

FBE 555: Investment Analysis and Portfolio Management

Fall 2024

3.0 Units Tue/Thu 3:30-4:50 PM

Professor: TANAKORN MAKAEW

Office: ACC-301E Office Hour: Thu 2:30 -3:20 PM and by appointment

Email: makaew@marshall.usc.edu

Course Description

Analysis and management of common stocks, fixed income, and derivative securities; development of modern portfolio theory and the efficient market hypothesis; organization of securities markets.

Course Objectives

The main goal is to help you develop a framework from which to think about *financial investment* decisions. Financial investment refers to investment in financial assets, such as stocks, bonds, and derivatives. The course is taught from the perspective of an investor. Some of the topics that we will study include risk and return, investor utility, diversification, asset-pricing models, market efficiency, behavioral finance, and security valuation. We will focus on the practical application of these topics, although we will learn enough theories to understand why the practical applications make sense. Upon successful completion of this course, you will be able to:

- Measure the relation between risk and return
- Perform optimal portfolio selection based on mean-variance analysis and asset-pricing models
- Explain how equity, bond, future, and option prices are determined and how to make investment decisions based on economic theories and quantitative tools

Time and Location

- Tuesday and Thursday 3:30-4:50 PM Pacific Time
- Section 15430R will meet in person in JKP210.
- Section 15431D (for DEN students only) will be online. The lecture's Zoom link will be posted on your Brightspace course page.

Office Hours

- Thursday 2:30 -3:20 PM Pacific Time and by appointment
- Regular office hours will be held in ACC-301E. Zoom office hours will be available on request.
- Additional office hours scheduled around exams and assignment due dates

It is very important that you either email me, come to office hours, or talk to me after class if you are having difficulty with topics that we have discussed in class or the assignments. If you cannot make the regularly scheduled office hours, please email me to set up an appointment and we will work out a mutually agreeable time.

Prerequisites

- GSBA 521 or GSBA 521b or GSBA 548
- You should be comfortable with probability, statistics, and regression analysis. Use of a spreadsheet package such as Excel will be essential for the group assignments. Some use of calculus, algebra, and a financial calculator¹ will also be required.

Course Materials

The main readings for the course will be the lecture slides, which are provided. In addition, there will be a textbook from which I will assign supplemental reading materials:

- *Bodie, Kane and Marcus, Investments, Mc-Graw-Hill/Irwin*

Since the materials do not change much year to year, a less-expensive option is to get an earlier edition of the textbook. The current edition is the 13th, but any of the 12th to 9th editions will be similarly useful. Materials in the textbook that are not covered in the slides will not be tested on exams.

Lecture slides, assignments, and other reading materials will be available on Brightspace (<https://brightspace.usc.edu>). You are responsible for timely downloads of the materials. If you have any questions or need assistance with the Brightspace Course Pages, please contact the Marshall HelpDesk at 213-740-3000 (option 2) or HelpDesk@marshall.usc.edu.

In addition, you might consider some of these materials if you are interested in Investments beyond the scope of the course:

- Daily reading of the Wall Street Journal
- Weekly reading of the Economist
- Journal articles from Journal of Portfolio Management, Financial Analysts Journal, and other research journals to be listed in class.

Technology requirements are different for each course. Marshall has site licenses for a variety of software that students can access free of charge. A list of available software is located [here](#). You are responsible for ensuring that you have the necessary computer equipment and reliable internet access. You are invited to explore what lab or loaner options exist. Contact the Marshall HelpDesk (213-740-3000 or HelpDesk@marshall.usc.edu) if you need assistance.

Attendance

Classroom Policies

- Regular attendance is critical for success in this class. Attendance is expected in person (Section 15430R) or in the synchronous Zoom class sessions (Section 15431D).
- Any students exempted from in-person/synchronous Zoom participation (for example, by USC OSAS) should let the instructor know as soon as possible. I will then provide regular access to a recording of the class and an alternative assignment to replace class participation.

¹ Calculator with financial functions, such as Texas Instruments BA II Plus, BA II Plus Professional, Hewlett Packard 17bII+, and Hewlett Packard 10bII, is required. Many graphical calculators, such as the TI-83, have built-in financial functions. However, it is the students' responsibility to learn the functions of their particular calculators. During exams, you will not be allowed to use cellphones, computers, or any devices that can communicate with others, so learning how to use a financial calculator is essential for success in the class.

Grading

Final grades represent how you perform in the class relative to other students. In previous semesters, the average grade for this class averaged about 3.50.

- Class Participation 10%
- Group Assignment #1 due on **10/03** 10%
- Midterm Exam on **10/08** 30%
- Group Assignment #2 due on **12/05** 10%
- Final Exam 40%

Tuesday, December 17, 2:00-4:00 PM Pacific Time

Exam dates are in line with the university schedule. You need to reconfirm the date closer to the examination (<https://classes.usc.edu/term-20243/final-examinations-schedule/>).

Class Participation

- Classroom participation and interaction are integral parts of our class.
- For in-person classes, I may deduct participation points for excessive absence, coming to class late, leaving class early, engaging in a simultaneous activity not related to the class, and any other behavior that is not conducive to learning or could disturb other students.
- For Zoom classes, students are expected to have cameras on during the synchronous Zoom sessions, and preferably use headsets or earphones to ensure the best audio quality. Please advise me if you have circumstances under which you will not be able to meet these expectations.
- For students exempted from in-person/synchronous Zoom participation, you will be required to complete a report as an alternate method of contribution to the class. The report is due on the day Fall classes end (**12/06**). The content and format will be announced in class.

Group Assignments

- Two group assignments will be given, which consist of numerical problems and applications to real data. The latter are designed to apply techniques learned in the course to real data in a similar manner to what might be applied in practice. You can use whatever computer program you wish (for example, Excel, Matlab, and Stata). We will use Excel in class due to its benefits in terms of visualizing data.
- You must complete the assignments in groups of 4 to 7 students. Please turn in one write-up per group. It is very important that all members of a team contribute to all parts of assignments.
- Late assignments will not be accepted.

Exams

- There will be a midterm and a final in this course. Both exams will be closed book closed note, but a formula sheet will be provided. You will need a calculator that can raise numbers to arbitrary powers and perform financial functions.
- There will be no make-up exams, except for the most serious of (documented) reasons. By enrolling in the course, you are committing to take the tests on the scheduled dates.
- For Section 15430R, **the exams must be in person**. Remote exams are not available. For Section 15431D, you still have to take the remote exam at the scheduled time, unless it falls outside 7:00 AM and 10:00 PM in your local time zone.

- If you are permitted additional time for exams, please let me know at least two weeks before the first exam so that we can make appropriate arrangements.
- If there are potential conflicts with your religious observances, please let me know at the beginning of the semester so that we can make appropriate arrangements.
- The midterm will include whatever materials we have covered up until the day of the exam. The final exam is cumulative but will be weighted more towards the material from after the midterm. Exam questions can cover anything in the lecture slides, class discussion, group assignments, or the assigned reading materials.
- Regrades must be requested within one week of the day the item was returned to you. 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.

Tentative Course Schedule: This schedule is subject to change.

Description	Readings	Classes
Risk and Return	Chapter 5	Week 1
Portfolio Theory	Chapters 6 and 7	Week 2
CAPM	Chapter 9	Week 3
Market Efficiency and Behavioral Finance	Chapters 11 and 12	Week 4
Equity Valuation	Chapter 18	Week 5
Slack and Review Assignment #1 Due on <u>10/03</u>		Week 6
Midterm on <u>10/08</u> Fall Recess on <u>10/10</u>		Week 7
Performance Evaluation	Chapter 24	Week 8
Fixed-Income Valuation	Chapters 14 and 15	Week 9
Fixed-Income Valuation	Chapter 16	Week 10
Futures and Swaps	Chapter 22	Week 11
Futures and Swaps	Chapter 23	Week 12
Options	Chapter 20	Week 13
Options Thanksgiving Break on <u>11/28</u>	Chapter 21	Week 14
Machine Learning for Investments Slack and Review Assignment #2 Due on <u>12/05</u>		Week 15
Final Exam on <u>12/17</u>		

USC Statements on Academic Conduct and Support Systems

Academic Integrity

The University of Southern California is foremost a learning community committed to fostering successful scholars and researchers dedicated to the pursuit of knowledge and the transmission of ideas. Academic misconduct is in contrast to the university's mission to educate students through a broad array of first-rank academic, professional, and extracurricular programs and includes any act of dishonesty in the submission of academic work (either in draft or final form).

This course will follow the expectations for academic integrity as stated in the [USC Student Handbook](#). All students are expected to submit assignments that are original work and prepared specifically for the course/section in this academic term. You may not submit work written by others or "recycle" work prepared for other courses without obtaining written permission from the instructor(s). Students suspected of engaging in academic misconduct will be reported to the Office of Academic Integrity.

Other violations of academic misconduct include, but are not limited to, cheating, plagiarism, fabrication (e.g., falsifying data), knowingly assisting others in acts of academic dishonesty, and any act that gains or is intended to gain an unfair academic advantage.

Academic dishonesty has a far-reaching impact and is considered a serious offense against the university. Violations will result in a grade penalty, such as a failing grade on the assignment or in the course, and disciplinary action from the university itself, such as suspension or even expulsion.

For more information about academic integrity see the [student handbook](#) or the [Office of Academic Integrity's website](#), and university policies on [Research and Scholarship Misconduct](#).

Please ask your instructor if you are unsure what constitutes unauthorized assistance on an exam or assignment or what information requires citation and/or attribution.

Statement on University Academic and Support Systems

Students and Disability Accommodations:

USC welcomes students with disabilities into all of the University's educational programs. [The Office of Student Accessibility Services](#) (OSAS) is responsible for the determination of appropriate accommodations for students who encounter disability-related barriers. Once a student has completed the OSAS process (registration, initial appointment, and submitted documentation) and accommodations are determined to be reasonable and appropriate, a Letter of Accommodation (LOA) will be available to generate for each course. The LOA must be given to each course instructor by the student and followed up with a discussion. This should be done as early in the semester as possible as accommodations are not retroactive. More information can be found at osas.usc.edu. You may contact OSAS at (213) 740-0776 or via email at osasfrontdesk@usc.edu.

Student Financial Aid and Satisfactory Academic Progress:

To be eligible for certain kinds of financial aid, students are required to maintain Satisfactory Academic Progress (SAP) toward their degree objectives. Visit the [Financial Aid Office webpage](#) for [undergraduate](#)- and [graduate-level](#) SAP eligibility requirements and the appeals process.

Support Systems:

[Counseling and Mental Health](#) - (213) 740-9355 – 24/7 on call

Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention.

[988 Suicide and Crisis Lifeline](#) - 988 for both calls and text messages – 24/7 on call

The 988 Suicide and Crisis Lifeline (formerly known as the National Suicide Prevention Lifeline) provides free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week, across the United States. The Lifeline consists of a national network of over 200 local crisis centers, combining custom local care and resources with national standards and best practices. The new, shorter phone number makes it easier for people to remember and access mental health crisis services (though the previous 1 (800) 273-8255 number will continue to function indefinitely) and represents a continued commitment to those in crisis.

[Relationship and Sexual Violence Prevention Services \(RSVP\)](#) - (213) 740-9355(WELL) – 24/7 on call

Free and confidential therapy services, workshops, and training for situations related to gender- and power-based harm (including sexual assault, intimate partner violence, and stalking).

[Office for Equity, Equal Opportunity, and Title IX \(EEO-TIX\)](#) - (213) 740-5086

Information about how to get help or help someone affected by harassment or discrimination, rights of protected classes, reporting options, and additional resources for students, faculty, staff, visitors, and applicants.

[Reporting Incidents of Bias or Harassment](#) - (213) 740-2500

Avenue to report incidents of bias, hate crimes, and microaggressions to the Office for Equity, Equal Opportunity, and Title for appropriate investigation, supportive measures, and response.

[The Office of Student Accessibility Services \(OSAS\)](#) - (213) 740-0776

OSAS ensures equal access for students with disabilities through providing academic accommodations and auxiliary aids in accordance with federal laws and university policy.

[USC Campus Support and Intervention](#) - (213) 740-0411

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

[Diversity, Equity and Inclusion](#) - (213) 740-2101

Information on events, programs and training, the Provost's Diversity and Inclusion Council, Diversity Liaisons for each academic school, chronology, participation, and various resources for students.

[USC Emergency](#) - UPC: (213) 740-4321, HSC: (323) 442-1000 – 24/7 on call

Emergency assistance and avenue to report a crime. Latest updates regarding safety, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible.

[USC Department of Public Safety](#) - UPC: (213) 740-6000, HSC: (323) 442-1200 – 24/7 on call

Non-emergency assistance or information.

[Office of the Ombuds](#) - (213) 821-9556 (UPC) / (323-442-0382 (HSC)

A safe and confidential place to share your USC-related issues with a University Ombuds who will work with you to explore options or paths to manage your concern.

[Occupational Therapy Faculty Practice](#) - (323) 442-2850 or otfp@med.usc.edu

Confidential Lifestyle Redesign services for USC students to support health promoting habits and routines that enhance quality of life and academic performance.

Emergency Preparedness

In case of a declared emergency if travel to campus is not feasible, the USC Emergency Information web site (<https://www.usc.edu/emergency/>) will provide safety and other information, including electronic means by which instructors will conduct class using a combination of USC's Brightspace learning management system (TBD), teleconferencing, and other technologies.

Use of Recordings

Pursuant to the USC Student Handbook (<https://policy.usc.edu/studenthandbook/>, page 27), students may not record a university class without the express permission of the instructor and announcement to the class. In addition, students may not distribute or use notes or recordings based on USC classes or lectures without the express permission of the instructor for purposes other than personal or class-related group study by students registered for the class. This restriction on unauthorized use applies to all information that is distributed or displayed for use in relationship to the class. Violation of this policy may subject an individual or entity to university discipline and/or legal proceedings.

AI Policy

Since creating, analytical, and critical thinking skills are part of the learning outcomes of this course, all assignments should be prepared by the student working individually or in groups. Students may not have another person or entity complete any substantive portion of the assignment. Developing strong

competencies in these areas will prepare you for a competitive workplace. Unless indicated otherwise, using AI-generated tools for assignments and exams is prohibited in this course, will be identified as plagiarism, and will be reported to the Office of Academic Integrity.

Open Expression and Respect for All

An important goal of the educational experience at USC Marshall is to be exposed to and discuss diverse, thought-provoking, and sometimes controversial ideas that challenge one's beliefs. In this course we will support the values articulated in the USC Marshall <https://www.marshall.usc.edu/open-expression-statement>.