

## NYU Stern: Foundations of Finance

Summer 2021

FINC-UB 2

Summer 1 2021:  
May 24th to June 30th  
Mondays and Wednesdays 3:00-6:10 PM EST  
Room KMC 3-55

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**Description.** This course is a rigorous, quantitative introduction to financial markets. It assumes no prior knowledge of finance, though students should be comfortable with statistics, linear algebra, and calculus. The main topics of the course are arbitrage, portfolio selection, equilibrium asset pricing, fixed income securities, and derivatives pricing. I will emphasize real-world applications of the course material and its connection to current events.

### NYU Brightspace (replaces Classes)

The class website is on NYU Brightspace at <https://brightspace.nyu.edu/>. This is the central location where all teaching materials are posted. Announcements, problem sets, and solutions will be posted here. Students are expected to check the site regularly as all materials and communications about the class will be delivered there.

**Teaching Assistant.** There will be no teaching assistant for this class.

**Office Hours** I will be holding weekly office hours on Thursdays from 4 to 6 PM. The room will be posted on Brightspace.

### Calculator and Software

A standard scientific calculator with logarithms and exponentials will be needed for this class. Some homework problems will also require students to use Excel. Further instructions and examples will be given in class.

### Textbook

No textbook is required for this class, although *Essentials of Investments* (11<sup>th</sup> or 10<sup>th</sup> ed.) by Zvi Bodie, Alex Kane, and Alan J. Marcus (BKM) and the associated solutions manual are recommended for those who would like a reference and more practice questions. Suggested questions from the book (from the 10th ed.) are posted for each relevant lecture in the course outline at the end of the syllabus. I will also provide these questions as pdf on the course website.

### Handouts

In addition to the slides and textbook, additional handouts may be posted on Brightspace with more detailed derivations or examples on the course material. References will be made in the slides to the most relevant handout to review.

### Students with Disabilities

If you have a qualified disability and will require academic accommodation during this course, please contact the Moses Center for Students with Disabilities (CSD, 998-4980) <http://www.nyu.edu/csd/> and provide me with a letter from them verifying your registration and outlining the accommodations they recommend. If you do not a response from them, please contact me directly.

### Academic Integrity and General Conduct

Integrity is critical to the learning process and to all that we do here at NYU Stern. As members of our community, all students agree to abide by the NYU Stern Student Code of Conduct, which includes a commitment to:

- Exercise integrity in all aspects of one’s academic work including, but not limited to, the preparation and completion of exams, papers and all other course requirements by not engaging in any method or means that provides an unfair advantage.
- Clearly acknowledge the work and efforts of others when submitting written work as one’s own. Ideas, data, direct quotations (which should be designated with quotation marks), paraphrasing, creative expression, or any other incorporation of the work of others should be fully referenced.
- Refrain from behaving in ways that knowingly support, assist, or in any way attempt to enable another person to engage in any violation of the Code of Conduct. Our support also includes reporting any observed violations of this Code of Conduct or other School and University policies that are deemed to adversely affect the NYU Stern community.

You are responsible for maintaining Stern’s Honor Code which mandates zero tolerance for cheating and plagiarism. Violations of the honor code will be prosecuted with a minimum penalty of failure for the course, as required by code of conduct rules. If you become aware of any violations of the honor code you must take whatever steps are necessary to stop the violators. Per request of the dean, you must include a signed statement at the top of each problem set and exam, indicating that you adhere to the honor code. The statement is:

*‘I pledge my honor that I have not violated the Stern Honor Code in the completion of this exam/problem set.’*

The entire Stern Student Code of Conduct applies to all students enrolled in Stern courses and can be found here: [www.stern.nyu.edu/uc/codeofconduct](http://www.stern.nyu.edu/uc/codeofconduct).

### **Grading**

Grades will be based on the final exam (30 percent), the midterm exam (20 percent), the homework assignments (15 percent), a group presentation (details tbd, 15 percent) and participation (20 percent).<sup>1</sup>

### **Exams**

There will be a midterm and final written exams. Both will be closed book and closed notes. Exams will be problem-based: reviewing homework questions, and sample exams (to be provided) is the best way to prepare. The final exam will be based on the entire content of the class.

### **Homework**

There will be 4 problem sets, each graded out of 3 points. Late submissions will not be accepted. You are allowed to work in groups of maximum 3 people, but you must write up and hand in your own copy. You are asked to mention all the members of your group on the front page. The homework questions will be in the same spirit of the exam questions, but slightly easier.

**Suggested Problems.** Suggested problems for each lecture are listed in the class schedule below. These questions are intended to give you extra practice over and above the homework. You do **not** have to turn them in, and there is no credit for them. Solutions can be found in the BKM solutions manual.

### **End of class memo**

After every class, I will ask students to complete a quick post-class survey including a short feedback on the class. The survey can be accessed at this link <https://forms.gle/chSg6oRZyK6jsQgY6> . Please bookmark this link for easy access, there will be time at the end of each class for you to fill it in.

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<sup>1</sup>At NYU Stern, we strive to create courses that challenge students intellectually and that meet the Stern standards of academic excellence. To ensure fairness and clarity of grading, the Stern faculty have adopted a grading guideline for core courses with enrollments of more than 25 students in which approximately 35% of students will receive an “A” or “A-“ grade. In core classes of less than 25 students, the instructor is at liberty to give whatever grades they think the students deserve, while maintaining rigorous academic standards.

## Schedule

See below for the tentative course schedule. We may move lectures as needed through the course, but the order of the lectures will not change.

Class	Topic	Suggested Problems (10th ed.)
1. Monday May 24	Intro Financial Instruments	BKM 1: 7-9, 19, 21
2. Wednesday May 26	Performance of Securities Portfolio Choice	BKM 5: 6, 7, 11-14, 18, 19 BKM 6: 6-13
Monday May 31	NO CLASS Memorial Day	
3. Wednesday June 2	Portfolio Choice Capital Asset Pricing Model <b>Homework 1 due</b>	BKM 6: 20, 21, 23 BKM 7: 9, 10, 12, 21, 23, 25
4. Monday June 7	Capital Asset Pricing Model Market Efficiency and Arbitrage <b>Homework 2 due</b>	BKM 7: 32, 33 BKM 8: 1, 2, 4, 6, 11, 13, 18, 19
5. Wednesday June 9	Market Efficiency and Arbitrage Equity Valuation	BKM 3: 12, 17, 20, 21 BKM 13: 1-4
6. Monday June 14	Equity Valuation <b>Midterm exam</b>	BKM 13: 14, 16, 17, 19, 20, 21,
7. Wednesday June 16	Fixed Income Securities	BKM 10: 3,4,8, 15, 16, 17-18 (YTM only), 23, 24, 28, 42
8. Monday June 21	Fixed Income Securities <b>Homework 3 due</b>	BKM 10: 40, 41 , 11: 8-12, 15,
9. Wednesday June 23	Options and Futures	BKM 15: 8, 12, 13, 15, 18, 22, 24, 26, 27 BKM 16: 5, 7, 16, 17, 27, 33
10. Monday June 28	Final Review <b>Homework 4 due</b>	
11. Wednesday June 30th	<b>Final Exam</b>	