



# **FINANCE 611: CORPORATE FINANCE**

## **FALL 2015**

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Office hours: By Appointment

**Course Website: Available on Canvas**

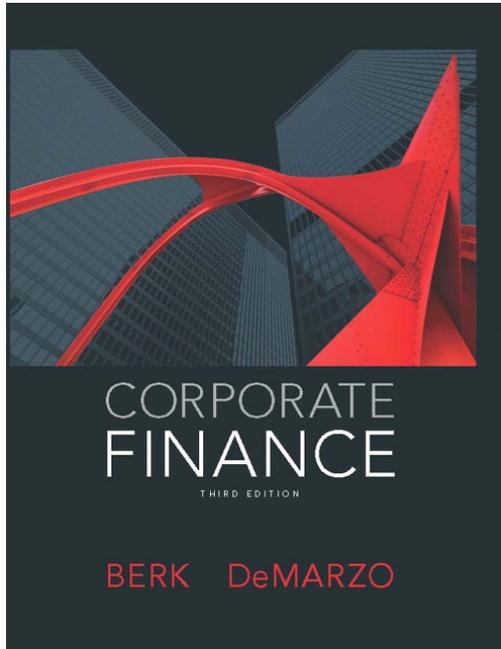
### **COURSE DESCRIPTION**

This course is an in-depth introduction to finance with an emphasis on applications that are vital for corporate managers. We will discuss most of the major financial decisions made by corporate managers both within the firm and in their interactions with investors. Essential in most of these decisions is the process of valuation, which will be emphasized throughout the course. Topics include criteria for making investment decisions, valuation of financial assets and liabilities, relationships between risk and return, capital structure choice, payout policy, the effective use and valuation of derivative securities (futures, options), and risk management.

## COURSE MATERIALS

### *Textbook*

The textbook for the course is:



**Corporate Finance (plus MyFinanceLab), Jonathan Berk and Peter DeMarzo, 3rd ed., Pearson - Prentice Hall, 2014. (SBN-10: 0-13-342415-4; ISBN-13: 978-0-13-342415-7)**

There are several options for accessing the book and MyFinanceLab. You can purchase the book with MyFinanceLab. You can purchase the e-book and MyFinanceLab. You can purchase or rent the book, and purchase MyFinanceLab separately. Please see the last page of this syllabus for details for details on registering for MyFinanceLab.

Other required readings are listed in the syllabus and made available through Canvas or Study.net.

### *Slides*

PowerPoint slides for all of the class sessions will be printed and handed out in class. The slides are also available on Canvas.

### ***Cases***

Cases are available on Study.net which can be accessed through Canvas. Case-related material, if any, will be made available on Canvas.

### ***Additional Material***

Additional copywritten material (e.g., readings) will be made available on Study.net, non-copywritten material (e.g., notes, supplemental exercises) will be made available on Canvas.

### **CLASS PREPARATION**

Proper preparation consists of completing the required readings and case, if any. An important by-product of proper preparation is that it lessens the chances of falling behind in the course and being unable to catch up. This course covers a large amount of material in significant depth. It is very easy to fall behind. Consider this a warning. Do not fall behind.

The classroom environment will be one of discussion and collaboration. An integral part of the learning experience is learning from your colleagues, their experiences, and the classroom discussion. As such, coming to class prepared is crucial for your success in the course, and the success of the course.

### **CASES**

Students are encouraged to form groups of *no more than four* students for the purpose of working the case. Neither the TAs nor I will answer any questions related to the cases prior to their discussion in class, as an important element of these assignments is your ability to interpret information and work independently of any guidance. At the start of the class in which we discuss the case, you will be required to answer two to three questions related to the case to test your knowledge and understanding of the case material.

### **HOMEWORK ASSIGNMENTS**

Homework assignments are available on MyFinanceLab. Please see the attachment at the end of this syllabus for details on signing up for this service, and the course schedule for homework due dates. The purpose of the homework assignments, like preparing for course, is to keep you up to date with the course material. Because students have unlimited attempts at the homework problems on MyFinanceLab before the assignment due date, almost all students receive full points on the

homework. (You can re-take the homework assignment as often as you like by undertaking “similar exercises” in MyFinanceLab.) Therefore, getting less than full points on a homework assignment puts you at a considerable disadvantage when the final grade is computed.

Neither the TAs nor I will answer any questions pertaining to the homework, as an important element of the homework is your ability to work on the mechanics of finance independently of any guidance. If you miss the due date, which is clearly identified in MyFinanceLab and in the course schedule below, you will receive a zero. *There are no exceptions.*

For those looking for additional problems to test the understanding of the material, I have posted problem sets, and their solutions, on Canvas in the folder “Additional Problems.” There are also problems at the end of each chapter in the textbook, as well as problems scattered throughout each chapter.

## **EXAMS**

There is a midterm and a final exam. Both exams are open book. You should bring a calculator and writing utensils to the exam. Laptops, tablets, and computers are not permitted for space reasons and the exams will be designed to recognize this limitation in computing power. The exam dates are provided in the Course Schedule attached to the end of this syllabus. There are no makeup exams. If you miss the midterm exam, regardless of the reason, your final score will be used in its place. If you miss the final exam, you will automatically fail the course. The only excuse for missing the final exam is a medical emergency, the validity of which will be verified by the University.

The best way to prepare for the exams is to come to class and participate, work all of the cases, and complete the homework assignments. For additional preparation, try the problems sets available in the “Additional Problems” folder on Canvas, problems at the end of each chapter in the textbook, and problems within MyFinanceLab.

## **GRADING**

Your course grade will be determined by your class participation (10%), performance on the case questions (15%), completion of the MyFinanceLab homework assignments (15%), a midterm

(25%), and a final exam (35%). If your score on the final exam is greater than that on the midterm, I will replace your midterm score with your final score, which will then count for 60% of your grade. However, this substitution can only occur if you take the midterm and receive a minimum number of points to be determined at the time of the exam.

Class grades are determined using a class-wide (i.e., across all of my sections) curve that respects any constraints imposed by the University or Wharton. Students have exactly one week from the day they receive their midterm exam to request a regrade. The request must be attached to the exam and clearly state the reason(s) for the regrade.

The only valid reason for a regrade is an error on my part. I will not debate the merits of my grading scheme. If the regrade request is accepted, the exam will be regarded in its entirety. As a result, the revised score may go up, down, or stay the same. I will schedule two days during the Spring semester during which you may view your final and discuss your grades. These days will be announced during the semester. Any concerns regarding final exam or course grade will be settled at that time.

### **COURSE ETIQUETTE**

The only electronics allowed in the classroom are calculators. Please make sure any other electronics are shut off and put away unless prompted by me.

Students are expected to respect the University of Pennsylvania's Code of Academic Integrity ([http://www.upenn.edu/academicintegrity/ai\\_codeofacademicintegrity.html](http://www.upenn.edu/academicintegrity/ai_codeofacademicintegrity.html)) and to behave with integrity in all aspects of the course. Students are encouraged to discuss the cases and other content of the course with first-year MBA student in their own section and in other sections. However, students should not discuss the content related to the current day's class discussion or exam during the time period between sections to avoid giving later sections an unfair advantage. Violations of the honor code will be immediately reported to the administration.

### **ATTENDANCE**

Students are expected to attend all classes and arrive on time. I also ask that you avoid disrupting class by leaving early. I recognize that personal emergencies arise, causing a student to miss a class or part of a class. If such a circumstance arises, please notify me via email of the situation.

If circumstances do not permit prior notification, please do so as soon after the missed class as possible.

### **FACULTY MEALS**

If you are interested in getting lunch, please sign up on Canvas. I have allocated a number of days during the semester.

### **COMMUNICATING WITH ME**

The best way to contact me outside of the classroom is via email. Please do not ask me long, detailed questions about the course, or questions that (may) require a long, detailed response. I am happy to meet with students outside the classroom so email me to schedule an appointment. Please let me know of any difficulties you may be having with the course as soon as possible. These difficulties may arise from the course itself, or external forces (e.g., other courses, personal issues). Regardless of the source, let me know as soon as possible so we can work together to avoid larger problems later on. Wharton and the University offer a wide range of support services that are geared towards helping students.

# Corporate Finance Course Outline

*Preliminary and Subject to Change*

## Topic 0: Course Introduction and Overview

- Read:
  - Syllabus
  - Canvas course website containing all non-copywritten material
  - Study.net containing all copywritten material

## Topic 1: Time Value of Money

- Read:
  - Chapter.Section:
    - 3.2 (Interest Rates and the Time Value of Money)
    - 4.1 (The Timeline)
    - 4.2 (The Three Rules of Time Travel)
    - 4.3 (Valuing a Stream of Cash Flows)
    - 4.5 (Perpetuities and Annuities)
    - 4.6 (Using an Annuity Spreadsheet or Calculator)
    - 4.7 (Non-Annual Cash Flows)
    - 4.8 (Solving for the Cash Payments)
    - 4.Appendix (Solving for the Number of Periods)
    - 5.4 (Risk and Taxes)
- Concepts:
  - Discounting
  - Compounding
  - Present value
  - Future value
  - Taxes
  - Inflation
- Applications:
  - Valuing zero-coupon bonds
  - Valuing and structuring annuities and perpetuities
  - Savings
  - Retirement planning

## Topic 2: Interest Rates

- Read:
  - Chapter.Section:
    - 5.1 (Interest Rate Quotes and Adjustments)
    - 5.2 (Application: Discount Rates and Loans)
    - 5.3 (The Determinants of Interest Rates)
    - 5.5 (The Opportunity Cost of Capital)

- Concepts:
  - APR
  - Periodic Rates
  - Effective Annual Rate
  - Yield to maturity
  - Yield curves
  - Spot Rates
- Applications
  - Savings vehicles
  - Mortgage financing and refinancing decisions

### **Topic 3: Discounted Cash Flow (DCF) Analysis**

- Read:
  - Chapter.Section:
    - 2 (Introduction to Financial Statement Analysis)
    - 3.1 (Valuing Decisions)
    - 3.3 (Present Value and the NPV Decision Rule)
    - 7.1 (NPV and Standalone Projects)
    - 8.1 (Forecasting Earnings)
    - 8.2 (Determining Free Cash Flows and NPV)
    - 8.3 (Choosing Among Alternatives)
    - 8.4 (Further Adjustments to Free Cash Flow)
- Concepts:
  - Free cash flow
  - Discount rates and cost of capital
  - Discounted cash flow (DCF)
  - Net present value (NPV)
  - Sensitivity analysis
  - Scenario analysis
  - Breakeven analysis
  - Value drivers
  - Profit margins and operating leverage
  - Profitability index
- Case:
  - Callaway Golf FX-1
- Applications
  - Strategic decision-making
  - Capital budgeting
  - Financial statement analysis
  - Strategic decision making with resource constraints

### **Topic 4: Return on Investment**

- Read:
  - Chapter.Section:
    - 7.2 (The Internal Rate of Return Rule)
    - 7.4 (Choosing Between Projects)

- Concepts:
  - Internal rate of return
  - Hurdle rate
- Concepts:
  - Should you pay cash for a new car?
- Applications:
  - Amortizing loans
  - Personal finance (auto loans, leases, mortgages)
  - Financial negotiating strategies

## **Topic 5: Fixed Income Securities**

- Read
  - Chapter.Section:
    - 3.4 (Arbitrage and Law of One Price),
    - 3.5 (No-Arbitrage and Security Prices)
    - 6.1 (Bond Cash Flows, Prices, and Yields)
    - 6.2 (Dynamic Behavior of Bond Prices)
    - 6.3 (The Yield Curve and Bond Arbitrage)
    - 6.4 (Corporate Bonds)
    - 6.5 (Sovereign Bonds)
    - 6.Appendix (Forward Interest Rates)
    - 30.4 (Interest Rate Risk)
- Concepts
  - Bond markets and institutions
  - Valuing risk-free bonds
  - Bond price-interest rate relation
  - Bond arbitrage
  - Interest rate sensitivity of bonds (Duration)
  - Leverage
  - Forward Rates
- Case
  - Orange County Investment Pool
- Applications:
  - Valuing and investing in treasury securities
  - Managing a bond portfolio
- Further Concepts:
  - Collateralized Debt Obligations (CDOs)
  - Immunization and duration matching

## **Topic 6: Valuing Stocks**

- Read:
  - Chapter.Section:
    - 9.1 (The Dividend Discount Model)
    - 9.2 (Applying the Dividend Discount Model)
    - 9.3 (Total Payout and Free Cash Flow Valuation Models)
    - 9.4 (Valuation Based on Comparable Firms)

- Concepts
  - Measuring returns
  - Equity cost of capital
  - Dividend yield
  - Capital gains
  - Dividend discount model
  - Cum- and Ex-dividend prices
  - Share repurchases
  - Price-Earnings (P/E) ratio
  - Return on investment
  - Enterprise value
  - Comparable analysis
- Applications:
  - Mergers and Acquisitions
  - Corporate defenses

### **Topic 7: Risk and the Cost of Capital**

- Read:
  - Chapter.Section:
    - 10.1 (Risk and Return: Insights from 86 Years of Investor History)
    - 10.2 (Common Measures of Risk and Return)
    - 10.3 (Historical Returns of Stocks and Bonds)
    - 10.4 (The Historical Trade-Off Between Risk and Return)
    - 10.5 (Common Versus Independent Risk)
    - 10.6 (Diversification in Stock Portfolios)
    - 10.7 (Measuring Systematic Risk)
    - 10.8 (Beta and the Cost of Capital)
- Concepts:
  - Bond markets and institutions
  - Expected return
  - Stock volatility
  - Risk-return tradeoff
  - Portfolio risk
  - Diversification
  - Equity market integration
  - Mean-variance frontier
  - Minimum variance portfolios
  - Efficient portfolios
  - Short sales
  - Leverage
  - Sharpe ratio
  - Beta
- Case:
  - Partners Healthcare
- Applications:
  - Portfolio management

- Of interest:
  - Portfolio Optimizer and Instructions (on the course website)

## Topic 8: CAPM

- Read:
  - Chapter.Section:
    - 11.7 (The Capital Asset Pricing Model)
    - 11.8 (Determining the Risk Premium)
    - 12.1 (The Equity Cost of Capital)
    - 12.2 (The Market Portfolio)
    - 12.3 (Beta Estimation)
    - 12.4 (The Debt Cost of Capital)
    - 12.5 (A Project's Cost of Capital)
    - 12.6 (Project Risk Characteristics and Financing)
- Concepts:
  - Capital market line
  - Security market line
  - Market Beta
  - Market risk
  - Volatility
  - Beta Estimation
  - Alpha
  - Security mispricing
- Case:
  - Cost of Capital at Ameritrade
- Applications:
  - Portfolio management
  - Capital budgeting

## Topic 9: Corporate Capital Structure

- Read:
  - Chapter.Section:
    - 14.1 (Equity Versus Debt Financing)
    - 14.2 (Modigliani-Miller I: Leverage, Arbitrage, and Firm Value)
    - 14.3 (Modigliani-Miller II: Leverage, Risk, and Cost of Capital)
    - 14.4 (Capital Structure Fallacies)
    - 14.5 (MM: Beyond the Propositions)
    - 15.1 (The Interest Tax Deduction)
    - 15.2 (Valuing the Interest Tax Shield)
    - 15.3 (Recapitalizing to Capture the Tax Shield)
    - 15.4 (Personal Taxes)
    - 15.5 (Optimal Capital Structure with Taxes)
    - 16.1 (Default and Bankruptcy in a Perfect Market)
    - 16.2 (The Costs of Bankruptcy and Financial Distress)
    - 16.3 (Financial Distress Costs and Firm Value)
    - 16.4 (Optimal Capital Structure: The Trade-off Theory)

- Concepts:
  - Leverage
  - Modigliani and Miller Irrelevance Propositions
  - Weighted Average Cost of Capital (WACC)
  - Arbitrage
  - Equity issuance dilution fallacy
  - Earnings per share (EPS) fallacy
  - Market Imperfections
  - Interest Tax Shields
  - Bankruptcy
  - Bankruptcy costs
  - Direct and indirect costs of financial distress
  - Tradeoff theory
  - Valuation with Leverage
- Case:
  - Blaine Kitchenware Inc.
- Applications:
  - Industry capital structure
  - Optimal capital structure
  - Refinancing
  - Share Repurchase Programs

## **Topic 10: Risk Management**

- Read:
  - Chapter.Section:
    - 30.1 (Insurance)
    - 30.2 (Commodity Price Risk)
    - 30.3 (Exchange Rate Risk)
    - 30.4 (Interest Rate Risk)
    - 20.1 (Option Basics)
    - 20.2 (Option Payoffs at Expiration)
    - 21.1 (The Binomial Option Pricing Model)
    - 21.2 (The Black-Scholes Option Pricing Model)
- Concepts:
  - Price-fixing contracts
  - Forwards
  - Futures
  - Options
  - Covered interest parity
  - Put-Call-Parity
  - Option Premia
  - Basis risk
  - Price-insurance contracts
  - Binomial Option Pricing Model
  - Black-Scholes Option Pricing Model

- Applications:
  - Hedging currency risks via futures and options
  - Value creation via hedging

### Class Schedule Up to Midterm

Date	Class #	Topic	Readings	Cases	MyFinanceLab
Wed Aug, 26	1	Introduction; Time Value of Money	3.2; 4.1-4.3, 4.5-4.8, 4.Appdx		
Mon Aug, 31	2	Time Value of Money; Interest Rates	5.1-5.5		
Wed Sep, 2	3	Capital Budgetting (Free Cash Flows)	2; 3.3-3.5; 7.1-7.3; 8.1-8.5		
Mon Sep, 7	4	Capital budgetting (Free Cash Flows & Decision Criteria)			HW1 - Time Value of Money
Wed Sep, 9	5	Capital Budgetting (Sensitivity Analysis)			
Mon Sep, 14	6	Return on Investment	7.2, 7.4	Callaway	
Wed Sep, 16	7	Fixed Income Securities - Bond Markets and Valuation	6.1, 6.4, 6.5		
Mon Sep, 21	8	Fixed Income Securities - Duration and Forward Rates	6.2, 6.Appendix; 30.4		HW 2 - Capital Budgetting
Wed Sep, 23	9	Valuing Stocks	9.1-9.4	Pay cash for a car?	
Mon Sep, 28	10	Valuing Stocks			
Wed Sep, 30	11	Risk and Cost of Capital	10.1-10.6		
Mon Oct, 5	12	Risk and Cost of Capital	10.7-10.8		HW 3 - Stocks and Bonds
Wed Oct, 7	13	Review		Orange County	
Tue Oct, 13		Midterm, 6:00 - 8:00 pm			
Mon Oct, 19	14	Start second half of class			

### To register for **Corporate Finance**:

1. Go to [www.pearsonmylabandmastering.com](http://www.pearsonmylabandmastering.com).
2. Under Register, select **Student**.
3. Confirm you have the information needed, then select **OK! Register now**.
4. Enter your instructor's course ID: [binsbergen68203](#), and **Continue**.
5. Enter your existing Pearson account **username** and **password** to **Sign In**.  
You have an account if you have used a Pearson product, for example: MyMathLab, MyITLab, MyPsychLab, MySpanishLab or Mastering, such as MasteringBiology.
  - > If you don't have an account, select **Create** and complete the required fields.
6. Select an access option.
  - > Use the access code that came with your textbook or that you purchased separately from the bookstore.
  - > Buy access using a credit card or PayPal account.
  - > If available, get 14 days temporary access. (The link is near the bottom of the screen.)
7. From the confirmation page, select **Go To My Courses**.
8. On the My Courses page, select the course tile **Corporate Finance** to start your work.

### To sign in later:

1. Go to [www.pearsonmylabandmastering.com](http://www.pearsonmylabandmastering.com).
2. Select **Sign In**.
3. Enter your Pearson account **username** and **password**, and **Sign In**.
4. Select the course tile **Corporate Finance** to start your work.

### To upgrade temporary access to full access:

1. Go to [www.pearsonmylabandmastering.com](http://www.pearsonmylabandmastering.com).
2. Select **Sign In**.
3. Enter your Pearson account **username** and **password**, and **Sign In**.
4. Select **Upgrade access** from the course tile **Corporate Finance**.
5. Enter an access code or purchase access with a credit card or PayPal account.

For a registration overview, go to [www.pearsonmylabandmastering.com/students/get-registered](http://www.pearsonmylabandmastering.com/students/get-registered). Scroll down to **Need a little help?** and select a video.