

## MKTG953: Information- and Technology-Based Marketing (ITBM)

Florian Zettelmeyer, J.L. and Helen Kellogg Professor of Marketing <u>f-zettelmeyer@kellogg.northwestern.edu</u> Leverone 465

## **Course Objective**

"Information- and Technology-based Marketing" addresses how to use information technology to learn about and market to individual customers.

Marketing is evolving from an art to a science. Many firms have extensive information about consumers' choices and how they react to marketing campaigns, but few firms have the expertise to intelligently act on such information. In this course, students will learn the scientific approach to marketing with hands-on use of technologies such as databases, analytics and computing systems to collect, analyze, and act on customer information. While students will employ quantitative methods in the course, the goal is not to produce experts in statistics; rather, students will gain the competency to interact with and manage a marketing analytics team.

The course uses a combination of lectures, cases, and exercises to learn the material. This course takes a very hands-on approach with real-world databases and equips students with tools that can be used immediately on the job.

## Bio

Florian Zettelmeyer is J. L. and Helen Kellogg Professor of Marketing at the Kellogg School of Management at Northwestern University. Prior to his appointment at Kellogg he was an Associate Professor of Marketing and chair of the marketing group at the Haas School of Business, University of California at Berkeley. Before his Ph.D., he worked in consulting at McKinsey and Company's German office.

Professor Zettelmeyer specializes in evaluating the effects of information technology on marketing. He teaches the MBA elective "Information- and Technology-based Marketing" in the curriculum of the Kellogg School of Management. He is a Research Associate of the National Bureau of Economic Research (NBER).

Professor Zettelmeyer received a Vordiplom in business engineering from the University of Karlsruhe (Germany), a M.Sc. in economics from the University of Warwick (UK) and a Ph.D. in marketing from the Massachusetts Institute of Technology.

## **Course Structure**

## **Customer Centric Marketing**

- Introduction to ITBM and Course Overview (Class 1)
- Quantifying Customer Value (Class 2)
- Case Analysis: "Home Alarm, Inc.: Assessing Customer Lifetime Value" (Class 4)

### Getting Ready for Analytics

- Statistics Review (Class 3)
- Basic Customer Analysis (Class 5)
- Case Analysis: "Pilgrim Bank (A)" (Class 7)

#### **Prospecting and Targeting the Right Customers**

- Predicting Response with RFM analysis (Class 6)
- Case Analysis: "Tuscan Lifestyles: Targeting Customers with RFM Analysis"; Lift and Gains (Class 8)
- Predicting Response with Logistic Regression (Class 9)
- Case Analysis: "Predicting Response at BookBinders: Logistic Regression" (Class 11)
- Predicting Response with Neural Networks (Class 10)

### **Developing Customers**

- Up-Selling and Cross-Selling (Class 12)
- Case Analysis: "Intuit: Quickbooks Upgrade" (Class 13)

#### **Retaining Customers**

- Predicting Attrition (Class 14)
- Case Analysis: "Cell2Cell: the Churn Game" (Class 16)

## Selecting the Right Offers

- Design of Experiments / Multi Variable Testing (Class 15)
- Case Analysis: "Capital One Financial Corporation: Product Design" (Class 18)

#### Limitations of Information-Based Marketing

- When Customer Analytics, CRM, and Databases Fail (Class 17)
- Case Analysis: "Carnival Cruise Lines" (Class 19)

#### Wrap-up

• Wrap-Up (Class 20)

# **Course Schedule and Assignment Due Dates**

Class #	Class Title	Assignments Due
1	Introduction to ITBM and Course Overview	
2	Quantifying Customer Value	
3	Statistics Review	
4	Case Analysis: "Home Alarm, Inc.: Assessing Customer Lifetime Value"	Home Alarm LCV
5	Basic Customer Analysis	
6	Predicting Response with RFM analysis	
7	Case Analysis: "Pilgrim Bank (A)"	
8	Case Analysis: "Tuscan Lifestyles: Targeting Customers with RFM Analysis"; Lift and Gains	Tuscan RFM
9	Predicting Response with Logistic Regression	
10	Predicting Response with Neural Networks	
11	Case Analysis: "Predicting Response at BookBinders: Logistic Regression"	BB Logistic
12	Up-Selling and Cross-Selling	
13	Case Analysis: "Intuit: Quickbooks Upgrade"	Intuit Quickbooks
14	Predicting Attrition	
15	Design of Experiments / Multi Variable Testing	
16	Case Analysis: "Cell2Cell: the Churn Game"	Cell2Cell Churn
17	When Customer Analytics, CRM, and Databases Fail	
18	Case Analysis: "Capital One Financial Corporation: Product Design"	Capital One Testing
19	Case Analysis: "Carnival Cruise Lines"	
20	Wrap-Up	

## **Detailed Class Descriptions**

### **Class 1: Introduction to ITBM and Course Overview**

### **Objectives:**

- To provide an overview of the course topics and requirements.
- To introduce the possibilities that information technology has provided for marketing to individual consumers.
- To understand in a real-life example how a company used customer information to become customercentric

#### **Readings:**

• Loveman, Gary: "Diamonds in the Data Mine" HBR OnPoint 3647, 2003 (in case packet)

### Plan ahead:

For class 5 you will need to bring your laptop to class with Stata installed. If you have not yet installed Stata, please do so for class 5. See below for how to obtain Stata.

## Class 2: Quantifying Customer Value

### **Objectives:**

- To introduce the notion of the customer lifecycle
- To understand the concept of customer profitability
- · To understand the basics of lifetime value calculations
- To explore how lifetime value can be used to guide marketing decisions

#### Readings (in case packet):

- Glazer, Rashi, "Winning in Smart Markets," 1999 Sloan Management Review, Summer 1999 (in case packet)
- HBS Case 9503019: "Customer Profitability and Lifetime Value" (in case packet)
- "The Customer Life Cycle" (in case packet)
- Optional: Dhar and Glazer, "Hedging Customers," Harvard Business Review, May 2003 (in case packet)

#### Class 3: Statistics Review

#### **Objectives:**

- To refresh your knowledge of basic statistics (and show how it is useful for addressing marketing questions)
- To learn how to determine the association between variables
- To learn how to read and interpret regression output

#### Readings (on Blackboard):

- "Tips For Using Statistics In Information- and Technology-Based Marketing" (on Blackboard)
- · Review notes from a previous statistics class on hypothesis testing and regression

## Class 4: Case Analysis: "Home Alarm, Inc.: Assessing Customer Lifetime Value"

#### **Objectives:**

To apply lifetime value calculations

#### **Readings:**

• "Home Alarm, Inc.: Assessing Customer Lifetime Value" (in case packet)

### Preparation (Individual Assignment Due; Accounts for 15% of Class Grade):

- Prepare "Home Alarm, Inc.: Assessing Customer Lifetime Value" for class discussion and as individual assignment.
- Please submit the assignment online (please submit only one file and only in pdf format) using Blackboard.

### **Preparation Questions:**

- 1. What is the LTV (looking 8 years out) of a customer who used auto-pay?
- 2. What is the LTV (looking 8 years out) of a customer who did not use auto-pay?
- 3. What is the maximum amount that Home Alarm could spend on customer and salesperson incentives to convert a residential customer to auto-pay?
- 4. What new pricing strategies and services should Home Alarm consider to sign up new customers with auto-pay?
- 5. What new pricing strategies and services should Home Alarm consider to convert existing customers to auto-pay?

#### Write-up Instructions:

- Page 1: Spreadsheet showing LTV calculations (questions 1 and 2)
- Pages 2 & 3: Questions 3-5 (with at least 1.5 line spacing).
- I strongly encourage you to label your calculations, footnote any assumptions, etc. It is in your best interest that I not have to struggle to unravel where your numbers came from

#### Hints:

- 1. All the necessary calculations can be done in Excel. Stata is not yet required.
- 2. When calculating the LCV, you should apply the discount rate to revenues and cost incurred already in the first year of service but not the sign-up revenues and costs.

#### Class 5: Basic Customer Analysis

#### **Objectives:**

• To master basic analysis with the statistics program "Stata"

#### **Readings:**

- "The BookBinders Book Club: Basic Customer Analysis" (in case packet)
- "Stata Tutorial" (on Blackboard)
- "Stata Cheat Sheet" (on Blackboard)
- Please bring paper copies of these readings to class, you will need them!

#### **Preparation:**

- Read "The BookBinders Book Club: Basic Customer Analysis"
- We will devote most of this class to hands-on exercise with Stata, answering the questions posed at the end of the BookBinders case. We will use the datasets "BBB.dta" and "PCsUnlimited.dta" which are on Blackboard.
- Bring laptop to class with Stata installed and the two datasets loaded onto the laptop

#### Class 6: Predicting Response with RFM analysis

#### **Objectives:**

- To understand the premise behind RFM analysis
- To introduce how to implement an RFM campaign

#### **Readings:**

- "Recency, Frequency and Monetary (RFM) Analysis" (in case packet)
- Quick Profits with RFM Analysis http://www.dbmarketing.com/articles/Art149.htm
- **Optional but encouraged:** I have created a Stata program (i.e. a ".do file") that will allow you to replicate the RFM analysis in the reading with Stata step-by-step. This will get you some practice

before having to do the Tuscan RFM assignment. The document is "RFM\_BBB\_stata.do" which is on Blackboard. (Since this is a text file your browser might display this instead of downloading it when you click on it. If so, right-click in the file and choose to download it as a file.) **Hint:** 

- Please see the "Working with Do-Files" section in the **Stata Tutorial** for instructions on how to execute an existing do-file in Stata.
- You will need the Stata data file "BBB.dta" from the class "Basic Customer Analysis" before you run the do file.

### Class 7: Case Analysis: "Pilgrim Bank (A)"

#### **Objectives:**

- To introduce customer profitability and its determinants
- To consider different types of analytic methods
- To practice your new-found Stata skills with data on profitability and other variables for a set of bank customers.

#### **Readings:**

- HBS Case 9602104: "Pilgrim Bank (A)" (in case packet)
- "Pilgrim Bank (A): Using STATA to Answer the Case Questions" (on Blackboard)
- Marketing Analytics to the Rescue: The Next Big Thing? DM Review, 2003 <u>http://www.dmreview.com/master.cfm?NavID=198&EdID=6346</u>

### Preparation:

- Prepare "Pilgrim Bank (A): Customer Profitability" for class discussion.
- Dataset: "PilgrimA.dta". The dataset is on Blackboard.
- Detailed instructions about how to answer the preparation questions with STATA are contained in "Pilgrim Bank (A): Using STATA to Answer the Case Questions"

#### **Preparation Questions:**

- 1. How much do profits vary across customers?
- 2. How does Pilgrim Bank make money from their customers and how can this explain the variation in customer profitability?
- 3. Are online customers more profitable than offline customers?
- 4. What is the role of customer demographics in comparing online and offline profitability?
- 5. What is your recommendation to the senior management team in terms of Pilgrim Bank's online channel pricing strategy? Should the bank charge fees, offer rebates, or do nothing in regards to pricing for online channel use?

## Plan ahead:

- Obtain a license of the neural network software ModelMax from ASA Corp. This software is important for the upcoming "Intuit: Quickbooks Upgrade" assignment.
- Details on how to download the software and obtain a license can be found in "Instructions for Obtaining a Student Copy of ModelMAX Software" (see the materials for the "Intuit: Quickbooks Upgrade" class)

### Class 8: Case Analysis: "Tuscan Lifestyles: Targeting Customers with RFM Analysis" Lift and Gains

#### **Objectives:**

- To apply RFM analysis
- To demonstrate the application of RFM for targeting direct mail offers
- To explore variations of RFM
- Evaluating RFM (and other) models

#### **Readings:**

• "Tuscan Lifestyles: Targeting Customers with RFM Analysis" (in case packet)

"Assessing a Model's Performance: Lifts, Gains and Profits" (in case packet)

### **Optional Reading and Sites:**

 RFM Migration Analysis: A New Approach to a Proven Technique <u>http://www.dbmarketing.com/articles/Art123.htm</u>

### Preparation (Individual Assignment Due; Accounts for 15% of Class Grade):

- Prepare "Tuscan Lifestyles: Targeting Customers with RFM Analysis" for class discussion and as individual assignment
  - Dataset: "Tuscan\_RFM.dta". The dataset is on Blackboard.
- Everything you need to know to do this assignment is contained in the RFM lecture notes, and the file "RFM\_BBB\_stata.do" (on Blackboard) which goes through the calculations for the Bookbinders RFM analysis we did in lecture 6 and in the reading "Recency, Frequency and Monetary (RFM) Analysis." Note that you cannot use this ".do" file directly to solve this case – however, a simple adaptation of the commands to work with the Tuscan case will work. You might also want to keep the "Stata Tutorial" from Class 5 at hand.
- **Note:** In assignment "Tuscan Lifestyles: Targeting Customers with RFM Analysis" I sometimes refer to a "Stata Primer." This is the same as the "Stata Tutorial" from Class 5.
- Hint: There are two options to paste and align Stata tables in Word to make it look good.
  1. Cut and paste and assign a "fixed-pitch" font to the table. For example, pick "Courier".
  2. Select the table in Stata and then in the "Edit" menu in Stata copy using "Copy Table". This inserts tabs instead of spaces between the columns and allows you to copy into Excel or a Word table.
- Please submit the assignment online (please submit only one file and only in pdf format) using Blackboard.

#### **Preparation Questions:**

• Case questions are in the case.

#### Write-up Instructions:

- For case questions 1, 2, and 4-7 you should 'cut and paste' Stata output into a Word document.
- Address question 8 in your write-up.
- Question 9 is optional and you do not need to include any output from this. (Some of you may want to go through Q9 to export the results to Excel which you could then use to answer question 12 otherwise you can answer Q12 using Stata)
- Questions 10 and 11 require a few basic calculations (a calculator will do or you can use Excel).
- Detailed step-by-step directions for Q12 are included in the file "RFM\_BBB\_stata.do" which is on Blackboard.

Question 13 requires you to sit back and think about RFM - and then summarize your thoughts.

## Class 9: Predicting Response with Logistic Regression

#### **Objectives:**

- To introduce a key model for predicting choices: logistic regression
- To understand how to interpret logistic regression results

#### **Readings:**

"Applied Logistic Regression" (in case packet)

#### Class 10: Data Mining--Neural Networks

#### **Objectives:**

• To introduce neural networks and their application

#### **Readings:**

 Ainslie, A. and X. Drèze "Data Mining: Using Neural Networks as a Benchmark for Model Building" (in case packet)

#### Plan ahead:

- At this point we have covered everything you need to know to work on the upcoming "Intuit: Quickbooks Upgrade" assignment. Since the assignment is less structured than the preceding assignments I suggest you start working on it now so that you leave yourselves enough time think about how to proceed.
- You should by now have obtained a license of the neural network software ModelMax from ASA Corp. This software is important for the upcoming "Intuit: Quickbooks Upgrade" assignment.
- Details on how to download the software and obtain a license can be found in "Instructions for Obtaining a Student Copy of ModelMAX Software" (see the materials for the "Intuit: Quickbooks Upgrade" class)

## Class 11: Case Analysis: "Predicting Response at BookBinders: Logistic Regression"

### **Objectives:**

- To practice interpreting logistic regression results
- To understand how to score customers using logistic regression
- · To assess the incremental power of logistic regression over RFM

#### Readings:

• "Predicting Response at BookBinders: Logistic Regression" (in case packet)

#### Preparation (Individual Assignment Due; Accounts for 15% of Class Grade):

- Prepare "Predicting Response at BookBinders: Logistic Regression" for class discussion and as individual assignment
- Dataset: "BBB.dta". The dataset is on Blackboard.
- Everything you need to know to do this assignment is contained in the Logistic lecture notes, and the reading "Applied Logistic Regression." You might also want to keep the "Stata Tutorial" at hand.
- Please submit the assignment online (please submit only one file and only in pdf format) using Blackboard.

#### **Preparation Questions:**

• Case questions are in the case.

#### Write-up Instructions:

- Write up the answer to each case question.
- Cut and paste from Stata into Word where needed.

## Class 12: Up-Selling and Cross-Selling

#### **Objectives:**

- To understand the benefits of customer information for customer development
- To understand how to cross-sell and up-sell
- To illustrate the benefits of product tailoring

#### **Readings:**

- Knott, Hayes, and Neslin "Next-Product-to-Buy Models for Cross-Selling Applications," Journal of Interactive Marketing, 16(3), 2002 (in case packet)
- Predicting Response at BookBinders: Next Product To Buy (in case packet)

#### Preparation:

 Prepare "Predicting Response at BookBinders: Next Product To Buy" for class discussion Dataset: "BBB\_NPTB.dta". The dataset is on Blackboard.

#### **Preparation Questions:**

• Case questions are in the case.

## Class 13: Case Analysis: "Intuit: Quickbooks Upgrade"

### **Objectives:**

- To apply an up-selling strategy in a real-world case
- To understand model development
- To demonstrate the power of predictive modeling

#### **Readings:**

- Darden Case UVA-M-0496: "Intuit: Quickbooks Upgrade" (in case packet)
- "Quicken Quickbooks Upgrade Assignment" (on Blackboard)

## Preparation (Group Assignment Due; Accounts for 15% of Class Grade):

- Prepare "Intuit: Quickbooks Upgrade" for class discussion and as group assignment Dataset: "Intuit.dta". The dataset is in on Blackboard.
- Details of the assignment can be found in "Quicken Quickbooks Upgrade Assignment"
- Reminder: Details on how to download the software and obtain a license can be found in "Instructions for Obtaining a Student Copy of ModelMAX Software"
- Please see "Using ModelMax for the Intuit Case" for instruction on how to use ModelMax. A quickstart guide to ModelMax can be found in "Getting Started with ModelMAX." There is also a detailed ModelMax user's guide. All of these can be found on Blackboard.
- Please submit the assignment online (please submit only one file and only in pdf format) using Blackboard.

#### **Preparation Questions:**

• Please see the document with the assignment details.

#### Write-up Instructions:

• Please see the document with the assignment details.

#### **Class 14: Predicting Attrition**

#### **Objectives:**

- To see that customer retention is a major problem for various industries
- To see how analytical methods can be used to help fight churn.

#### Readings:

• **Optional**: Neslin, Gupta, Kamakura, Lu, Mason: "Defection Detection: Improving Predictive Accuracy of Customer Churn Models," *working paper*, 2004 (in case packet)

#### Plan ahead:

Next week you will have to submit the assignment "Cell2Cell: the Churn Game". This is a challenging
assignment for which you should start early.

## Class 15: Design of Experiments / Multi Variable Testing

#### **Objectives:**

- To understand how to set up experiments
- To understand how to test variations in many different variables at once

#### Readings:

Almquist and Wyner, "Boost your marketing ROI with experimental design," HBR, October 2001. (in case packet)

## Class 16: Case Analysis: "Cell2Cell: the Churn Game"

## **Objectives:**

- To understand how to predict attrition in the real world.
- To learn how to use insights from an attrition model to develop an incentive plan for enticing would-be churners to remain customers.

### **Readings:**

- Duke Case: "Cell2Cell: The Churn Game" (in case packet)
- "Cell2Cell Churn Management Assignment" (on Blackboard)

## Preparation (Group Assignment Due; Accounts for 15% of Class Grade):

- Prepare "Cell2Cell: The Churn Game" for class discussion and as group assignment
- Dataset: "cell2cell.dta". The dataset is on Blackboard.
- Details of the assignment can be found in "Cell2Cell Churn Management Assignment" Please submit the assignment online (please submit only one file and only in pdf format) using Blackboard.

### **Preparation Questions:**

• Please see the document with the assignment details.

### Write-up Instructions:

• Please see the document with the assignment details.

### Plan ahead:

• Next week you will have to submit the assignment ""Capital One Financial Corporation: Product Design." This is a challenging assignment for which you should start early.

## Class 17: When Customer Analytics, CRM, and Databases Fail

#### **Objectives:**

- To understand the limitations of customer information
- To learn how to avoid common mistakes in implementing information- and technology-based marketing

## Readings:

- Rigby, Reichheld, and Shefter: "Avoid the Four Perils of CRM," HBR Onpoint 8946, 2002 (in case packet)
- Peppers, Rogers, and Dorf, "Is Your Company Ready for One-to-One Marketing?" HBR Onpoint 8954, 2002 (in case packet)

## Class 18: Case Analysis: "Capital One Financial Corporation: Product Design"

#### **Objectives:**

- To show an application of experimentation in the real world
- To demonstrate "test-cell" marketing
- To illustrate the benefits of product tailoring

#### **Readings:**

- Darden Case UVA-M-0506: "Capital One Financial Corporation: Product Design" (in case packet)
- "Capital One: Product Design Assignment" (on Blackboard)

## Preparation (Group Assignment Due; Accounts for 15% of Class Grade):

- Prepare "Capital One Financial Corporation: Product Design" for class discussion and as group assignment
- Details of the assignment can be found in "Capital One: Product Design Assignment."

• Please submit the assignment online (please submit only one file and only in pdf format) using Blackboard.

#### **Preparation Questions:**

• Please see the document with the assignment details.

#### Write-up Instructions:

• Please see the document with the assignment details.

#### Class 19: Case Analysis: "Carnival Cruise Lines"

#### **Objectives:**

To understand in a real-life example how marketing objectives interact with how customer data should be used.

### **Readings:**

• HBS Case 9806015: "Carnival Cruise Lines." (in case packet)

### Preparation:

Prepare "Carnival Cruise Lines" for class discussion

### **Preparation Questions:**

- How did Carnival's management build the line into the dominant brand in the industry?
- What does "customer relationship management" currently mean to Carnival's management?
- Should Carnival do "CRM/Information-Based Marketing"? What should information-based marketing look like at Carnival?
- How should Carnival go about implementing information-based marketing?
- What else should they do to leverage customer data?

## Class 20: Wrap-Up

#### **Objectives:**

• To review and synthesize the insight from "Information- and Technology-Based Marketing"

## **Preparation:**

Review lecture and class notes

## **Course materials and Course Management System**

Readings in this course consist of a mixture of cases and articles -- no textbook is required. However, there are several optional books if you are interested in more detail.

- Case packet
- Additional course material (distributed on Blackboard)
- Lecture notes (distributed on Blackboard)
- Analytics: "The New Direct Marketing" by David Shepard Associates (optional)
- Strategy: "Strategic Database Marketing" by Arthur Hughes (optional)
- Implementation: "The One-To-One Fieldbook" by Peppers, Rogers, and Dorf (optional)
- Information Economics: "Information Rules: A Strategic Guide to the Network Economy" by Carl Shapiro and Hal Varian (optional)

The syllabus, additional course material, and lecture notes are on Blackboard. Important announcements will be emailed to you. Lecture notes will be posted on Blackboard on the day of the lecture.

## Software and documentation

We will use the statistics program "Stata" during the course. The Stata/IC 10 software and Getting Started manual normally costs \$1,395. Since you are students, you can purchase a personal copy for \$155. The \$155 gives you unlimited access to the software. If you would prefer a 1-year license, you can purchase this for \$95.

There are two Ordering Options:

Order direct from Stata; have it shipped to your home

http://www.stata.com/order/new/edu/gradplans/gp-direct.html

Order from Stata; pick-up from KIS at Jacobs 163

http://www.stata.com/order/new/edu/gradplans/gp-campus.html

Note that for the second option, the item ships from Stata to KIS so this may take a bit longer. You must have Stata installed on your laptop computer by Class 5 (beginning of week 3).

While Stata has a very good online help, it is often brief and occasionally too technical since it assumes that you are familiar with the statistics that is underlying the command. The book I require for the course, "A Gentle Introduction to Stata" (see below) is intended to bridge the gap between statistical texts and Stata's own documentation. This text is ideal as a self-study course for those new to statistics and Stata.

"A Gentle Introduction to Stata, 2nd Edition" by Alan C. Acock (Publisher: Stata Press, ISBN 1-59718-043-2)

Those who have a stronger background in Statistics and want a more advanced book on Stata and its programming abilities might also want to get:

"Data Analysis Using Stata" by Ulrich Kohler and Frauke Kreuter (Publisher: Stata Press, ISBN: 1-59718-007-6)

## Grading policy and assignments

The grade in this course will be based on the following criteria with their associated weights. The syllabus details the grading weights associated with each exercise.

Individual case exercises (3)	45% (15%, 15%, 15%)
Group case exercises (3)	45% (15%, 15%, 15%)
Class participation	10%

#### **Class participation and attendance**

Quality contributions which are relevant to the discussion will improve your participation grade. I will call on students at random to open case and assignment discussions. Your participation grade will be significantly hurt if you are called upon to offer your analysis on a case or assignment question and you are not prepared.

Attendance is mandatory at all class sessions. If you have an emergency and thus cannot attend, please let me know by contacting me in advance. Missing class in a non-emergency situation will hurt your participation grade significantly. If you miss 3 or more classes for non-emergency reasons I reserve the right to fail you.

#### Individual and group exercises

Much of the learning during the course will happen with the help of individual and group case exercises. These exercises are described in detail in the syllabus. If an exercise is labeled an "individual exercise" you are not allowed to work with other students -- the write-up should reflect your own work only. If an exercise is labeled a "group exercise" you should work on it in groups and only hand in one write-up per group (about 4-5 students). Groups should be formed (self-selected) at the beginning of the semester and remain constant for all exercises and the group project.

It will be a violation of academic integrity if you base your assignments on solutions you have found on the Internet or which you have obtained from classmates in prior years. I reserve the right to fail you for the course if I become aware of such a violation.

## About cases

The case situations that will be discussed have been developed after careful research on actual situations in real companies. The case writer(s) has (have) attempted to describe enough of the background and details of the situation in order to provide an adequate basis for class discussion.

Thorough preparation on the part of all class participants is essential to having a good and fruitful class discussion. Merely reading the case is not be enough. After an initial reading to get a broad overview, go back and study the case thoroughly. Consider the course material covered up to that point in time, the assigned text and other readings on that particular day. Make any notes you find helpful and mark up the case to facilitate structuring your understanding of the situation. Identify the major problems and key relationships. Conceive alternative solutions to the problem and identify the advantages and disadvantages of each. Be prepared to defend your stand and recommendation in the class.

Each case is bound to lack some information that you would like to have in order to make a decision. As in real life, management decisions frequently must be made in the absence of information. A key executive skill is the ability to make effective decisions under uncertainty. A case discussion is preparation for just such situations.

Rarely, if ever, does a case contain an ideal solution to the problem highlighted in it. So do not expect a perfect allencompassing solution at the end of the case discussion. In most cases, no such answer will emerge because each management problem often has multiple alternative solutions, each involving different degrees of risk, cost and complexity of execution. The major benefit of case discussion is that it provides the participants with a perspective and a repertoire of ideas which non-participants will lack. One case study participant once commented that "regular and active participation in case discussions helps you gain valuable experience even without being on the job." There is some truth in this statement. Another benefit of the case discussion is that concepts which may appear theoretical in a text book come to life when seen from the perspective of a case. This helps in internalizing class concepts and seeing how they can be applied.