WashU
Olin Business

Syllabus

FIN 5320 – Investment Theory (1.5 Units)

Section 03 – Fall 2026 (Mini A)

Instructor:	Lorenzo Naranjo
Office:	Simon Hall 281
Office Hours:	Monday / Wednesday (2:30pm – 4:00pm)
Email:	naranjo@wustl.edu
Classroom:	Simon Hall 110
Meeting Times:	Monday / Wednesday (1:00pm – 2:20pm)
Class Modality:	In-person

Class Information

Course Description

This course covers the theory of risk and return in capital markets. Topics covered include the CAPM and factor models of asset pricing, measures of mutual fund performance evaluation, interest rates and fixed income securities.

Classroom Etiquette

Class time is valuable, and I will make sure every minute we spend together is productive. Any activity that prevents me or other students from using class time productively is therefore forbidden.

Please arrive on time. If I see many students consistently arriving late, I will start taking attendance as soon as class begins. In turn, you have my commitment that class will start and end on time.

> **! Important**
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> Computers are not allowed in class unless the instructor authorizes one for a specific activity that requires it. Tablets may be used only for note-taking, and must be kept horizontal at all times. External keyboards, computer mice, and headphones are also forbidden in class.

Learning Goals

- Describe the statistical properties of asset returns and the fundamentals of utility theory under uncertainty.
- Determine the optimal capital allocation and risky portfolio for a mean-variance investor.
- Compute expected returns using the CAPM and index models, and distinguish systematic from idiosyncratic risk.
- Compute bond prices, forward rates and duration, and evaluate strategies for managing interest rate risk.
- Question the assumptions behind asset pricing models and use them to assess the performance of an investment strategy.

Class Materials

All class materials are available in https://lorenzonaranjo.com/fin5320-fall26a/. I have linked all the material we will cover in the class to Canvas.

In addition, you may complement the lecture notes with the following textbook:

- Investments by Zvi Bodie, Alex Kane and Alan J. Marcus, 11th Edition, McGraw Hill.

A standard reference among academics, students, and practitioners alike, this book will remain useful well beyond this course. Older editions (5th-9th) are fine to use. Lectures are self-contained, but reading the textbook will reinforce your learning.

> **!** Important
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> You will need a calculator for this class. Any scientific calculator that can compute exponential functions and logarithms should do the job. These type of calculators sell for around $10. I do not recommend using a financial calculator since typing long expressions is hard and prone to errors. You cannot use your phone during the final exam.

Grading

Following is the summary of weights on the various components that I will use to evaluate your performance in this course:

Assignment	Weight
Group Project	10
Problem Sets	25
Final Exam	60
Class Attendance	5

Grade cutoffs between and within letter grades will be chosen so that the average grade for the class is around 3.5 GPA. For MBA students, as per school rules no more than 20% high passes can be awarded in total.

Grades are non-negotiable. If you feel I have graded one of the course requirements incorrectly, please bring it to my attention immediately. Grade appeals (e.g., because your points were not added up correctly) must be submitted within a week after the grades are released. I certainly want all of you to receive the grades you have earned.

Attendance and Participation Policy

Class participation, classroom interaction, and collaboration are a signature of the Olin culture and Code of Conduct. Class time is critical to learning, and prompt attendance during our class times is expected.

I will take attendance by either roll calling your name, asking you to sign an attendance sheet or asking you to do a small assignment on Canvas. Students that are more than 20 minutes late will only get half of the attendance points.

> **!** Important
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> All students are expected to attend **in person**. If you miss a class, please make sure to review the corresponding material and ask me questions if you need help. There will be no hybrid option via Zoom in this class except for PMBA students who have been previously authorized to attend remotely.

Problem Sets

I will assign problem sets so you can practice the concepts covered in class and that will help you prepare for the final exam. Each problem set is due at 11:59 pm CST on the dates indicated in the course schedule below. All problem sets are individual and must be handwritten. You must submit your work via Canvas as a PDF file. If you do not have a scanner, download a scanner app such as Adobe Scan that allows you to scan on your phone and generate a PDF.

There is a 0.2% grade deduction per hour, i.e., 4.8% per day for late submissions.

Group Project

A group project will be assigned, due on 9/30. You may choose your own group members, but each group must have exactly three students. If a group has fewer than three, I will randomly assign additional students to fill it. The objective of the group project is for students to apply the concepts learned in the class to a real-world problem. I will apply the same penalty for late submissions as for problem sets.

Final Exam

A comprehensive final exam will allow you to demonstrate your learning across each of the course units. It will be held on **Saturday, October 17 from 9:00AM - 12:00PM CST**; rooms and logistics will be announced later. The exam is paper-based and closed-book, closed-notes. I will provide a formula sheet, and you must bring a calculator.

The exam time is non-negotiable. If you have a conflict, you must inform me by the end of the second class of the course, so check your schedule early (e.g., confirm the exam date does not conflict with a religious holiday). If you expect to miss the final exam, please (1) e-mail me immediately, before the exam time, and (2) provide justifiable, reliable proof of absence. Without clear and hard evidence, you will receive no credit.

Honor Code and Code of Conduct

This course will follow the standards specified in the Code of Conduct and Code of Academic Integrity, which were presented to faculty and students of the Olin Business School. Students are expected to be familiar with the codes.

Course Schedule

The tentative course schedule for different sections is given below.

Session	Date	Topic	Due
1	8/24	Statistics of Asset Returns	
2	8/26	The Fisher Model	
3	8/31	Utility Theory Under Uncertainty	
4	9/2	Capital Allocation	
–	9/7	Labor Day (No Classes)	
5	9/9	Risky Portfolios	PS #1
6	9/14	Perfect Correlation	
7	9/16	Beta Pricing and the CAPM	PS #2
8	9/21	The Index Model	
9	9/23	Bond Pricing	PS #3
10	9/28	Forward Rates	
11	9/30	Interest Rate Risk Management	Group Project
–	10/5	Fall Break (No Classes)	
–	10/7	Fall Break (No Classes)	
12	10/12	Review for Final Exam	PS #4
13	10/17	Final Exam (9:00am - 12:00pm)	

Required Policies

Academic Integrity

In all academic work, the ideas and contributions of others (including generative artificial intelligence) must be appropriately acknowledged and work that is presented as original must be, in fact, original. You should familiarize yourself with the appropriate academic integrity policies of your academic program(s).

Unauthorized Recording and Distribution of Classroom Activities and Materials

The following applies to all students in my class: "Except as otherwise expressly authorized by the instructor or the university, students may not record, stream, reproduce, display, publish or further distribute any classroom activities or course materials. This includes lectures, class discussions, advising meetings, office hours, assessments, problems, answers, presentations, slides, screenshots or other materials presented as part of the course. If a student with a disability wishes to request the use of assistive technology as a reasonable accommodation, the student must first contact the Office of Disability Resources to seek approval. If recording is permitted, unauthorized use or distribution of recordings is also prohibited."

Disability Resources

WashU supports the right of all enrolled students to an equitable educational opportunity and strives to create an inclusive learning environment. In the event the physical or online environment results in barriers to your inclusion due to a disability, please contact WashU's Disability Resources (DR) as soon as possible and engage in a process for determining and communicating reasonable accommodations. As soon as possible after receiving an accommodation from DR, send me your WashU Accommodation Letter. Remember that accommodations cannot be applied retroactively. https://disability.wustl.edu/

Sexual Harassment and Assault

If you are a victim of sexual discrimination, harassment or violence, we encourage you to speak with someone as soon as possible. Understand that if you choose to speak to me as an instructor, I must report your disclosure to my department chair, dean, or the Gender Equity and Title IX Compliance Officer, which may trigger an investigation into the incident. You may also reach out to the Relationship & Sexual Violence Prevention (RSVP) Center to discuss your rights and your options with individuals who are not mandatory reporters. https://titleix.wustl.edu/students/confidentiality-resources-support/

Religious Holidays

To ensure that accommodations may be made for students who miss class, assignments, or exams to observe a religious holiday, you must inform me in writing before the end of the third week of class, or as soon as possible if the holiday occurs during the first three weeks of the semester. For more information, please see the university's Religious Holiday Class Absence Policy.

Emergency Preparedness

Before an emergency affects our class, students can take steps to be prepared by downloading the WashU SAFE App. In addition, each classroom contains a "Quick Guide for Emergencies" near the door.

Resources for Students

WashU provides a wealth of support services that address academic, personal, and professional needs. To start exploring resources that can help you along the way, please visit: Resources for Students.