Waiver
Information
Guide
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Introduction

We have structured the Wharton MBA Program to allow you to make the most of your time at Wharton. For some, this is an opportunity to learn an entirely new skillset while, for others, it is a chance to upgrade and update those skills.

Not Everyone Waives

Your class will be the first to experience a curriculum that has been designed to meet the needs of today’s manager. It allows a high degree of self-design with ample room for you to take a wide array of elective courses. That said, there are some areas in which we feel that all students must have a base level of knowledge. These are the core courses and can be reviewed in our MBA Resource Guide and Let’s Get Started. You may find that your graduate or undergraduate coursework did not cover these areas or did not cover them in depth and you will need to enroll in these subjects. If that is the case, when you complete the Waiver Questionnaire through the Pre-Term Registration Form, you can click on the “decline to waive” box for each of the core courses and expect to register for them during your tenure at Wharton.

Will taking the entire core hamper your progress? Not at all! We know that you may hear rumors that all students waive courses and that you are somehow “behind” if you do not. In fact, nearly 40% of your class will not waive a single course and many who do waive will waive only one subject. (See below for statistics on waivers for the Class of 2013). Keep in mind that the core curriculum for the Class of 2014 has one credit unit fewer than in prior years, so there is more opportunity for you to take electives even without waivers.

Waiver Statistics for the Class of 2013 (WG’13)

<table>
<thead>
<tr>
<th></th>
<th>ACCT</th>
<th>FNCE</th>
<th>MGEC</th>
<th>MKTG</th>
<th>OPIM</th>
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<td>100%</td>
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<td>66%</td>
</tr>
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<td>21%</td>
<td>30%</td>
<td>19%</td>
<td>28%</td>
<td>34%</td>
</tr>
</tbody>
</table>
Sometimes Waivers Make Sense

Some of you will have educational or career experience that will make some core courses redundant and you might not be eager to repeat these. Within the bounds of the new curriculum, you have the opportunity to waive some of the core.

The Waiver Information Guide, which you are currently using, outlines each of the core courses that can be waived and the credentials required for a waiver by credential. We have also provided abridged syllabi which include the topics that will be covered in the course. If all looks familiar, then you should consider waiving the course. Please bear in mind that as the curriculum is new, some courses have changed radically and at the time of printing, some syllabi were not yet complete. However, the material there should allow you to determine whether or not a waiver is appropriate.

During the Pre-Term registration process, you will be asked to complete a waiver questionnaire. Depending upon your responses, we will recommend that you:

- Submit credentials verifying that you meet the waiver requirements;
- Take the the class; or
- Take a waiver exam. The table on page 3 shows application and exam statistics from last year.

If the waiver questionnaire recommends that you waive a particular course by credential, an application will be made available to you online. You should:

- Fill out the application (you will need to print it out once you have completed it online);
- Add a copy of your transcript, a syllabus, and any other relevant information about your credentials.
- Mail the completed packet using the envelope included in the back pocket of Let’s Get Started. You can also submit it to our office when you arrive.

The credential application will be forwarded to the faculty member who heads up that core course.

If the questionnaire indicates that you should take the waiver exam, you can register for the exam on the Pre-Term Waiver Questionnaire. The online Waiver Exam Guide provides samples of many of the core exams and, in many cases, solution sets. It will also include a schedule of waiver exam dates.

Note: If you are unsure of whether your waiver-by-credential will be approved, you must submit the application by August 13. This guarantees that you will receive a response before the exams begin (you do not want to have to sit for an exam unnecessarily. If your credentials are approved, but you fail the exam, you must take the class). If you are sure that the credentials will be approved, or if you do not intend to take a waiver exam if they are denied, the deadline to submit the application is Wednesday, September 5, 5 p.m.
Should You Waive?

There are advantages and disadvantages to waiving. Advantages include

- Making space for more electives, which can be helpful if you have multiple areas of interest; and
- Not enrolling in coursework that will be repetitive.

The disadvantages include

- Not taking foundation courses that would better prepare you for advanced courses in the field (credentials can be deceiving if the topics covered on paper were not covered thoroughly in the classroom); and
- Needing to fill specific days and times in your academic schedule when the elective offerings you want are not offered at those days and times.

Waiver Policies

Here are some policies that you should know about if you hope to waive core courses:

- All core course waivers either by exam or by credential must be completed by September 5, 2012.
- If you do not meet the requirements for waiver by credential, you may try to waive the same course by taking the waiver exam in all classes except OPIM611. In that course, you can only take the waiver exam if that is recommended.
- You have only one attempt at each waiver exam. If you are unable to waive a core course by credential and cannot take the waiver exam at the scheduled time, you must take the course.
  
    There are no make-up waiver exams.

- If your online waiver questionnaire does not indicate that a waiver-by-credential is appropriate, you cannot submit credentials. The waiver exam would be the next step.
- If you fail the waiver exam, you cannot then attempt to waive the course by credential. From the perspective of the faculty, you have just proven that your knowledge of the subject is not current.
- If you want to waive by credential, you must meet the stated deadlines. If you do not, you may have to enroll in the course or take the waiver exam before you hear about your waiver request.
- If you waive the course, but decide you would rather take it, you may enroll, but must do so within a reasonable period after the start of the class.
- If you enroll in a course, you have only two class sessions to reconsider and use the waiver. After two class sessions, you are committed to the class and must complete it.

What should you do? First, feel free to contact us. Academic advisors are available to discuss, in depth, what is best for you. Second-year students can also give a perspective on waivers; remember, however, that they don’t know your background or experience. Even if you receive waivers, you can later decide to take the courses. You may decide that it would be good to review everything. You will learn “The Wharton Way,” which is helpful if you expect to take advanced courses. If you have any questions, please don’t hesitate to contact us at mbaprogram@wharton.upenn.edu.
Waiver Information

- Descriptions
- Syllabi
Financial Accounting (ACCT611/612)  
(formerly ACCT620/621)

**Course Description**

The role of accounting is the accumulation, analysis, and presentation of relevant financial data of an enterprise to serve the needs of decision-makers. The provision of multiple-purpose information to serve the needs of interested parties outside a firm’s management is referred to as financial accounting. The objective of the core requirement in financial accounting is to teach the basic concepts, standards, and practices of financial reporting, leading to the ability to read and understand published financial statements.

“TRACKS” WITHIN FINANCIAL ACCOUNTING

Students entering the MBA program at Wharton come with diverse backgrounds in financial accounting. Some are Certified Public Accountants with extensive academic and professional training. Others have had a course or two at school or in training programs. Other students enter Wharton with no exposure to financial accounting. As a result, we offer two courses with which students can meet the financial accounting requirement: ACCT611 (a full-semester, 1 credit unit course) and ACCT612 (a half-semester, 0.5 credit unit course). The difference between the two is the material covered and the amount of time allotted to each topic. For example, ACCT611 reviews basic accounting transactions, debits and credits, and income statement and balance sheet preparation, while ACCT612 does not. Students have three options for fulfilling their financial accounting requirement. They can:

1. **Waive financial accounting altogether**, either by credential or exam.
2. **Place into the accelerated course (ACCT612)** either by credential or exam. Students in ACCT612 are presumed to understand the following concepts:
   - the recording of economic transactions in the accounting records (i.e., bookkeeping);
   - the basic financial statements which summarize a firm’s economic transactions (the balance sheet, the income statement and the statement of cash flows);
   - the fundamental concepts needed to prepare and understand published financial statements (e.g., use of accrual accounting);
   - how to construct the basic financial statements from transactions information and how to recreate the transactions by looking at the financial statements;
   - how to use the indirect method to construct the cash flow statement from balance sheet, cash receipt, and supplemental information; and
   - how to use accounting statements and disclosures to reconstruct the underlying economic events in which the firm participated.

3. **Take the full-semester course (ACCT611).**
Please read the next section to decide which option is appropriate for your situation.

The Financial Accounting Waiver and Placement Process

WAIVING OR PLACING BY CREDENTIALS

DEADLINE: See Introduction to this Waiver Guide.

Waiving the Financial Accounting Core Requirement By Credentials
Waiver of the financial accounting core requirement without taking the waiver exam is only granted on the basis of credentials where there is no question about a student’s background. Waiving of the financial accounting core requirement without the exam is allowed only for the following persons:

Individuals holding one of two professional certifications in accounting: certified public accountant (CPA) or chartered accountant (CA) AND who have practiced as an auditor within the prior two years.

Placing into ACCT612 by Credential
Placement into ACCT612 without taking the placement exam is only granted on the basis of credentials where there is no question about a student’s background. Placement into ACCT612 without the exam is allowed only for (1) individuals who, within the last five years, have taken introductory AND intermediate financial accounting with a grade of B or better in both within the last five years or (2) Wharton undergraduates who, within the last five years, received a grade of B or better in Accounting 101. In these cases, placement into ACCT612 is conditional on the student taking ACCT604 in Pre-Term. That is, students placing into ACCT612 by credential are required to take ACCT604 in Pre-Term.

Documenting Your Credentials
Students interested either in placing into ACCT612 by credentials or in waiving the financial accounting core requirement by credentials should formally apply to the Wharton MBA Program Office by filling out and submitting the placement or waiver form.

- Persons holding professional certification (CPA, CA, or CFA) have to submit a copy of their certification and submit a resume or a copy of their application which includes their recent work history.

WAIVING OR PLACING BY EXAM

EXAM DATE: Waiver and Placement Exam Schedule, and sample exams and solutions can be found in the Waiver Exam Guide.

Please Note: Students who are unsure whether they can waive or place can take both exams since they are given at different times.

A common misinterpretation of the waiver by credential criteria is that students must know accounting at the CPA level in order to waive the financial accounting core requirement. In fact,
many students who do not meet the above criteria may be well qualified to waive the core requirement, or at least to place into ACCT612. However, because it is difficult to objectively measure preparation from transcript materials, the department relies on waiver and placement exams when a student’s credentials do not unambiguously meet the criteria.

An exam in Financial Accounting will be offered in August. Except as noted above, a student can waive the financial accounting core requirement or be placed into ACCT612 only by taking the appropriate exam. Students with some work experience or coursework in accounting are encouraged to sit for the placement part of the exam so that they may take ACCT612 and those with extensive work experience or prior coursework in accounting are encouraged to take the full waiver exam, so that they may waive ACCT611.

The Waiver and Placement Exam selects from topics covered throughout ACCT611 and 612. The exams will be “closed-book,” “closed-notes,” and similar in form and content to past ACCT611 and ACCT612 exams. Copies of past ACCT exams are included in the Waiver Exam Guide.

Exam Preparation

The following are the accounting courses offered during Pre-Term that help you prepare for the waiver and placement exams, as well as the fall semester.

**ACCT608: Waiver Preparation Course**
Upon completion of this review course, the student should be prepared to take the Waiver Exam. This course will meet during Pre-Term. It is designed for students who have had substantial prior exposure to financial accounting but were not able to waive by credentials. It is presumed that the student enrolled in ACCT608 has previously studied all of the topics covered in ACCT611. Therefore, the course will review the material in ACCT611, emphasizing the financial statement analysis implications of the topics.

**ACCT604: Financial Accounting Placement Preparation Course**
Upon completion of this course, the student should be prepared to take the Placement Exam. This course will meet during Pre-Term. It is not a class for individuals who have had no prior exposure to financial accounting. Rather, it is a class for students with prior training in financial accounting or work with financial statements, but who have been unable to place by credentials into the half-semester financial accounting course, ACCT612. In addition, students who have placed into ACCT612 by credentials are also strongly advised to take this course because the knowledge of all material covered in this course will be presumed in ACCT612. ACCT604 will briefly review the concepts underlying preparation of the balance sheet and the income statement. The course will also emphasize the preparation of the statement of cash flows as well as the interpretation of these statements using actual annual reports, and the reconstruction of the underlying economic events that affected these annual reports. It is presumed that the student taking this course has previously studied all of this material or had significant exposure to financial statements.
ACCT603: Financial Accounting Review Course
The material covered in this course is required for all students taking the full-semester version of financial accounting (ACCT611). See the Get Started mailing for details.

This chart may help you decide which Pre-Term course may be appropriate for you:

<table>
<thead>
<tr>
<th>IF YOU HAVE:</th>
<th>NO Previous Accounting Experience</th>
<th>Previous Accounting Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taken NO Previous Financial</td>
<td>Take ACCT603</td>
<td>Take ACCT603 or 604 in Pre-Term</td>
</tr>
<tr>
<td>Accounting Courses</td>
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<td></td>
</tr>
<tr>
<td>Taken ONE Previous Financial</td>
<td>Take ACCT604 in Pre-Term</td>
<td>Take ACCT604 or 608 in Pre-Term</td>
</tr>
<tr>
<td>Accounting Course</td>
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<tr>
<td>Taken MORE THAN ONE Previous</td>
<td>Take ACCT608 in Pre-Term</td>
<td>Take ACCT608 in Pre-Term</td>
</tr>
<tr>
<td>Financial Accounting Courses</td>
<td></td>
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</tr>
</tbody>
</table>
Syllabus ACCT611
(formerly used for ACCT620)

Wayne Guay
Tel: 215-898-7775
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Luzi Hail
Tel: 215-898-8205
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Christopher Armstrong
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Email: carms@wharton.upenn.edu

Office Hours: Monday/Wednesday 3:15 – 4:30 p.m. and by appointment
Website: http://webcafe.wharton.upenn.edu

■ Overview

The role of accounting is the accumulation, analysis, and presentation of relevant financial data of an enterprise to serve the needs of creditors, investors and other external decision makers. The objective of this course is to familiarize the student with the basic principles and practices of financial accounting. This course focuses on the concepts underlying corporate financial statements. The course begins with an overview of the procedures necessary to prepare and understand the balance sheet, income statement, and statement of cash flows. The remainder of the course examines the accounting for the most common and significant transactions of a firm, such as accounts receivable and revenue recognition, inventories, long-term assets, debt, income taxes, investments, and stockholder’s equity. Although a solid understanding of the rules and procedures required to construct financial statements is essential, this course emphasizes the analysis of financial statements and other financial disclosures.

■ Course Material

HOMEWORK ASSIGNMENTS AND CASES

These materials are available on the course website, in the “Course-Wide Materials” folder on the desktop. The cases will also be included in the bulk pack available from Study.net.

RECOMMENDED TEXTBOOK

Stickney, Weil, Schipper, and Francis, Financial Accounting: An Introduction to Concepts, Methods and Uses, South-Western Cengage Learning, 13th edition (SWSF). In the class schedule below, practice problems from the textbook are assigned to reinforce the material covered on each topic (we refer to ‘SWSF’ in the syllabus). Solutions to all of the problems in the Stickney et al. book are included in the Course-Wide folder on the class website.
Note that although we do not ‘require’ this textbook for the course, many students find that it is a very valuable resource in preparing for class, learning accounting mechanics, and studying for quizzes and exams.

**CLASS NOTES**

The class notes for the course are common across all instructors. They are available within the Course-Wide Materials folder on the desktop of the course website. They are also included in the bulk pack available from Study.net.

**EXAM PRACTICE PROBLEMS AND SOLUTIONS**

Previous exams and solutions are available for downloading from the course website, in the Exam Practice Questions folder within the Course-Wide Materials folder.

**ARTICLES**

Articles are sometimes referenced in the course syllabus. These are from the business press and provide context for issues which will be discussed in class. They are available within the Course-Wide Materials folder on the class website (and are included in the bulk pack available from Study.net).

**Exams**

The Midterm Exam covers the material in lectures #1 through #12, inclusive. The Final Exam is scheduled by the University Registrar and covers the material in lectures #13 through #23, inclusive.

All exams are closed-book, but you are allowed to bring to each exam one piece of 8 ½” x 11” paper with notes. This paper may contain handwritten or typed (any font and size) notes. You may write on both sides.

**In-Class Quizzes**

There are **five** in-class quizzes during the course of the semester, which will be held on the dates indicated in the class schedule.

**Homework**

There are three homework assignments with due dates indicated below and in the class schedule.
# Course Outline ACCT611
(formerly used for ACCT620)

## Key

- **SWSF** refers to the Stickney et al. textbook (13th edition).
- **SWSF x-y** means problem y in chapter x of the SWSF textbook.

All of the topics listed below will be covered.

### Session 1. Introduction

<table>
<thead>
<tr>
<th>Class Notes:</th>
<th>Class Notes #1</th>
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<tbody>
<tr>
<td>SWSF Reading:</td>
<td>Chapter 1</td>
</tr>
<tr>
<td>SWSF Problems:</td>
<td>Q1.11, Q1.13, E1.18, E1.22, E1.24, E1.26, E1.27, P1.33, P1.35, P1.38, P1.39</td>
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<td>Add. Reading:</td>
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### Session 2. Accounting Process; Mapping Business Activity into Financial Statements

<table>
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<tr>
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<th>Class Notes #2</th>
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<td>Case #1:</td>
<td>Animatronics (Q1 – Q4)</td>
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<tr>
<td>SWSF Reading:</td>
<td>Chapter 2, p. 43-61, Chapter 3</td>
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<td>SWSF Problems:</td>
<td>Chapter 2: E2.12, E2.14, P2.28, P2.34</td>
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<td>Chapter 3:</td>
<td>E3.14, E3.22, E3.25</td>
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<tr>
<td>Add. Reading:</td>
<td>U.S. Firms Clash Over Accounting Rules</td>
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### Session 3. Economics vs. Accounting; Balance Sheet Presentation; Introduction to Accrual Accounting

<table>
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<tr>
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<th>Class Notes #3</th>
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<tbody>
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<td>SWSF Reading:</td>
<td>Chapter 2, p. 58-73; Chapter 4</td>
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<tr>
<td>SWSF Problems:</td>
<td>Chapter 2: Q2.4, E2.22, P2.29, P2.33, P2.35, P2.45</td>
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<tr>
<td>Chapter 4:</td>
<td>E4.11, E4.13, E4.22</td>
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<tr>
<td>Add. Reading:</td>
<td>When Balance Sheets Collide With the New Economy</td>
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### Session 4. Accrual Accounting and the Matching Principle; Revenue Recognition

<table>
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<tr>
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<td>Case # 2:</td>
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<td>SWSF Reading:</td>
<td>Chapter 7, p. 311-315, 330-342</td>
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<td>SWSF Problems:</td>
<td>E7.16, E7.19, P7.39, P7.47, P7.50</td>
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<td>Add. Reading:</td>
<td>Accounting Shift Would Lift Tech Profits</td>
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<td>Zynga Explains Method For Recording Real Revenue</td>
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<td>Microsoft Financials</td>
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Session 5. Statement of Cash Flows

Class Notes: Class Notes #5
Case # 1: Animatronics (Q5)
SWSF Reading: Chapter 5
SWSF Problems: Q5.10, Q5.11, E5.21, E5.25, E5.26, E5.27, E5.30, P5.33, P5.35, P5.46
Add. Reading: PepsiCo Statement of Cash Flows

Quiz #1: 10-20 minute quiz, covering Lectures #1 – #4

Session 6. Statement of Cash Flows (continued)

Class Notes: Class Notes #6
Case # 3: Callaway Golf
Add. Reading: Quick Cash Via Receivables Deals

Session 7. Introduction to Financial Statement Analysis (FSA)

Class Notes: Class Notes #7
SWSF Reading: Chapter 6
Add. Reading: Decline of the P/E Ratio
A Tower of Babel in Accounting
PepsiCo Financials

Session 8. Accounts Receivable

Class Notes: Class Notes #8
Case # 4: Carter’s Inc.
SWSF Reading: Chapter 7, p. 315-330
Add. Reading: Accounting Issues at WorldCom
At Nortel, Warning Signs Existed Months Ago

Quiz #2: 10-20 minute quiz, covering Lectures #5 – #7

Session 9. Inventory and Cost of Goods Sold

Class Notes: Class Notes #9 & 10 pages 1 – 8
Case # 5: Amazon.com
SWSF Reading: Chapter 8, p. 365-383; Appendix 8.1
Add. Reading: Big Oil’s Accounting; ExxonMobil Financials

Session 10. Inventory and Cost of Goods Sold (continued)

Class Notes: Class Notes #9 & 10 pages 9 – end
Case # 6: Snap-On Tools
Add. Reading: LIFO Should be First Tax Reducer

Homework #1 due at 5 p.m. on the day after Session 10.
Topics covered: Accounts Receivable and Inventory
Session 11. Long-Lived Assets
Class Notes: Class Notes #11 & 12 pages 1 – 11
SWSF Reading: Chapter 9
Add. Reading: IFRS Spells Write-Downs Caterpillar Financials

Session 12. Long-Lived Assets (continued)
Class Notes: Class Notes #11 & 12 pages 11 – end
Case # 7: Snap-On Tools
Add. Reading: Demystify the Lehman Shell Game Wachovia Reports Loss

Homework #2, due at 5 p.m. on the day after Session 12.
Topics covered: Long-Lived Assets

MIDTERM EXAM
Topics covered: Material through Long-Lived Assets, Lectures #1 - #12

Session 13. Long-Term Debt
Class Notes: Class Notes #13 & 14 pages 1 – 12
SWSF Reading: Chapter 8, p. 383-391; Chapter 10, p. 461-481
Appendix (Time Value of Cash Flows), p. 805-818
SWSF Problems: E8.35, E10.16, E10.18, E10.21, P10.29
Add. Reading: Confronting High Risks and Banks Comcast Financials

Session 14. Long-Term Debt (continued)
Class Notes: Class Notes #13 & 14 pages 12 - end
Case # 8: Carter’s Inc.
Add. Reading: Citigroup Finds a Profit

Session 15. Leases
Class Notes: Class Notes #15 & 16 pages 1 - 10
SWSF Reading: Chapter 10, p.482-493
SWSF Problems: E10.25, E10.28, P10.34, P10.35
Add. Reading: Hidden in Plain Sight; Supplement on Leases
Quiz #3: 10-20 minute quiz, covering Lectures #13 – #14

Session 16. Leases (continued)
Class Notes: Class Notes #15 & 16 pages 11 - end
Case # 9: Safeway Inc.
Add. Reading: New Accounting Rules Ruffle the Leasing Market
Session 17. Deferred Taxes
Class Notes: Class Notes #17 & 18 pages 1 – 11
SWSF Reading: Ch. 11, p. 536-545
SWSF Problems: E11.25, E11.26, E11.28
Add. Reading: Lifting the Veil on Tax Risk; Unisys News Release
Quiz #4: 10-20 minute quiz, covering Lectures #15 – #16

Session 18. Deferred Taxes (continued)
Class Notes: Class Notes #17 & 18 pages 11 - end
Case # 10: Safeway Inc.
SWSF Problems: P11.33, P11.36
Add. Reading: Motorola Deal Offers Google Tax, Patent Benefits

Session 19. Stockholders’ Equity
Class Notes: Class Notes #19
Case #11: Pepsico
SWSF Reading: Chapter 14
Add. Reading: EnerSys Announces Stock Buy Back
What Seller Wants a Low Price?
Quiz #5: 10-20 minute quiz, covering Lectures #17 – #18

Session 20. Marketable Securities
Class Notes: Class Notes #20 & 21 pages 1 – 11
SWSF Reading: Chapter 12, p. 565-578, 595-598
Add. Reading: Banks Face Mark-To-Market Challenge

Session 21. Marketable Securities and Other Investments
Class Notes: Class Notes #20 & 21 pages 12 - end
Case # 12: Peet’s Coffee
SWSF Reading: Chapter 13, p. 615-623
SWSF Problems: E13.17, E13.18, P13.32
Add. Reading: Accountants Misled Us Into Crisis

Session 22. “Capstone” class
Case #13: Target Corp.

Homework #3, due at 5 p.m. on the day after Session 22.
Topics covered: Marketable Securities and Stockholders’ Equity

Session 23. Conclusion and Review

FINAL EXAM
Topics covered: Lectures #13 - #23, inclusive
Overview

Learn to read, understand, and analyze financial statements. The course adopts a decision-maker perspective of accounting and emphasizes the relation between accounting data and the underlying economic events that generate them. To achieve the objective of helping students become effective financial statement users, the course strikes a balance between the teaching of accounting mechanics and the analysis of financial statements. After a review of the construction and analysis of the Statement of Cash Flows, the course turns to an in-depth examination of the major asset, long-term liability, and shareholders’ equity accounts. After completing this intensive introduction to financial accounting, students should be able to read, understand and recreate transactions from the financial statements.

INTENDED AUDIENCE

This course is intended for students with strong command of the material covered in the ACCT 604 pre-term class. Specifically, students entering ACCT612 are expected to already understand:

1. The recording of economic transactions in the accounting records (i.e., bookkeeping);
2. The basic financial statements that summarize a firm’s economic transactions (balance sheet, income statement and statement of cash flows);
3. The fundamental concepts needed to prepare or understand published financial statements (e.g., use of accrual accounting);
4. How to construct the basic financial statements from transactions information and how to recreate the transactions by looking at the financial statements;
5. How to use the indirect method to construct the cash flow statement from balance sheet, income statement, cash receipt and disbursement, and supplemental information; and
6. How to use accounting statements and disclosures to reconstruct the underlying economic events in which the firm participated.
Course Material

RECOMMENDED TEXTBOOK (Available at the Penn Bookstore)


COURSE PACKET

There are two sections of the Course Pack (a.k.a. “bulk pack”). Both are available on the Canvas site (in part) and Study.net. Note that any copyrighted materials will only be available on Study.net. (CP)

- **Problems section (Required):** This section includes problems to be discussed in class, additional practice problems, cases to be prepared outside of class, and articles to be discussed in class.

- **Notes section (Optional/Recommended):** This section includes an outline, condensed notes, and additional readings for each topic.

COURSE HANDOUTS

Consist of supplemental lecture material and solutions to cases. Most of this material will also be available on the course Canvas site.

Exams

The mid-term and final exams are open-book and open-notes. The final exam is not cumulative; however, the material is, in some sense, cumulative.

Preparation for class

Class sessions will follow a lecture/discussion format with student participation strongly encouraged. Financial accounting is a “learn-by-doing” subject; therefore, you should complete the assigned reading and text book problems before class. The assigned reading from the text and the course packet present basic material that must be mastered before one can become an effective financial analyst. The assigned problems from the text cover mechanics and relatively straightforward analysis. To supplement the basic treatment in the text, the course packet includes examples from published accounting disclosures that provide experience with actual financial statements and are generally more difficult than the problems found in the text. Focus your pre-class preparation on readings and text problems and your postclass preparation on course packet problems. This will ensure you get the most out of class and will make exam preparation manageable.
Course Outline ACCT612
(formerly used for ACCT621)

KEY

SWSF refers to the Stickney et al. textbook (13th edition).
CP = Course Packet, “Problems” Section
Case Discussions in bold can be turned in for a grade.

Session 1. Statement of Cash Flows
SWSF Reading: Chapter 5
SWSF Problems: Q5.10, Q5.11, E3.21, E3.25, E5.26, E5.27, E6.30, P5.33, P5.35, P5.46
CP Problems: Hank’s Hang Gliders, Tiffany & Co.

ON-LINE HOMEWORK: submitted before session 2 (Revenue Recognition & A/R)

Session 2. Revenue Recognition and Accounts Receivable
SWSF Reading: Chapter 7
SWSF Problem(s): E7.16, P7.40, E7.22, E7.23, E7.26, E7.30, P7.42, P7.43
Articles: SAB 101
CP Problem(s): DHC Corp., Larcker Liquor, Cisco Systems

Session 3. Revenue Recognition and Accounts Receivable
Article(s): Microstrategy
CP Problem(s): Cisco Systems, if needed
Case Discussion: SolvGen, Inc.

ON-LINE HOMEWORK: submitted before session 4 (Inventory and Intangibles)

Session 4. Inventory Valuation
SWSF Reading: Chapter 8, p. 365-383; Appendix 8.1
CP Problem(s): Famous Horse, ICF, Inc., Steelcase
Articles: Big Oil’s Accounting

Session 5. Intangible Assets
SWSF Reading: Chapter 9, with focus on intangible assets
SWSF Problem(s): P9.29, P9.32, P9.35
CP Problem(s): MoneyGram

Midterm Review Session
Session 6. Intangible Assets (continued) and Long-Term Debt
SWSF Reading: Chapter 10, p. 461-481; Appendix (Time Value of Cash Flows), p. 805-818
SWSF Problem(s): E8.35, E10.16, E10.18, E10.21, P10.29
CP Problem(s): Munson Grocery; LTD, Inc.
Case Discussion: Talbots, Inc.

Midterm Exam (covers sessions 1-6, up to and including “Intangible Assets”)

Session 7. Long-Term Debt (continued)
CP Problem(s): B&G Foods

Session 7. Leases
SWSF Reading: Chapter 10, p.482-493
CP Problem(s): Bay State Delivery

ON-LINE HOMEWORK: submitted before session 8 (Leases and Taxes)

Session 8. Leases (continued)
SWSF Problem(s): E10.25, E10.28, P10.35
CP Problem(s): Wal-mart
Case Discussion: Leasing Computers at Persistent Learning

Session 9. Accounting for Taxes
SWSF Reading: Ch. 11, p. 536-545
SWSF Problem(s): E11.25, E11.26, E11.28
CP Problem(s): DT, Inc.

ON-LINE HOMEWORK: submitted before session 10 (Stock Options & Mkt. Sec.)

Session 10. Accounting for Taxes (continued)
CP Problem(s): Caterpillar

Session 10. Stock Options
SWSF Reading: Chapter 14
SWSF Problem(s): E14.16, E14.24, P14.33
Articles: Lack of Rigid Rules, Ex-Brocade Chief Convicted
CP Problem(s): Coca-Cola

Session 11. Marketable Securities and Investments
SWSF Reading: Chapter 12, p. 565-578, 595-598; Chapter 13, p. 615-623
SWSF Problem(s): E12.11, E12.15, E12.18, E12.19, P12.24, P12.26
CP Problem(s): Lincoln Park Bank, The Buckle
Session 12. Marketable Securities and Investments (continued)

- SWSF Problem(s): E13.17, E13.18, P13.32
- CP Problem(s): P&S, Coca-Cola
- Case Discussion: State Street Corporation

Final Exam Review

Final Exam (Covers sessions 6-12, beginning with “Long-term Debt”)
Corporate Finance (FNCE611/612/614)
(formerly FNCE601/621)

Course Description
These courses serve as an introduction to business finance (corporate financial management and investments) for both non-majors and majors preparing for upper-level coursework. The primary objective is to provide a framework, concepts, and tools for analyzing financial decisions based on fundamental principles of modern financial theory.

The Corporate Finance (FNCE611/FNCE612/FNCE614) Waiver Process

WAIVING BY EXAM
EXAM DATE: See Waiver and Placement Exam Schedule table in the Introduction to this Waiver Guide. A sample exam and solution set can be found in the Waiver Exam Guide.

The Finance Department recognizes that many students enter the MBA program with strong backgrounds in macroeconomics and/or corporate finance. Nonetheless, before permitting them to waive the core courses, we want to verify their mastery of these subjects on a waiver exam.

Students who score sufficiently well on the Corporate Finance waiver exam are granted waivers for all three versions of Corporate Finance — the full-semester version (FNCE611), the accelerated, half-semester version (FNCE612) and, of course, the half-semester version (FNCE614). Students who score well on the subjects covered in FNCE614 (discounted cash flow techniques, corporate capital budgeting and valuation, investment decisions under uncertainty, and capital asset pricing), but less well on the other subjects covered in the full-semester version, FNCE611, will be granted a waiver for FNCE614 only. Students who hope to take the accelerated version of Corporate Finance (FNCE612) should register for the Pre-Term preparation class, FNCE604.

Please note that a waiver for FNCE614 will not be sufficient to enable a student to become a Finance major.

Exam Preparation
Overview

This course is intended to provide a market-oriented framework for analyzing the major types of financial decisions made by corporations. Lectures and readings will provide an introduction to present value techniques, capital budgeting principles and problems, asset valuation, the operation and efficiency of financial markets, the financial decisions of firms and derivatives.

Books

The required textbook and special study guide, which can be obtained together at a discounted price at the Penn Bookstore, are:


The latter is a special version of the study guide made for the course that also includes answers from the solutions manual for the end-of-chapter questions in BMA for Chapters 1-21.

We will be discussing the Eurozone crisis as it develops. You may find the following short ebook useful. It can be downloaded for free at http://finance.wharton.upenn.edu/FIC/FICPress.


Those of you with a limited exposure to finance can consult the glossary at the end of BMA for the financial terms used. For those who want more the following additional text may be useful.


The Bulk Pack for Quarter 1 can be obtained from Study.net or downloaded from webCafé. This contains problem sets, cases, example exams, and lecture notes for the first half of the course. All
materials will be made available electronically on Webcafe during the course. The Bulk Pack for Quarter 2 will be available in a few weeks.

**Calculators and Spreadsheets**

The recommended calculator is an HP 17bII+. Older equivalent models such as the HP 17BII or HP 19BII are acceptable. Other calculators such as the HP 10BII, HP 12C, TI BAII or equivalents will put you at a disadvantage in exams. They do not allow you to enter formulas and the old HP 12C is also slow. If you wish to use another calculator please come and see me to obtain a waiver. More advanced calculators or anything with download capabilities cannot be used. You will also need to know EXCEL at an elementary level for the cases. A brief introduction is posted on webCafé in the file EXCEL_Introduction.ppt.
Course Outline FNCE611
(formerly used for FNCE601)

Quarter 1

WEEK 1
Th:  Section 1: Introduction
     Read Ch. 1 BMA
     Section 2: The Objective Function for Corporations
     Read Ch. 1 BMA

WEEK 2
Tu:  Section 2 (cont.)
Th:  Section 3: Calculating Present Values
     Read Ch. 2 BMA

WEEK 3
Tu:  PROBLEM SET 1 DUE
     Section 4: The Valuation of Bonds and Stocks
     Read Chs. 3 and 4 BMA
Th:  Section 5: A Comparison of Investment Criteria
     Read Ch. 5 BMA

WEEK 4
Tu:  PROBLEM SET 2 DUE
     Section 5 (cont.)
     Section 6: Practical Aspects of the NPV Rule
     Read Ch. 6 BMA
Th:  Section 6 (cont.)

WEEK 5
Tu:  PROBLEM SET 3 DUE
     Section 7: Measuring Risk
     Section 7(i): Statistics Review
     Section 7(ii): A Theory of Asset Pricing: Introduction
Th:  Section 7(iii): Mean-Standard Deviation Analysis
     Section 7(iv): Diversification and Beta
     Read Ch. 7 BMA and Reading for Section 7 on webCafé

WEEK 6
Tu:  TOLLHOUSE COOKIE CASE DUE BY 9 a.m. – UPLOAD TO WEBCAFÉ
     Section 8: The Capital Asset Pricing Model
     Read Ch. 8 BMA
Th:  Section 8 (cont.)
WEEK 7
Tu: PROBLEM SET 4 DUE
Section 9: Capital Budgeting and the CAPM
Read Chs. 9 and 11 BMA
Th: Exam week for MBA Core – No class
Tu: Exam week for MBA Core – No class

Quarter 2

WEEK 1
Thu: Review session during regular class

WEEK 2
Mon: MIDTERM EXAM 6:15-7:45 p.m.
Tu: NO PROBLEM SET DUE
Section 10: Market Efficiency
Read Ch. 13 BMA
Th: Section 10: Market Efficiency (cont.)
Section 11: Issuing Securities
Read Chs. 14 and 15 BMA

WEEK 3
Tu: PROBLEM SET 5 DUE
Section 11: Issuing Securities (cont.)
Th: Section 12: Payout Policy
Read Ch. 16 BMA

WEEK 4
Tu: PROBLEM SET 6 DUE
Section 12: Payout Policy (cont.)
Section 13: Capital Structure
Read Chs. 17 and 18 BMA
Th: Section 13: Capital Structure (cont.)

WEEK 5
Tu: PROBLEM SET 7 DUE
Section 13: Capital Structure (cont.)
Section 14: Investment and Financing Decisions
Read Ch. 19 BMA
Th: No class: Thanksgiving Holiday
WEEK 6

Tu: PROBLEM SET 8 DUE
Section 14: Investment and Financing Decisions (cont.)
Section 15: Valuation
Read Ch. 19 BMA

Th: Section 15: Valuation (cont.)
Section 16: Risk Management and Pricing Derivatives
Read Chs. 20 and 21 BMA

WEEK 7

Tu: VALUATION CASE DUE BY 9 a.m. – UPLOAD TO WEBCAFÉ
Section 16: Risk Management and Pricing Derivatives (cont.)

Th: Case presentations

Mon: FINAL EXAM: 9:00–11:00 a.m.
Overview

This course is intended for students with prior knowledge of finance or with strong analytical backgrounds. Together with the pre-term preparation course (FNCE604), it forms the foundation for subsequent courses in corporate finance, corporate valuation, investments, and financial derivatives. Its purpose is to develop a framework for analyzing a firm’s investment and financing decisions. The course will start where FNCE604 ends. More precisely, it will provide an introduction to capital budgeting techniques under uncertainty, asset valuation, the operation and efficiency of capital markets, the optimal capital structure and dividend policy of the firm, and options. In short, it will cover all the topics of a typical semester-long finance introduction class in six weeks.\(^1\)

The course assumes that students are familiar with the material covered in FNCE604. As a result, it is only available to those students who successfully passed the Finance Placement Exam at the end of the pre-term, or waived the core by credentials. In order to cover everything in a condensed time period, the course workload and lecture pace will be intense throughout and students taking this course should be prepared for this.

Since the emphasis is on the fundamental concepts underlying modern finance, the approach will be analytical and rigorous, and requires familiarity with accounting, mathematical and statistical tools. This “academic” approach is necessary to provide students with a strong foundation that they can then apply to the (more applied) elective courses at Wharton.

Prerequisites

The prerequisite for this course is a satisfactory performance (as judged by the instructor) in the Finance Placement Exam, which is offered at the end of the pre-term. The typical candidates for passing this Finance Placement Exam are students with prior course or practical knowledge of financial analysis, and students with a strong analytical background (e.g., students with prior degrees in engineering, physics, mathematics, or statistics). On the first day of class, students are expected to be familiar with the material covered in the pre-term course (FNCE604). No time will be spent reviewing this material.

\(^1\) Of course, since FNCE604 has already covered about 30-35% of the material studied in a typical finance introduction class, the pace of FNCE612 will effectively be about 35-40% faster than that of FNCE611.
The course makes use of mathematical and statistical manipulations at the level taught in preterm statistics courses. The first section of the course notes (section 1.1.1) is a review of statistics material that will be extensively used throughout the course. Students are expected to have mastered the material from this section prior to the course’s first lecture, and very little time will be spent on it in class.

### Course Material

The following textbook and special study guide are highly recommended for FNCE612 (they are required for FNCE611). They can be obtained together at a discounted price at the Penn Bookstore (36th and Walnut).


The book is particularly useful for (a) simpler problems (to ease you into the more complex problem sets that I will assign separately), and (b) as an additional source for material that you may have found challenging when taught in class. The book is also useful for many finance electives at Wharton.

Another excellent reference which I highly recommend for this course is the following textbook. It is available at popular online bookstores. In fact, my lecture notes will often refer to this textbook.

- Berk, Jonathan, and Peter DeMarzo, *Corporate Finance*, 2nd edition (Prentice Hall, Boston, 2010). (Referred to as BD below)

### Calculators and Computers

You will definitely need a calculator for the course (and the course’s exams). Any calculator that has a $y^x$ button will do. In fact, when constructing the exam, I will make sure that the people who do not have a fancy calculator are not at a disadvantage. If you do not have a calculator yet, consider buying an HP-17BII, HP-19BII, or their subsequent models, as they will probably be useful for other Wharton courses. Laptop computers, tablet computers, cell phones and any email-capable device will not be allowed for the exams.
The material for this course essentially corresponds to chapters 4, 7-9 and 13-21 of the BMA textbook. Below is the sequence of topics that will be covered in class, along with the relevant chapters/sections in BMA.

1. **Investment Decisions (Under Uncertainty)**
   1.1 The Valuation of Risky Cash Flows
      1.1.1 Statistics Reminder
         (see pre-term statistics courses)
      1.1.2 Statistics and Stock Portfolios
         BMA, Chapter 7.
      1.1.3 The Capital Asset Pricing Model
         BMA, Chapter 8.
      1.1.4 The Valuation of Stocks
         BMA, Chapter 4.
   1.2 Capital Budgeting Under Uncertainty
      BMA, Chapter 9.

2. **Financing Decisions**
   2.1 Efficient Capital Markets: Theory and Evidence
      BMA, Chapter 13.
   2.2 An Overview of Long-Term Financing
      BMA, Chapters 14-15.
   2.3 Payout Policy
      BMA, Chapter 16.
   2.4 Debt Policy
      BMA, Chapters 17-18.

3. **Financing and Investment**
   BMA, Chapter 19.

4. **Options**
   4.1 Understanding Options
      BMA, Chapter 20.
   4.2 The Valuation of Options
      BMA, Chapter 21.

Disclaimer: This document represents my current plans for the course at the time of writing, but is subject to change. Any changes will be communicated promptly and clearly to the students.
Syllabus FNCE604

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■ Overview

This pre-term course is intended for those students wishing to prepare for the Placement Exam to get into FNCE612. The FNCE612 course will fulfill the core requirement in financial analysis in half a semester, instead of the usual full semester course, FNCE611. Only students with prior knowledge of financial analysis (either by coursework or by practical experience), or with strong analytical backgrounds should consider taking this course and the Placement Exam. This course is not suitable for students new to finance and with limited analytical backgrounds. The pace of FNCE604 is fast, and the pace of FNCE612 will be even faster. Please do not take this course unless you are fully comfortable with an accelerated pace and intense workload.¹

Together, FNCE604 and FNCE612 form the foundation for subsequent courses in corporate finance, corporate valuation, investments, and financial derivatives. Their purpose is to develop a framework for analyzing a firm’s investment and financing decisions. This course, FNCE604, will provide an introduction to present value and capital budgeting techniques under certainty. The FNCE612 course will start where FNCE604 stops, and will cover capital budgeting techniques under uncertainty, asset valuation, the operation and efficiency of capital markets, the optimal capital structure and dividend policy of the firm, and options. In short, FNCE612 will cover all the topics of a typical semester-long finance introduction class in six weeks.

In order to cover everything in a condensed time period, the course workload and lecture pace will be intense throughout and students taking this course should be prepared for this. Since the emphasis is on the fundamental concepts underlying modern finance, the approach will be analytical and rigorous, and requires familiarity with accounting, mathematical and statistical tools. This “academic” approach is necessary to provide you with a strong foundation that you can then apply to the (more practical) elective classes at Wharton.

■ Prerequisites

Although there are no official prerequisites for FNCE604 and FNCE612, both courses will make use of mathematical and statistical manipulations at the level taught in STAT613. We may also make very sporadic use of calculus, but knowledge of calculus is not at all necessary for this course, nor is it for the Placement Exam or FNCE612.

¹ This pace will be about 35-40% faster in FNCE612 vs. FNCE611 given the pre-term headstart.
To give you an idea of the level of mathematics and statistics at which this course (and FNCE612) will be taught, the bulk pack (see “Course Material” section below) contains a “math/stat reminder” that you should take a look at early in the course. There will also be a “statistics reminder” section in the FNCE612 bulk pack, but you should keep in mind that we will not explicitly go over that section in class. Given that this material is covered in depth in the pre-term courses in statistics, this will allow us to concentrate on finance material.

**Course Material**

**Required** for the course is a bulk pack that is available from Wharton Reprographics (basement of SH-DH).

In addition, the following textbook and special study guide are highly recommended (they are also highly recommended for FNCE612, and required for FNCE611). They can be obtained together at a discounted price at the Penn Bookstore (36th and Walnut):


Although I will try to explicitly define every finance term used in the course, it is possible that some students will be unfamiliar with some of the terminology used in our discussions. To bridge these gaps (or, at the very least, to help in all your other finance courses at Wharton), I recommend the following “finance dictionary”:


**Waiver Exam**

The Placement Exam serves the role of placing students into the faster-paced FNCE612, instead of the normal-paced FNCE611. The Waiver Exam is used to waive the core finance requirement altogether (i.e., waive both FNCE611 and FNCE612).

**Calculators and Computers**

You will definitely need a calculator for the course (and the Placement Exam). Any calculator that has a $x^y$ button will do. In fact, when constructing the exam, I will make sure that the people who do not have a fancy calculator are not at a disadvantage. If you do not have a calculator yet, consider buying an HP-17BII, HP-19BII, or their subsequent models, as they will probably be useful for other Wharton courses. Neither laptop computers nor handhelds will be allowed for the Placement Exam.
Course Outline FNCE604

The material for this course essentially corresponds to the first 6 chapters (except for chapter 4 and section 3-2) of the BMA textbook. Below is the sequence of topics that will be covered in class, along with the relevant chapters/sections in BMA.

■ 0. Introduction
  BMA, Chapter 1.

■ I. Investment Decisions (Under Certainty)
  1.1 Compounding and Discounting
    1.1.1 Constant Interest Rate
      BMA, Chapter 2 and Section 3-5.
    1.1.2 Term Structure
      BMA, Sections 3-3 and 3-4.

  1.2 The Valuation of Safe Cash Flows: Pricing Bonds
      BMA, Section 3-1.

  1.3 Capital Budgeting Under Certainty
    1.3.1 The NPV Rule: Theoretical Foundations
      BMA, Section 5-1.
    1.3.2 Using the NPV Rule for Capital Budgeting
      BMA, Chapter 6.
    1.3.3 Alternatives to the NPV Investment Rule
      BMA, Chapter 5.

Disclaimer: This document represents my current plans for the course at the time of writing, but is subject to change. Any changes will be communicated promptly and clearly to the students.
Macroeconomics and the Global Economic Environment (FNCE613/615)
(formerly FNCE602)

Course Description

The purpose of Macroeconomics is to train the student to think systematically about the current state of the economy and macroeconomic policy, and to be able to evaluate the economic environment within which business and financial decisions are made. The course emphasizes the use of economic theory to understand the workings of financial markets and the operation and impact of government policies. Specifically, the course studies the determinants of the level of national income, employment, investment, interest rates, the supply of money, inflation, exchange rates, and the formulation and operation of stabilization policies.

The Macroeconomics and the Global Economic Environment (FNCE613/615) Waiver Process

Waivers are not encouraged in macroeconomics since the past mastery of tools is considered only part of receiving a well-rounded macroeconomic education. Much of the course time is spent on analyzing current events, financial markets, and major policy issues. Even students who already have had substantial training in economics have found the classes rewarding since they focus on current economic problems. Foreign students, in particular, have found the emphasis on American markets and institutions to be unique and unlike the material covered in their own courses.

WAIVING BY EXAM

EXAM DATE: Waiver and Placement Exam Schedule, and a sample exam with solutions can be found in the Waiver Exam Guide.

The Finance Department recognizes that many students enter the MBA program with strong backgrounds in macroeconomics and/or corporate finance. Nonetheless, before permitting them to waive the core courses, we want to verify their mastery of these subjects on a waiver exam.

Students who score sufficiently well on the Macroeconomics waiver exam will be granted waivers for both the full-semester version (FNCE613) and, of course, the half-semester version (FNCE615). Students who score somewhat less well, but demonstrate substantial mastery of the subject can waive FNCE615, but not FNCE613.

Please note that a waiver for FNCE615 will not be sufficient to enable a student to become a Finance major.

Exam Preparation

Overview
Finance 613 is a course in macroeconomic analysis and policy in the context of globally integrated economies. The course begins by introducing national income accounts for an open economy and then focuses on a classical analysis of labor markets, goods markets, and asset markets. This part of the course examines the determination of employment, output, prices, wages, interest rates, national saving, investment, and international flows of goods, services, and assets in the long run. Then the course shifts its focus to the study of business cycles. The analysis of business cycles begins with a description of the cyclical behavior of various economic variables. This cyclical behavior motivates the development of business cycle models and the application of these models to study monetary and fiscal policy. The analytic engine of this part of the course is the IS-LM model, which is applied in both a classical mode and a Keynesian mode. The course extends the classical and Keynesian IS-LM models to models of large open economies with flexible exchange rates to study the international transmission of business cycles. The course concludes by analyzing the conduct of monetary and fiscal policy in a rich institutional framework.

Lectures
Each lecture is one hour and twenty minutes. Most lectures are divided into two parts. The first hour is devoted to discussion of core analytic material, and the final twenty minutes are devoted to a current policy topic.

Canvas
The Canvas site for this course contains the syllabus, lecture notes, problem sets and answers, old exams, regrade request forms, TA office hours, and other useful links.

Reading Materials
The textbook for this course is *Macroeconomics* (seventh edition), by Andrew B. Abel, Ben S. Bernanke, and Dean Croushore, Addison-Wesley Publishing Co., 2011. The Study Guide (by Dean Croushore) that supplements this textbook is a useful aid to students who would benefit from some additional explanation and practice with the material.

There is an optional bulkpack for the course that is available from Study.Net. The bulkpack contains the lecture notes for the core analytic material. It is optional because these notes are also available from Canvas.
Handouts for current policy topics will be distributed in class each day and will be made available on Canvas as the term progresses. You will be charged for these handouts via the bursar-billed handout fee from Reprographics.

**Problem Sets**

Canvas contains suggested problems and answers arranged by textbook chapter. Most of the questions are taken directly from the textbook. In addition, for most chapters Canvas contains one or two questions that are not in the textbook. The problem sets are optional and will NOT be collected and graded. Experience has shown that it is well worth your time to work out the answers and to go through the formal exercise of writing your answers.

**Macro Policy Simulation**

We will have a Macro Policy Simulation. The Macro Policy Simulation will be conducted as a tournament. Winning teams will receive bonus points on the final exam and will be asked to discuss their decisionmaking process.

**Exams**

There will be one midterm exam and a final exam. The exams will be closed book and closed note. However, you will be permitted to bring a single piece of paper no larger than 8.5” x 11” to the exams (that is, a single sheet of paper to the midterm and single sheet of paper to the final exam). You may write whatever you want on both sides of the paper. The final exam will be cumulative over the material from the entire course.
Course Outline FNCE613
(formerly used for FNCE602)

Session 1. Introduction and Overview
   Chapter 1
   Current policy topic: Macroeconomic Data Sources

Session 2. National Income Accounting
   Chapter 2
   Current policy topic: Interpreting GDP Releases

Session 3. Production and Employment
   Chapter 3, Secs. 1, 2, 4
   Current policy topic: Minimum Wage

DEDICATED INTERVIEW PERIOD – NO CLASS

Session 4. Labor Supply and Unemployment
   Chapter 3, Secs. 3, 5, 6
   Current policy topic: Jobless Recoveries

Session 5. Consumption and Saving: Basic Analytics
   Chapter 4, pp. 110-118; App. 4.A pp. 156-164
   Current policy topic: The Future of Social Security

Session 6. Consumption and Saving: Using the Basic Analytics
   Chapter 4, pp.119-126; App. 4.A, pp.164-170
   Current policy topic: Tax Incentives to Saving

Session 7. Investment and Goods Market Equilibrium
   Chapter 4, Secs. 2-3
   Current policy topic: Is There a New Industrial Revolution?

Session 8. A Framework for the Open Economy
   Chapter 5, Secs. 1-2
   Current policy topic: Outsourcing

Session 9. Saving, Investment, and the Current Account
   Chapter 5, Secs. 3-5
   Current policy topic: Current Account Balances in Mexico and Greece

Session 10. Asset Markets, Money, and Prices
   Chapter 7
   Current policy topic: Indexed Bonds
In-Class Review Session for Midterm Exam

Session 12. MIDTERM EXAM

Q3 CORE FINAL EXAMS – NO CLASS

SPRING BREAK – NO CLASS

Session 13. Asset Returns and Prices: Term Structure and Tobin’s Q
  Current policy topic: Bubbles

Session 14. Business Cycles
  Chapter 8

Session 15. The IS-LM Model
  Chapter 9, Secs. 1-5

Session 16. Classical and Keynesian Versions of the IS-LM Model
  Chapter 10, Secs. 1-2; Chapter 11
  Current policy topic: Hyperinflations

Session 17. Aggregate Demand and Aggregate Supply
  Chapter 9, Sec. 6; Chapter 10, Sec. 3
  Current policy topic: Forecasts of the Price Level

Session 18. The Phillips Curve: Unemployment and Inflation
  Chapter 12
  Current policy topic: Political Business Cycles

Session 19. Exchange Rates
  Chapter 13, Secs. 1-2
  Current policy topic: Is the Chinese Yuan Overvalued?

Session 20. Macroeconomic Policy in the Open Economy
  Chapter 13, Secs. 3-5
  current policy topic: Monetary Policy in Argentina

Session 21. Monetary Policy and Institutions
  Chapter 14, Secs. 1-2
  Current policy topic: Taylor Rule

Session 22. Issues in Monetary Policy
  Chapter 14, Sec. 3 and Chapter 15, Sec. 4)
  Current policy topic: Inflation Targeting
Session 23. Macro Policy Simulation

Session 24. Government Spending and Its Financing
  Chapter 15, Secs. 1-3
  Current policy topic: Outlook for the Federal Budget

Session 25. In-Class Review Session for Final Exam

FINAL EXAMINATION
Economics of Managerial Decision Making (MGEC611/612)
(formerly MGEC621)

Course Description

MGEC611: Microeconomics for Managers Foundations establishes the micro-economic foundations for understanding business decision-making and includes consumer theory and market demand with full information, productions theory and economic cost.

MGEC 612: Microeconomics for Managers: Advanced Applications covers the economic foundations of business strategy and decision-making in market environments with less than full information and includes game theory and strategies.

Waiver by Exam

Incoming students may waive one or both Quarter courses of Microeconomics for Managers: Quarter I (MGEC611): Microeconomics for Managers: Foundations and Quarter II (MGEC612): Microeconomics for Managers; Advanced Applications. To waive these required courses acceptable performance on a waiver examination will be required.

To be exempted from enrolling in MGEC611: Microeconomics for Managers: Foundations students will be required to pass a 90-minute waiver exam. A sample examination is provided in the Waiver Exam Guide. The exam tests mastery of the following topics:

1. Demand, Consumer Surplus, and Elasticities
2. Production and Cost Minimization
3. Costs and Opportunity Costs
4. Competitive Market Equilibrium
5. Taxation and Regulation
6. Monopoly Power
7. Price Discrimination
8. Bundling
9. Two-Part Tariffs
10. Double Marginalization
To be exempted from enrolling in MGEC 612: Microeconomics for Managers: Advanced Applications, students will be similarly required to pass a one hour waiver exam on the topics below. A sample examination is provided in the Waiver Exam Guide. The exam tests mastery of the following topics:

1. Pricing strategies in Oligopolies, including collusion
2. Game theory, including solving Prisoner Dilemma Games, Commitment Strategies, Credible Threats
3. Auctions
4. Decision Making under Uncertainty
5. Risk Sharing and Strategies for Managing Risk
6. Moral Hazard and Incentive Contracting
7. Asymmetric Information and Signaling
8. Public Goods and Common Pool Resources
9. Externalities

Texts which can help prepare students for these exams include:
- Robert Pindyck and Daniel Rubinfeld, Microeconomics.
- David Besanko and Ronald Braeutigam, Microeconomics.
- Michael Baye, Managerial Economics and Business Strategy.
- David Kreps, Microeconomics for Managers.
Syllabus MGEC611
(formerly used for MGEC621)

INSTRUCTORS

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Professor Kent Smetters  SH-DH 3303  
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Office Hours: Thurs. 3:00-4:00 p.m.*  
*More hours as exam approaches.

Text


Available at the University of Pennsylvania Bookstore. This text is the same one used in MGEC603/608 (Preterm MGEC). Please note that the 7th Edition is significantly different than the 6th Edition, especially for material covered by MGEC611.

Class Notes and Additional Exercises

Class notes are provided in advance of each class on the course website. Please take a quick read through them before class, including the attached reading (if any). In some cases, you will notice “blanks” in the slides/notes, which are designed to motivate classroom discussion and promote critical thinking. If you miss class then see a colleague to “fill in” the blanks; office hours are reserved for students who attend class. Past exams and some additional problems for each class will also be distributed.

Teaching Assistants

Teaching Assistants are your “first line of defense” for answering questions about course material. Each TA has been screened for his/her competence.
Session 1: Introduction, Motivation And Review

Sophisticated Pricing Strategies

Session 2: Two-Part Tariffs

Background: Continues the pre-term discussion of pricing when a firm has market power. A two-part tariff is a sophisticated way to a firm to increase their profits by capturing more consumer surplus. This type of pricing is used extensively by country clubs, eating clubs, sports stadium personal seat licenses, phone company call plans.


Session 3: Transfer Pricing

Background: In a conglomerate world, company A and company B may be owned by the same parent company. If company A uses the product of company B as an input to their production process, the question of the appropriate price to be paid for B’s product by A is a contentious one. Setting the right “transfer prices” aligns incentives and helps the parent company maximize profits. Examples include IT services within many companies and GE’s internal consulting group.


Profit Maximizing Strategic Behavior in Oligopolistic Markets

Session 4: Strategies in Duopolies I

Session 5: Strategies in Duopolies II (and catch up)

Background: In an oligopoly situation, we have competition among a few firms. This is the most common form of business competition in most large markets of the world: Coke vs. Pepsi, Intel vs. AMD, and so on. Within this general marketing setting, competition differs further among two dimensions: (1) the degree of market power/contestability and (2) the degree in which one party has a first-mover advantage. We explore how to maximize profits in each case.


Influencing Your Market Setting

Session 6: Game Theory and Strategy: The Static Setting

Background: The powerful tool of game theory is introduced and used to explore how you can influence your market setting in order to move from less to more profitable situations. In this lecture, we first investigate how to influence your market setting in a “static setting” where actions tend to be more “one off” and so the role of reputation is less important. We consider the incentives to collude with your competition as well as attempts to deter entry.

Reading: ADWM, Chapter 11, “Game Theory”
MIDTERM EXAM COVERING SESSIONS 1-5

Session 7: Game Theory and Strategy: The Dynamic Setting

Background: We now extend our analysis to investigate how “reputation” influences your ability to collude or deter entry.


Dealing with Asymmetric Information and Uncertainty

Session 8: Auctions

Background: Auctions are used by sellers to obtain information on how much consumers value an item and to attempt to extract the highest possible price for the item. Examples include the Jackie Onassis possessions, the FCC communications spectrum, Treasury securities, and stock repurchases.

Reading: ADWM, Chapter 12, “Auctions”

Session 9: Decision making Under Uncertainty and Insurance

Background: Focusing on the expected return of an investment can be misleading. We discuss how to make decisions under uncertainty and the value of hedging against that uncertainty.

Reading: ADWM, Chapter 13, “Risk Analysis”

Session 10: Adverse Selection

Background: Markets often fail in the presence of asymmetric information between buyers and sellers because only the “lemon” (low quality or high risk) is offered for sale (or wants to buy) in equilibrium. Examples abound from the sale of used cars, demand for insurance, and even trades of athletes. In some cases, government policy enhances the problem. We investigate how to use “screens” and “signals” to deal with this business-critical problem.

Reading: ADWM, Chapter 15, Adverse Selection

Session 11: Moral Hazard

Background: Moral hazard is a second type of problem that can occur in the presence of asymmetric information. A party changes its level of risk taking in response to the protection that he/she is provided, sticking more risk to the counterparty. The structure of executive compensation attempts to deal with a key moral hazard — between executives and shareholders — and has received considerable attention recently. Attempts to deal with moral hazard must always balance the diversification risk of the party whose behavior is the focus of control.

Reading: ADWM, Chapter 14, “Principal-Agent Issues and Managerial Compensation”
Session 12: Externalities and Common Pool Resource Problems (if time permits)

Background: Certain actions like air pollution create “market failures” because firms do not pay the fair market price for the harm that they cause others, thereby generating so-called “externalities.” Appropriate government regulation is one way to correct the problem; under some conditions, the private market can also correct it even without government interference. This class produces insight into when government action is needed to improve the market outcome and when it is not needed.

FINAL EXAMINATION COVERING ALL SESSIONS
Marketing Management: Program Design (MKTG611)
(formerly MKTG621)

**Course Description**

This course addresses the management challenge of designing and implementing the best combination of marketing actions to carry out a firm’s strategy in its target markets. Specifically, the course seeks to develop your skills in applying the analytic perspectives, decision tools, and concepts of marketing to business decisions.

**The Marketing Management: Program Design Waiver Process**

**WAIVER BY CREDENTIAL**

*DEADLINE: See Introduction to this Waiver Guide*

To waive or substitute by credential, a student must have completed an Introduction to Marketing or Marketing Strategy course at a four-year college within the last 7 years. To waive MKTG611 altogether, the course must have included decision-oriented case analyses and the student must have earned a grade of A. To substitute MKTG611 by an upper-level elective marketing course of 0.5 credit units or more, the course need not have included case studies and the student must have earned a grade of A- or better.

**Documenting Your Credentials**

- Transcripts with course and grade highlighted
- Title and author of textbook used in the class
- Titles of cases analyzed
- Copy of syllabus (credentials cannot be reviewed without the syllabus)

**WAIVING BY EXAM**

*EXAM DATE: Waiver and Placement Exam Schedule, and a sample exam with solutions can be found in the Waiver Exam Guide.*

Students who earn a grade of A- or better on the waiver exam can waive the course. Students who earn a grade of B or better on the waiver exam can substitute the course by an upper-level elective course of .5 credit units or more.
Overview

The first-quarter marketing course (MKTG611) addresses how to design and implement the best combination of marketing efforts to carry out a firm’s strategy in its target markets. The course has two main objectives: First, to help you develop an understanding of how the firm can benefit from creating and delivering superior value to its customers and stakeholders. Second, to develop skills in applying analytic perspectives, decision tools, and frameworks of marketing to the following issues:

1. **Segmentation, targeting, and positioning.** How to: assess market potential, analyze customer behavior, and focus resources on specific customer populations and against specific competitors.

2. **Branding.** How to: develop, measure, and capitalize on brand equity.

3. **Pricing.** How to: set prices that demonstrate value to the customer and capture value for the firm.

4. **Distribution channels.** How to: understand the role of distributors, retailers, and other intermediaries in delivering products, services, and information to customers.

5. **Marketing communications.** How to: develop an effective mix of marketing communication efforts.

Skill Development Objectives

The course uses lectures and cases to help you:

1. Develop a disciplined approach to the analysis of marketing situations and decision-making;

2. Expand your decision-making skills by requiring you to make and defend marketing decisions in the context of stylized real-world problem situations with incomplete information (case studies);

3. Improve your skills in group problem-solving and in written and oral communication (case write-ups and presentations);

4. Make cross-functional connections between marketing and other areas of business.

These skills will serve you in any marketing situation, any geography, and any industry.
Course Materials

The MKTG611 bulkpack [BP] with cases and readings is available through Study.Net. WebCafé will be used as the source for class handouts and other materials.

If you seek background reading in the form of a textbook, we recommend one of the following optional books:


You are obviously welcome to use outside sources to expand your knowledge.
Course Outline MKTG611
(formerly used for MKTG621)

Session 1. Introduction, Analyzing Markets and Customers (I)
This class discusses the role of marketing in the firm. It focuses on the importance of segmenting the market and creating a clear positioning statement.

Reading Assignment

Session 2. Unilever Brazil Case
(See webCafé for case questions)

Reading Assignment
Marketing Math Essentials: Margin Analysis, and Break-Even Analysis.

Session 3. Analyzing Markets and Customers (II)
This class explores more detailed approaches to market analysis, including models of customer decision making and customer lifetime value (CLV).

Reading Assignment
Marketing Math Essentials: Chain Models of Segment Value, and Customer Lifetime Value (CLV).

Session 4. Gillette Indonesia Case
(See webCafé for case questions)

Session 5. Branding
In this session we examine how brands can affect customer behavior, which in turn provides insights into the importance of building brand equity and the risks and benefits of some branding practices such as brand extensions.

Session 6. Case Write Up and Presentation: Cyworld: Creating and Capturing Value in a Social Network
A .doc copy of your write up and, if you are presenting, your .ppt presentation is due in your team folder by 8:00 a.m. Even numbered learning teams will present this case. More details are available at the end of this document.

Session 7. Pricing
Topics covered include: measuring customers’ willingness to pay (economic value to the customer), measuring price sensitivity, and psychological aspects of pricing.

Reading Assignment
Marketing Math Essentials: Economic Value to the Customer.
Session 8. Rohm and Haas Case
(See webCafé for case questions)

Session 9. Distribution
This session examines how to design and coordinate distribution channels.

Session 10. Case Write-Up and Presentation: Groupon
A .doc copy of your write up and, if you are presenting, your .ppt presentation is due in your team folder by 8:00 a.m. Odd numbered learning teams will present this case. More details are available at the end of this document.

Session 11. Marketing Communications
This session provides an overview for the role of advertising as a key element of the communication mix and provides a step-by-step framework for making advertising decisions.

Reading Assignment
TBD

Session 12. Tiffany Case
(See webCafé for case questions)

Review Sessions
The TAs will conduct review sessions. More details will be posted on the webCafé and announced in class.

FINAL EXAMINATION
Marketing Management: Strategy (MKTG612/613)
(formerly MKTG622)

Description

Depending upon your background, you may be able to waive the requirement to take either 1) Dynamic Marketing Strategy (MKTG612); or 2) Strategic Marketing Simulation (MKTG613).

Building upon MKTG611, Dynamic Marketing Strategy (MKTG612) will help you refine skills in developing a marketing strategy and seeing how the marketing tactics need to be in alignment with that strategy. The course will focus specifically on issues such as the selection of which businesses and segments to compete in, how to allocate resources across businesses, segments, and elements of the marketing mix, as well as other significant strategic issues facing today's managers in a dynamic competitive environment.

All of these issues will be discussed and couched in the context of the dynamic nature of market evolution that occurs throughout the Product Life Cycle (PLC). Students will develop strategic thinking and learn to apply analytical tools to help formulate effective marketing tactics in each phase of the PLC. These concepts will be further concretized in the context of an in depth marketing strategy simulation that will occur throughout the course.

Also building upon MKTG611, Strategic Marketing Simulation (MKTG613) is an immersion course that will enable students to develop skills in formulating and implementing marketing strategies for bands and businesses. Students will form teams and use a realistic product management system, SABRE, to oversee all crucial areas of product management to learn how to solve real problems in the product life cycle. Students will compete for profitability.

The Marketing Management: Strategy Waiver Process

WAIVER BY CREDENTIAL

DEADLINE: See Waiver by Credential table in Introduction to this Waiver Guide

Waiver by credentials will be given only to students with:

1. Extensive real-world experience involving topics in marketing strategy;
2. Completion of a SABRE-like major simulation; or

3. A class including a minimum of 6 weeks of exposure to cases/lectures on marketing strategy, taken either as part of a semester-long marketing fundamentals course or an advanced marketing strategy course.

If a simulation or course is used to fulfill the requirement, it must have been taken within the last five years and resulted in a grade of B or better.

**Documenting Your Credentials**

Supporting credentials must include course syllabi of all previous Marketing courses and a transcript with courses and relevant grades highlighted.

**WAIVING BY EXAM**

There are no waiver exams for either of these classes.
Syllabus MKTG612
(formerly used for MKTG622)

Professors: Eric T. Bradlow, Robert J. Meyer, David J. Reibstein, and Patti Williams

Overview
See Course Description on page 55.

Outline of Each Class Session
While the exact structure of each class will vary depending on whether it is a case or lecture, in
general each session will have four facets:

1. The real world business problem. Most classes will begin with an example of a critical
current issue that managers confront. This could be either a formal case, or a mini-case. For
formal case discussions, we will assume that everyone has read and is prepared to discuss the
case. It is not necessary to do any library work or bring in outside information about the
company or the industry beyond what is described in the case. We will focus on principles,
theories, and basic applications of marketing strategy. Discussion and questions are strongly
encouraged.

2. Analytical frameworks for thinking through the problem. For the business problem being
discussed, the class will explore a range of general analytic frameworks through which the
problem might be approached, and evaluate their comparative strengths and weaknesses. The
purpose is to provide a systematic basis for narrowing down the set of candidate options, and
choosing a best option in light of available data.

3. Informing the decision through data. Given a general analytic framework, most classes will
go on to explore how greater precision can be brought to their application through the use of
data—both in the form of customer insights (marketing research), and secondary data on
sales, costs, and competition.

4. Linking class ideas to the SABRE simulation. A critical objective of each class will be to help
make transparent the links between the real-world problems and tools discussed in class and the
problems you face managing your SABRE firm. In some cases this will include demonstrations
of how analytic tools introduced in class can be directly applied to aid decisions in SABRE.

Course Materials
All course materials will be available at www.study.net.

1 All of our discussions will be based on the facts described in the case and will pertain to the problems of the company at the
time of the case. Any information you might come across about facts of events taking place after the time of the case may lead
you astray as to what should have been done during the critical decision period, and based on the information that was
available at the time.
Course Outline MKTG612
(formerly used for MKTG622)

Session 1: Overview of Strategic Marketing Issues
Case: Kindle Fire

Session 2: Introduction to SABRE
Reading: “SABRE Manual”.

Session 3: Marketing Research for Strategic Decisions

Session 4: No Class—first SABRE decision

Session 5: Multiproduct Resource Allocation

Session 6: Product Pioneering

Session 7: Product Launch Decision Making
Case: Medicines Company. (A)

Session 8: Marketing in the Maturity Stage—Dynamic Product Management Strategies

Session 9: Dealing with Competition.
Case: Canadian Children’s Cereal

Session 10: Marketing in the Decline Stage

Session 11: Marketing and Social Media

Session 12: Case: Marketing Strategy for Future Technologies

Session 13: Concluding Session

FINAL EXAM
Operations Management: Quality and Productivity (OPIM611)
(formerly OPIM631)

Course Description

Matching supply with demand is an enormous challenge for firms: excess supply is too costly, inadequate supply irritates customers. In the course, we will explore how firms can better organize their operations so that they more effectively align their supply with the demand for their products and services. Throughout the course, we illustrate mathematical analysis applied to real operational challenges—we seek rigor and relevance. Our aim is to provide both tactical knowledge and high-level insights needed by general managers and management consultants. We will demonstrate that companies can use (and have used) the principles from this course to significantly enhance their competitiveness.

In OPIM 611, the emphasis is on the design of business processes to maximize supply and to achieve world-class quality. The first part of the course details different kinds of business processes and explains how to measure key process parameters like capacity and lead time. The second part of the course focuses on process improvement and examines classic ideas in quality management as well as recent ideas about restructuring processes to optimize output for a given set of limited resources.

The OPIM611 Waiver Process

WAIVING BY CREDENTIALS

DEADLINE: See Introduction to this Waiver Guide

OPIM611 can be waived based on academic credentials if ALL the following criteria are met: a) the course has the word “Operations Management” in the title (Operations Research, Quality Management, Industrial Engineering, etc. do not count); b) the course was taught at a business school and included at least some case work; and c) the student obtained a grade of B or better.

WAIVING BY EXAM

EXAM DATE: Waiver and Placement Exam Schedule, and a sample exam with solutions can be found in the Waiver Exam Guide.

To register for the OPIM611 waiver exam, students must submit documentation showing: a) relevant work experience related to process management (e.g. black belt training, lean transformation); or b) experience in related courses (e.g. industrial engineering, operations research, production). Students must meet the above criteria in order to be allowed to register for the waiver exam.

Exam Preparation

Syllabus OPIM611
(formerly used for OPIM631)

PROFESSORS

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TAs and their office hours to be announced during first week of course
Location: JMH 607  Tel: 215-573-7771

Overview
See Course Description on previous page.

Course Policy
This syllabus provides details on course policy and the schedule for OPIM611. Students should read this material carefully at the start of the course.

HOMEWORK ASSIGNMENTS
There are three homework assignments for the course.

FINAL EXAM

There is a final exam based on the contents of the course: analytical tools, case discussions, lectures, etc.

Course Text, Readings and Handouts
All lectures will follow the textbook by Cachon and Terwiesch very closely. The relevant chapters for each session are listed later on in this document.

We have created a custom published text that includes the chapters of Cachon and Terwiesch that are relevant for OPIM611 as well as the (one) case that we have in this course. This custom published text is based on the third edition of the book. You can get this course material from Wharton-Repro:
In OPIM611, we will work through the first half of Cachon and Terwiesch. The second half of the book will be used in OPIM612 (which you will take in Q4). Thus, instead of purchasing the custom text (which consists of loose pages and is not really a book), you can get the text-book directly. However, presently only the second edition is available for purchase:


You can get the book new from Amazon, you can get it used or you can get an older edition/a translation. This will not matter much for this course.

All other material (including all slides and the case) will be posted electronically in Canvas.
Course Outline OPIM611
(formerly used for OPIM631)

Session 1. Introduction
Text: “Introduction”
“The Process View”

Session 2. Process Flow Analysis
Exercise: Subway
Text: “Understanding the Supply Process” (Sections 1-4)
“Estimating and Reducing Labor Costs”

Session 3. The Operations–Finance Link
Exercise: Paul Downs Furniture
Text: “Link between Operations and Finance” (Sections 1-3)
“Batching (Sections 1-4)”

Homework #1 due

Session 4. The Operations–Finance Link (continued)
Exercise: Airline Data
Text: “Link between Operations and Finance” (Section 4
“Understanding the Supply Process” (Sections 5-6)

Session 5. Lean exercise
Exercise: Electronics Assembly
Text: “Lean Operations”

Session 6. Lean Operations in Services
Case: Capital One

Session 7. Review of content up to this point

Homework #2 due

Session 8. Managing Variability: Waiting Time Problems
Text: Chapter “Variability and its Impact on Process Performance:
Waiting Time Problems (except section 3)”

Case: Call Center

Session 10. Managing Variability: Throughput Losses
Session 11. Quality Management, Six Sigma
Text: Chapter “Quality Management, SPC, and Six Sigma”

Session 12. Review Part II, Exam Prep

Homework #3 due one day after session 12

Final Exam
Statistical Analysis for Management (STAT613)
(formerly STAT621)

Course Description

This course develops ideas for helping to make management decisions using regression analysis a fundamental statistical methods. The ideas in this course reappear in many other MBA classes and are part of the basic “tool kit” expected of all MBAs in their careers.

Specific important topics covered include least squares estimation, residuals and outliers, tests and confidence intervals, correlation and autocorrelation, co-linearity and randomization. The presentation relies heavily on computer software for most of the needed calculations, and the resulting style focuses on construction of models, interpretation of results, and critical evaluation of assumptions.

The Statistics Waiver Process

The Statistics Department encourages only those students who have recently completed substantial work in statistics to waive STAT613. For data on the percentage of last year’s entering class who waived STAT613, see the Waiver Statistics table in the Introduction to this Waiver Guide. You will note that all but a few of those who waived did so by passing a waiver examination scheduled during Pre-Term.

WAIVING BY CREDENTIALS

DEADLINE: See Introduction to this Waiver Guide.

Very few students (typically fewer than 20 each year) waive statistics by credentials. The students who are granted waivers-by-credential possess an extensive background in statistics, such as an undergraduate degree in statistics. The analogy is that of a CPA waiving accounting by credentials.

Students allowed to waive STAT613 must have:

- at least four college courses in statistics. Of these four courses, at least two must cover regression analysis (if you completed a regression course as a part of the CFA requirement, it can count as one of the two regression courses). The application for waiver by credential must include syllabi that describe the courses covering regression.

  AND

- have received a grade of A- or better in both courses that cover regression analysis and a grade of B or better in the other two courses.

  AND

- two of the four courses were taken within the last seven years.
WAIVING BY EXAM

EXAM DATE: Waiver and Placement Exam Schedule, and a sample exam with solutions can be found in the Waiver Exam Guide.

Most students who pass the waiver exam will have recently completed a full-year course in business statistics that heavily emphasized regression analysis. Be aware that the waiver exam, like STAT613, focuses upon the interpretation and critique of statistical results with most of the calculation left to the computer. For example, the waiver exam questions the violation of assumptions that underlie regression coefficient from a small sample of data. Students who are able to pass the waiver exam tend to share the following characteristics:

1. They have had a course in regression within the past two or three years;
2. The focus of their course work has been the interpretation and critique of statistical methods rather than the memorization of formulas and grind-it-out calculation;
3. They understand the underlying assumptions of statistical procedures like regression and know how to check the assumptions;
4. They are familiar with multiple regression in particular and some features of the analysis of variance.

The waiver examination itself is open-book, with a limit of one textbook. You are also permitted to bring a calculator to the waiver exam, though it will not be very useful.
Syllabus STAT613
(formerly used for STAT621)

INSTRUCTORS

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Source Material

REQUIRED

- Class Notes. A complete, half-size copy of these notes can be purchased through Study.net. These can also be downloaded directly from the STAT613 webCafé e-room.

- SAS Institute, JMP 9, downloadable from upenn.onthehub.com.

RECOMMENDED

- Stine and Foster, Statistics for Business, Addison Wesley.¹

OPTIONAL (on reserve at Lippincott Library)


The fundamental material for the class is contained in the Class Notes which will be discussed and elaborated in the class lectures. A good deal (but not all) of the Class Notes is also elaborated in the Stine and Foster (SF) textbook. Indications for the relevant readings in SF are included throughout the Class Notes. For those who would like further background materials, we recommend Sall, Creighton and Lehman (SHL), Freedman, Pisani and Purves (FPP) and Keller (K). SHL is a basically an example rich guide to statistical analysis with JMP. FPP is a highly verbal and conceptual book—an excellent introduction both for “poets” who are unfamiliar with technical readings and for “quant jocks” who would like a better sense of the reasoning process of statistics.

¹ The course ID for students who purchase the e-book option is stine00422. The e-book option provides interactive exercises and quizzes for students who would like further practice doing problems related to the modules in these course notes.
K is the traditional “reference manual” and explains details of statistical procedures that are not covered in class.

JMP is the computer package we’ll use to for statistical calculations and graphics. Those who took Stat 603 in pre-term will be familiar with the package. It will be employed considerably in Stat 621. In particular, an essential component of 621 entails project work that will require substantial use of JMP. Although JMP is merely a tool and not the central point of the course, it is sufficiently useful that you will need it.

### Course Overview

In this course, you will learn the fundamental statistical methods of regression analysis. These methods and their application will reappear in many other MBA classes and are part of the basic “tool kit” expected of all MBAs in their careers.

The Class Notes are organized into modules which will be covered in order.

**Module 0:** Getting Started  
**Module 1:** Fitting Equations to Data  
**Module 2:** The Simple Regression Model (SRM)  
**Module 3:** Inference in Simple Regression  
**Module 4:** The Multiple Regression Model (MRM)  
**Module 5:** Comparative Analysis of Groups Using Regression  
**Module 6:** Model Building  
**Module 7:** Time Series Modeling

Before each class, you should review the material from the previous class and you should skim the Class Notes that will be covered. This is a course that builds on itself and it is crucial to not fall behind. The classes will focus on critical interpretation of results and analysis of assumptions. We will use JMP to carry out the computations, although the software itself is not the main focus of the course.

### Assignments, Quizzes and Exam

There will be five weekly assignments, five short in-class quizzes, and a two-hour final exam.

### Learning Team Project

A project will be assigned to each learning team early in the course. It will entail the statistical analysis of loan performance data that your team will describe in two installments. It will be possible to complete these installments before the due dates, and you are encouraged to submit them early.
Course Outline STAT613
(formerly used for STAT621)

Session 1. Fitting equations to data
Session 2. Assumptions in regression modeling
Session 3. Prediction and confidence intervals in regression
Session 4. The multiple regression equation
Session 5. Collinearity in multiple regression
Session 6. Incorporating categorical variables with two levels; dummy variables
Session 7. Incorporating categorical variables with many levels; model validation
Session 8. Summary of regression analysis

Experimentation and Analysis of Variance
Session 9. Comparing many means
Session 10. Analysis of variance with two factors

Logistic Regression
Session 11. Modeling with a categorical response variable

Time Series
Session 12. Regression and experiments with data gathered over time

Session Preparation

BEFORE SESSION 2:
Hildebrand and Ott (H&O): Read sections 11.1, 11.2, 13.4, and 13.6; focus on interpretation issues, not computation
Coursepack: Read “A simple simple regression” and “Leverage and influence”
Casebook: Read studies on the ideal regression model, efficiency of cleaning crews, housing prices and crime rates, and predicting cellular phone use
Optional: Freedman, Pisani, and Purves (FPP): Read Chapters 10, 11, and 12. FPP’s Chapter 7 is a very basic intro to plots and lines
Learning teams begin analysis of data for Assignment A1.

**BEFORE SESSION 3:**

**H&O:** Read sections 11.1-11.5

**Casebook:** Read studies on housing construction and liquor sales and display space

**Optional:** FPP has a very basic introduction to regression and correlation in Chapters 8-12. It may be useful if you have basic difficulty with the concepts. Ignore the idea of an SD line; that’s one time when FPP tried something that didn’t work.

Learning teams complete Assignment A1, due at Session 3

**BEFORE SESSION 4:**

**H&O:** Read sections 12.1-12.3, 12.5

**Coursepack:** Read “Reading a multiple regression equation”

**Casebook:** Read study on automobile design

Individuals acquire data for Assignment A2, due at Session 7

**BEFORE SESSION 5:**

**H&O:** Read sections 12.3, 12.4, 13.1

**Casebook:** Read studies on stock prices and market indices, and parcel handling

Individuals begin analysis for Assignment A2 and obtain individual project data

**BEFORE SESSION 6:**

**H&O:** Read sections 13.2, 13.4, and 13.6

**Coursepack:** Read “Validating a regression model”

**Casebook:** Read study on employee performance

Complete analysis for Assignment A2 and draft responses; begin individual project analysis

**BEFORE SESSION 7:**

**H&O:** Read sections 12.4, 13.2, 13.4, 13.6

**Coursepack:** Read “A multiple regression of house prices”

**Casebook:** Read studies on wage discrimination and timing production runs

Revise and complete responses for Assignment A2, due at Session 7
BEFORE SESSION 8:

**H&O:** Review Chapter 13

**Casebook:** Read studies on executive compensation and using stepwise regression for prediction

**Coursepack:** Read “A project report example”

Continue analysis of individual project data

BEFORE SESSION 9:

**H&O:** Read sections 9.1, 10.1, 10.3; briefly read sections 9.2 and 10.2; focus on interpretation, ignoring computational details

**Casebook:** Read studies on selecting the best vendor, headache pain relief, and tests for linearity

Draft a report for the individual project

BEFORE SESSION 10:

**H&O:** Read sections 10.4 and 10.5

**Casebook:** Read studies on package design and evaluating employee time schedules

Revise report for the individual project

Teams begin analysis for Assignment A3

BEFORE SESSION 11:

**Casebook:** Read studies on the Challenger disaster and marketing orange juice

Individual project due

Teams carry out analysis for Assignment A3

BEFORE SESSION 12:

**H&O:** Read sections 13.3, 13.7

**Casebook:** Read studies on predicting cellular phone use and computer sales

Teams complete report for Assignment A3, due at Session 12