

BA5557

MW 5:30–6:45 PM

Room 3 LAW

Winter 2008

Professor: Dr. David R. Kuipers

Office: BLOCH 229

Phone: 235-5792

E-mail: kuipersd@umkc.edu

Description

BA5557 is an introduction to the valuation and usage of derivative securities (futures, forwards, options and swaps). Prerequisites are graduate standing, and BA5501, BA5532, BDS5508, and ACTG5517 or their equivalents. During the semester, we will discuss the valuation, market structure, and risk-hedging characteristics of derivative instruments, focused primarily on examples derived from financial securities such as bonds, equities, market indices, and foreign currencies. This course is designed to be primarily quantitative in nature; however, the student comfortable with basic algebra, beginning business statistics, and fluency with the arithmetic of discounted cash flow analysis should have no trouble succeeding in this course.

Materials

The required text for this course is: AN INTRODUCTION TO DERIVATIVES & RISK MANAGEMENT, 6TH ed., by Don Chance (Thomson/South-Western Publishing, Inc.)

Calculators

A financial calculator is required; the Hewlett-Packard HP-10B or Texas Instruments BA-II PLUS are recommended models at a minimum. If you buy a used calculator or borrow a friend's, make sure to get a manual and a new battery.

Assistance

The preferred means for quickly contacting me is via email. My official office hours are by appointment only. However, I am in my office and available for you most afternoons just prior to our lectures and afterwards, and I am always available to set up an appointment to meet with you at a mutually convenient time. I'm here to help you succeed in this course; if you need assistance, just ask! I also encourage you to collaborate with your classmates via informal study groups; you can help each other work through the rough spots when you encounter them. I have found through the years that if you can successfully explain something to another person, the ability to do so cements and improves your own knowledge and comfort level with the material.

Grading

There will be three non-comprehensive midterm exams of approximately 25 questions each, each worth 25 points towards your final course grade. Each of the three exams will have a true-false, multiple-choice, and short-answer section, and each of the exams will be given in LAW 3 during the normal class time. The exam dates will each be on a Wednesday: February 20TH, March 19TH, and April 30TH. For each of the exams, you may bring with you one 8.5" × 11" cheat-sheet, you are free to write anything you choose on the crib sheet for your benefit, both sides of the paper.

There will also be three takehome assignments assigned prior to each of the three exams, each assignment is worth 12.5 points. The takehomes give you practice in solving problems, and are of my own design. I am confident you will find them to be excellent study aids for the tests; I will provide detailed solutions to the takehome assignments prior to each exam. Your overall course grade will be

determined at the end of the semester on the 90/80/70/60 point scale, based on 100 total points; plus/minus grading is used. A curve of my choosing will be determined at the end of the semester, if necessary, so that the overall class average is at least an 85%. There is no extra-credit, and no surprise quizzes or unannounced homework will be given. You will note that the total available points from the takehomes and exams add up to 112.5, so I already have a 12.5 point curve “built-in” for you!

Attendance

Attendance is not mandatory but is strongly encouraged. I put a great deal of effort into organizing useful and informative lectures, it is a safe bet on your part that the exam questions will be taken largely from material I have covered in class. My recommended strategy to you for success is to attend the lectures, then read the corresponding material in the text, and then do the practice sets and homework problems that I ask of you. If you reach a comfort level at that stage of the process, then I can assure you that you will be comfortable with the exam material. I do not like to “surprise” students on exams, and I do not use “gotcha”-type exam questions.

Administrative Matters

If you have any special needs as addressed by the *Americans with Disabilities Act*, please notify me as soon as possible. There will be no make-ups for missed exams and takehomes except under the most unusual of circumstances; advance notification of your absence and my advance permission will be required.

Tentative Lecture Schedule

NOTE: The lecture schedule below is subject to change at the professor’s discretion. A precise outline of the specific material covered for each of the exams will be announced in lecture before each exam.

WEEK ONE:	Course introduction; Background of derivative markets
WEEK TWO:	Call and put options: Vocabulary (No class on Jan 21, University holiday)
WEEK THREE:	Call and put options: Pricing bounds and comparative statics
WEEK FOUR:	Call and put options: Arbitrage and basic trading strategies
WEEK FIVE:	Option Trading Strategies: Part II
WEEK SIX:	Regulation and structure of options markets Chance textbook readings for Weeks 1–6: Chapters 1–3, 6–7
MIDTERM EXAM #1 (Feb 20)	
WEEK SEVEN:	Binomial option pricing model (BOPM)
WEEK EIGHT:	BOPM: Extensions and special cases; Introduction to the Black-Scholes model
WEEK NINE:	Black-Scholes-Merton option pricing model; Option greeks
WEEK TEN:	Option hedging strategies Chance textbook readings for Weeks 7–10: Chapters 4–5
MIDTERM EXAM #2 (Mar 19)	
WEEK ELEVEN:	Spring Break (Mar 24 and Mar 26)
WEEK TWELVE:	Forward and futures contracts: Vocabulary and the Hedging Principle
WEEK THIRTEEN:	Perfect hedges; Cost-of-carry arbitrage
WEEK FOURTEEN:	Quality options; Optimal hedge ratios
WEEK FIFTEEN:	Regulation and structure of futures markets; Introduction to swaps
WEEK SIXTEEN:	Plain vanilla swap strategies Chance textbook readings for Weeks 11–16: Chapters 8–12
MIDTERM EXAM #3 (Apr 30)	