Overview

Managers in any corporate function should understand the pricing, trading, and uses of the main financial assets (securities) available in the world’s capital markets. In this course, we will study the debt, equity, and derivatives markets, including topics such as the term structure of interest rates, the trade-off between risk and return, the optimal construction of portfolios, how stocks, bonds, and derivatives “should” be priced, and why those prices are sometimes not realized because of institutional factors or market frictions.

We emphasize the concepts of capital markets using real-world problems. Students should be aware that finance is inherently quantitative and that many problems must be attacked by theoretical and mathematical methods. The most important of these methods should be understood by all general managers, not just finance professionals.

Preparation for class

Assignments for each class are provided in the course folder on the P: drive. Students should prepare the assignments prior to class and are expected to participate actively in class. Participation, both voluntary and involuntary, will contribute significantly toward your understanding of the material. We encourage you to prepare together in your study groups.

Class attendance is mandatory, and students missing class should explain their absences in writing before class except in emergency situations.

Homework

Written assignments are due prior to most classes (as detailed on the homework sheets). Unless otherwise stated, all assignments are individual assignments and must be handed in electronically as PDF files before 8:30am on class days, using the drop folders that have been created in the course folder on the P: drive. Please name your HW as follows: LastName.FirstName.HW#. For example, Jane Smith’s assignment for class 2 would be “Smith.Jane.HW2”. Format your answers
in a way that is easy to print and read on normal-sized paper, and put your name at the top of every page. Late homework will not be graded.

The Tuck Honor Code governs the assignments as follows: you may work and learn together in your study groups, but each individual should turn in his or her own version of the assignment. **When you turn in an answer, you are certifying that you understand the answer and the principle underlying it (i.e., you did not simply copy it from members of your study group). If you do not understand an answer, you should leave it blank,** even if your study group came up with an answer. The benefit of this approach is that both you as the student and we as the instructors are alerted that more work and explanation are needed on that topic. It is still possible to receive good homework grades even if some problems are left blank.

**Video assignment**

To underscore the importance of communicating the concepts used in this class, you are required to produce a **one-minute** video explaining a key concept covered in the course. Assume your audience is a friend or member of your family with no background in finance.

You may work in two-person teams, if you wish, and only one of you needs to be on camera (only one video is needed from each team). You will be graded on (1) effectiveness of your presentation in conveying the concept, (2) the correctness and completeness of your presentation, (3) the difficulty of the concept you are explaining, and (4) the overall effectiveness of your video. You do not need any special equipment—you can use your cell phone for this if you wish. Your video must be uploaded to the course folder (.mp4 file format only) with a title that includes the surnames of the students responsible. The video should be submitted by November 20.

**Financial market updates (FMUs)**

Each study group will be assigned to present one FMU during the term. An FMU is a **five-minute** presentation at the beginning of class on a specific topic related to capital markets. The topics and group assignments can be found in the course folder on the P: drive. One member of the group will be selected at the beginning of class to present for the group.

You should upload your slide deck to the FMU drop folder by 8:15am on the day of class. You can also submit the slides to the professor by 3pm the day before class if you’d like feedback on the content and length of the presentation.

**Q&A sessions**

There will be an optional Q&A session **the evening prior** to every class except classes 1, 7, 10, and 12. These sessions, led by the teaching assistants, provide an opportunity to ask questions about the homework problems assigned for class. The Q&A sessions are 5-6pm in Ankeny.

**Review sessions**

There will also be an optional review session at the end of most weeks during the term. These review sessions, led by the professors, provide an additional opportunity to ask questions about the material. We encourage you not to fall behind in your understanding of the material or in your
ability to solve homework problems. The sessions will be held in Danziger (Sections 1 and 3) and Lubrano (Sections 2 and 4) on the following days: October 11 (1:15–2:15pm); October 18 (4:30–5:30pm); October 25 (4:30–5:30pm); November 8 (1:15–2:15pm); November 15 (1:15–2:15pm); November 29 (4:30–5:30pm).

Midterm and final exams

The midterm exam is scheduled for Thursday, November 1 at 9:00am. The final exam is scheduled for Wednesday, December 12 at 9:00am. You must take the exams in your assigned room, to be announced before the exam. The exams are closed-book and closed-notes, except for a formula sheet that we will supply ahead of time and your calculator and/or laptop. You are required to be in Hanover on these dates to take the exams.

Grading

Final grades in Capital Markets will be based on the following proportions:

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<tr>
<th>Component</th>
<th>Percentage</th>
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<tr>
<td>Class participation</td>
<td>10%</td>
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<td>Assignment</td>
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<td>Midterm exam</td>
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<td>Final exam</td>
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The Tuck Honor Code

The professors treat the Honor Code seriously. The only unique Honor Code issue for this course is the homework “certification” described above. You may work in groups in preparing for class and in solving the written assignments, but turning in identical copies of a spreadsheet produced by the group is not acceptable. The midterm and final exams are closed-book and should be completed without outside help. Using email or the internet during the exams is a violation of the Honor Code. Also, looking at copies of homework answers or exams from previous years is a violation of the Honor Code.

The Tuck School policy on laptop use applies in all respects to this course. You cannot use laptop computers, cellular telephones, or any other electronic communication devices in class.

Course material

The material for the course includes the syllabus, assignment sheets, Financial Market Updates, and the readings that are included in the Digital Course Pack (DCP). All of this material is available in the Capital Markets folder on the P: drive; the link to the DCP is also available on the course home page in TuckStreams and in hard copy from AMOS.

The textbook is Corporate Finance (10th ed.) by Ross, Westerfield, and Jaffe (RWJ). This book will also be used in Corporate Finance in the winter.
# CAPITAL MARKETS

Fall Term B, 2012

<table>
<thead>
<tr>
<th>Session</th>
<th>Day</th>
<th>Date</th>
<th>Topic</th>
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<tbody>
<tr>
<td>1</td>
<td>Mon.</td>
<td>Oct. 08</td>
<td>Introduction to Capital Markets</td>
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<tr>
<td>2</td>
<td>Tues.</td>
<td>Oct. 09</td>
<td>US Treasury Bonds and Strips</td>
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<tr>
<td>3</td>
<td>Wed.</td>
<td>Oct. 10</td>
<td>The Term Structure of Interest Rates</td>
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<td>4</td>
<td>Thurs.</td>
<td>Oct. 11</td>
<td>Interest Rate Risk</td>
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<td>5</td>
<td>Wed.</td>
<td>Oct. 17</td>
<td>Bond Investment Strategies</td>
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<tr>
<td>6</td>
<td>Thurs.</td>
<td>Oct. 18</td>
<td>Stock Valuation</td>
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<tr>
<td>7</td>
<td>Wed.</td>
<td>Oct. 24</td>
<td>Security and Portfolio Returns</td>
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<tr>
<td>8</td>
<td>Thurs.</td>
<td>Oct. 25</td>
<td>Modern Portfolio Theory</td>
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<tr>
<td>9</td>
<td>Mon.</td>
<td>Oct. 29</td>
<td>Capital Asset Pricing Model</td>
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<th>Thurs.</th>
<th>Nov. 1</th>
<th>Midterm Exam 9:00 AM – 12:00 PM</th>
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<td>16</td>
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<td>Wed.</td>
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<td>18</td>
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<th>Dec. 12</th>
<th>Final Exam 9:00 AM – 12:30 PM</th>
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Day-By-Day Schedule

An assignment sheet for each class is included in the course folder on the P: drive. These sheets provide detailed guidance on preparing for class.

Readings marked ‘DCP’ are included in the digital course packet. Readings marked ‘attached’ are attached to the assignment sheets in the course folder.

Session 1 (Mon, Oct 8): Introduction to Capital Markets

Reading:
- Financial Math (attached)
- Standard & Poor’s Guide to Understanding Money & Investing (attached)

Topics:
- Introduction to the course
- DCF analysis
- The basic investment problem and the application of NPV

Session 2 (Tues, Oct 9): US Treasury Bonds and Strips

Reading:
- Bonds and bond calculations (attached)
- RWJ Chapter 8 Sections 8.1–8.3

Topics:
- Treasury strips and Treasury bonds
- Annual and semiannual compounding
- Interest rates and bond prices
- Calculating bond price and yield to maturity
- Calculating accrued interest: When and Why

Session 3 (Wed, Oct 10): The Term Structure of Interest Rates

Reading:
- RWJ Chapter 8 Section 8.5
- The term structure of interest rates, spot rates, and yield to maturity (attached)

Topics:
- Spot Rates (Treasury strip rates)
- Pricing a Treasury bond with spot rates or strip prices
- Forward rates
- Term structure of spot rates vs. the yield curve
- Theories of the term structure
- Interpreting the slope of the term structure
Session 4 (Thurs, Oct 11): Interest Rate Risk

Reading:
- Immunization101 (attached)

Topics:
- The price–yield relationship
- Macaulay and modified duration
- Convexity of a bond
- Immunization: What and why?
- Why duration is only a partial immunization solution

Session 5 (Wed, Oct 17): Bond Investment Strategies

Reading:
- Review material from classes 1–4

Topics:
- Hedging vs. speculating on interest rate movements
- Immunization and duration
- Arbitrage and arbitrage pricing
- Treasury bonds vs. strips

Session 6 (Thurs, Oct 18): Stock Valuation

Reading:
- RWJ Chapter 6 (Section 6.2) and Chapter 9 (Sections 9.1 and 9.5)
- DCP: Putting a value on Google (Kessler)
- DCP: The truth about what facebook is really worth (Forbes)
- DCP: Internet E-Commerce (Goldman Sachs Investment Research)

Topics:
- Dividend discount models
- Free cash flow discount models
- Long-run growth rates and terminal value
- The price-earnings ratio

Session 7 (Wed, Oct 24): Security and Portfolio Returns

Reading:
- RWJ Chapter 10

Topics:
- The investment opportunity set
- Holding period returns, compounded returns, nominal returns, real returns
• Historical returns and risks of stocks and bonds
• Expected returns and risk estimates

Session 8 (Thurs, Oct 25): Modern Portfolio Theory

Reading:
• RWJ Chapter 11 Sections 11.1–11.6

Topics:
• The mean-variance trade-off
• Mean and variance of a portfolio
• Covariance and correlation coefficients
• Diversification
• Optimal portfolio choice

Session 9 (Mon, Oct 29): Capital Asset Pricing Model

Reading:
• RWJ Chapter 11 Sections 11.7–11.9

Topics:
• Riskless lending and borrowing
• Market equilibrium
• Beta and the CAPM
• Unsystematic and systematic risk
• Security Market Line (SML)

Midterm Exam: Thursday, November 1, 9:00am – 12:00pm

Session 10 (Wed, Nov 7): COMSAT and the CAPM

Reading:
• RWJ Chapter 13 Sections 13.1, 13.2, 13.8, 13.10
• DCP: COMSAT (Communications Satellite Corporation)

Topics:
• Using the CAPM
• CAPM and the cost of capital
• Assumptions underlying the CAPM
Session 11 (Thurs, Nov 8): Multifactor Asset Pricing Models

Reading:
- RWJ Chapter 12 (mini case on p. 399)
- DCP: Understanding risk & return, the CAPM, and the Fama-French three factor model
- DCP: Cap M. in Crunch Time: Evaluating Mutual Fund Styles and Performance

Topics:
- Factor models
- Systematic risk and factor loadings
- The relation between the CAPM and multifactor models
- Evaluating mutual fund performance
- Alpha

Session 12 (Wed, Nov 14): Market Efficiency

Reading:
- RWJ Chapter 14 Sections 14.2–14.7

Topics:
- Weak, semi-strong, and strong forms of market efficiency
- Implications of market efficiency
- Evidence on market efficiency

Session 13 (Thurs, Nov 15): Futures I (Basics)

Reading:
- RWJ Chapter 25 Sections 25.1–25.4
- DCP: Financial Futures

Topics:
- Futures vs. forward contracts
- Spot-futures parity
- Basis risk
- Futures price versus expected spot prices
- Margin accounts
- Marking to market

Session 14 (Mon, Nov 19): Futures II (Hedging)

Reading:
- RWJ Chapter 25 Section 25.5
- DCP: A Note on Arbitrage-free Currency Forward Rates
- How to choose the best index futures (attached)
Topics:
- Managing risks with futures contracts
- Index, interest rate, and foreign exchange futures
- Cheapest to deliver
- Covered interest parity

**Session 15 (Wed, Nov 28): Options I (Basics)**

Reading:
- RWJ Chapter 22 Sections 22.1–22.7

Topics:
- Option terminology
- Strike prices, intrinsic values, and moneyness
- Option payoff diagrams
- Put-call parity
- Bounding option values
- Factors influencing option prices

**Session 16 (Thurs, Nov 29): Options II (Valuation)**

Reading:
- RWJ Chapter 22 Section 22.8
- DCP: A Note on Option Pricing

Topics:
- Binomial option pricing
- Black-Scholes option pricing
- Implied volatility
- Factors influencing option prices

**Session 17 (Wed, Dec 5): Options III (Hedging)**

Reading:
- Review material from classes 15 and 16

Topics:
- Hedging with options
- Speculating with options
- Hedged vs. unhedged returns
- Delta hedging vs. one-to-one hedging
- Costs and benefits of hedging with puts, calls, and futures
Session 18 (Thurs, Dec 6): Executive Stock Options & Course Review

Reading:
- RWJ Chapter 23 Section 23.1
- DCP: Sally Jameson: Valuing Stock Options in a Compensation Package

Topics:
- Special features of executive stock options
- Implied volatility
- Valuing executive stock options
- Review of the most important concepts from Capital Markets

Final Exam: Wednesday, December 12, 9:00 AM – 12:30 PM
Analysis for General Managers  
Fall Term A, 2012

Faculty

Professor Paul A. Argenti  
Tuck 304  
6-2983  
Twitter: @paulargenti

Coordinator: Jessica Osgood  
Tuck 309C  
6-3959

Professor Sydney Finkelstein  
Chase 201  
6-2864  
Twitter: @sydfinkelstein

Coordinator: Dale Abramson  
Chase 207  
6-8642

“Look, I only have three things to do. I have to choose the right people, allocate the right number of dollars, and transmit ideas from one division to another with the speed of light.”

– Jack Welch, Former CEO, General Electric

When asked what single event was most helpful in developing the theory of relativity, Albert Einstein is reported to have answered, “Figuring out how to think about the problem.”

Course Goals

Analysis for General Managers (AGM) has two primary objectives:

• To introduce the concept of “general management,” and

• To develop analytic skills for effective problem and opportunity identification.

We do not expect each student to become an expert at each in these sessions. Indeed, an underlying theme for the entire Tuck core curriculum is to build, enhance, and perfect the skills you will need to excel as a general manager. We do expect, however, that students will finish the first-year program with a solid foundation in all areas of general management through a set of in-depth courses on each of the functional areas of management. As such, the two primary objectives noted above for this course are only the first steps in your general management education here at Tuck.
The General Management Perspective

All of us come to a problem, opportunity, or decision with a set of assumptions based on our backgrounds and experiences. For example, someone who has spent years in a finance function—concentrating on managing cash flow, raising capital, and budgeting—will have a particular point of view that is different from someone whose experience has been in marketing—focusing on product development, customer segmentation, product positioning, etc. Two implications arise from this: (1) Each person will have only a "limited" view of the whole organization, and may be driven to define a problem as a "finance" or "marketing" problem because this is what their experience tells them to do, and (2) Each person may be correct, but only partially.

The solution is to develop a general management perspective. The general management perspective seeks to integrate multiple functional perspectives to arrive at a complete understanding of a problem or opportunity. The value of the general management perspective becomes particularly clear when running a business, for it is here that the interplay of different functional imperatives—with views often in conflict—becomes most apparent. Thus, this course focuses on the challenge of effectively combining the requirements of each functional area with the overall needs of the enterprise.

The General Manager’s Job

What’s so special about the general manager’s job? At one level, the general manager is responsible for the management of the total enterprise. He or she is ultimately responsible for the success or failure of a business—whether it is for-profit or not, domestic or international, small or large. Thus, general managers include CEOs, entrepreneurs in start-ups, leaders of business units in larger companies, executive directors of charitable organizations, and presidents and prime ministers of countries. General managers are also leaders—the people who set the organizational purpose and create an environment where success happens.

The job of the general manager as leader involves one part critical thinking—about strategy and how to define the business model; one part innovation and creativity—by exploring opportunities, understanding discontinuities, and crafting strategy; and one part intuition. So while we will rely on frameworks to guide our thinking wherever possible, there is a "messiness" in the general manager’s job that cannot be denied.

The complexity and responsibility of the general manager’s job make it one of the most important in an organization. Accordingly, many, perhaps most, students will aspire to such positions at some point in their career. This course will seek to lay a foundation about the general manager’s job that can then be augmented and developed further throughout the rest of the curriculum.
Problem and Opportunity Identification

Business school is different from the “real world.” In business school it is not unusual for students to be told the essence of the problem or issue upon which a particular class session will focus. Professors provide general clues, such as the name of the course, the title or topic of the class session, and perhaps the nature of the assigned readings. Specific assignment questions, or even a brief description of the issues to be discussed, are often provided in advance as well. While it is perfectly natural for students to welcome such indicators—for they clearly reduce uncertainty on what is to come—we would be hard-pressed to think of a situation outside of business school where the key issues to be resolved are so thoughtfully laid out in advance. In truth, of course, problems and opportunities in the business world need to be decided, formed, even cajoled from the facts on hand. For this reason, AGM provides only the most general guidelines for case preparation. An important part of the learning here will be in the process of figuring out what the right questions are, and what the right problems and opportunities should be. This is not easy, but then, the same can be said of business situations in the real world.

We will spend time in every class trying to understand how best to define the problem or opportunity at hand. It is not hard to imagine a company going wrong if they cannot understand what the really critical issues are. As such, our own emphasis on problem and opportunity identification will fit in well with the broader problem-solving framework discussed in other courses in the core curriculum.

Course Requirements

The course packet and assigned texts contain the readings and cases we will use. The primary method for both getting a lot out of AGM and being recognized for doing so is thorough preparation for class and active participation while in class. There is seldom only one "right" answer in a case study; what counts is your ability to contribute well thought-out and reasoned arguments to the discussion. (See first readings on September 5th for more on the case method.)

Typically, class time will be dedicated to an in-depth analysis of a case and the issues that arise from that case. Students are presumed to have read and thought about the assigned readings as part of class preparation. We also assume you have spent a significant amount of time discussing the case with your study group.

You should come to class with prepared notes on the key points you would like to make in class. We will both "cold call" and elicit voluntary points of analysis in the class discussion. The case analysis in class tends to move very quickly, placing a premium on your ability to think and respond in real-time. The dynamic aspect of case analysis comes not only from the professor’s leadership but also from the interaction among students debating and analyzing the case issues.

Note that some of the cases we will use are "old" in the sense that they were written in, and refer to, previous time periods. Please recognize that cases are not the same as newspaper or magazine articles, and that their goal is not to describe current or even real events but to provide an opportunity for in-depth analysis of fundamental, critical issues. The importance of critical thinking about general management is the same today as it has been for decades, perhaps centuries. For this reason we rely, for the most part, on classic cases that have stood the test of time.
Expectations and Grading for AGM

Expectations

You are expected to:

1. Take responsibility for group work representing equal efforts by all team members. If you have a “free rider” problem in the group that you can’t solve yourselves, you need to tell us about it.

2. Attend every class session. If you miss class, it will adversely affect your class participation grade.

3. Turn in all assignments on time. Late assignments will be downgraded.

4. Use laptops in class only when required for the class session. Do not check email or surf the Internet during class.

Grading

Your grade in AGM will be based on the following percentages:

50% Class participation in case discussions
50% Final written exam

Required Textbooks, Cases, and Readings

The required texts for AGM are: Think Again: Why Good Leaders Make Bad Decisions, by Sydney Finkelstein; and Corporate Communication, 5th edition, by Paul A. Argenti. For those seeking a reference book for the course, an optional text is: The Fast Forward MBA Pocket Reference, (2nd edition) by Paul A. Argenti. All books are available at the Dartmouth Bookstore and Wheelock Books. Think Again by Professor Finkelstein is also available on Kindle from Amazon.com. Please note that you will be using these books throughout the year, so do not sell them at the end of Fall A.
Analysis for General Managers Class Sessions

Session 1: Wednesday, September 5

Case: Yellowtail Marine

Readings:
2. Review from Orientation: “How to Discuss a Case” and “How to Analyze a Case,” HBS Press.

Assignment:
1. What would you do if you were Robin Gilchrist? Why?

Session 2: Thursday, September 6

Readings:

Assignment: Will be given to you in class on September 5.

Session 3: Tuesday, September 11

Case: Nike (A)

Reading:
1. Argenti, P., Corporate Communication, chapter 4, pages 67-104.

Assignment:
1. Why has Nike been successful?
2. What are the most important problems and opportunities the company faces at the time of the case? How would you deal with these problems and opportunities?

Session 4: Tuesday, September 11

Special Session

Guest Speaker: Mark Thompson  
CEO, Boston Private Bank  
3:00 to 4:30 pm in Cook Auditorium
Case: The Atchison Corporation (A)

Readings:
2. Finkelstein, S., Think Again: Why Good Leaders Make Bad Decisions, Chapter 6

Assignment:
1. If you were Price Millman, what problems and opportunities would be of greatest importance to you? What would you do? Why? How would you do it? (Note: Be very specific in addressing this question.)

Session 6: Wednesday, September 19

Case: The Body Shop International

Readings:
2. Argenti, P., Corporate Communication, Chapter 5, pages 105-133

Assignment:
1. Why has the Body Shop been such a strong economic performer?
2. Are there any risks associated with the Body Shop’s corporate responsibility positioning?
3. What recommendations would you make about how to proceed in the U.S. market?

Session 7: Thursday, September 20

Case: Merrimack Imaging

Readings:

Assignment:
At the end of the case, a meeting has been called of all five managers to discuss how to deal with the problems and challenges of the company. In class we will conduct a role play of that meeting. Read and think about the case from your assigned perspective, which will be announced beforehand:

1. From your perspective, what do you think Merrimack should do and why?
2. What do you think will be the effect of your approach on the performance of the company as a whole, and on the positions and interests of the key managers? Be prepared to respond to the comments and suggestions that you anticipate from the other members of management.

3. What is your intended approach to the upcoming meeting?

Final Exam

The final exam will be distributed on Thursday, September 20 after the afternoon class. You will be given the exam questions and a four-hour period to complete the exam, which is due on **Tuesday, September 25 by 8:30 AM** hard copies only. This is an individual exercise. You will not be able to discuss the exam with your group or anyone else in your class.
Objectives

This course provides an introduction to the concepts and methods of Decision Science, which involves the application of mathematical modeling and analysis to management problems. The primary goal of the course is to help you become a more skilled builder and consumer of models and model-based analyses.

Another important goal is to encourage a more disciplined thinking process in the way you approach management situations. As a result of this course, you will become more confident in understanding and using models, both in other courses and on the job.

More specifically, the course will:

- Show you how to use Excel spreadsheets effectively for business analysis. You will learn a comprehensive set of spreadsheet modeling skills and tools, including how to design, build, test, and use a spreadsheet.
- Introduce you to the basic principles and techniques of applied mathematical modeling for managerial decision-making. You will learn to use some of the more important analytic methods, to recognize their assumptions and limitations, and to employ them in decision-making. These methods will be applied to problems arising in a variety of functional areas of business, including economics, accounting, marketing, operations, and finance.
- Sharpen your ability to structure problems and to perform logical analyses. You will practice translating descriptions of business situations into formal models, and you will investigate those models in an organized and rigorous fashion.
- Expose you to settings in which models can be used effectively. You will apply modeling concepts in practical situations. You will learn to extract insight from models, and to use those insights to communicate, persuade and motivate change.
Course Activities
Most class days will focus either on acquiring specific modeling techniques or on applying those techniques to a realistic problem. When the focus is on technique, preparation for class involves reading the textbook and working out a homework problem. When the focus is on an application, the focus is usually a case assignment. Case assignments are larger than homework problems, and they are worked on by study groups.

Reading the textbook
When reading the book in preparation for class, it is essential that you take an active approach. This means that you open the spreadsheets that are being discussed in the book and work through them as you read. (Note: These spreadsheets are available in the course folder under Spreadsheets from Text.) When a new method is presented, first repeat the example in the book and then try two or three new examples on your own. In class, we will often discuss new applications of the methods presented in the book, and we will assume you are familiar with the material in the reading. The best prepared student is the one who comes to class with questions about how the concepts and methods can be applied. Finally, you should expect to return to the book after class or while reviewing, in order to refine and consolidate your knowledge.

Homework exercises
Homework exercises provide you with the opportunity to practice the skills of modeling and analysis introduced in the course. Homework emphasizes the quantitative aspects of the course material and provides you with feedback on how well you are mastering analytic techniques.

Case preparation
Cases provide an opportunity to apply modeling and analysis to realistic-sized problems. Such case analysis emphasizes both developing an appropriate model and interpreting its results. Cases are modeled, analyzed, and presented by study groups.

Classroom activities
Classroom activities include short lectures, review of homework exercises, hands-on modeling exercises, and case presentations. Each of these activities is tied to one or more of the learning objectives for the course. For example, lectures are used to communicate the theory behind the techniques of decision science. Hands-on modeling exercises are used to help students reinforce the skills and to give them (and the instructor) feedback on what is being learned. Case presentations and discussions encourage students to develop the interpretation skills that are necessary to apply modeling to real problems.

Question and Answer sessions
Q&A sessions will be held each evening before class. These sessions are optional; no new content will be presented by the second-year TAs who run them. Q&A sessions are used to answer general questions about the course as well as to assist students working on homework exercises.

Materials
Textbook
The text for this course is Management Science: The Art of Modeling with Spreadsheets, 3rd Edition, John Wiley and Sons, by Powell and Baker.
Software
The software for the course is Risk Solver Platform, an Excel add-in that will load automatically when you open Excel. If you have trouble finding or starting this software, please get help from Information Technology Support.

Policies
Honor Principle
The Tuck Honor Principle represents a contract among students and instructors about behaviors that are appropriate in the learning process. This course is structured to promote learning by a combination of individual and team efforts. This structure encourages certain group interactions because they enable you to use time efficiently or because they improve your understanding of the material.

Collaboration on daily preparation for class is always encouraged. On a number of days during the course, preparation in study groups will be essential, because a group member will be expected to present the group’s analysis in class. Class discussion should be based on individual and group preparation, but not on the information produced by other sections of the course held earlier.

With respect to individual homework, some amount of discussion and sharing within the study group is desirable, with the understanding that each student is responsible for learning all the material on the assignment. Each student is expected to complete each homework exercise individually, using the group mainly to help resolve open issues.

While collaboration within a group is encouraged for both group and individual homework, discussions between groups should be limited to general concepts, and should avoid the exchange of approaches or solutions to specific homework exercises or cases.

Conversations with second-year students other than Teaching Assistants about specific assignments before their due-dates are a violation of the Honor Principle. It is also a violation of the Honor Principle to use information from previous years’ homework in doing the assigned exercises or cases. Finally, it is a violation of the Honor Principle for students to hand in work that is not their own.

With respect to the exams, group preparation is permissible, but the work done during the exam must be done without the help of other students. Quizzes and exams will have set time limits.

If situations arise where the application of the Honor Principle is unclear, students should seek the interpretation of the instructor or consult with a member of the Judicial Board.

Attendance
The general policies of the Tuck School apply. In part, this means that all students are expected to prepare for and attend class each day, in their assigned sections, except for optional sessions as designated by the instructors. Personal illness or family emergency, but not placement activities, are considered grounds for excused absences.

Class participation
All students are encouraged to participate actively in class because that is the best way to learn and it indirectly helps others learn. Participation includes asking questions, challenging other students or the professor, and being open to learning. It is our goal to have a lively, intellectually challenging, and respectful classroom.
**Homework and case preparation**

There are two types of assignments, *individual assignments* and *group case assignments*. Your solutions to both types of homework should be submitted in-class, before it starts, on the assigned due-dates. Out of fairness to the other students, late homework will not be accepted.

**Individual assignments**

You should attempt each exercise on your own before discussing it with your group. Each individual will submit a hardcopy solution in class and save a spreadsheet file in their personal folder in the Individual Homework Drop Folder. Please format your work according to the format guide distributed in class. All work handed in for grading must be your own. You may use ideas suggested by members of your group, but the organization, analysis, and presentation of the work must be your own.

**Group case assignments**

Group assignments should be collaborative work among the students on the group. Every group member is expected to contribute substantially to every group assignment. Do not put your name on a group assignment to which you have not contributed substantially. Each group will submit a single hardcopy of their PowerPoint presentation in class and save both PowerPoint and spreadsheet files in the group’s folder in the Team Assignment Drop Folder. Both your PowerPoint slides and your spreadsheet should list the names of group members who contributed substantially to the assignment. Group assignments are based on cases that provide descriptions of practical situations where modeling and analysis can play an important role. The cases provide you with opportunities to practice translating situations into problem structures and to consider the implications of your analysis for a particular situation. For many of the cases you will also be expected to present your ideas to an audience interested in the implications of your analysis. Note that every member of your group should be prepared to present the case.

If you have any questions about the policies and procedures governing homework, you should feel free to talk with Professor Robinson or Shumsky.

**Q&A sessions**

Optional Q&A sessions will be held each evening before class. Teaching assistants will be available to answer general questions about the material. *No new material will be introduced*. The sessions will be held each evening before class, from 6:00 – 7:00 PM, in Frantz (exception: October 10 session will be in Rosenwald).

**Grading**

- **Midterm Quiz** 30%
- **Final Exam** 50%
- **Homework** 20%

All exams are open notes/open book exams. Computers are used on all exams.
Schedule

10/08 Introduction to Spreadsheet Modeling
Readings: Chapter 1, Sections 2.1, 2.2

Individual assignment: “Should I Choose a Hybrid?” (Available in your course packet.)

Note: This problem will not be handed in or graded, but during class we may ask you to describe your model. Before class place your model in your Individual Assignment drop folder on the P-Drive: ...

10/09 Spreadsheet Engineering
Readings: Chapter 5

Note: Spreadsheets used in the textbook are available in the course folder under “Spreadsheets from Text”.

If you are not familiar with Excel functions such as IF, AND, OR, NPV and VLOOKUP, you should study the on-line Excel Functions Tutorial, which is available at http://decsci.dartmouth.edu/.

Individual assignment: Prepare Reid’s Raisins, Exercise 5.3 on page 117. The description of the case is in the “Modeling Cases” Section, pp. 482-483.

Note: For this and all future individual assignments, pass in a hard-copy printout of your model at the beginning of class and place the Excel spreadsheet in your Individual Assignment drop folder on the P-Drive. For the printout, please use the Format Guide that was distributed on the first day of class.

10/17 Spreadsheet Analysis
Readings: Chapter 6

In addition to reading Sections 6.3.3 and 6.4.3 in the textbook, you may choose to watch the on-line tutorials Parametric Sensitivity and Tornado Charts. These tutorials narrate some of the basic material described in these sections of the textbook, and are available at http://decsci.dartmouth.edu/.


10/18 Problem Structuring
Readings: Section 2.3

Individual assignment: Prepare an Influence Diagram for the case “Making Risk Mitigation Decisions at Jefford’s (A).”

Also complete the on-line Pivot Table Tutorial. Note: this is a required assignment, and all students must complete the Quiz at the end of the Tutorial. If you are already comfortable with Pivot Tables, you may choose to skip the tutorial itself and just take the Quiz, which is available at http://decsci.dartmouth.edu/.

10/22 Prototyping
Readings: Section 2.4

Individual assignment: “Superchem, Inc.”
10/23 Modeling in Practice

*Group case assignment:* “The ERP Decision”

*Note:* For this and all future group assignments, pass in a hard-copy printout of your PowerPoint slides at the beginning of class and place both the slides and supporting Excel spreadsheet in your Team Assignment drop folder on the P-Drive.

10/26 Midterm Quiz (9:00 AM to 12:00 PM)

10/29 Introduction to Optimization: Nonlinear Models


In addition to reading the textbook, you may choose to watch the on-line tutorials Basic Optimization and Optimization Sensitivity. These tutorials narrate some of the material described in Chapter 10, and are available at [http://decsci.dartmouth.edu/](http://decsci.dartmouth.edu/).

*Individual assignments:* Exercise 10.5 for practice (not to be handed in). Hand in Exercise 10.3 (for part a, you may use SPSS if you prefer.)

10/30 Optimization: Linear Models

*Readings:* Sections 11.1 – 11.4. In addition to reading the textbook, you may choose to watch the on-line tutorial Choosing a Solver Engine, which is available at [http://decsci.dartmouth.edu/](http://decsci.dartmouth.edu/).

*Individual assignment:* Hand in Exercise 11.7. Note that the “qualitative pattern” in an optimal solution is a description of the economic priorities that govern the solution, expressed in terms of which decision variables are positive and which are zero, as well as which constraints are binding and which are slack.

11/5 Optimization and Sensitivity Analysis

*Reading:* Section 11.5

*Individual assignments:* Hand in Exercise 11.8. Before starting the exercise, read Preparation for Exercise 11.8 from the course packet.

11/6 Optimization in Production Planning

*Group case assignment:* “Play Time Toy Company”

11/14 Optimization and Regression Analysis

*Group case assignment:* “Allocating Shelf Space at Corbett Gifts”

11/15 Optimization in Revenue Management

*Group Case Assignment:* “SkyJet (A): Network Revenue Management”
11/19  Introduction to Monte Carlo Simulation  
*Readings*: Sections 16.1 – 16.3.  
In addition to reading the textbook, you may choose to watch the on-line tutorial *Basic Simulation*. This tutorial narrates some of the material described in the textbook, and is available at [http://decsci.dartmouth.edu/](http://decsci.dartmouth.edu/).  

11/20  Simulation Techniques and Examples  
*Readings*: Sections 16.4, 16.5, 16.7.  
In addition to reading the textbook, you may choose to watch the on-line tutorial *Simulation Sensitivity*. This tutorial narrates some of the material described in the textbook, and is available at [http://decsci.dartmouth.edu/](http://decsci.dartmouth.edu/).  

11/26  Simulation Modeling and Analysis  
*Readings*: Sections 16.6, 16.8, 16.9  
In addition to reading the textbook, you may choose to watch the on-line tutorial *Simulation Outputs*. This tutorial narrates some of the material described in the textbook, and is available at [http://decsci.dartmouth.edu/](http://decsci.dartmouth.edu/).  

11/27  Simulation and Competitive Bidding  
*Readings*: From *Microeconomics* (8th Edition), by Pindyck and Rubinfeld: Sections 13.1-13.4 (pp. 487-500), Section 13.8 (pp. 516-524)  
*Group case assignment*: “Bidding for Tract 570”  
Enter your team’s bid level online the night before (the evening of November 26) by 5:00 PM.

12/3  Simulation and Risk Management  
*Group case assignment*: “Making Risk Mitigation Decisions at Jefford’s (B)”

12/4  Simulation and Negotiation  
*Group case assignment*: “Printicomm’s Proposed Acquisition of Digitech: Negotiating Price and Form of Payment”

12/6  Final Exam Review Session

12/10  Final Exam (9:00 AM to 12:00 PM)
THE TUCKSCHOOL OF BUSINESS AT DARTMOUTH

FINANCIAL MEASUREMENT, ANALYSIS AND REPORTING

Fall Term, 2012

Professor Leslie Robinson  Professor Phillip Stocken
303 Tuck Hall  204A Tuck Hall
646-4018  646-2843

Course Objectives
The objectives of this course are to help you (1) understand the concepts and measurements that underlie corporate financial statements, (2) develop the skills needed to analyze financial statements effectively, and (3) gain an understanding of the choices firms make in reporting the results of business activities. The first portion of the course emphasizes the measurement concepts and the mechanics of moving from business transactions to the principal financial statements: balance sheet, income statement, and statement of cash flows. The second portion introduces tools for analyzing financial statements, with an emphasis on integrating industry economic and business strategic factors into the analysis and interpretations. The third portion focuses on generally accepted accounting practices (GAAP) for particular topics, such as the timing of revenue recognition, inventory valuation, and measuring the amount and cost of debt financing, with an emphasis on how management's choices among alternative GAAP affect the quality of earnings and reported financial position.

Course Materials
There are two required course materials: i) Financial Accounting: An Introduction to Concepts, Methods, and Uses, Stickney, Weil, Schipper and Francis, 13th edition, and ii) a course packet (CP) available from the Tuck copy center (also available online in the course folder).

There are two optional course materials on reserve at the Feldberg Library: i) Intermediate Accounting, by Kieso, Weygant and Warfield, 13th edition (this is a useful resource for an introductory explanation of the more advanced topics that we cover), and ii) a full solutions manual for the required textbook (also available online in the course folder).
Class Preparation and Participation
Class preparation consists of (1) textbook readings, and (2) assigned problems and/or cases from the textbook or course packet. You should be prepared to present your analysis of all aspects of an assignment in class.

Optional problems and/or cases are suggested if you find that you need either guidance before preparing the assigned problems and cases or additional practice to reinforce the concepts covered in class. Solutions to the optional problems are available online in the course folder.

The most important requirements for this course are thorough preparation and analysis of the assigned problems, cases and reading materials, and active participation in class. Our expectation is that you will come to class having already thought through and analyzed the assigned problems and cases. We wish to devote the bulk of the class time to thinking about and responding to each other’s analyses and keeping to a minimum the time spent detailing the facts of the case. We urge you to participate actively in class by both asking and responding to questions.

You are asked to turn in solutions to assigned problems or cases at the end of each week. These problems and cases are denoted by an asterisk in the syllabus. All homework solutions will be handed in electronically - detailed instructions for doing so are on page 16 of the syllabus. Homework assignments are meant to be a learning tool and a way to gauge your level of understanding. While you should feel free to seek assistance with these assignments, you are individually responsible for turning in each assignment.

Grading
Your course grade will be based on a mid-term examination, a final examination, submitted assignments, and class participation. The midterm will emphasize material covered in sessions 1 to 9. The final examination will emphasize material covered in sessions 10 to 18. There is, however, a cumulative nature to the material in this course, so that some testing of earlier material is inevitable. The examinations will be closed book and notes. However, each student may bring to the exams one page (8.5 × 11) of memory notes that are individually prepared; both sides of the page can be used. Students usually find that the best way to prepare for the exams is to prepare carefully and promptly for each of the classes that precede them. Copies of the exams and related solutions from previous offerings of the course are in the course packet. You may use hand-held calculators or computers in examinations for mathematical calculations only.

In evaluating your overall performance, we will use the following guidelines:  

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mid-term Exam</td>
<td>30%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>40</td>
</tr>
<tr>
<td>Class Participation</td>
<td>15</td>
</tr>
<tr>
<td>Homework</td>
<td>15 100%</td>
</tr>
</tbody>
</table>

If a student’s mean adjusted score for the Final Exam improves relative to the mean adjusted score for the Midterm Exam, then the Midterm Exam will receive a weight of 20% and the Final Exam a weight of 50%.
Assistance with the Course
There are three sources of additional help with the course. First, we will offer regular office hours from 2:00pm – 4:00pm on Wednesdays. We are also happy to make appointments outside of office hours.

Second, we will host additional evening office hours as listed on page 15 of the syllabus – see ‘Optional Sessions for Assistance with the Course’. The purpose of these office hours is to reinforce concepts by working through additional problems; no new concepts will be introduced. The problems and solutions will be available in advance.

Third, second-year student teaching assistants will hold evening office hours as listed on page 15 of the syllabus – see ‘Optional Sessions for Assistance with the Course’. The purpose of these office hours is to answer specific questions on a one-on-one basis. There will not be a formal presentation. The teaching assistants for the course are:

Andreas Apostolatos <andreas.j.apostolatos.tu13@tuck.dartmouth.edu>
Oliver Foley <oliver.m.foley.tu13@tuck.dartmouth.edu>
Matthew Grady <matthew.s.grady.tu13@tuck.dartmouth.edu>
Jerry Lin <Zhihao.lin.tu13@tuck.dartmouth.edu>
Kerr Mone <kerr.o.mone.tu13@tuck.dartmouth.edu>
Christopher Murphy <m christopher.murphy.jr.tu13@tuck.dartmouth.edu>
Jonathan Ryder <jonathan.h.ryder.tu13@tuck.dartmouth.edu>
Christopher Smith <christopher.w.smith.tu13@tuck.dartmouth.edu>
Wenbin Tang <wenbin.tang.tu13@tuck.dartmouth.edu>
Bo Wang <bo.wang.tu13@tuck.dartmouth.edu>

Attendance Policy
You are expected to attend all classes in the section to which you are assigned unless an emergency prevents you from doing so. You are also expected to notify your professor in advance of any absences. Failure to attend and participate in classes will adversely affect your course grade.

The class participation grade is affected by general classroom behavior. Students will lose points in this category for: being absent without informing your professor ahead of time, not bringing name cards to class, coming late to class or leaving class early, or exhibiting behavior considered to obstructive to the learning of other students in class (such as leaving and returning to class while it is in session, surfing the web and checking e-mail, and voicing inappropriate comments).

Tuck Honor Code
We believe that the Academic Honor Code is a critical aspect of the learning environment at Tuck. The prevalence of group work is consistent with the School’s philosophy that
much of your education here will come from each other, and we encourage you to discuss all problems and cases with your group prior to coverage in class. At the same time, it is essential for you to work through the material on your own to master it and to solidify your understanding. (One common mistake is to overly rely on group members in the learning process.) Thus, the final write-up of problems and cases—either to hand in or to present in class—should be your own individual work (i.e., do not simply copy your group’s solution to a problem or case). The desirable sequence is for you to read and prepare the assigned materials on your own before getting together with your study group. As a result of discussions within your study group, you can make changes to your initial analysis. You should then go back and do final editing of your solution on your own without additional help from study group members. There should never be a unique solution that is essentially identical by all members of the study group. You may make corrections to problem sets as we discuss them in class, but please use a different color of ink or pencil.

Discussion of problems or cases with second-year students (except course teaching assistants) before we cover them in class is a violation of the Honor Code. Once a case has been covered in class, you may discuss it with anyone.

The midterm and final exams are timed and closed book (except for a single page of memory notes). During an exam, you may not consult with anyone except Professors Robinson and Stocken.

If you have any questions about how the Honor Code applies to any other aspect of this course, please ask Professors Robinson or Stocken.

**Tuck Laptop Policy**

To provide a favorable learning environment, and out of respect for fellow students, visitors, and faculty, we will follow the School’s policy regarding the in-class use of laptop computers, cellular telephones, and all other electronic communication devices (e.g., iPhones and Blackberries).

In particular, students shall not use laptop computers, cellular telephones, or any other electronic communication device during class unless explicit permission to do so is granted by Professors Robinson or Stocken. This explicit permission will articulate when and how use of laptop computers is permitted.

If you have any questions about how the Laptop Policy applies to any other aspect of this course, please ask Professors Robinson or Stocken.
Learning Objectives and Assignments

Notations defined:
* denotes homework assignment to be handed-in.
CP denotes cases / reading materials in the Course Packet.
CASE denotes cases subject to cold calls during class.

I. Financial Measurement

Session 1
Wednesday, October 10: Overview of Business Activities and Principal Financial Statements

Learning Objectives
1. Obtain an overview of the principal activities of business firms and how they relate to the three principal financial statements.
2. Observe the types of information provided by the three principal financial statements and how firms might use this information in managing and evaluating a business.
3. Develop sensitivity to appropriate relations between the nature and mix of assets and the nature and mix of financing for firms in various industries.
4. Interpret income statement and balance sheet relations using common-size income statements and balance sheets.

Read: Chapter 1.
Prepare: Become familiar with extracts from the financial statements of Southwest Airlines, Starbucks, and McDonald’s (CP). Bring these to class together with Wal-Mart’s 2012 Annual Report (CP).

Session 2
Thursday, October 11: The Balance Sheet: Measuring Financial Position

Learning Objectives
1. Understand that the purpose of the balance sheet is to report the results of a firm’s investing and financing activities at a moment in time.
2. Apply the accounting concepts for asset and liability recognition and valuation under generally accepted accounting principles (GAAP).
3. Discuss the key components of owners’ equity.
4. Apply the dual-entry recording framework to a series of transactions that results in a balance sheet.

Read: Chapter 3, Chapter 2 (pages 43-58).
Optional Problems: 3-22, 3-24, 3-26, 2-34, 2-41.

Week 1 Homework due Friday, October 12 by 5:00 pm:
ONE Assignment: Small Beginnings Corporation (CP)*.
Session 3
Monday, October 15: The Income Statement: Measuring the Results of Operating Performance

Learning Objectives
1. Understand differences between the cash basis and the accrual basis of income recognition.
2. Understand and apply the accounting concepts for revenue and expense recognition and measurement under the accrual basis.
3. Discuss the relation between the income statement and balance sheet.

Read: Chapter 4, Chapter 2 (pages 58-73).
Prepare: Top Line CASE (CP).
Optional Problems: 4-11, 4-13, 4-28, 2-31, 2-35.

Session 4
Tuesday, October 16: The Income Statement (continued)

Learning Objectives
1. Apply the dual-entry recording framework to a series of transactions that results in a balance sheet and an income statement.

Prepare: WorldCom CASE (CP).
Optional Problem: 2-39.

Week 2 Homework due Friday, October 19 by 5:00 pm:
THREE Assignments: Up-and-Running (CP)*; Mary Lou’s (CP)*; Tertia (CP)*.
Session 5

Learning Objectives:
1. Understand the rationale for, and the information value of, the statement of cash flows.
2. Discuss the relation between the statement of cash flow, income statement, and balance sheet.
3. Develop skills in transforming income statement data to cash flow data and vice versa.

Read: Chapter 5.
Optional Problems: 5-33, 5-34, 5-36.

Session 6
Thursday, October 25: The Statement of Cash Flows (continued)

Learning Objectives
1. Reinforce skills in transforming income statement data to cash flow data and vice versa.
2. Consider relations between net income and cash flow from operations and between cash flows from operating, investing, and financing activities for various types of businesses.

Prepare: Psilos (CP).
Optional Problems: 5-42, 5-43, Snow Hut.

Week 3 Homework due Friday, October 26 by 5:00 pm:
THREE Assignments: Seasoned (CP)*; Quick Rags (CP)*; Stretch Company (CP)*.
II. Financial Analysis

Session 7
Monday, October 29: Introduction to Financial Statement Analysis

Learning Objectives:
1. Introduce tools for analyzing a firm's overall profitability (rate of return on assets) and examine how profit margin and asset turnover ratios provide information about the economics and strategy of a business.
2. Introduce the Du Pont formula - a tool for analyzing a firm's return to shareholders.
3. Understand the effect of financial leverage on a firm’s ROE.
4. Introduce tools for analyzing a firm's short-term liquidity risk (including its working capital management) and its long-term solvency risk.

Read: Chapter 6 (pages 241-274).
Prepare: Wal-Mart Profitability and Risk CASE (CP)*.
Optional Problems: 6-14, 6-21, 6-23, 6-25.

Session 8
Monday, October 29: Pro Forma Financial Statements

Learning Objectives
1. Reinforce the relations between the three principal financial statements by preparing pro forma financial statements from a given set of assumptions.
2. Practice designing a spreadsheet program.

Read: Chapter 6 (pages 274-285).
Prepare: Wal-Mart Pro Forma CASE part (a) (CP)* - an Excel spreadsheet template with account titles and amounts is available in the course folder. The required assumptions to complete the template are in the case.

Note: No formal class; rather assistance will be provided with preparation of pro forma financial statements for Wal-Mart in Georgiopoulos from 1:00 pm to 5:00 pm.

Week 4 Homework due Tuesday, October 30 by 5:00 pm:
THREE Assignments: Tellabs (CP)*; Wal-Mart Profitability and Risk CASE (CP)*; Wal-Mart Pro Forma CASE part (a) (CP)*.
Session 9  
Wednesday, October 31: Pro Forma Financial Statements (continued)  
   Learning Objectives  
   1. Discuss the preparation of pro forma financial statements.  
   2. Assess sensitivity of the financial statements to variations in pro forma assumptions.  
   3. Discuss which assumptions drive the various ratios in the Du Pont formula.  
   Review: Chapter 6, completed template in course folder.  
   Prepare: Wal-Mart Pro Forma CASE part (b) (CP)*.  

Tuesday, October 30: Optional Review Session in Georgiopoulos from 1:15 pm to 2:45 pm (Section 1 & 3) and from 3:00 pm to 4:30 pm (Sections 2 & 4)  
   Learning Objectives  
   1. Review material covered in sessions 1 – 9.  
   Prepare: 2011 Midterm Exam (CP).  

Mid-Term Examination: Friday, November 2 from 9:00 am to 12:00 pm covering material in sessions 1 – 9.
III.  Financial Reporting

Session 10
Wednesday, November 7: Quality of Earnings and Revenue Recognition

Learning Objectives
1. Develop an understanding of the concepts of quality of earnings and identify incentives faced by a firm's managers in choosing methods of measuring and reporting business activities.
2. Discuss the recognition of revenue for firms in different industries.
3. Identify matching issues confronted in recognizing income at the time of sale of goods and services.
4. Understand the allowance method and direct write off method for uncollectible accounts.

Read: Chapter 7.
Prepare: Target CASE (CP)*.
Optional Problems: 7-13, 7-30, 7-32, 7-41(a), Adam’s Golf.

Session 11
Thursday, November 8: Inventories and Cost of Goods Sold

Learning Objectives
1. Calculate inventories and cost of goods sold under FIFO and LIFO cost flow assumptions and the specific identification method.
2. Understand how differences in inflation rates, growth rates, inventory turnover rates and other factors cause inventories and cost of goods sold to differ under FIFO and LIFO.

Read: Chapter 8.
Prepare: Exxon Mobil Corporation CASE (CP)*.
Optional Problems: 8-29, 8-43, 8-44, 8-46, 8-47, General Electric.

Week 5 Homework due Friday, November 9 by 5:00 pm:
TWO Assignments: Target CASE (CP)*; Exxon Mobil Corporation CASE (CP)*.
Session 12
Monday, November 12: Non-current Assets

Learning Objectives
1. Observe the difficulties applying GAAP to property, plant and equipment and to intangible assets and the effects on assessments of the quality of earnings.
2. Observe the effects of a firm’s capitalization policy on balance sheet and income statement amounts.

Read: Chapter 9.
Prepare: McCormick CASE (CP)*.
Optional Problems: 9-14, 9-30, 9-33.

Session 13
Tuesday, November 13: Income Taxes

Learning Objectives
1. Understand the reasons for providing for deferred taxes.
2. Understand the difference between temporary and permanent timing differences.
3. Understand how to account for deferred tax liabilities and assets. Know when it is appropriate to raise a valuation allowance for deferred tax assets.
4. Understand the income statement, balance sheet, and cash flow statement treatment of income taxes and deferred taxes.

Read: Chapter 11 (pages 536-545).

Week 6 Homework due Friday, November 16 by 5:00 pm:
THREE Assignments: McCormick CASE (CP)*; Southwest Airlines (CP)*; 11-28*. 
Session 14
Tuesday, November 20: Income Taxes
Prepare: Dell Inc. CASE parts (1) through (5a) (CP)*.

Week 7 Homework due Tuesday, November 20 by 5:00 pm:
ONE Assignment: Dell Inc. CASE all parts (CP)* (including part 5(b)).

NOTE: You are expected to be familiar with present value concepts and calculations prior to Session 15. The textbook’s Appendix titled *Time Value of Cash Flows* provides the necessary background.

THANKSGIVING BREAK
Session 15
Wednesday, November 28: Recognition and Valuation of Liabilities / Bonds

Learning Objectives
1. Understand the impact of the recognition and valuation of liabilities on assessments of profitability and risk.
2. Calculate the issue price and subsequent market value of bonds with various cash flow patterns using present value techniques.
3. Apply GAAP for long-term bonds at the date of issue, during each subsequent period prior to maturity, and at maturity.
4. Understand the reasons why the book value of bonds under GAAP at any date may differ from the market value of the bonds.

Read: Chapter 10 (pages 461-481) and Appendix Time Value of Cash Flows (pages 805-818).
Optional Problems: 8-33, 8-34, 10-17, 10-19, 10-20.

Session 16
Thursday, November 29: Recognition and Valuation of Long-term Debt (continued) / Accounting for Leases

Learning Objectives:
1. Understand the issues involved in structuring leases as operating leases versus capital leases and the financial statement effects of each accounting method.
2. Apply the operating and capital lease methods.

Read: Chapter 10 (pages 482-491).
Optional reading: Chapter 21–Accounting for Leases, Intermediate Accounting, Kieso, Weygandt, and Warfield (on reserve in Feldberg Library).
Prepare: Rite Aid Corporation CASE (CP)*.
Optional Problems: 10-21, 10-23, 10-28, Sysco, FMC.

Week 8 Homework due Friday, November 30 by 5:00 pm:
TWO Assignments: 10-22*; Rite Aid Corporation CASE (CP)*.
**Session 17**  
**Wednesday, December 5: Accounting for Leases (continued)**  
**Learning Objectives:**  
1. Capitalization of operating leases  
2. Understand the most common components of shareholders’ equity.

Read: Chapter 14.  
Prepare: Walgreens CASE (CP)*.  
Optional Problems: 10-35, 10-36, AMR.

**Session 18**  
**Thursday, December 6: Shareholders’ Equity and Accounting for Employee Stock Options**  
**Learning Objectives:**  
1. Understand the economics events that alter stockholders’ (or owners’) equity, and how to account for them.  
2. Understand the various elements that affect the value of a stock option.  
3. Analyze the impact of stock option accounting on reported earnings.

Read: Chapter 14 (cont.).  
Prepare: PepsiCo CASE (CP)*.  
Optional Problem: 14-16, 14-17, 14-23, 14-25, 14-29, 14-31, 14-33, IBM.

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**Week 9 Homework due Friday, December 7 by 5:00 pm:**  
THREE Assignments: Adair (CP)*; Walgreens CASE (CP)*; PepsiCo CASE (CP)*.

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**Thursday, December 6: Optional Review Session in Georgiopoulos from 4:45 pm-6:15 pm (Sections 2 & 4)**

**Friday, December 7: Optional Review Session in Georgiopoulos from 10:20 am – 11:50 am (Sections 1 & 3)**

  Learning Objective: Review material covered in the course.  
  Prepare: 2011 Final Exam (CP).

**Final Exam:** Tuesday, December 11 from 9:00 am to 12:00 noon.
Optional Sessions for Assistance with the Course

You may choose to download the following dates and times to your Outlook calendar by double-clicking on, and saving, the two files located at the following URL:

P:\COURSE-FILES\Fall\Core\FMAR\Outlook Files

**Office Hours with Instructors from 5:30 pm to 7:00 pm in Shapiro**

Outlook Filename: *FMAR Instructor Office Hours.ics*

- Week 2: Thursday, 10/18
- Week 3: Thursday, 10/25
- Week 5: Thursday, 11/8
- Week 6: Thursday, 11/15
- Week 8: Thursday, 11/29

**Office Hours with Teaching Assistants from 7:00 pm to 8:00 pm in Stoneman**

Outlook Filename: *FMAR TA Office Hours.ics*

- Week 1:
  - Thursday, 10/11
- Week 2:
  - Monday, 10/15 Tuesday, 10/16
- Week 3:
  - Tuesday, 10/23 Wednesday, 10/24
- Week 4:
  - Sunday, 10/28 Wednesday, 10/31
- Week 5:
  - Tuesday, 11/6 Wednesday, 11/7
- Week 6:
  - Sunday, 11/11 Monday, 11/12
- Week 7:
  - Monday, 11/19
- Week 8:
  - Tuesday, 11/27 Wednesday, 11/28
- Week 9:
  - Tuesday, 12/4 Wednesday, 12/5
Instructions for Submitting Homework Electronically

STEP 1 – Label worksheets in Excel workbook

Distinguish Excel worksheets that contain final answers from those that contain any supporting work. Label answer worksheets “A-AssignmentName” and label supporting worksheets “W-AssignmentName”. Answer worksheets should contain clearly labeled answers to all questions in the assignment. In most cases, you will turn in multiple assignments each week. For example, the following illustrates how Excel worksheets should be labeled for Homework #2. Note: Use the “W2-Tertia” worksheet naming convention if you wish to use multiple supporting worksheets for a single assignment.

![Image of Excel worksheets with labels]

STEP 2 – Save Excel workbook to your personal computer

The file naming convention should contain your last name, first initial, and assignment # as follows:

```
LASTNAME_FIRSTINITIAL_HW2.xlsx
```

STEP 3 – Upload Excel workbook to the Tuck network

Copy/paste a single file for each weekly assignment into the appropriate drop folder – do not save any homework files directly to the folder from your computer using ‘Save As’.

Each of your 9 weekly assignments will have a separate drop folder at the following URL:

```
P:\COURSE-FILES\Fall\Core\FMAR~Student Drop Folder\SECURE
```

For example, drop Homework #1 at the following URL, etc.:

```
P:\COURSE-FILES\Fall\Core\FMAR~Student Drop Folder\SECURE\Homework #1
```

Note: You must drop homework in the folder by the due date. Once you drop your homework in the folder you will not be able to access the file or make any changes to it.

STEP 4 – Expect an email if you do NOT receive full credit for the assignment

We grade homework assignments on a 3 point scale for effort and completion. If you receive anything less than full credit, you will receive a notification email. You will not receive individual feedback on your homework. Each student is expected to check his/her answers against the solutions posted in the course folder and seek help from a TA, tutor, or instructor, if needed.
LEADING INDIVIDUALS & TEAMS

Fall, 2012

Professor Adam M. Kleinbaum
Tuck 201
603.646.6447
adam.m.kleinbaum@tuck.dartmouth.edu
Office hours: Monday, 1-4pm or by appointment

Academic Coordinator:  Debbie Gibbs
Byrne 204
603.646.3747
deborah.l.gibbs@tuck.dartmouth.edu

Overview

Organizational success depends on people interacting to achieve common goals. This course will provide you with conceptual frameworks for increasing individual and team performance in service of organizational goals. More specific learning goals include: a) to increase your knowledge about individual, interpersonal and small group behavior in complex organizations; b) to increase your awareness of your own and others’ assumptions, motivations, attitudes, values, emotions and behavior in human interaction; and c) to increase your skill in diagnosing the structural and behavioral antecedents of behavior problems in organizations, and prescribing effective action to remedy those problems. We will address these goals by learning about the underlying psychological and sociological foundations of human behavior, and will engage in case study discussions and interactive exercises to help you build effective individual and managerial skills.

Course Objectives

- Apply theories about managing people to achieve productive and satisfied organizational members and improved organizational performance.
- Understand the dynamics that affect team performance.
- Develop knowledge and skills to manage your career more effectively.
**Tuck Honor Code**

We believe that the Academic Honor Code is a critical aspect of the learning environment at Tuck. The prevalence of case-based learning in this course is consistent with the School’s philosophy that much of your education here will come from each other, and I encourage you to discuss all problems and cases with your study group prior to coverage in class. At the same time, it is essential for you to work through the material on your own to master it and to solidify your own understanding. The desirable sequence is for you to read and prepare the assigned materials on your own before getting together with your study group. As a result of discussions within your study group, you can (and should!) update your initial analysis based on the distinctive insights of your peers. You should then re-think your solution on your own and be prepared to present your analysis in class.

**Tuck Laptop Policy**

It is my belief that the presence of laptops in the classroom would hinder the free flow of ideas. Consistent with the Tuck Laptop Policy, I ask that you please do not use your laptop (or other computing device) during class unless explicitly instructed to do so. To this end, all cases are distributed in hard copy. I encourage you to write directly on them, use hand-written notes or print your type-written notes before class begins.

**Requirements**

This is a discussion-intensive class that depends upon your active engagement and participation for your learning and for that of your peers. A substantial part of your grade will therefore be based on your class participation. Class participation will include the following pieces:

- **Class attendance** – Because class participation is so important to the discussions, class attendance is critical for your own learning and the learning of your classmates. Absences may be excused for personal illness, family emergencies or religious observance. Absences related to placement activities cannot be excused. Since grades are heavily dependent on class participation, unexcused absences will adversely affect your grade.

- **Quality contributions in class** – Your contributions should be clear, concise, and offer ideas that will further our conversations. Class contribution requires that you are prepared for class, having read and thought about the material and the case in advance, and are prepared to challenge the material, apply the material to your own experiences, and to add to the discussion each day. Please bear in mind that it is quality of contribution, not the quantity, that will constitute your class participation grade.
**Grading**

Being a good manager requires superior skills in both verbal and written communication; correspondingly, your grade for this course will be based on both class participation and a written final exam. However, I recognize that some students are more comfortable with one mode of communication or the other and my intention is to reward your high performance, while also encouraging you to stretch the limits of your abilities. To that end, 60% of your final grade for the course will be based on whichever grade is higher; 40% of your final grade will be based on the lower grade.

- Class participation: 40 or 60%
- Final written exam: 40 or 60%

**Materials**

All cases are included in the LDIT Case Book. A typical class will include one case as well as one or two required readings. In the interest of reducing our carbon footprint, these required readings are distributed electronically. If you struggle to read electronic documents, you can request a printed LDIT Reader, including hard copies of all readings not in the Case Book.

Additionally, some students have found the following book to be a useful resource in preparing for case discussions in class and for the final exam. Two chapters – “How to Analyze a Case” and “How to Discuss a Case” – are particularly relevant for this course and I encourage you to read them carefully before the course begins. You may also want to read the chapter “How to Write a Case-Based Essay” before the final exam. All three are included in the LDIT Reader, electronically or in hard copy at your request. Several copies of the book are on reserve at Feldberg Library.


**Final Exam**

The final exam will be a self-timed, take-home case analysis. The exam will be distributed electronically on the afternoon of September 28th, the last day of class. Your answers should be typed, printed, and turned in as a hard copy to the drop boxes (one per question) at Debbie Gibbs’ office by 5pm sharp on Tuesday, October 2nd. You may take the exam at any time during that period. You will have four hours to read the case and answer three brief essay questions about it. Consistent with the Tuck Honor Code, you may not consult with anyone else, nor use the internet, the library or any other source to gather additional information, nor may you exceed the four-hour time limit.
Schedule

MODULE 1: LEADING INDIVIDUALS

1. Sept. 3 & 4  Motivating People in Organizations
   case:  Hausser Food Products Company
   • What problems exist at Hausser and why are they occurring?
   • Why doesn’t the Florida sales team want Corporate to know their secret?
   • As Brenda Cooper tries to improve the situation at Hausser, what plan of action would you recommend to her?
   reading:  *On the Folly of Rewarding A, While Hoping for B* (Kerr, 1975)
             *A Radical Prescription for Sales* (Pink, 2012)

2. Sept. 6 & 7  Managing Interpersonal Relationships
   case:  Rob Parson at Morgan Stanley (A)
   • What is your assessment of Rob Parson’s performance? Would you recommend him for promotion?
   • What might Paul Nasr be worried about if Rob is not promoted?
   • What is your assessment of Paul Nasr’s management of Rob?
   • Please come to class prepared to role-play the performance appraisal conversation as either Nasr or Parson.
   reading:  *Competent Jerks, Lovable Fools and the Formation of Social Networks* (Casciaro & Lobo, 2005)

   case:  The Barings Collapse (A)
   • What caused the collapse of Barings?
   • How did the Barings organization permit this to happen?
   • What was Leeson thinking?
             *Before You Make That Big Decision...* (Kahneman et al. 2011)
MODULE 2: LEADING TEAMS

4. Sept. 13 & 14 Group Process

   case: Carter Racing
   • Read the case and check TuckStreams for your assignment to a role and a “Race Team”.
   • Decide what course of action you will independently recommend when you meet with your “Race Team” and fill out a brief poll prior to class (http://bit.ly/CarterRacing).
   • Come to class prepared to role-play a meeting with Fred Carter, John Carter, Tom Burns and Paul Edwards (one of them played by you) in which you will decide together whether your team will race or not.


5. Sept. 19 & 20 Designing and Managing Your Team

   case: David Fletcher
   • Fletcher’s first attempt to build a research team did not work out as intended. Why not?
   • As Fletcher attempts to build a second team, what should he do differently?
   • What advice would you give to Mary Robinson or Donald Fiske if they were to join this group?

   reading: New Rules for Team Building (Hackman, 2002)

6. Sept. 21 Negotiating Conflict in Teams

   exercise: Coast News
   • Find the case in your mailbox prior to class and read it.
   • Come to class prepared to role-play a discussion between Thurman and Hernandez, in which you will agree on a proposal to your publisher.
   • Be prepared to argue for the issues that are especially important to you and anticipate which issues are important to your partner.

   reading: How to Pick a Good Fight (Joni & Beyer 2009)
MODULE 3: MANAGING YOUR CAREER


   case: Heidi Roizen
   • What are the strengths of Roizen’s network as we see it at the end of the case? What are its weaknesses?
   • What steps did Roizen take to develop her network? To maintain it?
   • Given who Heidi is, what lessons can we learn from her approach to building and maintaining her network?

   exercise: Network Assessment Exercise
   • Complete the exercise to stimulate your thinking about your own network. We will discuss the results in class, but you will not turn anything in.
   • Compare to the results of network-mapping tools that use data from Facebook (http://apps.facebook.com/touchgraph) or LinkedIn (http://inmaps.linkedinlabs.com/network).
   • Optionally, if you’re feeling ambitious, try to analyze your network of e-mail, Twitter or Flickr data using NodeXL (an Excel template that is pre-installed on your computer; for help, see http://nodexl.codeplex.com).

   reading: Please skim: Note on Social Networks and Network Structure (Pfeffer, 2008)
   Managing Corporate Social Networks (Kleinbaum & Tushman, 2008)

8. Sept. 27 & 28  Managing Upwards

   case: Matt Leeds
   • How did Matt Leeds get into this mess?
   • What could he have done differently? What opportunities to improve his situation did Matt miss?
   • Are there any sources of power available to Matt?
   • What should he do now?

   reading: Managing Your Boss (Gabarro & Kotter, 2005)
Leading Organizations

This is the second of Tuck’s three course sequence in leadership. Your first course dealt with managing individuals and teams, and the course following this one will concentrate on developing your own personal leadership style. This course—Leading Organizations—will focus on the specific content of the leader’s job at the executive level of the firm. It therefore extends and compliments Leading Individuals and Teams, and provides a further foundation for the development of your individual leadership skills in the final and Personal Leadership course which follows it.

Early management thinking emphasized the "functions" of a manager - planning, directing, controlling, and staffing the organization. These old ideas are now being reexamined. Whereas early ideas encouraged stability and order, new management concepts focus on change, the involvement of the workforce, and new organizational forms.

This course is organized around the findings of the Evergreen project. Sponsored by McKinsey and Company to address the limitation of traditional management thinking, this large-scale research was conducted over a period of five years. The findings identified four “Foundation Practices” that distinguished “Winner” from “Loser” firms across 50 industry groups. These practices were:

1. Creating shared, focused Strategy
2. Efficient and effective Execution
3. Fat and fast Organization Design
4. Building an adaptive work Culture

Implementing these practices is the primary responsibility of the executive leadership of the firm, and represents the core content of our leading organizations class. Of course, this is just a beginning, and students are encouraged to expand their study in subsequent second year electives such as Designing Organizations, Managing Organizational
Change, and Research to Practice Seminars on Organizational Alignment and Organizational Networks.

**Topic Outline and Assignments**

**Class 1: Introduction**

In this session we will review course procedures, grading, and schedule. Following this brief introduction, we will then discuss organizational alignment and the critical role of strategy in the process. This session will build upon content from the AGM class.

Case: The Guns of August  
Assignment: Prepare questions at end of case

**Class 2: Organizing: Strategy and Structure**

In this session students will discuss a case that illustrates the trade-off between different organizational structures and the factors that influence the choice from among these alternatives. Student teams will develop and present organizational designs for Polaroid in class.

Case: Polaroid  
After class read: Hrebiniak and Joyce, *Implementing Strategy*, Chapters 1 and 5

**Class 3: Organizing: New Organizational Forms**

This session focuses on the leadership challenges inherent in managing modern process-driven organizations. The session presents core ideas necessary to understand new organizational forms including matrix, network, process, and front-back structures.

After Class Read: Galbraith, *Designing Complex Organizations*, Chapters 2 and 5  
Hrebiniak and Joyce, *Implementing Strategy*, Chapter 6

**Class 4: Leading Change**

The purpose of this session is to allow the students to appreciate the challenges in implementing organizational change at the executive level.

Case: Federal Radar Corporation

**Class 5: Special Guest Speaker (all sections, October 23)**

Paul Gardent, Center for Leadership and Improvement, the Dartmouth Institute for Health Policy and Clinical Practice. This is a Special Joint Session. Classes will meet in Cook Auditorium.

Case: Childrens Hospital
**Class 6: What Really Works**

This class will present the detailed findings of the Evergreen Research Program. It will focus on providing answers to three critical questions that leaders must address at the executive level. These are, 1.) What are the critical levers for change that will improve my firm’s performance? 2.) Which of these should be implemented for the particular case of my organization? and 3.) In what order or sequence should these changes be made?

Before class read: Nohria, Joyce, and Roberson, “What Really Works”

**Class 7: Leading Cultural Change**

This session applies the ideas presented in the previous class to the interesting case of Nordstrom Stores, and focuses on the leaders role in large scale change.

Case: Nordstrom Stores (A)

**Class 8: Leading a Global Organization (all sections October 31 PM)**

This is a Special Session. All classes will meet in Cook auditorium from 1:15-2:45 PM.

**Assessment**

A take home case-based examination will be distributed to student mailboxes on Tuesday Oct. 30 at 5:00 p.m. and will be due at 5:00 p.m. on Monday, Nov. 5. The exam is intended to be a thinking experience aimed at helping integrate course concepts.

The examination will be closed book, closed notes, and open mind, and will emphasize the use of course concepts to logically address a practical problem in organizational leadership. Students will have 4 hours to complete the examination, and the exam must be completed in a single seating. Space limitations will apply. All honor code conditions will be respected.

Students will also receive a grade for class participation. Each study group will complete two case preparations that will be submitted for my review. These submissions will be used by me in conjunction with my assessment of individual classroom performance to determine the overall participation grade.

Your final grade will be determined as follows:

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<tbody>
<tr>
<td>Exam</td>
<td>75%</td>
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<tr>
<td>Participation</td>
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<tr>
<td></td>
<td>100%</td>
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Managerial Economics
The Tuck School of Business at Dartmouth
Fall A Term – 2012
Professors Teresa Fort and Joe Hall

<table>
<thead>
<tr>
<th>Professor</th>
<th>Office</th>
<th>Academic Coordinator</th>
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<tbody>
<tr>
<td>Sections 1 &amp; 3:</td>
<td>Prof. Joe Hall Woodbury 309 Carol Millay, Chase 208</td>
<td></td>
</tr>
<tr>
<td>Sections 2 &amp; 4:</td>
<td>Prof. Teresa Fort Buchanan 113 Doreen Aher, Chase 308</td>
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Objectives

This course covers some of the most important concepts from microeconomics and illustrates how they apply to business analysis and managerial decision-making.

After an introductory, integrative case that illustrates much of what we will be covering – a nice warm-up! – the first section of the course covers principles of economics that help us to understand economic forces at work in markets. We begin with the fundamental forces of demand and supply, but progress quickly to understanding how economic forces play out in more complex market settings, including ones where market competition might lead to inefficient results. We’ll be dealing with a variety of real-world industries to illustrate key concepts. You should get a good understanding of essential concepts such as the various measures of economic cost; supply and demand; entry and exit; demand elasticity; externality; and economic efficiency.

We then move from a view of how prices are determined in competitive markets to the pricing decision within a single firm. Topics include basic (monopoly) pricing; price discrimination (segmenting); and the use of advanced pricing strategies such as bundling and versioning to capture value. We will also discuss how these issues intersect with public policy in the form of regulation of monopoly, marketing and pricing tactics.

In our final session we will cover two topics that critically affect many markets – adverse selection and moral hazard. This is actually a nice follow-on to our work in pricing, in that sophisticated pricing strategy must take into account the nuances of consumer self-selection. We will be using the current debate on health insurance to illustrate the importance and operation of these forces.

Throughout, the focus of the course will be on understanding the theory and principles sufficiently to apply them to understand real world issues and to make real world decisions. You should expect to leave the course with a firm grip on how economists think about business problems, and the ability to apply tools from the course to a variety of business situations.

Economics is at the core of almost everything in business; you will accordingly see much of what we cover here in other courses and throughout your career. Don’t hesitate to come back to us with questions or to tell us about neat applications you have come across – we love to discuss economics in the real world, and your story will likely enrich some future Tuck students.
Class Preparation, Attendance, Assignments, and Honor Code

You are expected to be in class and prepared each day.

During the course, problems, cases, and other material will be distributed and used as a basis for class meetings. You should review and work through these materials before class. Group discussion is encouraged before and after class. Be advised that material within each case or problem only should form the basis for any answers to case questions, whether written or oral (i.e., you cannot appeal to what you found on Google as a justification for your case analysis.)

Note that materials from previous offerings of ManEc should not be used or referenced, except as distributed by the faculty.

In regard to computer use, we allow computers to be used in class, but only for course-related activity. Please respect us, visitors, and your peers by not multitasking during class.

We will have midterm and final exams. Both are purely individual efforts. They will be open book, open note, and you may use a computer.

The two case presentations are to be prepared with your study group. If your name is on the final product, you must have put significant effort into the process that produced the final product, an effort that is not significantly different from other members of the group.

Generally, we consider honor an individual matter guided by the policies set forth in the MBA Student Handbook. If there are any questions about what is expected, please raise them. If you encounter a question when we are not available, note your concern in writing and tell us how you proceeded.

Course Text

Pindyck and Rubinfeld, Microeconomics, 8th Edition. This text is available at both Wheelock Books and the Dartmouth Bookstore. We have examined previous editions of this text, back to the 4th. We believe the differences to be marginal, so you are welcome to use an earlier edition but it is up to you to verify that the chapters correspond. The text is an excellent reference, but be aware that we do not teach out of the text – instead, we focus on more specific cases or problems. The text should be looked upon as background reading, sometimes essential and sometimes supplemental. It is a book that has and will stand the test of time as a classic intermediate microeconomics book, one that you will always be glad to have on your bookshelf.

Another book that we offer up as an optional (and fun) read that covers much of our course content from a qualitative perspective is The Undercover Economist by Tim Harford.

Online Content

We will be using the K-Blocks online platform to enhance classroom learning. The objective of this online material is for students to (i) learn/relearn, apply, and discuss fundamental concepts, (ii) review class material, and (iii) attempt practice problems. The K-Blocks platform has three components:

- A set of downloadable videos that cover basic concepts, tutorials, and class material.
• A set of practice problems that apply the underlying concepts and where students receive instant feedback.
• A discussion board where students can post questions and comments.

The idea behind K-Blocks is that the classroom discussion can focus on higher value activities, e.g., more managerial applications. Further, it ensures that all students are familiar with the basic concepts at the beginning of class and allows for the review the material after class as well.

This material is designed to be self-paced. You should view the time you invest in working with this content as part of your normal before-class preparation. Note that your performance on the online practice problems will not be a component in your final course grade.

### Exam/Case Presentation Schedule and Grading Breakdown

<table>
<thead>
<tr>
<th>Type</th>
<th>Due</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Case Presentation I</td>
<td>Due in Class, Group</td>
<td>Before class on Thursday, Sept. 13</td>
</tr>
<tr>
<td>Midterm Exam</td>
<td>Individual, Timed</td>
<td>Sunday, Sept. 16, 3:00 PM</td>
</tr>
<tr>
<td>Case Presentation II</td>
<td>Due in Class, Group</td>
<td>Before class on Wednesday, Sept. 26</td>
</tr>
<tr>
<td>Final Exam</td>
<td>Individual, Timed</td>
<td>Tuesday, Oct. 2, noon</td>
</tr>
<tr>
<td>Class Contribution</td>
<td>Individual</td>
<td>n/a</td>
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**Exam Reviews**

These exam reviews will be run by the faculty. They will be held Friday, September 14, 2:45-4:15 and Friday, September 28, 2:45-4:15. Both will meet in Cook Auditorium.

**Weekly Review Schedule**

These weekly reviews will be run by a teaching assistant. They will be held Friday, September 7, 1:00-2:30; Friday, September 14, 5:30-7:00; Friday, September 21, 4:00-5:30; and Friday, September 28, 5:30-7:00.

**Review Problems**

Students often want to see problems similar to what will be on the midterm and final exams. We will put some old exams in the course folder, along with solutions.
<table>
<thead>
<tr>
<th>Session</th>
<th>Date</th>
<th>Topics</th>
<th>Assignments</th>
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</thead>
</table>
| 1       | 9/3: Sections 1&3  
9/4: Sections 2&4 | Costs, Opportunity Costs, Fixed Costs, Marginal Costs, Pricing, Bidding | PR: Ch1 (skim); 7.1 Prepare Littleton Case                                   |
| 2       | 9/5: All sections | Theory of Competitive Markets, Supply and Demand, Equilibrium and Efficiency | PR: 2.1-2.5; 7.1-7.2; 8; 9.1-9.2, also prepare on-line material at http://digital.tuck.dartmouth.edu |
| 3       | 9/6: All sections | Competitive Industry Equilibrium, in the Immediate-, Short- and Long-Run | Same reading as for session 2 Prepare: Comp. Ind. Equil.                     |
| 4       | 9/10: All sections | Applying the competitive industry model: the oil tanker industry        | Prepare: General Maritime Case                                               |
| 5       | 9/12: All sections | Externalities, Pollution Taxes, Cap and Trade Systems                   | PR: Ch 18; CBO study After class: Additional articles                       |
| 6       | 9/13: All sections | Applying the competitive industry model: The aluminum industry          | Case 1 Write-up Due                                                         |
| Review  | 9/14       | Review of topics                                                       |                                                                             |
| Exam    | 9/16       | Midterm Due                                                            |                                                                             |
| 9       | 9/20: All sections | Two-Part Pricing, Menu Pricing, Self-Selection                         | PR: Ch 11 Prepare: Fun Fair After class: Additional articles               |
| 10      | 9/24: Sections 1&3  
9/25: Sections 2&4 | Bundling, Tying, Pricing, Antitrust                                    | PR: Ch 11 Prepare: Profits from Scholarship Case                           |
| 11      | 9/26: All sections | Versioning                                                             |                                                                             |
| 12      | 9/28: All sections | Adverse Selection and Moral Hazard                                     | PR: 17                                                                     |
| Review  | 9/28       | Review of topics                                                       |                                                                             |
| Final   | 10/2       |                                                                         |                                                                             |

1 PR = Pindyck and Rubinfeld textbook
Module I. Competitive Markets

Session 1 – Monday, 9/3 (Secs. 1&3) or Tuesday, 9/4 (Secs. 2&4)
Topics: Costs, Opportunity Costs, Fixed Costs, Marginal Costs, Pricing, Bidding

Read before class: Pindyck and Rubinfeld: Chapter 1 (skim), Chapter 7 (only section 7.1)

Prepare: Littleton Bottleworks, Tuck Case

In this session we will briefly introduce the course and then move on to our first case discussion. Consider the following questions for class discussion (nothing is to be handed-in):

1. How would you characterize the structure of this industry? Is it competitive? How do the forces of supply and demand impact pricing in this industry?
2. Build a cost model that will portray the current situation as well as help you analyze the impact of different bids for the new business. A template is available in the course folder to assist in your analyses.
3. The corporate finance manager has heard about the prospective deal with N-Y and said it is not worth consideration as it could never meet the 25% EBITDA target. What do you think about this position?
4. What do you calculate as the cost of producing the bottles for the new opportunity? In doing this, you can assume that the UBR line will not be shut down for the next two years even if this opportunity is lost. If Littleton won the business at a price equal to your estimated cost, what would Littleton’s overall financial situation look like? Should that be acceptable?
5. What do you think Littleton should bid in order to win the two-year contract of 45 million bottles annually? What will Littleton’s financial situation be if your bid is accepted? To help determine your bid, what further information would you like, and how would you use that information?
6. The corporate finance manager has recommended that the UBR line be shut down if no new business can be secured in the near future. How would you respond to this proposal? What essential information do you need, and how would you use it to make the decision?

Session 2 – Wednesday, 9/5
Topics: Theory of Competitive Markets, Supply and Demand, Equilibrium and Efficiency

Read before class: Pindyck and Rubinfeld: Chapter 2 (through section 2.5), Ch. 7 (sections 7.1 and 7.2); Chapter 8; Chapter 9 (sections 9.1 and 9.2). NOTE: These chapters are core readings for the next several sessions. Look them over once now, and return to them at least once again!
Before class preparation for this session also includes the online unit titled “Competitive Markets” available at http://digital.tuck.dartmouth.edu. All students should review this content before class. Additional on-line content will be posted after class.

In this session we begin our analysis of how markets allocate resources and the economic forces at work in markets. We will work to develop the fundamental economic understanding of how a competitive industry works. This day will be as close to “lecture” as we will get. There are many chapters from the text listed for reading, but they are background reading for the entire first module of the course and indeed the entire course. You should try to do as much of it as possible before this session, so you're somewhat familiar with the general ideas.

Session 3 – Thursday, 9/6
Topics: Competitive Industry Equilibrium, in the Immediate-, Short- and Long-Run

Read before class: Same as for Session 2.

Prepare: Competitive Industry Equilibrium, Tuck Note

In this session, we will finish our discussion of modeling a competitive industry. We will also cover the numerical problem titled Competitive Industry Equilibrium found in your course pack. Please prepare your solution to this problem before class, but note that it is not to be handed in. (Be aware that similar problems have appeared on past ManEc exams.)


Session 4 – Monday, 9/10
Topics: Applying the competitive industry model: the oil tanker industry

Prepare: General Maritime Corporation, Tuck Case

The purpose of this case is to apply the principles of competitive markets theory to a real industry. We will see how fundamental economic forces determine not only the performance of the industry overall, but also the performance and valuation of an individual firm. Consider the following questions for class discussion (nothing is to be handed-in):

1. What decisions does the management team of General Maritime face in 2010? How, broadly, should they make these decisions? What information/data do they need?
2. On the continuum from “perfectly competitive” to “monopoly” where does the oil tanker industry lie? Why?
3. What determines oil tanker rates? Be prepared to discuss a framework for thinking of how rates are determined. How does your framework explain the volatility of tanker rates?
4. Why were tanker rates so low in 2009? Were those “equilibrium” prices? What determines how low rates can fall?
5. Are tanker rates in April of 2010 equilibrium prices?
6. Based on case data, can you provide an estimate for the long-run equilibrium daily tanker rate for the Aframax sector of the industry?
7. What would you recommend GenMar do in April of 2010?

**Session 5 – Wednesday, 9/12**
Topics: Externalities, Pollution Taxes, Cap and Trade Systems

Read before class: Pindyck and Rubinfeld: Chapter 18 (especially sections 18.1-18.4); CBO Study, Feb. 2008, “Policy Options for Reducing CO2 Emissions” (PDF in Course Folder)

In this session we will return to our model of a competitive industry and supplement it with a pollution externality. We will use carbon emissions as the case in point. The CBO study, available as a PDF in course folder, can be skimmed quickly. A key question to consider for class: how do carbon taxes differ from a "cap and trade" system?


**Session 6 – Thursday, 9/13**
Topics: Applying the competitive industry model: The aluminum industry


Prepare: *Alusaf Hillside Project* (HBS 9-704-458)

The purpose of this case analysis is to get you to apply some economic principles and general analytical thinking to a real-world industry and to an investment decision. The overarching goal is for you to come up with a solid framework for thinking about how Alusaf should make its decision on the smelter investment, and more precisely the cash flows that the Alusaf investment would yield. Of great import in those cash flows is the price of the smelter’s output. Thus, we are very interested in your analysis of what has and what will continue to determine price in this industry, and how that price will impact Alusaf’s investment decision.

The following questions and issues should serve as a guide for you.
1. How would you qualitatively assess the nature of competition and prospects for profitability in the aluminum industry? What are the most important features of the market from this standpoint?
2. In the course folder is a large spreadsheet giving cost information on all the world’s primary aluminum smelters (output is given in thousands of tons per year). Use this information to construct an industry short run supply curve: a curve that would show how much aluminum would be put onto the market at any given price. If Alusaf were to enter this industry, how would its cost position compare to that of existing firms?
3. What is the situation of the industry at the time of the Alusaf decision? Can you depict the situation graphically?
4. A key issue in Alusaf’s investment decision must be its assessment of prices in the medium and long run. How do you assess what prices are likely to be in the future, with the future being both the “near term” and the “long term”? Be as precise as you can.
5. Given your assessment of future prices, Alusaf’s variable costs, and the initial outlays associated with the new plant, can you provide an assessment of Alusaf’s expected return on investment (ROI) for the Hillside project? For this part of your analysis you may assume the plant lasts forever in order to simplify your calculations.

While this analysis is necessarily quantitative, we are less interested in a complicated cash flow analysis than in a good analysis of the fundamental economics, particularly in regard to price. Note that we are not explicitly asking for a demand curve as there is not enough data to characterize its shape with confidence. However, while the exact shape of the demand curve is not critical, its general location in future years will be critical to the investment decision. Careful thinking and clear statements of your assumptions and sensitivity analysis are important.

This is a group assignment and we expect groups to come to class with 5-10 slides, prepared to present for 10 minutes or so, detailing and supporting your analysis and decision. Here are the key issues we expect to see in your presentations:

1. Overview of situation
2. Analysis of supply and demand in the short-run
3. Forecast of industry evolution over next five years
4. Forecast of long-term price of aluminum
5. Discussion of investment decision

Bring a hard copy of your PowerPoint presentation (with any supporting notes or analysis) to class to hand-in (one per group). We will likely rely on a combination of volunteers and “involunteers” to present their analysis in class.

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**Midterm Exam**

*Distributed: 5:00 PM, Friday, 9/14*

*Due: 3:00 PM, Sunday, 9/16*
Module II. Pricing

Session 7 – Monday, 9/17
Topics: Marginal Revenue, Marginal Cost, Monopoly Pricing

Read before class: Pindyck and Rubinfeld: Chapter 4 (sections 4.3, 4.4), Chapter 10 (sections 10.1-10.4).

Before class preparation for this session also includes the online unit titled “Pricing” available at http://digital.tuck.dartmouth.edu. All students should review this content before class.

Prepare: Note on Marginal Revenue, Tuck Note

This session begins the second module of the course: pricing by firms with market power. Read over the textbook chapters and then skim the Note on Marginal Revenue. Note that nothing is to be handed-in.


Session 8 – Tuesday, 9/18
Topic: Price Discrimination

Read before class: Pindyck and Rubinfeld: Chapter 11 (This is the reading for the next few sessions. Look it over now and return to it at least once again!)

Prepare: Segmenting the Market, Tuck Note

We will continue our initial discussion of pricing by examining a numerical problem, described in the note Segmenting the Market. We will go over the problem in class. The more of it you can work beforehand, the more you will get out of our discussion. Note that parts (6) and (7) are rather challenging. Nothing is to be handed-in.

Session 9 – Thursday, 9/20
Topics: Two-Part Pricing, Menu Pricing, Self-Selection

Read before class: Pindyck and Rubinfeld: Chapter 11

Prepare: Fun Fair, Tuck Note

We will move on to additional pricing techniques with the Fun Fair case. We will work through this case during class. Again, the more you can prepare before class the more you will get out of the session. Nothing needs to be handed-in.


Session 10 – Monday, 9/24 (Secs. 1&3) or Tuesday, 9/25 (Secs. 2&4)
Topics: Bundling, Tying, Pricing, Antitrust

Read before class: Pindyck and Rubinfeld: Chapter 11

Prepare: Profits from Scholarship: The Case of Academic Journal Pricing, Tuck Case

Questions to think about for class discussion:
1. Where do you put the academic journals market on the “competitive/monopolistic” spectrum?
2. From the point of view of CEO Haank, what is the ideal pricing structure for journals? Why?
3. What about from the point of view of an academic librarian – what do they think the ideal pricing structure would be? Why?
4. From an overall “society” point of view, what would the ideal pricing structure be?
5. What do you think about bundling? Is it profitable for the publishers? Why or why not? Why don't the libraries like it?
6. Is there a different form of bundling that might be both more profitable and satisfy the libraries’ demands?
7. What do you think about price discrimination in this setting – charging different libraries different prices?

There are a host of other issues that we can attempt to address: effects of mergers, the buying consortia, nature of demand and costs, entry conditions, etc. Come prepared to share your views and analysis.

Read/investigate after class: “Scientific Publishing: The Price of Information,” The Economist, Feb. 4, 2012; also two related postings by Tuck’s Prof. Hansen on bundling and iTunes/iPod/iPhone economics:
Session 11 – Wednesday, 9/26
Topics:  Versioning

Read before class:  Pindyck and Rubinfeld: Chapter 11

Prepare:  Cambridge Software Corporation (HBS 9-191-072)

Prepare the Cambridge Software Corporation case as a group presentation. You will turn-in a hard-copy of your PowerPoint slides and we will be asking some teams to present, just as with the Alusaf case.

Your task is to recommend which versions of Modeler that Cambridge Software should produce and at what prices they should be sold. The focus of your presentation should be both what you think they should do and why. Here are a few tips:

1. Do not miss the 40% commission for sales of units through the bookstore channel.
2. Take the size of the market segment to be how many units would be sold in that segment, if you priced properly.
3. To get you started, consider what you would do if you were to sell only one version at one price: which version would you produce, and at what price would you sell it? All teams should address this question. (Each segment development cost still applies.)
4. Any assumptions you make should be noted and justified.


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Module III.  Nuances of Economics

Session 12 – Friday 9/28
Topics:  Adverse Selection and Moral Hazard
Read before class:  Pindyck and Rubinfeld: Chapter 17

Read the the chapter of the text and come to class prepared to engage in an interactive discussion around the issues of adverse selection and moral hazard.

Read/investigate after class:  Jonathan Gruber, “Health Care Reform is a “Three-Legged Stool,” Center for American Progress, August 2010
Tuesday, 10/2

FINAL EXAM
9:00 AM to NOON

** THE FINAL EXAM IS CUMULATIVE **

Course Packet Inventory

1. Course Syllabus
2. Littleton Bottleworks, Tuck Case 1-0126R
3. Competitive Industry Equilibrium, Tuck Note 1-0130
5. Guy Raz, “Plummeting Marijuana Prices Create A Panic In Calif.,” NPR – All Things Considered, Mar. 15, 2010
7. General Maritime Corporation, Tuck Case 1-0317R
11. Alusaf Hillside Project (HBS 9-704-458)
12. Note on Marginal Revenue, Tuck Note 1-0129
15. Segmenting the Market, Tuck Note 1-0131
16. Fun Fair, Tuck Note 1-0128
19. Profits from Scholarship: The Case of Academic Journal Pricing, Tuck Case 1-0127
21. Cambridge Software Corporation (HBS 9-191-072)
23. Jonathan Gruber, “Health Care Reform is a “Three-Legged Stool,”” Center for American Progress, August 2010

Course Folder Inventory

Overview

Effective leadership requires acquiring knowledge about how effective organizations function as well as knowledge about oneself. While the MBA curricula of top business schools offer countless opportunities to acquire knowledge about organizations, there are relatively fewer courses dedicated to acquiring and learning how to use knowledge about oneself. Yet, knowledge about oneself is critical to leadership effectiveness because it enables effective leaders to choose the settings in which they can capitalize on their strengths and it helps them to identify areas of their leadership profile that require improvement. This course focuses on knowledge about oneself. We will use 360-degree feedback from former co-workers collected before the course begins to identify each student’s unique strengths and opportunities to improve as a leader. The theoretical framework underlying the 360-degree feedback highlights the relationship between leadership styles and the demands on leaders in different work settings. The central premise is that whether certain behaviors constitute effective leadership depends on the demands of the work setting in which the person operates. In other words, what is required to be an effective leader in a Wall Street firm likely differs from what it takes to be a leader in a consumer goods company or a start-up. Using this theoretical framework, we will assess how student’s unique leadership profiles match the demands of their jobs, focusing on both the jobs they held prior to joining Tuck and their likely jobs after they leave Tuck. Based on a gap analysis, we will identify development needs and actions for improvement. To create an environment conducive to learning and personal growth, we will devote the second half of each class in which feedback is returned to small group discussions of the meaning of your findings. In addition, students will discuss cases and will take part in structured role-play exercises that identify effective behavioral approaches to leading others. To accommodate the unique approach of this course, the course consists of four three-hour sessions and a two-hour session.

Grading Criteria

- 60% Leadership self-analysis and action plan
- 20% Class participation
- 20% Peer coaching report
Individual Leadership Self Analysis and Action Plan (LSAAP) – 60%

Objective: To evaluate yourself as a leader in terms of your strengths and opportunities for improvement, and to develop a detailed strategy for meeting your career goals.

Requirements: This assignment requires that you integrate aspects of the course (assessment feedback, readings, cases, videos, exercises, and lectures) and identify how they specifically apply to you. The paper should be a maximum of 8 pages in length (double spaced, 12-point font, 1-inch margins – Please conform to these specifications and the deadline or I will need to deduct points from your paper). Additional details about the content of this assignment will be covered in class.

Due Date: December 13, 2012 at 5 pm. Please turn in the document to a box outside Annette Lyman’s office (Tuck 310). Also, please drop document in the “secure student drop area” of the course folder.

Class Participation – 20%

Class participation evaluations are based on your contributions to class discussions and case analyses, and your active participation in group exercises. I evaluate your participation based on the extent to which you contribute comments that are insightful, relevant, and progressive (e.g., comments that move the discussion along, rather than restate what has already been said). As you know better than most (!), you and your classmates get maximum benefit from high quality comments as opposed to high quantity. In fact, high quantity/low quality comments are detrimental in a group this large and will, for that reason, be downgraded. Of course, your classmates and I expect you to be prepared for and attend each class session.

Peer Coaching Report – 20%

Objective: To practice coaching behaviors by supporting the leadership development efforts of one of your first-year colleagues.

Requirement: Prepare a written report in which you comment on the leadership development efforts of a first-year colleague and the ways in which your coaching behaviors helped support these efforts. Additional details about the content of the assignment will be discussed in class.

Due date: December 13, 2012 at 5 pm. Please turn in the document to a box outside Annette Lyman’s office (Tuck 310). Also, please drop document in the “secure student drop area” of the course folder.

A General Statement about Attendance

We (your instructor and classmates) expect you to attend, be prepared for, and arrive on time for each class session. Absences from class will result in grade penalties and may also result in withholding assessment feedback. The reason for this strict attendance policy is that much of the learning in this class occurs in class. Further, many of the activities in class are group based so that being late to class or failing to show up hurts your classmates.
<table>
<thead>
<tr>
<th>Session</th>
<th>Content</th>
<th>Materials</th>
<th>Readings</th>
</tr>
</thead>
</table>
| November 5/6: #1 Understanding the match between your motivational profile and the demands on leaders | • How do values affect behavior?  
• Are there values that make it more likely for individuals to be effective leaders? | Group discussion of assessment feedback | McClelland & Burnham, *Power is the Great Motivator* |
| November 12/13: #2 Bridging gaps in your motivational profile | • How do individuals for whom such values are less salient bridge the gap? | Case discussion  
Group discussion of assessment feedback | Amelia Rogers at Tassani Communications (A)  
Goleman, *What Makes a Leader* |
| November 26/27: #3 Evaluating your leadership style | • What is a leadership style?  
• Which styles are most effective and when?  
• Which leadership styles do you tend to use? | Case discussion  
Group discussion of assessment feedback | Wolfgang Keller at Konigsbrau-TAK (A)  
Spreier, Fontaine, & Malloy, *Leadership Run Amok: The Destructive Potential of Overachievers* |
| November 28/29: #4 Discovering the unique added value of leaders | • What is the unique added value of leaders? | Exercise | Collins & Porras, *Building A Visionary Company* |
| December 3/4: #5 Next steps toward becoming a more effective leader | • First steps toward developing your Leadership Development Plan (LDP) | Case discussion  
Group discussion of LDPs | Craig Parks (A)  
Leadership in Law: Amy Schulman at DLA Piper  
Drucker, *Managing Oneself* |
Course Objectives

The purpose of this course is to provide you with a strong background in statistical principles. Our emphasis will be on learning how to be an intelligent "consumer" of statistics, rather than on how to become a statistician. The successful student will finish this course with an ability to effectively evaluate and act upon statistical reports and data relating to applications in business. In addition, you will become skilled in actually performing certain standard statistical analyses.

Required Text


Supplementary Texts


These texts are also on reserve at the Feldberg Library.

Course Requirements

A. There are four homework assignments, which are due on Sept. 7, 12, 21, and 27. The class schedule lists the dates when they are due. The homework assignments are included in your course pack. They should be handed in at the beginning of the class session on due dates. In order to maximize your learning of statistics and its application to business, it is imperative that you work through these assignments individually, and as we discuss the topics in class, not just on the day before they are due. Selected problems from these assignments will be graded and are indicated by an asterisk. The non-graded problems should also be considered required work. We will provide full solutions along with your graded homework so that you can study them and correct your mistakes.
B. A take-home midterm exam is scheduled on Friday, September 14th and will be due on Sunday, September 16th at 3:00 pm. It will be a two hour, timed exam based on the material covered through September 12th.

C. A final exam is scheduled on Monday, October 1st from 9:00 am to noon. It will cover the material after the midterm exam (September 18 through September 27). However, as you will see, the topics we cover later in the course build on those covered earlier. It is therefore important that you have a good understanding of the first half to do well in the second half.

Grading

Your final grade will be determined as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Final</td>
<td>40%</td>
</tr>
<tr>
<td>Take-home Midterm Exam</td>
<td>25%</td>
</tr>
<tr>
<td>Homework Assignments</td>
<td>25%</td>
</tr>
<tr>
<td>Class Participation</td>
<td>10%</td>
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</tbody>
</table>

Review Sessions

An optional review session will be held every afternoon on class days. The purpose of these sessions is to provide an opportunity for you to listen to other students' questions as well as to give you a chance to air your own. No new material will be introduced, and you should certainly not feel obliged to attend if you do not feel the need. Teaching Assistants will hold these joint review sessions for all the sections. There is also an optional SPSS tutorial on Tuesday, September 18th at 1:15 pm in Cook Auditorium. The review and tutorial session schedule is as follows:

<table>
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<tr>
<th>Date</th>
<th>Session</th>
<th>Time</th>
<th>Location</th>
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<tbody>
<tr>
<td>Mon., Sept. 3rd</td>
<td>(Review 1)</td>
<td>5:00 – 6:30 pm</td>
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<tr>
<td>Tues., Sept. 4th</td>
<td>(Review 2)</td>
<td>5:00 – 6:30 pm</td>
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<tr>
<td>Fri., Sept. 7th</td>
<td>(Review 3)</td>
<td>5:00 – 6:30 pm</td>
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<tr>
<td>Mon., Sept. 10th</td>
<td>(Review 4)</td>
<td>5:00 – 6:30 pm</td>
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<tr>
<td>Tues., Sept. 11th</td>
<td>(Review 5)</td>
<td>5:00 – 6:30 pm</td>
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<tr>
<td>Wed., Sept. 12th</td>
<td>(Review 6)</td>
<td>5:00 – 6:30 pm</td>
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<tr>
<td>Fri., Sept. 14th</td>
<td>(Midterm Review)</td>
<td>1:00 – 2:30 pm</td>
<td>Cook (Kopalle)</td>
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<tr>
<td>Tues., Sept. 18th</td>
<td>(SPSS Tutorial)</td>
<td>1:15 to 2:15 pm</td>
<td>Cook (Optional)</td>
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<tr>
<td>Wed., Sept. 19th</td>
<td>(Review 7)</td>
<td>5:00 – 6:30 pm</td>
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<tr>
<td>Fri., Sept. 21th</td>
<td>(Review 8)</td>
<td>5:00 – 6:30 pm</td>
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<tr>
<td>Mon., Sept. 24th</td>
<td>(Review 9)</td>
<td>5:00 – 6:30 pm</td>
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<tr>
<td>Tues., Sept. 25th</td>
<td>(Review 10)</td>
<td>5:00 – 6:30 pm</td>
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<tr>
<td>Thurs., Sept. 27th</td>
<td>(Review 11)</td>
<td>5:00 – 6:30 pm</td>
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<tr>
<td>Fri., Sept. 28th</td>
<td>(Final Review)</td>
<td>1:00 – 2:30 pm</td>
<td>Cook (Neslin)</td>
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</table>

Studying for the Course

The textbook is quite easy to read and covers a lot of ground. However, some of the topics are not covered in depth. Class discussions, handouts, and the other references will fill these gaps. We expect you to read through the assigned chapters and familiarize yourself with the content before class. The class discussion will be aimed at providing a good understanding of the concepts and their application to business. To maximize your learning, you should work on parts of the homework assignments throughout the week, as we cover the relevant topics in class.
**Computer Usage**

You may use EXCEL in the first half of the course. In the second half of the course, you will use a statistical software package called SPSS for Windows. All the software tools have already been installed on your laptop computers. They are also available on the Tuck network. We will provide you with handouts containing instructions for their use.

**Honor Code**

We expect and encourage you to help one another in the learning process. However, we mean help and be helped without guile. Please work on each homework individually before you meet with your study group. You may make changes in your answers as a result of the study group discussion but only if you understand the changes and why they are being made. Your name on the assignment that you write/type and turn in for grading will indicate that it is your current understanding of the work, not your study group’s solution. Also, please note that it is a violation of the honor code to use any course materials such as homework assignments, exams, etc. from previous years, unless we provide them to you ourselves. Both the quiz and the final exam are open book, open notes (yours only) and individual assignments with no help from the internet.

**Attendance and Laptop Policy**

Attendance and on-time arrival at all class sessions is expected and you are responsible for knowing what transpired in every class. Except in an unforeseen emergency, we expect to be informed beforehand if you need to miss a class. There will be a grade penalty above and beyond the impact on class participation for more than one absence.

To provide a first-class learning environment, and out of respect for fellow students, visitors, and faculty, The honor code for our class follows Tuck’s policy regarding the in-class use of laptop computers, cellular telephones, and all other electronic communication devices (e.g., iPhones and Blackberries):

- Students shall not use laptop computers, cellular telephones, or any other electronic communication device in any of our stats class sessions. Explicit permission to use your laptop computer may be granted by your instructor during those sessions that require you to use either Excel or SPSS.

**K-Blocks**

K-Blocks is a platform for delivering online course content to enhance classroom learning. We introduced it on an experimental basis during Fall 2011 and student response was very positive. Therefore, we now include it as part of our overall statistics course. The objective of the online K-Blocks material is for students to (i) learn/relearn, apply, and discuss fundamental concepts, (ii) review class material, and (iii) practice problems. The K-Blocks platform has three components:

- Set of downloadable videos that cover basic concepts, tutorials, and class material
- Set of quiz problems that apply the underlying concepts where students receive instant feedback (“active learning”)
- Discussion board where students can post questions and comments

The idea behind K-Blocks is that the classroom discussion is left for more value added learning, e.g., more managerial applications. Further, it ensures that all students are familiar with the basic concepts at the beginning of class and students can review the material after class as well.
# COURSE OUTLINE (Fall 2012)

<table>
<thead>
<tr>
<th>No.</th>
<th>Date</th>
<th>Topic</th>
<th>Reading Assignment</th>
</tr>
</thead>
</table>
| 1 (M) | 9/3 | Overview Chebyshev’s Theorem Normal Distribution | Chapters 1 through 3  
- Statistical Analysis Using Excel  
- Skewness  
- Reasons for Dividing by (n-1) for Sample Variance  
Chapter 5, p121-130 |
| 2 (T) | 9/4 | Covariance & Correlation, Variance of a Combination of Variables |  
- Covariance and Correlation  
- K-Blocks: Covariance Unit |
| 3 (F) | 9/7 | Inference: Sampling Distributions, Central Limit Theorem | Chapter 6, p141-154  
**HW#1 Due Today** |
| 4 (M) | 9/10 | Inference: Confidence Intervals | Chapter 7  
- Confidence Interval & Sample Size |
| 5 (T) | 9/11 | Inference: p-Values and Hypothesis Testing | Chapter 8, p193-200, 206-211  
- Hypothesis Tests & p-values |
| 6 (W) | 9/12 | Inference: Hypothesis Testing of Two Means | Chapter 9, p225-229  
- Hypothesis Test for the Difference Between Two Means  
**HW#2 Due Today** |

**Statistics midterm review session on Friday, September 14th, 1:00 to 2:30 pm**  
**Statistics take-home midterm exam (2-hour timed) to be distributed on September 14th and due on Sunday, September 16th at 3:00 pm**

| 7 (T) | 9/18 | Introduction and Statistical Inference in Bivariate Regression | Chapter 11, p315-326, 332-343  
- Using SPSS for Windows |
| 9/18 | SPSS Tutorial (Optional) | 1:15 – 2:15 pm Cook  
- K-Blocks: SPSS Unit |
| 8 (W) | 9/19 | Prediction in Bivariate Regression | Chapter 11, p343, 345-349  
- K-Blocks: Interpreting Regression Unit |
| 9 (F) | 9/21 | Multiple Regression | Chapter 12, p363-374, 381-382  
**HW#3 Due Today** |
| 10 (M) | 9/24 | Inferences in Multiple Regression | Chapter 12, p377-381 |
| 11 (T) | 9/25 | Dummy Variables in Multiple Regression | Chapter 12, p383-387 |
| 12 (Th) | 9/27 | Dummy Variables in Multiple Regression (cont) | **HW#4 Due Today** |

**Final review session on Friday, September 28th 1:00 – 2:30 PM in Cook**  
**Final Exam on Monday, October 1st, 9:00 to noon**