

**Columbia University
Graduate School of Business**

Spring 2019 Capital Markets and Investments, B7302

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1. Course Description

This course is an introduction to capital markets and investments. The course broadly covers fixed income capital markets, portfolio theory, models of equity returns, performance evaluation and the basics of using and pricing options (time permitted). The real goal of the course is to introduce students to non-equity financial markets (corporate finance was largely about equity), and to learn about a number of important and fundamental concepts in finance. These include the drivers of valuation and volatility, frameworks for investments and decision making, and to understand fundamental concepts such as no-arbitrage valuation, spot and forward trading markets, measuring risk, diversifying risk, making optimal decisions, dynamic hedging, and using data to learn about asset returns and to help in making decisions.

For students not planning on taking advanced finance classes, this course provides a broad overview of the important topics in capital markets. For those who wish to take advanced courses in finance, it provides a solid foundation.

2. Prerequisites

The prerequisites for this course are knowledge of basic finance concepts (e.g., at the “Corporate Finance” level), algebra (exponentials, logarithms, square roots, solving multiple equations with multiple unknowns, etc), and probability/statistics (B6014/7014 level). Maybe most importantly is curiosity and a willingness to dig into new things.

3. Course Requirements

The course requires homework, class participation, and an in-class final exam.

4. Homework

The exact timing of homework will be set in the first week. Due to the odd scheduling of block weeks, there will be 3 extensive assignments, one after each set of class meetings. Homework counts for 30% of your total grade and are extremely important as a foundation to understanding class material.

You can work on your own or in groups of **up to and including four people** (≤ 4). I would recommend working in smaller rather than larger groups. Historically, the best students often do all of the homework on their own. If you choose to work in a group, turn in one assignment for each group and be sure to include the names of each group member (you may work with students in either of my sections). You may start working with a group or switch groups at any time during the course. Homework is due at the beginning of class on the day it is due. Late homework is not accepted under any circumstances, as I distributed solutions right after the deadline. Homework is graded on a scale of 1-10. The grades are recorded and count toward the final course grade. You will receive solutions to each problem set, whether or not you turned it in.

5. Class Participation

I expect you to be prepared for every class and participate in class discussions. This is an integral part of the course. You should have completed any assigned reading, have reviewed previous lectures and be willing to answer and ask questions during class. In order to enforce this, I reserve the right to cold call on students during class.

Please don't be shy about asking questions to clarify what we are discussing or to bring a different perspective. The course is cumulative, so being lost can get costly quickly. If I am unclear in presenting something, others are probably also confused and you will be doing yourself and classmates a favor by asking for clarification.

You will be graded on class participation in the following manner. Class participation will count for 10 points and everyone receives 5 points to start with. Constructive comments and questions in class increase and consistently bad or irrelevant comments decrease the participation points. Absences count here also. Negative points are possible, though rare. After each class, I go through the roster and mark participation grades.

6. Questions and Office Hours

You can ask questions by phone, in person or by email. Email is strongly encouraged. I welcome your feedback on every aspect of the course, and I try to get back to you the same day. Amanda is also available to help with questions.

I have an open door policy: you can stop by my office (Uris 424) without an appointment. If think that you will need some extended help, please email me to make an appointment first. I will also be available for questions or comments after each class.

7. Exams

There is only one exam, a take-home final exam. The due date will be scheduled in class. It is 'open book' but you can't use any material from other capital markets courses. The exam is done individually and without any group input.

Cheating is not tolerated and will be punished with the maximum allowable penalty. This, for example, could mean expulsion from the GSB. This has happened in the past, and it is not worth it.

Re-grade policy: If points do not add up correctly, please submit your exam to the TA for immediate correction. Neither the TAs nor I will discuss informally the number of points, or partial credit, assigned on a given question. If you feel that a question was inaccurately graded, then you must: submit a written explanation detailing what the problem is within ten business days of receiving the graded exam back. You will receive a written note regarding the decision reached.

8. Grading

Your overall course score is given by:

Homework:	30%
Class Participation:	20%
Final Exam:	50%

I do give Ps, LPs and occasionally an F. The grade P will be given when exam and homework performance is consistently poor. LP or F will be exceptionally assigned if there is little evidence that a consistent effort was given.

9. Administrivia

1. I like to read your resumes, so please give me a copy in class or email one to me.
2. Handouts will be distributed in class and I will place extra copies outside my office.
3. I don't intend to be rigid, but I do expect you to show up on time for class. Tardiness is disruptive to the entire class and repeated tardiness will reduce your participation points. If you know in advance you will be late, or have to leave early, please let me know, and I will be sure not to penalize you for this.
4. Cell phones and laptop computers cannot be used in class.

10. Texts and Readings

Given that we cover a number of different topics in capital market asset pricing, there is no required textbook. However, if you would like a textbook treatment of many of the concepts that we cover, I would recommend *Investments*, by Bodie, Kane and Marcus, 9th Edition, Irwin/McGraw Hill, 2010. For the options section, *Fundamentals of Futures and Options Markets* by John Hull provides all of the necessary details, and I will distribute photocopies of the relevant sections.

15. Course outline (subject to changes)

Lecture #	Subjects	
1	Introduction	Overview of course and bond markets
2	FI #1	Bond markets, bond pricing
3	FI #2	Short rates and duration
4	FI #3	Long rates and forward rates
5	FI #4	Mortgages and corporate credit
6	INV #1	Stylized facts and portfolio problems
7	INV #2	Portfolio problems and applications
8	INV #3	CAPM and multifactor models
9	INV #4	Benchmarking and applications
10	Options	Option basics