
**Prerequisites:** FINA 6121

## Description

This course provides an introduction to financial derivatives, their valuation, and their use by corporations, investment managers, and financial institutions to manage financial risk. The course makes extensive use of the no-arbitrage principal and the binomial model for options to develop a solid foundation for understanding the value and risks in derivatives markets.

The following topics are covered:

- Payoffs on derivatives contracts such as forward, futures, and options on stocks, commodities, and exchange rates.
- Institutional differences between standardized derivatives that trade on exchanges and customized derivatives that trade in over-the-counter markets.
- Risk management and investment strategies using forwards, futures, and options.
- Economic arguments for and against managing financial risk in corporations.
- Basic statistical tools, such as Value-At-Risk, for measuring financial risk.
- Replicating, valuing, and hedging financial forwards.
- The impact of storage costs, lease rates, and convenience yields on the prices of commodity futures.
- Arbitrage pricing bounds for options.
- Replicating, valuing, and hedging options using the binomial model.
- The risk-neutral approach to valuing options.
- Introduction to the multi-period binomial tree model for valuing options.