

Financial Risk Management

Econ 174, Summer I 2020

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: MTWR 11:00 am – 12:20 pm. @ <https://ucsd.zoom.us/j/97004471592>

Instructor: Dr. Munpyung O

- Office hours: 2:00 pm – 3:00 pm on Thursdays and by appointment
@ <https://ucsd.zoom.us/j/6571145643>.
- e-mail: mlo@ucsd.edu

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

Teaching assistants and office hours:

- Sheng, Yanying (Sophie), yas107@ucsd.edu
- 7:00 - 8:00 pm on Tuesdays and 11:00 - Noon on Fridays @ <https://ucsd.zoom.us/j/98970957820>

Lectures, office hours, and tests will be delivered remotely. Lectures will be recorded and made available to students asynchronously. 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.**

Course materials:

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. After two weeks, your student account will be charged a special reduced price unless you opt-out. If you decide to opt-out you must complete the process by Tuesday, July 7th, 2020 and you will be responsible for sourcing the materials elsewhere.

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)*

- Exams:**
- Practice test on Tuesday, July 7.
 - Midterm 1 on Thursday, July 9.
 - Midterm 2 on Thursday, July 23.
 - Final exam during 11:30 am - 2:30 pm on Friday, July 31.

“We will use Zoom for proctoring this quarter. This program use video and audio recording or other personal information capture for the purpose of facilitating the course and/or test environment. UC San Diego does not allow vendors to use this information for other purposes. Recordings will be deleted when no longer necessary. However, if cheating is suspected, the recording may become part of the student’s administrative disciplinary record. Finally, I reserve the right to give an oral test if I feel it is necessary to uphold academic integrity.”

Makeup exams: Make-up examinations will be given only under very unusual circumstances and only if the student provides official written notification to the instructor no less than a week 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:

- Practice test: 2%
- Midterm 1: 20%
- Midterm 2: 30%
- A comprehensive final: 48%

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.**

Technical resources for students:

- Digital Learning: <https://keeplearning.ucsd.edu>
- Academic Support for Remote Learning: <https://commons.ucsd.edu/for-students/index.html>
- COVID-19 Information: <https://vcsa.ucsd.edu/news/covid-19-info.html>

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.

Class conduct: Each student is expected to contribute and help to maintain a positive classroom environment conducive to learning.

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>

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 summer 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 TAs 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!

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)