

University of Arkansas – Fort Smith  
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### **General Syllabus**

#### **FINN 47703 Derivative Securities and Markets**

Credit Hours: 3

Lecture Hours: 3

Laboratory Hours: 0

**Prerequisite (s):** FINN 37103 Business Finance, admission to the business program or consent of instructor.

**Effective Catalog:** 2024-2025

#### **I. Course Information**

##### **A. Catalog Description**

Studies the risk allocation function of derivative financial securities and markets from the perspective of market users. It includes hedging and trading strategies, pricing relationships, and the roles of government regulations.

#### **II. Student Learning Outcomes**

##### **A. Subject Matter**

Upon successful completion of this course, the student will be able to:

1. Explain how futures, swap, and option contracts are constructed and how they are used for speculation, hedging, and risk management.
2. Contrast the various derivative securities and their market function
3. Justify the roles of pertinent government regulation
4. Illustrate how derivative securities are priced.

##### **B. University Learning Outcomes**

This course enhances student abilities in the following areas:

##### **Analytical Skills**

**Critical Thinking Skills** - Students learn to improve critical thinking and problem-solving skills through an advanced mastery of the technical aspects of economics, finance, mathematics, and statistics. In addition, students learn to recognize the complexity of decision making under uncertainty and risk.

**Quantitative Reasoning** – Students will use numbers, read and analyze data through course exercises, problems, and cases involve drawing inferences from quantitative data and mathematical models. Students analyze and interpret financial statements and industry statistics.

### **III. Major Course Topics**

- A. Introduction to Derivatives
- B. Insurance and Option Combinations
- C. Introduction to Hedging and Risk management
- D. Futures
- E. Swaps
- F. Option Price Properties
- G. Pricing Options: The Binomial Model
- H. The Black-Scholes Model
- I. Black-Scholes and Volatility
- J. Hedging Revisited: Delta and Delta-Gamma Hedging
- K. Exotic (or Non0-Standard) Options