

**UNIVERSITY OF SOUTHERN CALIFORNIA
MARSHALL SCHOOL OF BUSINESS
SPRING 2018**

FBE 441: Investments

Class 15360R, 10:00-11:50am TTH HOH 1

Class 15362R, 12:00-1:50pm TTH HOH 1

1. Contact Information:

- Instructor: Yongxiang Wang
- Office: HOH 716 (7th floor of Hoffman Hall)
- E-mail: yongxiaw@marshall.usc.edu
- Course Website: on <http://blackboard.usc.edu>
- Office Hours: Thursday 2pm-3pm. (or by appointment)
- TA: TBD

2. COURSE DESCRIPTION AND COURSE OBJECTIVES

The objective of the course is to study the theory and empirical evidence relevant for investing. The major topics include:

- . Overview of capital markets
- . Optimal portfolio selection
- . The relation between risk and return
- . Delegated portfolio management and performance evaluation
- . Fixed income securities
- . Derivative markets (time permitting)

The course material is biased toward equity markets since there are separate Marshall courses that cover fixed income and derivative markets.

3. COURSE MATERIALS:

The main readings for the course will be the lecture notes, which are provided.

In addition, there will be a textbook from which I will assign supplemental reading material. The textbook is :

- . **Bodie, Kane and Marcus, *Investments*, 11th Edition, Mc-Graw-Hill/Irwin**
(referred to as **BKM** hereafter)

The materials in the text book go into some of the same topics in additional detail, and thus are helpful, but not strictly necessary. Since the material doesn't change very much year to year, and since academic textbooks are mostly a giant ripoff, a good option is to get an earlier second hand edition of the book. The current edition is the 11th, but any of the 10th, 9th or even 8th editions will probably be similarly useful.

I've given BKM sections from the 11th edition.

- Suggested: Regular reading of Wall Street Journal (or the Financial Times) and of The Economist

Lecture Notes, articles and problem sets will *not* be handed out in class. They will be available on Blackboard as Word or Pdf documents (<http://blackboard.usc.edu>). You are responsible for timely downloads of the materials.

It is always beneficial to do the required reading before class. Also, lecture notes are not a complete record of what I say in class, so attending lectures, taking notes and asking questions will be required to successfully complete the course.

4. Prerequisites and Expectations:

- Students are expected to have completed core courses in basic finance and statistics. The study of investments is inherently quantitative, although I intend the course to be accessible to those of all mathematical backgrounds. Knowledge of basic statistics (means, covariances, regression, etc.) is most important, as these tools will be used repeatedly throughout the semester. In addition, you should be comfortable with basic algebra and calculus. Students are also expected to bring a calculator to every class section and to all examinations.

5. Grading

Grades will be assigned based on the following weights according to 2 schemes. Your overall course score will be calculated using the scheme that is most favorable to you.

	<u>Scheme 1</u>	<u>Scheme 2</u>
Exam 1	13%	23%
Exam 2 (Mid-term Exam)	20%	23%
Exam 3	25%	24%
Exam 4 (Final Exam)	37%	25%
Class Participation	5%	5%

Exam Dates:

Exam 1:	Feb 6 th , (Tuesday), in class
Mid-Term Exam (Exam 2):	March 6th, (Tuesday), in class
Exam 3	April 3 rd , (Tuesday), in class
Final Exam:	10am Section (15360R): Tuesday May 8 th , 11:00 am-1:00pm 12pm Section (15362R): Wednesday May 9th, 2:00pm -4:00pm

- **Final Exam dates are in line with the university schedule. You need to reconfirm these dates closer to examinations** (<https://classes.usc.edu/term-20181/finals/>).

- Homework Assignments: I will send out a total of 4 homework problems and also post solutions on Blackboard. You do not need to turn in your homework.

- Tests: **Tests are closed book.** You may bring one piece of paper with handwritten notes (double-sided, 8.5''x11''). You will need a calculator that can raise numbers to arbitrary powers. Laptop computers and calculators with word processing features are not permitted. **There will be no make-up tests.** By enrolling in the course you are committing to take the tests on the scheduled dates.

- Regrades: Regrades must be requested within one week of the day the item was returned to the class. The student must submit a written and precise explanation of why he/she thinks the grade should be modified. The entire assignment will be regraded and the final mark may go up or down.

- Returned paperwork, unclaimed by a student, will be discarded after 4 weeks and hence, will not be available should a grade appeal be pursued by a student following receipt of his/her course grade.

USC Statements on Academic Conduct and Support Systems

Academic Conduct:

Plagiarism – presenting someone else’s ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in *SCampus* in Part B, Section 11, “Behavior Violating University Standards” <https://policy.usc.edu/scampus-part-b/>. Other forms of academic dishonesty are equally unacceptable. See additional information in *SCampus* and university policies on scientific misconduct, <http://policy.usc.edu/scientific-misconduct>.

Support Systems

Student Counseling Services (SCS) - (213) 740-7711 – 24/7 on call

Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention. <https://engemannshc.usc.edu/counseling/>

National Suicide Prevention Lifeline - 1-800-273-8255

Provides free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week. <http://www.suicidepreventionlifeline.org>

Relationship & Sexual Violence Prevention Services (RSVP) - (213) 740-4900 - 24/7 on call

Free and confidential therapy services, workshops, and training for situations related to gender-based harm. <https://engemannshc.usc.edu/rsvp/>

Sexual Assault Resource Center

For more information about how to get help or help a survivor, rights, reporting options, and additional resources, visit the website: <http://sarc.usc.edu/>

Office of Equity and Diversity (OED)/Title IX compliance – (213) 740-5086

Works with faculty, staff, visitors, applicants, and students around issues of protected class. <https://equity.usc.edu/>

Bias Assessment Response and Support

Incidents of bias, hate crimes and microaggressions need to be reported allowing for appropriate investigation and response. <https://studentaffairs.usc.edu/bias-assessment-response-support/>

Student Support & Advocacy – (213) 821-4710

Assists students and families in resolving complex issues adversely affecting their success as a student EX: personal, financial, and academic.

<https://studentaffairs.usc.edu/ssa/>

Diversity at USC – <https://diversity.usc.edu/>

Tab for Events, Programs and Training, Task Force (including representatives for each school), Chronology, Participate, Resources for Students

Students with Disabilities

USC is committed to making reasonable accommodations to assist individuals with disabilities in reaching their academic potential. If you have a disability which may impact your performance, attendance, or grades in this course and require accommodations, you must first register with the Office of Disability Services and Programs (www.usc.edu/disability). DSP provides certification for students with disabilities and helps arrange the relevant accommodations. Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to me (or to your TA) as early in the semester as possible. DSP is located in GFS (Grace Ford Salvatori Hall) 120 and is open 8:30 a.m.–5:00 p.m., Monday through Friday. The phone number for DSP is (213) 740-0776. Email: ability@usc.edu.

COURSE CALENDAR (*subject to change*):

	Topics/Daily Activities	Readings and Homework
<i>Week 1</i> (Jan 9/11)	Introduction <ul style="list-style-type: none"> • course introduction and syllabus; • capital markets and securities trading; • delegated portfolio management, mutual funds 	BKM chapters 2, 3 and 4
<i>Week 2</i> (Jan 16/18)	Quantitative Review and Historical Returns Analysis <ul style="list-style-type: none"> • returns and portfolios • means, standard deviations, and covariances • Alternative Risk Measures 	BKM chapter sections 5.4, 5.5, 5.6 and 5.7
<i>Week 3</i> (Jan 23/25)	Investing in a Single Risky Asset <ul style="list-style-type: none"> • utility maximization theory • risk and return • optimal investment with one risky and one riskless asset 	BKM chapter sections 6.1, 6.2., 6.3, 6.4, 6.6
<i>Week 4</i> (Jan 30, Feb 1)	Jan 30: diversification: 1 <ul style="list-style-type: none"> • the efficient frontier of risky assets • portfolio constraints • estimation risk • factor models Feb 1: Review Session for Exam 1	BKM chapters 7 and 8
<i>Week 5</i> (Feb 6 Feb 8)	Feb 6: Exam 1 Feb 8: diversification: 2	BKM chapters 7 and

	<ul style="list-style-type: none"> • the efficient frontier of risky assets • portfolio constraints • estimation risk • factor models 	8
<i>Week 6</i> (Feb 13/15)	Asset Pricing and the CAPM <ul style="list-style-type: none"> • the CAPM • the Fama-French three-factor model • models of means vs models of covariances 	BKM chapter sections 9.1, 9.2., chapter 10 and chapter section 13.3
<i>Week 7</i> (Feb 20/22)	Asset Pricing in Practice: 1 <ul style="list-style-type: none"> • testing asset pricing models • empirical evidence on CAPM and FF anomalies 	BKM chapter section 9.3. and chapter 10
<i>Week 8</i> (Feb 27, March 1)	Feb 27: Asset Pricing in Practice: 2 <ul style="list-style-type: none"> • testing asset pricing models • empirical evidence on CAPM and FF anomalies March 1: Review Session for Mid-term Exam	BKM chapter section 9.3. and chapter 10
<i>Week 9</i> (March 6/8)	March 6: Mid-term Exam March 8: Market Efficiency <ul style="list-style-type: none"> • the efficient market hypothesis • weak, semi-strong and strong form efficiency • technical and fundamental analysis • event studies • The Joint Hypothesis Problem • Implications for Investing 	BKM chapter 11
<i>Week 10</i> (March 13/15)	Spring Recess	No classes (March 11-18)
<i>Week 11</i> (March 20/22)	March 27: Behavioral Finance <ul style="list-style-type: none"> • Anomalies • Ways to Take Advantage of Mispricing 	BMK Chapter 12

<i>Week 12</i> (March 27/29)	March 27: Behavioral Finance (continued) <ul style="list-style-type: none"> • Heuristics and Biases March 29: Review Session for Exam 3	BMK Chapter 12
<i>Week 13</i> (April 3/5)	April 3: Exam 3 April 5: Portfolio Management and Performance Evaluation <ul style="list-style-type: none"> • measures of abnormal performance • style benchmarks • survivorship bias 	BKM chapters 24
<i>Week 14</i> (April 10/12)	Fixed Income Investments <ul style="list-style-type: none"> • pricing • the relationship between prices, interest rates and yields • the expectations hypothesis and liquidity premium hypothesis • duration and immunization • making bets with bond portfolios 	BKM chapters 14, 15 and 16
<i>Week 15</i> (April 17/19)	Equity Valuation Models <ul style="list-style-type: none"> • Intrinsic Value versus Market Price • Dividend Discount Models • The Price-Earnings Ratio • Free Cash Flow Valuation Approaches 	BKM Chapter 18
<i>FINAL</i> (April 24/26)	April 24: Options [*if time permits*] <ul style="list-style-type: none"> • binomial trees and risk-neutral valuation • Black-Scholes • portfolio insurance April 26: Final Exam Review Session	BKM chapters 20 and 21