

# Foundations of Financial Markets

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## Today's Class:

- Practical Information about the class  
(see also the [syllabus](#))
- Overview of class:
  - Outline of topics covered
  - The axioms underlying finance
  - The main insights of finance
- First topic of the class: financial instruments

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## The Web Page

The Course web page is:

<http://pages.stern.nyu.edu/~lpederse/courses/c150002/c150002.html>

It can be found by starting at my homepage:

<http://pages.stern.nyu.edu/~lpederse/>

Has information about:

- Class material, problems, and solutions.
- TA office hours.
- My office hours.

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## Readings

- Bodie, Kane and Marcus  
*“Essentials of Investments.”*
- *“Solutions Manual for Essentials of Investments.”*
- Ross, Westerfield, and Jordan, *“Essentials of Corporate Finance,”* Custom Edition.
- Possibly supplementary readings.

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## Problems

- Solving problems is crucial to learning the material.
- 10 graded problem sets
  - You may discuss the problems in groups.
  - Turn in your own *handwritten* solutions.
  - Show how you get your result.
  - Good-faith effort to answer **all** questions
  - **Late problem sets are not accepted.**
  - Full score if you get credit on 9 out of 10
- Suggested problems from the books
  - See webpage.
- Challenging problems

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## Calculators

- You need a calculator for problems and exams.
- Having a financial calculator is an advantage, but not a requirement.
- Standard financial calculators include, for instance,
  - Hewlett Packard 12C and 10B.

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## Prerequisites

- Some knowledge of the basics of finance, although the course is self-contained.
- Because of the nature of modern practical finance, the course is heavily quantitative:
  - Lot's of algebra in class and in problems.
- Knowledge of how to use a calculator
- Use of spreadsheets: core enhancement.

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## Classroom Behavior

- Class participation is encouraged and makes the class more fun.
- All questions are encouraged – they help many other students
- The class starts on time!
- The class ends on time.
- Respect classmates desire to learn:
  - Do not disrupt the class
  - Being late is disruptive no matter how quiet you are.
  - No side conversations, even in a whisper.
  - Turn off cell phones and other devices

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## Grades

- Homework: 15%
- Midterm: 30%
- Core enhancement: 10%
- Final: 45%
- Classroom behavior: on a case-by-case basis

Cheating and copying from others not accepted.

Grades are not subject to discussion.

Only exception: clear grading errors will be corrected.

(FYI: I have never changed a grade so far.)

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## The Course Outline

- Financial Instruments and Markets
- Time Value of Money
- Portfolio Selection
- Equilibrium Asset Pricing: The Capital Asset Pricing Model
- Equity Valuation
- Arbitrage
- Fixed Income Securities (Bonds)
- Derivative Securities (Options)
- Market Efficiency, Frictions, and Anomalies

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## Finance is Based on Simple Axioms:

- Investors prefer more to less.
- Investors are risk-averse.
- Money paid in the future is worth less than the same amount today.
- Financial markets are competitive.

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## The Foundations of Finance: 3 Nobel-Prize-Winning Insights

- Harry Markowitz:  
Optimal portfolio selection.  
"Don't put all your eggs in one basket."
- William Sharpe:  
Capital Asset Pricing Model (CAPM):  
In equilibrium, riskier assets have higher returns
- Robert Merton, Myron Scholes (Fischer Black):  
No arbitrage and pricing of derivatives (options)

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