# ECONOMICS 173A: Financial Markets

#### Fall 2020

#### Basic information

Lectures Tu/Th 11:00-12:20, Remote, via Zoom

(see Canvas for link and password)

Instructor Prof. Alexis Akira Toda

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Discussion sessions F 17:00-17:50

### Course description

Economics 173A (Financial Markets) is an upper division course on finance. We study some institutional details on the financial markets, bond pricing (including duration analysis), optimal portfolio problem, mutual fund theorem, Capital Asset Pricing Model, and option pricing (including bounds on optin prices, suboptimality of early exercise of American call options, put-call parity, binomial option pricing). The course requires good analytical skills (basic calculus).

Lectures are based on the textbook *Investments*, 12th edition, McGraw Hill by Bodie, Kane, and Marcus. The course will cover the following topics (in this order):

- 1. Introduction to financial markets (Chapters 1–4),
- 2. Bond pricing (Chapters 14–16),
- 3. Optimal portfolio and Capital Asset Pricing Model (Chapters 5, 6, 9)
- 4. Behavioral finance (Chapter 12),
- 5. Options pricing (Chapters 20, 21).

I will be using slides that cover part of the textbook plus some additional materials. Due to the limited amount of lecture time, it may not be possible to cover every single detail. Students are responsible for studying the corresponding chapters/sections after each class. The discussion sessions will mostly solve end-of-chapter exercises.

#### **Textbook**

As mentioned above, the required textbook is

• "Investments", 12th edition, McGraw Hill by Bodie, Kane, and Marcus.

The e-textbook is provided to you through Canvas (and be charged to your student account) unless you opt out. Please watch the YouTube video https://youtu.be/ejrELjOr8eU for how to opt out. If you google "Bodie Kane Marcus investments 12th edition pdf", you can find plenty of cheap options. I do not endorse any particular option: please decide how to obtain the book at your own responsibility and risk. The 12th edition hasn't changed much from the 10th and 11th editions, so you can use them if you like.

Other recommended readings (not required) are:

- "A Random Walk Down Wall Street" by Malkiel,
- "The Richest Man in Babylon" by Clason.

The latter is no longer copyrighted and you can find free copies by googling.

#### **Evaluation**

Last year the evaluation was based on two midterms and a final. This year I will change the format as follows in order to cope with the challenges related to the pandemic. The course grade will be based on reflection notes (30%), problem sets (30%), and a final exam (40%).

Reflection notes (30%) There will be a short graded assignment every week that will be due by 17:00 on Friday. The assignment is meant to promote better reflection and learning of the materials and you will be expected to submit answers to the three questions below after each lecture:

- 1. What were the most important 1-2 new things you learned from the lecture and/or readings that you did not know before class? Describe one way in which what you learned connects to either a different subject/topic you are interested in, or a personal experience.
- 2. What were 1-2 points discussed in lecture/readings that you are still confused/unclear about and would like some further clarification on?
- 3. What topics/questions would you like to learn more about or discuss more based on content covered in the lecture/readings?

Research on pedagogy shows that such reflection notes are highly effective at promoting learning and helps to make faculty and students accountable for what they have taught/learned in each lecture. They will be graded on a discrete 0-1-2 scale (2: thoughtful response that engaged with the content of the lecture/readings; 1: cursory responses that meet a minimum standard; 0: otherwise).

The deadlines are sharp: not turning in by the deadline results in 0 points and no excuses are accepted for missing the deadline.

**Problem sets (30%)** There will be 4 problem sets. Each problem set will be posted on Canvas immediately **after the lecture that finishes covering a particular topic**, more precisely

- 1. Introduction to financial markets (Chapters 1–4),
- 2. Bond pricing (Chapters 14–16),

- 3. Optimal portfolio and Capital Asset Pricing Model (Chapters 5, 6, 9),
- 4. Option pricing (Chapters 20, 21).

Each problem set will consist of a few end-of-chapter exercises from the corresponding chapters in the textbook. To give you a reasonable amount of time to complete the problem sets but to minimize the chance of getting outside help, the deadline will be 17:00 of the following day (for Tuesday lecture, deadline is Wednesday; for Thursday lecture, deadline is Friday).

Again, deadlines are sharp and no excuses are accepted for missing the deadline.

Final exam (40%) The majority of exam questions will be randomly selected from the end-of-chapter exercises in the textbook from chapters/topics that have been covered. In addition, there may be a few original questions written by me. Although the exam format may change due to the pandemic, according to the course listing, the final exam is currently scheduled at 11:30-14:30 on Wednesday December 16, and you should make yourself available for this time slot.

Per UCSD Academic Senate Regulations<sup>1</sup> a final exam is required. Hence failure of taking the final exam for any reason will result in a letter grade F, regardless of the overall performance in other categories.

## Questions

The best opportunity to ask questions is *during* the class, for two reasons. First, you can resolve your question immediately (assuming—well—I know the answer). Second, your classmates are likely to have similar questions, so they can benefit from questions being resolved and I benefit by saving time. So, don't be shy, please ask questions. If you have a question outside of class that cannot be resolved by a Google search or discussing with your friends, please first ask your TA. If still unresolved, you can show up during my office hour listed above (no appointment necessary). I and the TAs reserve the right not to respond to questions by emails. Most questions can be resolved by Google searches; if not, please use the office hours.

#### Miscellaneous

• Email writing tips:

https://alexisakira.github.io/misc/email

• Letter of recommendation policy:

https://alexisakira.github.io/misc/letter-of-recommendation

# Academic integrity

I take academic dishonesty seriously. Any student found guilty of academic dishonesty will earn a failing grade for the course. In addition to this sanction, the Council of Deans of Student Affairs will also impose a disciplinary penalty.

UCSD policy:

https://senate.ucsd.edu/Operating-Procedures/Senate-Manual/Appendices/2

<sup>&</sup>lt;sup>1</sup>https://senate.ucsd.edu/operating-procedures/educational-policies/courses/epc-policies-on-courses/policy-exams-including-midterms-final-exams-and-religious-accommodations-for-exams/

Facts about academic integrity:

http://students.ucsd.edu/academics/academic-integrity/facts.html

Consequences of cheating:

http://students.ucsd.edu/academics/academic-integrity/consequences.html