

# Financial Risk Management

## Econ 174, Spring 2022

**The information below should be considered extremely tentative, and will likely change depending on our pace and situation through the quarter. I reserve the right to modify this information as needed. Please check the syllabus and Canvas announcements regularly for updates.**

**Course description:** The main goal of this course is to expose students to the fundamental concepts of financial risk management, which addresses how firms and individuals can use financial instruments to insure against risk factors. This will include risk measures, a brief introduction to derivatives, hedging techniques, the value of risk to firms, estimation of optimal hedge ratio, risk management with options, and futures.

**Prerequisites:** ECON 173A.

**Lectures:** MWF 11:00 am - 11:50 am @ Peterson Hall (Peter) 104.

**Instructor:** Dr. Munpyung O

- Office hours: 9:00 am – 10:00 am on Fridays, and by appointment.
- Office: Economics building 109
- Zoom link: <https://ucsd.zoom.us/j/6571145643>.
- e-mail: [mlo@ucsd.edu](mailto:mlo@ucsd.edu)

Please use your **UCSD email** and include “**Econ 174**” in the subject line of your email.

**Teaching assistants and office hours:**

- Chiang, Ariel Tsai @SH 225, [alchiang@ucsd.edu](mailto:alchiang@ucsd.edu)
- Office hours: 5:00 - 6:00 pm on Tuesdays

If you should miss a class, it is your responsibility to get the notes and any information provided in class. It is important to come to every lecture. You will also be able to ask the TA any question about the material covered in the lectures during the TA’s office hours.

**Course web page:** A course webpage is available at <http://canvas.ucsd.edu/>. It will include information relevant to the course, such as syllabus, announcement, problem sets and more. **You should check this page regularly.**

**Required textbook:** John C. Hull, *Fundamentals of Futures and Options Markets*, 9th edition, Pearson.

- Your digital course materials are provided by the UC San Diego Bookstore through Canvas and are free for the first two weeks of classes.
- If, for some reason, you decide you do not want to purchase these materials, you can opt-out of the Inclusive Access program by going to the Redshelf link in your Canvas page and clicking “OPT-OUT”. If you opt-out by April 9th, 2022, your student account will NOT be charged.

**Financial calculator:**

- A financial calculator will be required for the course and for exams, to perform basic annuity and present value type calculations.
- Any financial calculator will do, as long as you understand how to use it.
- \* *Students interested in obtaining CFA certification should note that the two approved calculators for CFA exams are the Texas Instruments BA II Plus (including BA II Plus Professional), and the Hewlett Packard 12C (including the HP 12C Platinum, 12C Platinum 25th anniversary edition, 12C 30th-anniversary edition, and HP 12C Prestige)*

**Use of course materials:** Class material includes the video lecture recordings, lecture slides, the problem sets, the problem set solutions. They are all subject to copyright. They are designed for you and for you only. You cannot share them without permission with anyone outside of the course. If you need that permission please email me about it.

**Exams:**

1. Midterm 1: in-class test on Friday, April 22.
2. Midterm 2: in-class test on Wednesday, May 18.
3. Final exam: 11:30 am - 2:30 pm on Friday, June 10.

- It is the student's responsibility to create a schedule that does not have any conflicts.
- All tests are cumulative (comprehensive) test.

**Makeup exams** will be given only under very unusual circumstances and only if the student provides official written notification to the instructor no less than two weeks prior to the missed test. Students who miss a test without a **justifiable** and **verifiable** reason, will most likely fail the course.

**Grades:** The overall score will be computed as follows:

- Midterm 1: 22%
- Midterm 2: 33%
- Final exam: 45%

There is no opportunity in this course to do "extra credit" work. Your grade will be determined solely by the test scores. The overall course grade will be curved. **I reserve the right to modify these weights as needed during the quarter.**

**Disability:** If you have a documented disability, please bring your documentation to me as soon as possible so that I can make suitable accommodations for you. If you believe that you have a disability and desire accommodation, please register with the Office for Students with Disabilities (OSD).

**Academic integrity:** Any student found responsible for violating UCSD's academic integrity policy will earn a failing grade for the course. In addition, the Council of Deans of Student Affairs will impose a disciplinary penalty. You can find information on the university's policy on academic integrity at this website: <http://academicintegrity.ucsd.edu>

### Useful links:

- Digital Learning: <https://keeplearning.ucsd.edu>
- Return to Learn: <https://returntolearn.ucsd.edu/>
- COVID-19 Information: <https://vcsa.ucsd.edu/news/covid-19-info.html>

### Course content and schedule (Changes, if any, will be announced in the class.)

The following course schedule should be considered extremely tentative, and will likely change depending on our pace through the quarter. I reserve the right to modify this schedule as needed during the quarter. Not all topics will be covered in the same detail. Time constraints may cause some topics to be omitted.

1. Introduction: Review and Motivation (Chapter 1)
2. Futures I: Markets & Trading (Chapter 2)
3. Futures II: Hedging & Strategies (Chapter 3)
4. Futures III: Futures Pricing (Chapter 5)
5. Options I: Markets & Strategies (Chapter 9, 11)
6. Options II: Option Pricing Theory (Chapter 10, 12, 13)
- \*7. Interest Rate Risk (Chapter 4, 6, 7)

### General comments

- Even if I don't explicitly assign reading from the text, it is a good idea to read the chapter before coming to class in order to have some understanding of the concepts to be presented.
- ***This class moves rapidly.*** *Cramming* is not an effective way to learn this material. A student who keeps up with the topics as they presented will find the course much more enjoyable and will master the concepts more quickly.
- **Attend all lectures on time.** You are responsible for any information given during lectures.
- Please do use my office hours or TA's office hours for everything related to the content of the course. If you have doubts about the materials, do not wait until a few hours before the exam.
- Students are encouraged to ask questions in class. You've probably heard this before, but if you have a question, chances are that others in the class have the same question.
- Finally, ask questions before, during, or after class or come to my office if you having any trouble with the course material. Remember the goal of education is to learn, not to suffer!