

W. P. CAREY SCHOOL OF BUSINESS
ARIZONA STATE UNIVERSITY

FIN 421 - SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT

Course Syllabus

FIN 421, Section 71347 M W, 3–4:15 BA 253
FIN 421, Section 71348 M, 6–8:45 BAC 313

Contact Information

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Office hours Monday 2–3 and 5–6, Wednesday 2–3
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TA Office Hours Monday, 10–11 and by appointment, BAC 554

Course Description & Learning Objectives

This course is designed to provide a sound foundation for the fundamental concepts in investments with a special focus on portfolio management. The major topics will include:

- how markets work
- the relation between risk and return
- optimal portfolio selection
- performance evaluation
- fixed income securities
- derivative securities and option pricing

Emphasis will be put on the development of techniques that should be part of the tool kit for those interested in becoming professional investors and/or researchers in finance. By the end of the course students should be able to independently analyze security markets, understand the available evidence, and use it to make investment decisions.

Students are expected to have completed core courses in basic finance and statistics. The study of investments is inherently quantitative and relies heavily on analytical tools and economic theory developed throughout. Although I intend the course to be accessible to those of all mathematical backgrounds, a basic understanding of probability and statistics, as well as familiarity with a spreadsheet package such as Excel will be vital for success in the class. It is the responsibility of each student to ensure sufficient understanding of these prerequisites.

Course Materials

Lecture Notes and required readings will be posted on the course website in advance. These notes are not a complete record of what I discuss in class, but serve as an outline for developing the concepts while still requiring active learning. Please note that I will occasionally update previous lecture notes for corrections and clarifications.

Textbook: Bodie, Kane, and Marcus, *Essentials of Investments*, 9th edition

I further strongly recommend regular reading of the Wall Street Journal, The Economist, or other business or economic news.

Spreadsheet Help: Both lectures and assignments frequently rely on Excel. I will provide a general introduction, present relevant examples in class, and be available for questions. For specific functionality, use the outstanding Excels help files or the abundant online support. For a more structured textbook approach, I recommend: Craig Holden, *Excel Modeling and Estimation in the Fundamentals of Investments*, Pearson Prentice Hall.

Course Requirements and Grading

The course grade will be based on assignments, exams, and class participation:

- Assignments (about 9, 40%, lowest score dropped)
- One midterm exam (15%) and a comprehensive final exam (35%)
- Class participation and discussion contribution (10%)

In addition, I will provide sample questions following every lecture. These are not to be turned in, but I highly recommend you to work on them.

Assignments: There will be weekly assignments, most of which will require the use of Excel. The assignments vary widely in difficulty, and I explicitly encourage you to seek help from the TA. The assignments can be completed individually or in groups of two. If you work together, please submit only one assignment containing both names. You are allowed to talk to and discuss the assignments with other groups, but the work has to be completed separately. While you will spend the majority of your time on the data work, grading will be based mainly on the economic intuition and the written answers. No late submission will be accepted.

Exams: There is one midterm (45 minutes) and one comprehensive final exam (90 minutes). Only calculators are permitted for the exams, but I will provide you with a list of formulas beforehand.

Class Participation and discussion contribution: You are expected to attend lectures, ask questions, and participate in the discussions. At the end of the term, I ask you to self evaluate your class participation on a scale from 0 (poor) to 5 (excellent), and justify your choice in three to five sentences. Please don't be shy, I expect you to give yourself a very high score. I do, however, reserve the right to disagree with your self-evaluation.

Course Policies

Phones and Laptops: Please turn off any sounds on phones and laptops before class. I strongly discourage the use of your devices during class for anything unrelated to the lecture. Do not distract the students around you with your activities.

Absence Policies and Make Up Work: No late assignments or make up test accepted without prior approval and/or documentation.

Re-grade Policy: Any re-grade requests must be submitted in writing to me no later than one week following the day the assignment was returned. Note that the entire assignment will be re-graded, so any re-grade request may result in a lower grade.

Academic Integrity and Ethical Behavior: The W. P. Carey School takes academic integrity very seriously. Therefore, unless otherwise specified, it is imperative that you do your own work. Any suspected violations of academic integrity will be taken seriously and result in sanctions ranging from a minimum of zero on the assignment to removal from the W. P. Carey School of Business.

Additional information on ASU's academic integrity policy may be found at <http://provost.asu.edu/academicintegrity>.

Please also review the W. P. Carey School of Business Honor Code:

<https://my.wpcarey.asu.edu/academic-integrity/upload/Undergraduate-Honor-Code.pdf>

Threatening Behavior Policy: The university takes threatening behavior very seriously and these situations will be handled in accordance with the Student Services Manual, SSM 102-02 <http://www.asu.edu/aad/manuals/ssm/ssm104-02.html>.

Religious Accommodations: The calendar of official religious holidays can be found here: <https://provost.asu.edu/index.php?q=religious-holiday-calendar>. Each holiday noted with two asterisks denotes an observance for which work is not allowed. For these holidays, students will not be penalized in any way for missing class or assignment, and opportunities to make up the work will be granted.

University-Sanctioned Activities: Accommodations will be made for students who miss class related to university-sanctioned activities according to ACD 304-02. If you are participating in a university-sanctioned activity, please let your instructor know as early in the course as possible so that accommodations can be made.

Disability Accommodations: If you need an accommodation for a disability, you must register with the Disability Resource Center (DRC).

All information contained within this syllabus is subject to change.

Important Dates

- M, Aug 25 First day of classes
- M, Sep 1 No class (Labor Day)
- M, Oct 13 No class (Fall Break)
- W, Oct 15 No class
- M, Oct 20 Midterm Exam
- M, Dec 1 Last class for M section.
- W, Dec 3 Last class for MW section.
- TBA Final Exam

Course Outline and Readings (subject to change)

Financial Instruments & Securities Markets

Asset Classes and Financial Instruments; Returns, Portfolios, and Indices; Financial Markets and Trading of Securities; Buying on Margin and Short Selling

BKM 1–3

Financial Crisis & Mortgage Backed Securities

Lewis: The End

Lewis

Risk & Return

Probability Distributions, Return Distribution, Parameter Estimators, Investments over the Long Term - Effects of Inflation and Taxes on Returns

BKM 5, Lewis

Portfolio Theory

Utility Function and Risk Aversion, Asset Allocation, Diversification and its Limits

BKM 6.2–6.4

Portfolio Theory in Practice

Jorion: Global Asset Allocation

Jorion

Factor Models

Factor Models

BKM 6

Capital Asset Pricing Model

Uses of Asset Pricing Models, Financial Market Equilibrium, the Capital Asset Pricing Model (CAPM)

BKM 7

Empirical Evidence on the CAPM and Anomalies

How to test the CAPM, Empirical Evidence on the CAPM, Asset Pricing Anomalies

BKM 7–8, Haugen and Jorion

Arbitrage Pricing Theory

Arbitrage Pricing Theory (APT), Trading Strategies, the Fama French Three Factor Model

BKM 7

Market Efficiency & Behavioral Finance

Random Walk Model, Efficient Market Hypothesis, Event Studies, Behavioral Finance

BKM 8–9, Lamont and Thaler, Huberman and Regev

Investment Industry & Performance Evaluation

Background on Mutual Funds, Performance Evaluation, Performance Decomposition

BKM 4, 18

Fixed Income – Introduction

Bond Terminology, Prices, Discounts, and Interest Rates, Yield-to-Maturity, Term Structure of Interest Rates

BKM 10

Fixed Income – Bond Portfolio Management

Interest Rate Sensitivity, Duration and Convexity, Long Term Capital Management: An Example

BKM 11

Derivatives – Option Markets

Types of Derivatives, Option Contracts, Payoffs, Strategies, Put-Call Parity

BKM 15

Derivatives – Option Valuation

Binomial Option Pricing, the Black-Scholes Formula

BKM 16