This course concerns financial decisions made by businesses, the evaluation of prospective investments, and the funding of such investments. We will study the fundamental principles underlying those decisions and the tools used to apply them. Four data-based valuation assignments and two cases offer an opportunity for detailed practice. By the end of the semester, students should have a good understanding of capital budgeting, stock and bond valuation, optimal portfolio choice decisions, the pricing of risk, and capital structure. Special topics include an introduction to valuation across national borders and an introduction to valuation using option pricing techniques. Tools and applications are enhanced with background such as the economics of interest rates, current issues in monetary policy, and the meaning and implications of behavioral finance.

The class is lecture format, with questions and discussion encouraged. Four spreadsheet-based problems and two cases will be assigned. Solutions will be uploaded to the class webpage on www.blackboard.cornell.edu, graded for effort, and discussed in class. There will be two exams, one during class time at about the middle of the semester and the other during final exam week at the time assigned by the university registrar. I also provide suggestions for practice work from the end-of-chapter questions. The online MyFinanceLab access that is included in the textbook package offers additional practice questions and problems. Some selected problems may be worked in class.

Because this is an introductory course, each student should understand all of the tools and ideas presented in the class. Therefore, all work that will be graded as the basis for the final letter grade will be individual rather than doing any work in groups. Because this is a graduate level course, personal initiative in completing reading assignments, spreadsheet assignments, cases, suggested practice questions, and online MyFinanceLab practice questions is essential.

Course Materials


This package consists of loose-leaf textbook pages and electronic access to online resources. Other versions of the textbook (such as traditional cloth bound or entirely electronic) should be available by shopping online. Do not buy the short version of the book, Corporate Finance: The Core.

Other materials to be distributed online or in class

Schedule of Topics, Readings, and Activities

In the schedule immediately below, there are eight topics with dates assigned to each. The allocation of the topic’s material across those dates, and the associated reading assignments and suggested problems, align only approximately with the dates within each topic. However, the dates allocated to each of the eight topics, the
dates that assignments are due, and the dates of exams are firm.

1. Introduction and Tools

23 August (Wednesday)
28 August (Monday)
30 August (Wednesday)
6 September (Wednesday)
11 September (Monday)

a. Arbitrage and Financial Decision-Making
b. The Time Value of Money
c. Interest Rates: Nominal, Effective Quotes and Adjustments
d. Background: the economics of interest rates and the term structure; quantitative easing

Skim most of Chapter 3 BDeM, except read Sections 3.4 and 3.5 [suggested problems: 15, 19]
Read Chapter 4 BDeM [suggested problems: 13, 14, 25, 29, 33, 34, 42, 50]
Read Chapter 5 BDeM, especially Section 5.1 except for 5.4 [suggested problems: 22, 30, 31]

2. Basic Valuation I

13 September (Wednesday)
18 September (Monday)
20 September (Wednesday)
25 September (Monday)
27 September (Wednesday)

a. Valuing Projects: Investment Decision Rules
b. Fundamentals of Capital Budgeting
c. Valuing Bonds

Read Chapter 7 BDeM, especially carefully Sections 7.1 and 7.2 [suggested problems: 6, 16, Data Case]
Read Sections 8.1 and 8.2 of Chapter 8 BDeM, Skim 8.3 and 8.4 [suggested problems: 5, 10, 14]
Read Chapter 6 BDeM, especially Sections 6.1, 6.2, skim 6.3 to 6.5 [suggested problems: 3, 13, 25]
Read Section 5.4 of Chapter 5 BDeM [suggested problems: 33, 34]

Assignment: Tobacco Bond valuation [DUE 27 September (Wednesday) 11:55 AM]

3. Basic Valuation II

2 October (Monday)
4 October (Wednesday)
11 October (Wednesday)

a. Valuing Stocks with the Dividend-Discount Model
b. Total Payout and Free Cash Flow Valuation Model
c. Background: how does a stock market work; shorting securities

Read carefully Chapter 9 BDeM, especially Sections 9.1, 9.2, and 9.3 [suggested problems: 19, 22, 25]

Assignment: BP Prudhoe Bay Oil Trust Part I [DUE 11 October (Wednesday) 11:55 AM]

3b. In-class exam [16 October (Monday)]

4. Risk and Return I

18 October (Wednesday)
23 October (Monday)

a. Capital Markets and the Pricing of Risk
b. Optimal Portfolio Choice I: Choosing and Efficient Portfolio

Read Chapter 10 BDeM [suggested problems: 12, 13, 14, 15]
Read Chapter 11 BDeM, carefully and only Sections 11.1 to 11.4 [suggested problems: 5, 6, 7]

Assignment: Efficient Frontier spreadsheet [DUE 23 October (Monday) 11:55 AM]

5. Risk and Return II

25 October (Wednesday)
30 October (Monday)
1 November (Wednesday)
6 November (Monday)

a. Optimal Portfolio Choice II: The Capital Asset Pricing Model
b. Estimating the Cost of Capital
c. Capital Market Efficiency
d. Background: Behavioral finance
e. International valuation

Read Chapter 11 BDeM, Sections 11.6, 11.7, and 11.8 [suggested problems: 49]
Read Chapter 12 BDeM, especially carefully Sections 12.1 to 12.4 [suggested problems: 11, 12]
Skim Chapter 13 BDeM, focusing on Sections 13.1, 13.2, 13.6, and 13.7 [suggested problems: 2]
Read Chapter 13 BDeM, Sections 13.5 and 13.6 (efficient markets)
Read Chapter 13 BDeM, Section 13.3 and 13.4 (behavioral finance)
Read Chapter 30 BDeM, Section 30.3 (especially 1031 to 1032, 1033 to 1037) [suggested problems: 9]
Read Chapter 31 BDeM, Sections 31.1, 31.2, 31.4, 31.5 [suggested problems: 1, 2, 3, 5]

Assignment: BP Prudhoe Bay Oil Trust Part II [DUE 30 October (Monday) 11:55 AM]
Assignment: Groupe Ariel case [DUE 6 November (Monday) 11:55 AM]


8 November (Wednesday)
13 November (Monday)

a. Leverage, Arbitrage and Firm Value
b. Debt and Taxes
c. Financial Distress, Agency Problems and Information
d. Distributions to Shareholders
e. Taxes on Dividends and Capital Gains
f. Signaling with Payout Policy
g. Background: what banks do and how they can fail

Read carefully Chapter 14 BDeM, especially Sections 14.1 to 14.3 [suggested problems: 5, 9]
Read Chapter 15 BDeM, especially Sections 15.1 and 15.2 [suggested problems: 5, 7]
Skim Chapters 16 BDeM, mostly Sections 16.1 and 16.3 [suggested problems: 1]
Read Chapter 17 BDeM, especially Sections 17.1 to 17.3 [suggested problems: 11]

7. Capital Budgeting Decisions, Valuation, and Leverage

15 November (Wednesday)

a. WACC, APV, Free Cash Flow to Equity Approaches
b. Project-Based Costs of Capital
c. Multiples-based Valuation using Comparables

Read Chapter 18 BDeM, especially Sections 18.1 to 18.4, skim 18.5 [suggested problems: 5, 14]
Skim Chapter 19 BDeM, Sections 19.3, 19.4 and 19.5 useful for valuation analysis

8. An introduction to derivatives and real options

20 November (Monday)
27 November (Monday)
29 November (Wednesday)

a. Put and call basics
b. Binomial, Black Scholes, other models; implementation; introduce Agnico Eagle case
c. Real options discussion, simple examples, and discussion of Agnico Eagle case solution

Read Chapter 20 BDeM, Sections 20.1 to 20.4 [suggested problems: 3, 6 - 9]
Read Chapter 21 BDeM, Sections 21.1 to 21.2 [suggested problems: 1 - 2, 11 - 12]
Read Chapter 22 BDeM, Sections 22.1, 22.2, and especially 22.3 [suggested problems: 2, 8, 18]
Assignment: Agnico Eagle case [DUE 29 November (Wednesday) 11:55 AM]

8b. Final exam [exam week only at time and place specified by the university registrar]

Case Analysis and Spreadsheet assignments

The detailed analysis of each of the two cases starts with a one-half page executive summary with the issue and the major recommendations. It then includes an introduction which illustrates the problem faced by the firm and its background, a main section that provides details and evaluates alternatives, and a conclusion with specific recommendations. For each case, I will provide a few questions and suggestions to help with analysis. I expect the reports to be 10 pages (double-spaced, 12 point font) maximum, excluding the summary, tables and graphs. Supporting tables, spreadsheets and graphs (the exhibits) are limited to 10 pages. The exhibits should be referred to in the text of the paper as they are needed to support the argument being made. Exhibits that are not needed should not be included and all exhibits should be referenced in the paper. The case analysis must be submitted electronically on the course website at http://www.blackboard.cornell.edu.

Spreadsheet assignments are briefer than the two cases. Answers can be uploaded in a more compact form. The bulk of the assignment is computations, that is, additions to the basic data spreadsheet I will provide. Any discussion or answers to specific questions can be inserted into the body of a spreadsheet using text.

Additional requirements for both case solutions and spreadsheet assignments are as follows.

1. Files time-stamped by Blackboard at or after the start of the class when due receive no credit.

2. Each file must be named with course number, assignment identifier, and student identifier (family name then given name). For example, “NCC5560_Groupe_Ariel_Johnson_Boris.doc” is the filename for the solution to the Groupe Ariel case submitted by Boris Johnson. The subject line (which appears in the uploading dialog box) must also contain this filename. When uploading, remember to go all the way to the “submitted” stage, not just the “posted” stage.

3. The upload consists of the complete Word or Excel file only. For cases that include numerical exhibits, either copy tables from Excel into Word or insert text into the Excel file. No zipped files or other formats will be accepted.

4. I will not accept or acknowledge any file sent to me by email or in hard copy form.

5. Full credit will be earned for a complete and careful solution, even if the details are not perfect.

I present a solution and lead discussion of each case or spreadsheet in class on the day it is due.

Professional Behavior

Disruptions to the learning environment in class will be judged by the instructor, and final grades will be adjusted accordingly. Disruptive activities include but are not limited to: the use of laptop computers, tablet
computers, smart phones, and other mobile phones for purposes unrelated to the material being covered in the particular class session; ringing phones; private conversations that do not cease when class begins; private conversations initiated once class is underway. Cheating and other violations of academic integrity will be addressed in the final letter grade and with formal administrative proceedings as mandated by Johnson School and other Cornell regulations. Name cards should be brought to every class and displayed.

**Final Letter Grades**

A rough guide to how final grades will be determined is 30% for the first exam, 30% for spreadsheet and case assignments, 30% for the final exam, and 10% for class participation.

The instructor reserves the right to determine the final letter grade assigned to each student.

**Office Hours**

I plan to be in the office at least an hour prior to every class session, that is, Mondays and Wednesdays from 10:30am on, and probably earlier. Given my teaching schedule, I am also typically at my office for at least an hour immediately following class. I can be found at other times and can also be contacted with questions by emails.

If a teaching assistant is allocated to this course, contact information and dates for review sessions will be supplied.

**Warnings**

If you register for this class, you agree to accept all course requirements, dates, deadlines, and other procedures outlined in this syllabus and in class. There will be no discussions, pleas, or arguments about the administration of the course under any circumstances. There will be no changes to the course requirements or due dates under any circumstances except when mandated by Johnson School or University rules as explained to the instructor by a Johnson School dean or associate dean.

All students must adhere strictly to the Johnson School Honor Code and other university rules and regulations regarding academic integrity. In particular, I reserve the right to check the files uploaded to the course website to ensure that all work is done individually and there is no plagiarism from the internet or other sources.

Note that course materials (those posted on Blackboard, those contained in the course packet, and those distributed in class including exams, exam solutions, and spreadsheet solutions) are intellectual property. Students are not permitted to buy or sell any course materials. Any such behavior is unauthorized and constitutes academic misconduct.

All information and decisions regarding enrollment are handled by the Johnson School Registrar. I do not monitor or participate in this activity. I do not determine the class size, room assignment, or resolution of the waiting list. **I do not sign add or drop forms.**

**Acknowledgment**

Preparation of this course has benefited tremendously from advice, suggestions, and teaching materials generously offered by my colleague Andrew Karolyi.