

**Accelerated Corporate Finance**  
Finance 612  
The Wharton School, University of Pennsylvania  
Fall 2018, Quarter 2

---

**Course Description**

This course is a fast-paced introduction to modern principles of finance, developed over the last half-century. It is not intended as an introductory course in finance, as it assumes thorough knowledge of the time value of money, discounting, and basic valuation models such as the constant-growth model. We will cover (1) capital budgeting decisions under inflation and taxes, (2) uncertainty and the tradeoff between risk and return, (3) market efficiency, (4) the impact of financing decisions on firm valuation, (5) option pricing. These concepts form the foundation for all elective finance courses.

**Professor**

Jessica A. Wachter  
Email: [jwachter@wharton.upenn.edu](mailto:jwachter@wharton.upenn.edu)  
Office Hours: Wednesdays 3:30–4:30pm in SH-DH 2459

**Teaching Assistants**

Alfonso Aguila  
Email: [aguilaa@wharton.upenn.edu](mailto:aguilaa@wharton.upenn.edu)

Hongye Guo  
Email: [hoguo@wharton.upenn.edu](mailto:hoguo@wharton.upenn.edu)

Sophia Hua  
Email: [huaye@wharton.upenn.edu](mailto:huaye@wharton.upenn.edu)

Akshay Malhotra  
Email: [akshayma@wharton.upenn.edu](mailto:akshayma@wharton.upenn.edu)

Dan Nguyen  
Email: [ngda@wharton.upenn.edu](mailto:ngda@wharton.upenn.edu)

Elizabeth Wen  
Email: [lisawen@wharton.upenn.edu](mailto:lisawen@wharton.upenn.edu)

Office hours for teaching assistants will be announced on canvas.

**Course Material**

- Required: Lecture notes and practice problems are available on Canvas at <https://canvas.upenn.edu>.
- A scientific or business calculator. It will be necessary for your calculator to have a  $x^y$  function.
- Recommended: Corporate Finance by Berk and DeMarzo.

## Practice problems

There are practice problems with solutions. These practice problems are a good guide to the type of problems on the exams. It is only possible to obtain a deep understanding of the material by working through practice problems.

## Grading

Grades will be based on a computational assignment (10%) and on the final exam (90%). Class participation is expected, and will help determine the grade if the student is on the margin between grades. The computational assignment will be due on November 29th. The final exam will be held at the time determined by the Registrar. This year, the exam will be held on Thursday, December 13, from 9–11 (location TBD). The final exam is open notes.

There will not be any make-up exams except as required by University policy.

All regrade requests must be made in writing within one week of the day the exams are returned. Any exam submitted for regrading of a question can be subjected to a complete regrading.

## Study Groups

You are encouraged to work through the practice problems and to go over the lecture notes (your own, or those on Canvas) with your study group. The computational assignment can be handed in based on groups of three or fewer students.

## Course Schedule

Notes: Dates are approximate

---

Tuesday 10/23	Capital Budgeting in Practice
Thursday 10/25	Capital Budgeting in Practice (cont.)
Tuesday 10/30	Expected Returns and Risk
Thursday 11/01	Portfolio Analysis
Tuesday 11/06	Portfolio Analysis (cont.)
Thursday 11/08	Capital Asset Pricing Model
Tuesday 11/13	Market Efficiency
Thursday 11/15	Capital Structure
Tuesday 11/27	Capital Structure (cont.)
Thursday 11/29	Valuation and Capital Budgeting with Leverage
Tuesday 12/04	Option Definition and Strategies
Thursday 12/06	Option Valuation
Thursday 12/13	Final Exam (note: 9–11 am)

---

## Detailed Outline

1. Capital Budgeting in Practice
  - (a) Overview of capital budgeting
  - (b) Depreciation
  - (c) Inflation and capital budgeting
  - (d) Investments of different lives: EAC method
  - (e) Working capital
2. Expected Returns and Risk
  - (a) Return definitions
  - (b) Overview of portfolio theory
  - (c) Mean, standard deviation, and correlation
3. Portfolio Analysis
  - (a) Two risky assets
  - (b) One riskless and one risky asset
  - (c) One riskless and two risky assets
  - (d) The general case: one riskless and multiple risky assets
4. Capital Asset Pricing Model (CAPM)
  - (a) Statement of the CAPM
  - (b) Proof of the CAPM
  - (c) Capital market line vs. Security market line
  - (d) Evidence for and against the CAPM
  - (e) Application to capital budgeting
5. Market Efficiency
  - (a) Efficient markets hypothesis
  - (b) Evidence for and against market efficiency
  - (c) Joint hypothesis problem
6. Capital Structure
  - (a) Preliminaries
  - (b) Modigliani and Miller propositions in a frictionless market
  - (c) Corporate taxes
  - (d) Costs of financial distress

7. Valuation and Capital Budgeting with Leverage

- (a) Adjusted present value (APV)
- (b) Unlevering and levering beta
- (c) Weighted average cost of capital (WACC)
- (d) APV vs. WACC

8. Option Definitions and Strategies

- (a) The options contract
- (b) Payoffs and profits at expiration
- (c) Option strategies

9. Option Valuation

- (a) Bounds on option prices prior to expiration
- (b) Factors affecting option prices
- (c) Put-call parity
- (d) The Black-Scholes formula