



Financial Economics

Syllabus

Fall 2023

Mian LIU

Ph.D. Candidate in Finance

mian.liu@hec.edu

Building W2 / room #22

HEC Finance Department

Assistant: Mrs. Isabella Scacchi Labatut

scacchi-labatut@hec.fr

Building W2 / room #27

1. Overview

This course provides an introduction to Finance. After a brief description of the financial system, we will learn how to compare and evaluate streams of money received at different points in time (**time value of money**). The concept of the time value of money is crucial for evaluating investment projects: be it within companies (**capital budgeting**), for personal life choices (e.g., buying or renting an apartment), or for assessing how much to spend to mitigate damages from future climate change. We will next study **portfolio management**, i.e., how to assess the expected return and risk of a portfolio of financial assets. In this context, we will also discuss the pros and cons of different investment strategies that consider Environmental, Social, and Governance (ESG) factors. Finally, we introduce an important pillar of finance theory: the **Capital Asset Pricing Model** (CAPM).

2. Course Material

You will receive a soft copy of the course pack that consists of theoretical material and exercises that complement the lectures, as well as copies of lecture slides. All course materials will be available on the Blackboard.

3. Reference Books (with HEC Library call numbers)

- *Finance* by Bodie & Merton (BOD-5) [available in English and French]
- *Principles of Corporate Finance* by Brealey & Myers (chapters 1 and 2)
- *Investments* by Bodie, Kane & Marcus (chapters 5,6,7, 9) (BOD-5-712) [available in English]

Additional material

- *Pricing the Planet's Future* by Christian Gollier, Princeton University Press
- *Applying Economics – Not Gut Feel – To ESG*, Alex Edmans, Working paper, London Business School, available online at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4346646

4. Course Organization & Grades

Lectures are held face-to-face in English. Please be **physically on time** and **mentally present**. Please also switch your laptops and cell phones to the silence mode. This semester, we are going to spend 90 minutes together each time for 12 times. I would like us to create a friendly environment for one another. I would like everyone to feel comfortable enough to speak up, either for clarification or discussion. The only thing I would discourage in the classroom is students talking amongst themselves.

Final Exam	200 points (closed book, paper-pencil)
4 in-class Quizzes	100 points (25*4, on BB)
<hr/>	
Total Grade	300 points

5. Quizzes, Homework & Exams

- (1) We will hold four **Blackboard quizzes** during class to facilitate learning. Quizzes are always held at the beginning of a class, and they take place on the dates indicated below.

There will be no make-up quizzes: If you do not take a quiz without a valid excuse, you will get zero points. There are **four** valid excuses: being sick (medical attestation required), a driving license test, the loss of a close family member, or an appointment at a prefecture. If you miss a quiz with a valid excuse, you will be exempted from this quiz, implying that your other points will be appropriately rescaled. If you miss a quiz for a valid reason, please make sure to let me know either in person or by email before 5pm of that day with a corresponding document (for example, a copy of medical attestation). Late messages will not be accepted.

Connection issues: if you experience a weak internet connection, please remember that you can use your mobile network to be connected to your tablet or computer. Please learn how to do it before taking quizzes.

- (2) In addition to the quizzes, I will distribute problem sets and assignments to work at home. You should be ready to discuss them in class on the day they are due. It is in your best interest to make a serious effort to solve the problem sets, as they consist of questions based on previous years' exams. Homework will not be graded.

- (3) The **written final exam** will take place between Oct 18 and Oct. 21 (the exact date to be confirmed). The exam is 2 hours and takes place on-site (i.e., you take the exam in a pre-assigned room). The exam is **closed book** (calculators only), but you are allowed to bring one A4 “cheat” sheet to the exam, on which you can write whatever you like on both sides.

If you fail to take the final exam without a valid excuse, you get an F and will have to repeat the course. Valid excuses are the same as above. Please let me know if you are to be absent before the exam day (further information to be confirmed).

- (4) We will have a finance lab during our lectures. This class will be devoted to working with real financial data and applying the theoretical principles in practice. At the end of the lab, you will submit your work via an application that I will introduce to you. Working with the data necessarily requires the use of some quantitative software. You will be required to work in Microsoft Excel (spreadsheet).

6. Calculator

To solve the quizzes and the exam, you need to have a calculator that can take power and logs. Cell phones, tablets, and laptops are NOT permitted as a calculator for quizzes or the exam.

7. Online Office Hours

I offer online office hours (via Zoom). I plan to hold them once per week for 6 times. The first five schedules fall on Wednesday night starting from week 2, and the final one is before the final exam.

Please use this link to join my online office hour for the course:

<https://hec-fr.zoom.us/j/99474948900?pwd=TGpJNStqeFdDOFRHSVUxeThaekJzUT09> Meeting ID: 994 7494 8900
Passcode: 632180

This link serves all office hours meetings. **Do not hesitate to ask for help and do it timely!**

Accompanying Tutorial

There is an accompanying tutorial held by our Ph.D. student Alyssa RUSONIK (alyssa.rusonik@hec.edu). These tutorials are meant for students who struggle with the basic material and mathematical calculations. Tutorials will be held on Zoom. The tentative dates for the tutorials are indicated below.

To join the Zoom Tutorial, please use this link:

<https://hec-fr.zoom.us/j/96653843950?pwd=MUIyb0o3SjBaQkd4YXVHdjVwNnAyZz09>

Meeting ID: 966 5384 3950

Passcode: HEC

8. Tentative Course Schedule

Lecture	Date	Day	Topic Covered	Quizzes
1	Sep 5	Tue	Introduction. Time Value of Money.	
2	Sep 7	Thu	Concept of Present value. Perpetuity. Annuity.	
3	Sep 12	Tue	The NPV rule. Choice of a discount rate. Sample quiz 1. HW 1.	
4	Sep 14	Thu	Alternative investment criteria. Introduction to portfolio management.	Quiz 1
5	Sep 19	Tue	Expected return and risk. HW 2.	
6	Sep 21	Thu	Sample quiz 2. Diversification. Minimum variance portfolio. HW 3.	
7	Sep 26	Tue	Feasible and efficient portfolios.	Quiz 2
8	Sep 28	Thu	Feasible and efficient portfolios. Sample quiz 3.	
9	Oct 3	Tue	Financial Lab 2. HW 4.	Quiz 3
10	Oct 5	Thu	Optimal portfolios. CAPM. - Sample Quiz 4.	
11	Oct 10	Tue	CAPM. HW 5.	Quiz 4
12	Oct 12	Thu	CAPM. ESG. Wrap up.	
Final Exam	TBD	TBD		

Tutorial	Date	Day	Time	Venue
1	Sep 12	Tue	8-10pm	Online (Zoom)
2	Sep 21	Thu	8-10pm	Online (Zoom)
3	Sep 28	Thu	8-10pm	Online (Zoom)
4	Oct 5	Thu	8-10pm	Online (Zoom)
5	TBD	TBD	8-10pm	Online (Zoom)

Office Hour	Date	Day	Time	Venue
1	Sep 13	Wed	7:30-9 pm	Online (Zoom)
2	Sep 20	Wed	7:30-9 pm	Online (Zoom)
3	Sep 27	Wed	7:30-9 pm	Online (Zoom)
4	Oct 4	Wed	7:30-9 pm	Online (Zoom)
5	Oct 11	Wed	7:30-9 pm	Online (Zoom)
6	TBD	TBD		

9. Additional notes

I reserve the right to make changes regarding the course. Notices will be given out in advance.