

**Finance 451 – Sec. 002 – Spring Semester
TuTh 4:40-5:55 pm – B312**

INSTRUCTOR: L. Dwayne Barney
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213-E
OFFICE PHONE NUMBER: 208-426-3429
OFFICE HOURS: Tuesday/Thursday: 12:00-1:30, 3:00-4:30 PM

Text: *Fundamentals of Futures and Options Markets: 7th Edition*, by John C. Hull.

Supplement: *Solutions Manual and Study Guide for Fundamentals of Futures and Options Markets.*

Calculator: A financial calculator will be needed to succeed in this course. My recommendation is the HP-12-C. However, any financial calculator should do.

Course Learning Objectives:

- To be able to identify, define and understand the rights and obligations of the parties to a derivative contract.
- To understand the markets where derivative contracts are traded.
- To understand and be able to apply derivative valuation models.
- To understand and be able to evaluate derivative trading strategies.
- To understand and be able to apply risk management strategies with derivative contracts.
- To understand the relationship between the binomial option pricing model and the Black-Scholes pricing model.
- To understand the concept of risk-neutral valuation as it applies to options and futures contracts.

College of Business and Economics Statement of Shared Values

Boise State University upholds the following values as the foundation for a civil and nurturing environment. Campus community members and all who are part of COBE are expected to adhere to the following values.

- **Academic Excellence** – engage in our own learning and participate fully in the academic community's pursuit of knowledge.
- **Caring** – show concern for the welfare of others.
- **Citizenship** – uphold civic virtues and duties that prescribe how we ought to behave in a self-governing community by obeying laws and policies, volunteering in the community, and staying informed on issues.
- **Fairness** – expect equality, impartiality, openness and due process by demonstrating a balanced standard of justice without reference to individual bias.
- **Respect** – treat people with dignity regardless of who they are and what they believe. A respectful person is attentive, listens well, treats others with consideration and doesn't resort to intimidation, coercion or violence to persuade.
- **Responsibility** – take charge of our choices and actions by showing accountability and not shifting blame or taking improper credit. We will pursue excellence with diligence, perseverance, and continued improvement.

- **Trustworthiness** – demonstrate honesty in our communication and conduct while managing ourselves with integrity and reliability.

COBE Core Curriculum Student Learning Goals and Objectives:

Students in this class will learn or practice the following COBE Core Curriculum concepts, methods, and skills:	
1. Understand and apply analytical and disciplinary concepts and methods related to business and economics:	
<input checked="" type="checkbox"/>	1.3. Economics
<input checked="" type="checkbox"/>	1.4. Finance
<input checked="" type="checkbox"/>	1.5. Information Technology Management
<input checked="" type="checkbox"/>	1.6. International environment of business
<input checked="" type="checkbox"/>	1.7. Legal environment of business
<input checked="" type="checkbox"/>	1.10. Mathematics & Statistics
<input checked="" type="checkbox"/>	2.1. Communicate effectively: Write messages and documents that are clear, concise, and compelling
<input type="checkbox"/>	2.2. Communicate effectively: Give oral presentations that use effective content, organization, and delivery
<input checked="" type="checkbox"/>	3. Solve problems, including unstructured problems, related to business and economics
<input type="checkbox"/>	4. Use effective teamwork and collaboration skills
<input checked="" type="checkbox"/>	5. Resolve ethical issues related to business and economics

Schedule:

The anticipated schedule of activities is shown below. The chapters are listed in the order they will be covered. Of course, it may be necessary to somewhat alter the schedule over the course of the semester.

January 17 through February 14: Chapters 1, 9, 10, 11, and 12.

Introduction to options, forward contracts, and futures contracts. Types of options. Call options. Put options. Properties of stock options. Put—Call parity. Options trading strategies. Binomial option pricing model.

Exam 1: February 14

February 16 through March 9: Chapters 13, 14, 15, and 2.

The Black-Scholes option pricing model. Estimating the volatility parameter for use in the Black-Scholes formula. Relationship between the binomial model and the Black-Scholes option pricing model. Employee stock options. Options on stock indices. Options on currencies. Mechanics of futures contracts. Margin requirements. Daily settlement.

Exam 2: March 8

March 13 through April 19: Chapters 3, 4, 5, 6, and 7.

Hedging using futures contracts. Hedging exchange rate risk in international finance. Interest rates and bond pricing. Forward interest rates. Interest rate futures. Bond duration. Interest rate swaps. Currency swaps.

Exam 3: April 19

April 24 through May3: Chapters 16 and 17.

Options on futures contracts. Rates of change in option prices with respect to various parameters. The Greek letters (Delta, Theta, Gamma, Vega and Rho).

Finals Week: Comprehensive Final Exam; Thursday May 10th, 3:30 PM—5:30 PM

Grading:

Your final grade will be determined on the basis of classroom participation, quizzes, two midterm exams, and a comprehensive final exam. When computing your final grade the weights given to each component are as follows:

<u>GRADE COMPONENT</u>	<u>WEIGHT</u>
Classroom Participation	10%
Quizzes	30%
Midterm Exam #1	20%
Midterm Exam #2	20%
Final Exam	20%

Three midterm exams will be given. You will be allowed to drop your low score from the three midterm exams. Thus, two of the midterms will count towards your final grade. **As you get to drop an exam, there will be no makeup exams given.** The only exception to this rule is in the case of university approved absences, where a student will be allowed to take a makeup exam.

Throughout the semester a student will earn a percentage score for each of the components. At the conclusion of the semester the student's final percentage for the course will be calculated by applying the aforementioned weights. Then, the final grade for the course will be determined according to the following scale:

<u>Percentage</u>	<u>Final Grade</u>
90—100%	A
80—89%	B
70—79%	C
60—69%	D

Below 60%

F

Twelve quizzes will be given. Some of the quizzes will be announced, where others are unannounced. Generally the quizzes will be over the material discussed in class the previous day. The two low scores from the quizzes will be dropped. **As a student gets to drop the two low scores from the quizzes, there will be no makeup quizzes given.** The only exception to this rule is in the case of university approved absences, where a student will be allowed to take a makeup quiz.

Other Grading Considerations: Of course, cheating on exams or disruptive behavior in class will result in a grade of F for the semester.

Allowable In-Class Materials:

Students will NOT be allowed to use notes, books, laptop computers, cell phones, or handouts while taking the quizzes. Calculators may be used. On the exams students may use notes, handouts, and their calculator.

No cell phones may be used in class. Also, it is **STRONGLY** recommended that students do not use laptops in class. If absolutely necessary, a laptop may be used, but **only** for purposes of taking notes. Students are encouraged to bring a financial calculator to class on a daily basis.

Classroom Participation:

At the conclusion of the semester each student will be assigned a score for classroom participation. The classroom participation score will be between 0% and 100%, and will be determined by the extent to which the student's participation was a positive influence in the class. A student that attends class regularly, participates in discussions and in-class exercises, arrives in a timely fashion, and exhibits courteous behavior will earn a high score for classroom participation. Conduct that is disruptive, rude, and detrimental to the overall learning environment will result in a low score.