

Waiver Information Guide

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Introduction

The Wharton MBA is designed to help you make the most of your academic experience. For many, this is an opportunity to learn an entirely new skill set. For others, it is a chance to upgrade and update.

■ Core Waivers

Your class will experience a curriculum designed to meet the real-time needs of forward-thinking business leaders. This innovative curriculum builds a customizable foundation in business essentials while providing ample time to explore Wharton's wide array of elective offerings. The Core Curriculum serves as the foundation for your business education. To learn more about the Core, please visit the MBA Inside website at mba-inside.wharton.upenn.edu/

Taking the entire Core will not put you at a disadvantage. 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 2017). Additionally, you have choices to make within the context of the Core, allowing you to tailor your educational experience even before registering for elective coursework.

Waiver Statistics for the Class of 2017 (WG'17)

	ACCT		FNCE			MGEC	MKTG		STAT	
	611	612	611	612	613	611	611	612/613	613	621
Waiver by Credential	50	-	-	-	-	-	96	9	48	-
Waiver by Exam	84	-	31	-	70	112	-	-	101	-
Placement by Credential	-	35	-	130	-	-	-	-	-	-
Placement by Exam	-	124	-	99	-	-	-	-	-	187
Substitution	-	-	-	-	-	-	-	18	-	-
Total	134	159	31	229	70	112	96	27	149	336
Not Approved	44		59			12	142	32	61	76
% Approved	87%		82%			85%	44%	75%	31%	66%
% of Class	34%		31%			8%	13%	11%	3%	17%
										39%

■ Waiver Options

You may have educational or professional experience that makes some of the material covered in the Core redundant. Provided you can prove your mastery of such material by credential or examination, you have the opportunity to waive related elements from the Core.

This publication outlines each of the Core courses that may be waived and the requirements for waiving. Enclosed you will find abridged syllabi for all of the courses that may be waived. If the content in one of these syllabi looks familiar, consider waiving that course.

What Are Your Waiver Options?

Course ID	Course Title	Credential	Exam
ACCT 611/612	Accounting	■ *	■
FNCE 611/612	Corporate Finance	■ †	■
FNCE 613	Macroeconomics and the Global Economic Environment		■
MGEC 611	Microeconomics for Managers: Foundations		■
MKTG 611	Marketing Management: Program Design	■	
MKTG 612/613	Marketing Management: Strategy/Strategic Marketing Simulation	■	
STAT 613/621	Regression Analysis for Managers	■	■ ‡

* Can place into Accelerated Financial Accounting by credential as well as waiving it by credential

† Can place into Accelerated Corporate Finance by credential but not waive it altogether by credential

‡ Can place into Accelerated Regression Analysis for Managers by exam only, not by credential

■ How to Waive

You will be asked to complete a waiver module on the MBA Inside website. Depending upon your responses, it may be recommended that you:

- Submit credentials verifying that you meet the waiver requirements;
- Take a waiver exam; or
- Take the class.

If the waiver module recommends that you waive a particular course by credential, you will be provided with instructions on how to submit the appropriate materials.

Your application to waive by credential will be forwarded to a member of the faculty for review.

If the module recommends that you take a waiver exam, please register for that exam through the MBA Inside website. The *Waiver Exam Guide* provides sample questions from several of the waiver exams.

■ Prep Coursework for ACCT, FNCE, and STAT

TUESDAY, AUGUST 2 – THURSDAY, AUGUST 4

(Please note that these classes take place before the start of Pre-Term.)

These ACCT, FNCE, and STAT classes are the only classroom review offered for waivers. Attendance is not required to take the waiver and placement exams but highly recommended.

ACCT 604: This course is meant for students seeking placement into ACCT 612. ACCT 604 is meant to help qualified students who may need to refresh their knowledge of basic financial accounting concepts. It is not designed for students with little or no previous exposure to accounting.

ACCT 608: This course is designed for students who may be able to waive entirely the accounting requirement but need to refresh their understanding of graduate-level financial accounting concepts. This course is not designed for students with only basic previous exposure to accounting.

FNCE 604: This course is designed for students seeking placement into FNCE 612. FNCE 604 is meant to help qualified students who may need to refresh their knowledge of basic corporate finance concepts. It is not designed for students with little or no previous exposure to corporate finance.

STAT 608: This course is designed for students who wish to review the prerequisite materials for STAT 621 to prepare for the placement exam. It is not designed for students with little or no previous exposure to statistics.

■ Should You Waive?

Advantages include:

- Making room in your schedule for more elective coursework
- Not repeating coursework in areas in which you already have proficiency

The disadvantages include:

- Missed opportunities to complete course work that would better prepare you for advanced study in the field
- Less time spent developing relationships with members of your cohort and learning team

■ Waiver Policies

- There are two deadlines for submitting waiver by credential:

- **Monday, June 6** – results will be returned by Monday, June 20
 - **Monday, July 11** – results will be returned by Monday, July 25

We encourage you to submit your credentials as soon as possible in order to determine if you will need to take the waiver prep courses and exams that take place before Pre-Term. **Credentials will not be accepted after the July 11 deadline.**

- To waive by credential, you must meet the stated deadlines. **No credentials will be accepted after Monday, July 11.**
- All waiver exams must be completed by **Monday, August 8.**
- If you do not meet the requirements to waive a course by credential, you may try to waive the same course by taking the waiver exam in all subjects that offer a waiver by exam.
- You have only one attempt at each waiver exam and are eligible to take them only in the summer preceding your first year at Wharton. 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 the online waiver module does not recommend you attempt to waive by credential, you may not submit credentials. If you still wish to waive the course, the only way to do so is by taking and passing the waiver exam.
- Students granted waivers for fixed Core courses may still choose to enroll in said courses provided they enroll prior to the close of the add period. To enroll in a waived course, students should contact their academic advisor in the MBA Program Office.

■ Next steps

Academic advisors are available to discuss your best course of action. Second-year students can also give a perspective on waivers but keep in mind that they may not be familiar with your background or experience. Even if you receive waivers, you can later decide to take the courses as you may decide that it would be good to have a review. It also may be helpful to take a Core class to learn about Wharton's approach to a particular subject in preparation for advanced electives. If you have any questions, please don't hesitate to contact the MBA Program Office at mbaprogram@wharton.upenn.edu.

Waiver and Placement Exam Schedule 2016 (subject to change)

Friday, August 5 and Monday, August 8

(Exam times to be announced during the summer.)

Course ID	Course Title	Day	Date
ACCT 611/612	Accounting (Waiver and Placement Exams)	Friday	August 5
FNCE 611/612	Corporate Finance [†]	Friday	August 5
FNCE 613	Macroeconomics and the Global Economic Environment*	Monday	August 8
MGEC 611	Microeconomics for Managers: Foundations	Monday	August 8
STAT 613	Regression Analysis for Managers	Friday	August 5

[†]Students who score sufficiently well on the FNCE 611 waiver exam are granted waivers for FNCE 611, FNCE 612, and FNCE 614.

*Students who score sufficiently well on FNCE 613 waiver exam will be granted waivers for both FNCE 613 and FNCE 615.

Accounting (ACCT 611/612/613)

■ 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 provision of information for internal decision making is referred to as managerial accounting. The objective of the core requirement in accounting is to teach the basic concepts, standards, and practices of financial reporting, leading to the ability to read and understand published financial statements and depending on the course chosen provide some of the rudiments of managerial accounting.

“TRACKS” WITHIN FINANCIAL ACCOUNTING

Students entering the MBA program at Wharton come with diverse backgrounds in 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 accounting. As a result, we offer three courses with which students can meet the accounting requirement: ACCT 611 (a full semester, 1 credit unit course), ACCT 613 (a full semester, 1 credit unit course) and ACCT 612 (a half semester, 0.5 credit unit course). The difference between them is the material covered and the amount of time allotted to each topic. For example, ACCT 611 and ACCT 613 review basic accounting transactions, debits and credits, and income statement and balance sheet preparation, while ACCT 612 does not as students are expected to have that knowledge coming into the course. ACCT 611, 612 and 613 all discuss a variety of financial accounting topics in depth beyond those listed immediately above. ACCT 611 and ACCT 613 differ in that ACCT 611 is purely a financial accounting course, while ACCT 613 also teaches basic managerial accounting concepts and covers some of the financial accounting topics in less depth.

Students have three basic options for fulfilling their accounting requirement. They can:

1. **Waive accounting altogether**, either by credential or exam.
2. **Place into the accelerated course (ACCT 612)** either by credential or exam. Students in ACCT 612 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 one of the full semester courses (ACCT 611 or ACCT 613).

Please read the next section to decide which option is appropriate for your situation.

■ The Accounting Waiver and Placement Process

WAIVING OR PLACING BY CREDENTIALS

DEADLINE: See Introduction to this Waiver Guide.

Waiving the Accounting Core Requirement By Credentials

Waiver of the 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 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 five years.

Placing into ACCT 612 by Credential

Placement into ACCT 612 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 ACCT 612 without the exam is allowed only for (1) individuals who, within the last five years, have taken introductory AND intermediate financial accounting (note that intermediate accounting is not managerial accounting, but is an advanced financial accounting course) with a grade of B or better in both courses 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. Students placing into ACCT 612 by credential are not required to take ACCT 604, which takes place before Pre-Term, but it is recommended for those who feel they need a refresher given that the instructor will presume that students know the basic accounting concepts discussed above prior to the beginning of the course.

Documenting Your Credentials

Students interested in either placing into ACCT 612 by credential or waiving the accounting core requirement by credential must formally apply to the Wharton MBA Program Office by filling out and submitting the placement or waiver form.

- Persons holding professional certification (CPA or CA) 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.

A common misinterpretation of the waiver by credential criteria is that students must know accounting at the CPA level in order to waive the 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 ACCT 612. 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.

Two different exams in Financial Accounting will be offered just prior to the official start of Pre-Term. Except as noted above, a student can waive the accounting core requirement or be placed into ACCT 612 **by taking the appropriate exam**. Students with some prior coursework in accounting are encouraged to sit for the placement exam so that they may take ACCT 612 and those with extensive work experience or prior coursework in accounting are encouraged to take the full waiver exam, so that they may waive the accounting core requirement completely. Students who complete ACCT 604 should sit for the placement exam, not the waiver exam. Students who complete ACCT 608 should sit for the waiver exam, not the placement exam. If a student sits for the waiver exam, but does not pass it, it is still possible to be placed in ACCT 612 with a sufficiently high score. Students with just some accounting background are likely better served by taking the placement exam, not the waiver exam.

The **Waiver and Placement Exam** selects from financial accounting topics covered throughout ACCT 611/612/613. The exams will be "closed book," "closed notes," and similar in form and content to past ACCT 611/613 and ACCT 612 exams. Copies of past ACCT exams are included in the *Waiver Exam Guide*.

Exam Preparation

The following are the accounting courses offered in the week prior to Pre-Term that help you prepare for the waiver and placement exam, as well as the fall semester.

ACCT 608: Financial Accounting – Waiver Prep Course

Upon completion of this review course, the student should be prepared to take the Waiver Exam. This course will meet on-campus in the week prior to 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 ACCT 608 has previously studied all of the financial accounting topics covered in ACCT 611/612/613. See the syllabi for these courses for more details, but these topics include provisions for uncollectible accounts, LIFO-FIFO inventories, leases, and deferred income taxes. The course will review these topics and more, emphasizing their implications for analyzing and interpreting financial statements.

ACCT 604: Financial Accounting Review Course

Upon completion of this course, the student should be prepared to take the Placement Exam. This course will meet on-campus in the week prior to 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, but who have been unable to place by credentials into the half semester financial accounting course, ACCT 612. Students who have placed into ACCT 612 by credentials who feel a need of a refresher can also take ACCT 604 as knowledge of all material covered in this course will be presumed in ACCT 612. ACCT 604 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.**

NEITHER WAIVING NOR PLACING (BY CREDENTIALS OR EXAM)**ACCT 603: Financial Accounting—Basic Course**

The material covered in this on-line summer course is required for all students taking one of the full semester versions of accounting (ACCT 611 or ACCT 613). ACCT 603 consists of on-line video lectures, homework, and a self-assessment exam. Students must complete ACCT 603 and pass the self-assessment exam prior to taking ACCT 611 or 613. ACCT 603 should require five hours to complete and students are strongly encouraged to complete it during July before arriving on campus. Student participation in ACCT 603 will be reported to the ACCT 611 or 613 instructors.

This chart may help you decide which preparatory course may be appropriate for you:

IF YOU HAVE:	NO Previous Accounting Experience	Previous Accounting Experience
Taken NO Previous Financial Accounting Courses	Take ACCT 603	Take ACCT 603
Taken ONE Previous Financial Accounting Course	Take ACCT 604	Take ACCT 604 or 608
Taken MORE THAN ONE Previous Financial Accounting Course	Take ACCT 608	Take ACCT 608

Syllabus (ACCT 611) Fundamentals of Financial Accounting

■ Overview

The role of financial 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 become familiar with the basic principles and practices of financial accounting by studying the concepts that underlie 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 Website

The website for this course can be found on Canvas for currently enrolled students.

■ Course Material

TEXTBOOK (REQUIRED)

Dyckman, T., R. Magee, G. Pfeiffer, A. Hartgraves, and W. Morse, *Financial & Managerial Accounting for MBAs*, Wharton Custom Edition, 2014, Cambridge Business Publishers. This textbook is especially customized for our course, covers all the chapters in the class, and is available only in the Penn Bookstore. In the detailed schedule below, practice problems from the textbook are assigned to reinforce the material covered for each topic. Solutions to the problems in the textbook are posted on the course website.

MATERIAL ON COURSE WEBSITE

- **Lecture Slides:** the lecture slides will be made available in advance of class (at least one week before the scheduled date).
- **Homework Assignments** (for submission on Canvas) and **Cases** (for in-class discussion)
- **Exam Practice Problems and Solutions** (from old exams)
- **Articles:** business press articles are sometimes referenced in the course syllabus and provide context for issues, which will be discussed in class.

■ Grading Policy

Final grades will be determined using the following weights (Total: 100 points):

Midterm Exam	35 pts.
Final Exam	35 pts.
In-Class Quizzes	15 pts.
Homework	10 pts.
Class Participation	5 pts.

The grading scheme will be re-weighted to take into consideration improvement in student performance over the semester. If a student's mean-adjusted score on the Final Exam (i.e., adjusted for the mean class score) **improves** relative to his or her mean-adjusted score on the Midterm Exam, then the weight on the Midterm Exam will be reduced by 5 pts. (from 35 pts. to 30 pts.) and the weight on the Final Exam will be increased by 5 pts (from 35 pts. to 40 pts.). Final course grades adhere to the school's mandated grade guidelines.

■ Midterm & Final Exams

The Midterm Exam will cover the material in Sessions 1 through 12, inclusive. The Final Exam is scheduled by the University Registrar and will be comprehensive, with a heavy emphasis on the material in Sessions 13 through 24.

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.

It is the student's responsibility to attend examinations at the times and places that are specified. If a student cannot attend an examination, **it is his/her responsibility to notify the MBA Office** and the instructor prior to the exam (or as soon as possible). **Only** the MBA Office may grant a student authorization to be absent from an examination; **there are no exceptions to this rule**. In the event of an *authorized* absence from any exam, a make-up exam will be given during the official make-up exam period that is set by the Registrar. You will receive a final grade of "Incomplete" for the course pending the completion of the make-up exam. **An unauthorized absence from an examination will result in a grade of zero for that examination.**

The graded mid-term exam will be returned to the student mail folders. Scores will be posted to Canvas. If you believe that your exam has been incorrectly graded, you should return your exam to me — *not a TA* — **within one week** of the return of the examination (requests made after that will not be considered). You must submit the original copy of the examination together with a **written** note that clearly explains what you believe is the error. **The entire exam will be re-graded.**

■ In-Class Quizzes

There will be **five** in-class quizzes during the semester that will be held on the dates indicated below and in the class schedule. **Quizzes will be given at the beginning of the class** (late arrivals will not be accommodated, so make sure that you arrive to class on time), usually before we start a new topic. Each quiz will take about 15 minutes and will usually consist of about four or five questions (primarily multiple choice). The quizzes will be closed-book and no notes will be allowed. The material covered in each quiz is set out in the syllabus below. Quiz scores will be posted to Canvas.

In computing a student's final grade, only the **four highest quiz scores** will be counted (i.e., the lowest quiz score will be dropped from the computation of your grade). If for some reason you are unable to attend class on one of the five quiz days, I will simply count the four quizzes that are completed. **No make-up quizzes will be given.** The solutions will be posted on the class web site on the day of the quiz.

■ Homework

There will be four homework assignments with due dates indicated below and in the class schedule. The homework assignments may be discussed in groups. However, you must submit your own solutions that represent your own individual work. It is not acceptable to copy another student's work and submit it as your own. The homework assignments will be available on the course website about one week before they are due. All homeworks must be submitted **electronically (via Canvas) by 6 p.m. on the due date. I strongly recommend that you submit your homework answers in advance of the 6 p.m. deadline. Please do not hand in a hard-copy to me or the TAs. It will not be accepted.** Homework scores and solutions will be posted to Canvas shortly after the homework is due.

■ Class Participation and Conduct

Class participation grades will be based on what you add to the learning experience of the entire class. Students who consistently make contributions that facilitate discussions, help to clarify technical points, or provide new insights will receive five points. No contribution or contributions that are obvious, confusing, or peripheral will receive zero points. Consistently discourteous behavior (see below) will also result in zero class participation points. Contributions between these two extremes will receive between one and four points. Please make sure to display your name tents to help me learn your names and to help facilitate the classroom discussion.

As a courtesy to both me and your fellow students and to ensure that everyone has the greatest opportunity to learn, please adhere to the following:

- Students should sit in the same seat each class session to help me keep track of where everyone is.
- Class starts and ends on time. If a unique situation arises such that you must come in late, please inform your professor ahead of time and sit in an open aisle seat close to the door you arrived through.

- Students should remain in attendance for the duration of class, except in an emergency. If a unique situation arises such that you must leave early, please inform your professor before class and sit in an open aisle seat near the exits of the classroom.
- All phones and other electronic devices should be turned off, with the exception of computers/tablets. Use of computers/tablets, however, must be strictly for the purpose of this class.
- Please do not carry on private conversations during class.

■ Class Preparation

You should come to class having reviewed the daily class slides and, on days with an assigned article or case study, having read these materials and worked through the case questions. You should also read the suggested sections from the textbook either before or immediately after class, and work through at least some of the suggested practice problems from the textbook.

■ Teaching Assistants and Review Sessions

There are seven teaching assistants for the course. Each of these TAs is a second-year MBA student who performed extremely well in the introductory financial accounting course last year. The TAs will hold regular office hours on four out of five days every week (except during breaks or for holidays) based on the schedule posted on the course website.

During office hours, one of the TAs will be present and will assist with questions about concepts, assigned problems/cases, or homework problems (however, they will not give you the solution to the homework assignments). Note that the TAs are jointly servicing both ACCT 611 and ACCT 613, so you may encounter students from both courses attending the same office hours.

■ Ethics Matrix

The Wharton MBA Code of Ethics typically requests an Ethics Matrix for each class to provide ground rules and ethical guidelines for course materials and assistance from classmates or others. Below is the completed matrix for this course. If you have any questions about the matrix, please feel free to ask me.

	Materials					People						
	Approved calculator	Laptop / other electronics	Summary sheet of notes	Current book / class notes	Past notes / summaries	Past exams / assignments	Internet content / other outside materials	Learning team / approved work team	Other student(s) in same section	Student(s) in other sections (same term)	Wharton student not taking the class this term	Person outside of Wharton
In-Class Readings & Cases	A	A		A			A	W	W	W		
Homework Problem Sets	A	A		A			A	D	D	D		
In-Class Quizzes		A										
Midterm & Final Exams	A		A									

A = Allowed material W = Allowed to work together Shaded Cell = Not allowed

D = Discussion of general concepts and procedures is allowed but no sharing of specific answers.

The information above covers many common situations but will not cover every circumstance. Remember:

The **Wharton MBA Code of Ethics** that you accepted requires, among other things, that you represent yourself and your work honestly, don't try to gain unfair advantage over other students, follow the instructor's guidelines and respect confidentiality of your work and the work of others.

Should you have questions, please contact your ethics liaison or professor.

Course Outline (ACCT 611) Fundamentals of Financial Accounting

KEY

TB refers to the Dyckman et al. textbook (Wharton custom edition);
x-y means problem y in chapter x of the textbook.

Session 1. Introduction

Slides:	Session 1
TB Reading:	Chapter 1
TB Problems:	M1-24, E1-28, E1-29, P1-36, P1-37
Add. Reading:	Basics of Accounting Are Vital to Survival; Tesla Loss Widens as Spending Jumps

Session 2. Accounting Process; Mapping Business Activity into Financial Statements

Slides:	Session 2
Case:	Animatronics (Q1 – Q4)
TB Reading:	Chapters 2 and 3
TB Problems:	Chapter 2: M2-18, M2-19, M2-26, E2-33, E2-44 Chapter 3: M3-22, M3-24, E3-32, E3-38
Add. Reading:	Apple Warns EU Investigation Could Result in Back Taxes; Driverless Car is Officially a Risk

Session 3. Economics vs. Accounting; Balance Sheet Presentation; Introduction to Accrual Accounting

Slides:	Session 3
TB Reading:	Chapters 2 and 3
TB Problems:	Chapter 2: P2-58, P2-64 Chapter 3: P3-42, P3-49
Add. Reading:	How Binge Viewing Could Rock Netflix Stock

Session 4. Revenue Recognition; Accrual Accounting and the Matching Principle

Slides:	Session 4
Case:	United Airlines
TB Reading:	Chapter 6, p. 267-277
TB Problems:	M6-14, M6-24, E6-32, E6-39, E6-40
Add. Reading:	Accounting Shift Would Lift Tech Profits; Zynga Explains Method for Recording Real Revenue; Boeing Hits a Milestone; SEC Investigating Smirnoff Maker; Tech Startups Woo Investors; Microsoft Financials

Session 5. Statement of Cash Flows

Slides:	Sessions 5 & 6
Case:	Animatronics (Q5)
TB Reading:	Chapter 4
TB Problems:	M4-23, M4-26, M4-31, E4-34, E4-38, E4-41, E4-44
Add. Reading:	Cash Never Flow Lies; Chevron Needs to Boost Cash Flow to Cover Dividend
Quiz #1:	10-20 minute quiz, covering Sessions 1-4

Session 6. Statement of Cash Flows (continued)

Slides:	Sessions 5 & 6
Case:	Callaway Golf
TB Reading:	Chapter 4
TB Problems:	P4-51, P4-54
Add. Reading:	Quick Cash Via Receivables Deals

Session 7. Introduction to Financial Statement Analysis (FSA)

Slides:	Session 7
TB Reading:	Chapter 5
TB Problems:	M5-14, M5-24, E5-27, E5-33, P5-46
Add. Reading:	Decline of the P/E Ratio; The 109,894-Word Annual Report; Home Depot Working Capital; PepsiCo Financials

Session 8. Accounts Receivable

Slides:	Session 8
Case:	Barnes & Noble
TB Reading:	Chapter 6
TB Problems:	M6-18, M6-20, E6-33, E6-34
Add. Reading:	Accounting Issues at WorldCom; At Nortel, Warning Signs Existed Months Ago
Quiz #2:	10-20 minute quiz, covering Sessions 5-7

Session 9. Accts Receivable (cont'd) and Inventory & Cost of Goods Sold (begin)

Slides:	Sessions 9 & 10
TB Reading:	Chapter 7
TB Problems:	M7-15, M7-19, M7-22, E7-26, E7-29, E7-31
Add. Reading:	Big Oil's Accounting; Unraveling Inventory's Riddle; Boeing Hits a Milestone; Chesapeake's Obscure Costs

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

Slides:	Sessions 9 & 10
Case:	Research in Motion
TB Reading:	Chapter 7
Add. Reading:	Supplement to LIFO vs. FIFO

Homework #1 (due at 6 p.m. two days after Session 10)

Topics covered: Accounts Receivable and Inventory

Session 11. Long-Lived Assets

Slides:	Sessions 11 & 12
TB Reading:	Chapter 8
TB Problems:	M8-11, M8-14, E8-24, P8-36
Add. Reading:	IFRS Spells Write-Downs; DirecTV Write-Downs

Session 12. Long-Lived Assets (continued)

Slides:	Sessions 11 & 12
Case:	Berwick Tools
TB Problems:	M8-17, M8-21, E8-29, E8-32, E8-35
Add. Reading:	Sprint Takes Write-Down as Brand Value Loses Value; What is Big Data Really Worth?

Homework #2 (due at 6 p.m. on the day after Session 12)

Topics covered: Long-Lived Assets

MIDTERM EXAM

Topics covered: Sessions 1-12, inclusive

Session 13. Long-Term Debt

Slides:	Sessions 13 & 14
TB Reading:	Chapter 9, Appendix A (Time-Value of Money)
TB Problems:	M9-21, M9-22, M9-29, M9-31, M9-34, E9-39
Add. Reading:	Citigroup Finds a Profit

Session 14. Long-Term Debt (continued) and Leases (begin)

Slides:	Sessions 13 & 14; Session 15
Case:	Starbucks
TB Problems:	M9-23, M9-26, E9-47, P9-53
Add. Reading:	Morgan Stanley to Post a Loss from Bonds; Demystify the Lehman Shell Game

Session 15. Leases (continued)

Slides:	Session 15
TB Reading:	Chapter 10, p. 453-466
TB Problems:	M10-13, M10-15, E10-23, E10-26
Add. Reading:	New Accounting Rules Ruffle the Leasing Market; Leases Suffer Identity Crisis; Northeast Airlines Financials

Session 16. Accounting for Income Taxes

Slides:	Sessions 16 & 17
TB Reading:	Chapter 10, p. 476-483
TB Problems:	M10-22, E10-33, P10-40, P10-41
Add. Reading:	SEC Challenging Multinationals on Plans for Foreign Earnings; Sony Profits Are Far Off with Write-Down
Quiz #3:	10-20 minute quiz, covering Sessions 13-15

Session 17. Accounting for Income Taxes (continued)

Slides:	Sessions 16 & 17
Case:	Safeway Inc.
TB Problems:	E10-32, P10-42, C10-47
Add. Reading:	Piles of Overseas Profits Investors Can See but Not Touch; Tax Twist: At Some Firms, Cutting Corporate Tax Rates May Cost Billions

Session 18. Stockholders' Equity

Slides:	Session 18
Case:	Pepsico
TB Reading:	Chapter 11
TB Problems:	M11-20, M11-21, M11-25, M11-35, E11-45, E11-54
Add. Reading:	Stock Buybacks Consume Cash; When Friending Becomes a Source of Funds; Time for BofA to Bid Warren Buffet Adieu

Homework #3 due at 6 p.m. two days after Session 18

Topics covered: Long-term debt, Leases, and Taxes

Session 19. Marketable Securities, Intercorporate Investments & Segment Reporting

Slides:	Sessions 19 & 20
Case:	Peet's Coffee
TB Reading:	Chapter 12, p. 555-567
TB Problems:	M12-11, M12-12, E12-24, E12-26
Add. Reading:	Bank Quandary – Valuing the Assets; Distortions in Baffling Financial Statements
Quiz #4:	10-20 minute quiz, covering Sessions 16-18

Session 20. Marketable Securities, Intercorporate Investments & Segment Reporting

Slides:	Sessions 19 & 20
TB Reading:	Chapter 12, p. 568-581; Back Chapter 12, p.589-599
TB Problems:	E6-38, M12-14, M12-15, Back Ch. 12: E-28, E-29, P-33
Add. Reading:	Buyers Beware: The Goodwill Games; The Importance of Segment Data; FASB Rethinks Business Segment Reporting

Session 21. Pensions and Other Post-Employment Benefits (OPEB)

Slides:	Session 21
Case:	Johnson & Johnson
TB Reading:	Chapter 10, p. 466-475
TB Problems:	M10-17, M10-20, E10-29, P10-38
Add. Reading:	U.S. Corporate Pension Plans' Funding Deficit; S&P 500 Companies Post Record Level of Pension Underfunding

Session 22. Pensions (continued) and Interim Financial Reporting

Slides:	Session 22
TB Reading:	Back Chapter 12, p. 599-608
Add. Reading:	Taking Stock of S&P Earnings
Quiz #5:	10-20 minute quiz, covering Sessions 19-21

Session 23. Accounting for Financial Institutions

Slides:	Session 23
Add. Reading:	Excessive Disclosure by Banks Eludes Comprehension; Distortions In Baffling Financial Statements; Deutsche Bank to Reduce Assets; Accounts Misled Us Into Crisis

Session 24. "Capstone Case" and Review

Case:	Target Corp. Comprehensive Case
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Homework #4 due at 6 p.m. two days after Session 24

Topics covered: Shareholders' Equity, Marketable Securities, and Pensions

FINAL EXAM

Topics covered: Comprehensive with emphasis on Sessions 13-24

Syllabus (ACCT 612) Accelerated Financial Accounting

■ Overview

The goal of ACCT 612 is to improve our understanding of the disclosure firms provide in their financial reports about their results of operations. Please review the Schedule of Assignments below for a list of specific topics covered.

■ Course Material

COURSE WEBSITE

The website for this course can be found on Canvas for currently enrolled students.

Course material that can be found on the website includes:

- Lecture slides (which will be available in advance of the scheduled class date)
- Solutions to the assigned textbook exercises and problems
- Cases for in-class discussion (along with solutions *after* the case is discussed)
- Supplementary reading

TEXTBOOK

Dyckman, T., R. Magee, G. Pfeiffer, A. Hartgraves, and W. Morse, *Financial & Managerial Accounting for MBAs*, Wharton Custom Edition, 2014, Cambridge Business Publishers.

Cambridge Business Publishers customized this textbook for use in ACCT 611, 612, and 613 (in conjunction with offering a substantial discount to students); this textbook is only from the Penn Bookstore. In the Schedule of Assignments below, “TB” is an abbreviation for the “T(ext)B(ook)”: specifically, Dyckman, Magee, Pfeiffer, Hartgraves, and Morse (2014).

■ Grading

All students start the course with 250 pts. Points will be subtracted for incorrect/incomplete answers on the midterm exam, up to a maximum of 120 pts. Points will be subtracted for incorrect/incomplete answers on the final exam, up to a maximum of 130 pts. 8 cases are also covered: see the Schedule of Assignments for specific dates. Before class the names of 2-3 students will be selected randomly; these students will be called on to discuss their answers to the case. If a student selected in advance is not in attendance — or is in attendance but not adequately prepared to discuss the case — an additional 25 pts. will be subtracted (per case) from the 250 pts. a student is initially assigned.

Last year the MBA Office assigned ACCT 612 a grade point average of **3.4** and a LT percentage of **8%**. Both these numbers are at the discretion of the MBA Office (!), and involve a variety of factors that cannot be predicted in advance (e.g., the number of students who drop the course).

■ Midterm and Final Exams

The midterm exam will focus on the course material in Classes #1-6. The final exam will focus on the course material in Classes #7-12. Both exams will pose questions that involve firms' financial disclosures (in most cases the disclosure of real companies). In preparing for the midterm and final exams, the following hierarchy might prove useful, with the most important items listed first.

1. Thoroughly understand the questions and solutions to the 8 cases that are covered in class
2. Carefully review the lecture slides that accompany each class
3. Do assigned exercises and problems in the textbook
4. Read the assigned material in the textbook
5. Review the disclosure of companies other than those discussed in class

With regard to the latter, the 10-Ks for two companies whose financial notes were used on last year's midterm and final are available on Canvas: Easton-Bell-Sports and Southwest Airlines.

Both the midterm and final exams will be closed book, closed notes, no electronic devices, etc.: in effect, the only items a student can take with him or her to the exam are writing materials and calculators (the exam will include 2 blank pages of 'scratch paper').

The MBA Office sets the times and dates for the midterm and final exams in ACCT 612; students have a responsibility to attend examinations at their scheduled times. If a student is unable to attend an examination, it is his/her responsibility to notify the MBA Office (and me) prior to the exam. The MBA Office has exclusive purview over whether to grant a student authorization to be absent from an examination. In the event of an *authorized* absence from any exam, a make-up exam will be administered during the official make-up exam period that is set by the Registrar: a student will receive a final grade of "Incomplete" for the course pending the completion of the make-up exam. An unauthorized absence from an examination will result in subtracting the maximum number of points associated with the exam.

After each exam, suggested solutions will be posted on Canvas. *Requests to re-grade exams are strongly discouraged!* Exams are a collaborative process between an instructor and students; if a student has a valid inquiry about how a specific question was graded, he or she must submit: 1) the original copy of the exam; and 2) a *detailed* explanation of the issue/controversy/error. Re-grading requests will only be honored up to 72 hours after exams have been distributed to students' mail folders.

■ Teaching assistants (TAs)

Information about the three TAs, their offices, and their office hours will be posted on Canvas.

Course Outline (ACCT 612) Accelerated Financial Accounting

KEY

TB = “T(ext)B(ook)”: Dyckman, Magee, Pfeiffer, Hartgraves, and Morse (2014).

Session 1. GAAP vs. Tax Code (IRS)

Slides:	Class #1
TB Reading:	Chapter 10, p. 476-483
TB Problems:	M10-22, E10-32, P10-40, P10-41, P10-42, C10-47
Supp. Reading:	SEC Challenging Multinationals on Plans for Foreign Earnings; Sony Profits Are Far Off with Write-Down; Motorola Deal Offers Google Tax Benefits; Tax Twist: At Some Firms, Cutting Corporate Tax Rates May Cost Billions

Session 2. Revenue Recognition

Slides:	Class #2
TB Reading:	Chapter 6, p. 267-277
TB Problems:	M6-14, M6-24, E6-32, E6-39, E6-40
Case:	Tesla Motors, Inc.
Supp. Reading:	The 109,894-Word Annual Report; The Dozy Watchdogs; Got'em, Gotham; For New Revenue-Recognition Rules, It's Ready vs. Not; Microsoft Financials

Session 3. Accounts Receivable

Slides:	Class #3
TB Reading:	Chapter 6
TB Problems:	M6-18, M6-20, E6-33, E6-34
Case:	Barnes & Noble
Supp. Reading:	Freedom to fudge; Accounting Issues at WorldCom; At Nortel, Warning Signs Existed Months Ago

Session 4. Inventory and Cost of Goods Sold (COGS)

Slides:	Class 4
TB Reading:	Chapter 7
TB Problems:	M7-15, M7-19, M7-22, E7-26, E7-29, E7-31
Case:	Research in Motion
Supp. Reading:	Big Oil’s Accounting; Unraveling Inventory’s Riddle; Fade to BlackBerry; Boeing Hits a Milestone; Chesapeake’s Obscure Costs

Session 5. Long-Lived Assets

Slides:	Classes #5 & #6
TB Reading:	Chapter 8
TB Problems:	M8-11, M8-14, E8-24, P8-36
Supp. Reading:	IFRS Spells Write-Downs; DirecTV Write-Downs

Session 6. Long-Lived Assets (continued)

Slides:	Classes #5 & #6
TB Problems:	M8-17, M8-21, E8-28, E8-32, P8-39
Case:	Berwick Tools
Supp. Reading:	Demystify the Lehman Shell Game; HP to Book 8 bn Charge; SEC Makes B&N Justify Goodwill

MIDTERM EXAM (Topics covered: classes #1-6)**Session 7. Long-Term Debt**

Slides:	Class #7
TB Reading:	Chapter 9, Appendix A (Time-Value of Money)
TB Problems:	M9-22, M9-23, M9-31, M9-34, E9-47, P9-53, P9-55
Case:	Starbucks
Supp. Reading:	Citigroup Finds a Profit; Morgan Stanley to Post a Loss from Bonds

Session 8. Leases

Slides:	Class #8
TB Reading:	Chapter 10, p. 453-466
TB Problems:	M10-13, M10-15, E10-23, E10-26
Case:	Safeway
Supp. Reading:	New Accounting Rules Ruffle the Leasing Market; Leases Suffer Identity Crisis; Northeast Airlines Financials

Session 9. Marketable Securities and Intercorporate Investments

Slides:	Class #9& 10
TB Reading:	Chapter 12, p. 555-581
TB Problems:	M12-11, M12-12, E12-24, E12-26, E12-38
Supp. Reading:	Bank Quandary — Valuing the Assets; Distortions in Baffling Financial Statements

Session 10. Marketable Securities and Intercorporate Investments (continued)

Slides:	Class #9 & 10
TB Reading:	Chapter 12, p. 555-581
TB Problems:	M12-14, M12-15, E12-28, E12-29, E12-34
Case:	Peet's Coffee
Supp. Reading:	Buyers Beware: The Goodwill Games

Session 11. Statement of Cash Flows

Slides:	Class #11 & 12
TB Reading:	Chapter 4
TB Problems:	E4-34, E4-38, E4-41, E4-44
Problem:	Animatronics
Supp. Reading:	Cash Never Flow Lies; PepsiCo Statement of Cash Flows

Session 12. Statement of Cash Flows (continued)

Slides:	Class #11 & 12
TB Reading:	Chapter 4
TB Problems:	P4-50, P4-51, P4-54
Case:	Callaway Golf
Supp. Reading:	Quick Cash via Receivables Deals

FINAL EXAM (Topics covered: Classes #7-12)

Syllabus (ACCT 613) Fundamentals of Financial and Managerial Accounting

■ Overview

This course provides an introduction to both financial and managerial accounting, and emphasizes the analysis and evaluation of accounting information from the perspective of both investors as well as managers in the processes of planning, decision-making, and control. A large aspect of the course covers the fundamentals of financial accounting. The objective is to provide an overview of financial accounting and external reporting, including basic accounting concepts and principles, as well as the structure of the income statement, balance sheet, and statement of cash flows. The course also introduces elements of managerial accounting and emphasizes the development and use of accounting information for internal decisions. Topics include cost behavior and analysis, product and service costing and relevant costs for internal decision-making. This course is recommended for students who will be using accounting information for making strategic decisions in manufacturing and service operations, as well as those going into general consulting, thinking of starting their own businesses, or simply seeking a broad understanding of accounting and financial reporting as it relates to shareholders, creditors, managers and other users of financial information.

■ Course Website

The website for this course can be found on Canvas for currently enrolled students.

■ Course Material

TEXTBOOK (REQUIRED)

Dyckman, T., R. Magee, G. Pfeiffer, A. Hartgraves, and W. Morse, *Financial & Managerial Accounting for MBAs*, Wharton Custom Edition, 2014, Cambridge Business Publishers.

This textbook is specifically customized for our course, covers all the chapters in the class, and is available only in the Penn Bookstore. In the detailed schedule below, practice problems from the textbook are assigned to reinforce the material covered for each topic (we refer to 'TB' for textbook in the syllabus). Solutions to the problems in the textbook are posted on the course website.

MATERIAL ON COURSE WEBSITE

- **Lecture Slides:** the lecture slides will be made available in advance of class (at least one week before the scheduled date).
- **Homework Assignments** (for submission on Canvas) **and Cases** (for in-class discussion)
- **Exam Practice Problems and Solutions** (from old exams)
- **Articles:** business press articles are sometimes referenced in the course syllabus and provide context for issues, which will be discussed in class.

■ Grading Policy

Final grades will be determined using the following weights (total: 100 points):

Midterm Exam	35 pts.
Final Exam	35 pts.
In-Class Quizzes	15 pts.
Homework	10 pts.
Class Participation	5 pts.

The grading scheme will be re-weighted to take into consideration improvement in student performance over the semester. If a student's mean-adjusted score on the Final Exam (i.e., adjusted for the mean class score) **improves** relative to the mean-adjusted score on the Midterm Exam, then the weight on the Midterm Exam is reduced by 5 pts. (from 35 pts. to 30 pts.) and the weight on the Final Exam is increased by 5 pts (from 35 pts. to 40 pts.).

Final course grades adhere to the school mandated grade guidelines. **Note that this allows for up to 5% failing grades. Historically this course does give some failing grades each year.**

■ Midterm & Final 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 #24, inclusive.

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. You are allowed to use a regular calculator during the exams.

It is the student's responsibility to attend examinations at the times and places specified. If a student cannot attend an examination, **it is his/her responsibility to notify the MBA Office** and the instructor prior to the exam (or as soon as possible). **Only** the MBA Office may grant a student authorization to be absent from an examination; **there are no exceptions to this rule**. In the event of an authorized absence from any exam, a make-up exam is given during the official make-up exam period set by the Registrar. You will receive a final grade of "Incomplete" for the course pending the completion of the make-up exam. An unauthorized absence from an examination will result in a grade of zero for that examination.

The graded mid-term exam will be returned to the student mail folders. The graded final exam can be picked up at the reception area of the accounting suite (SH-DH 1300) until the first week of spring semester classes (you will need to bring your student ID to collect the exam). Exam scores will be posted online. If a student feels that an exam has been incorrectly graded, he/she should

return the exam to the professor — *not a TA* — **within one week** of the return of the examination (requests made after that will not be considered). The student should submit the original copy of the completed examination together with a **written** note that carefully explains the point of contention. **The entire exam will be re-graded.**

■ In-Class Quizzes

There are **five** in-class quizzes during the course of the semester. **Quizzes are given at the beginning of the class** (late arrivals will not be accommodated with extra time, so be punctual). Each quiz will take about 15 minutes, and will consist of about 4-5 questions (primarily multiple choice). The quizzes will be closed-book and no notes will be allowed. The material covered in each quiz is set out in the syllabus below.

In computing a student's final grade, only the **four highest quiz scores** will be counted (i.e., the lowest quiz score will be dropped from the computation of your grade). If for some reason you are unable to attend class on one of the five quiz days, we will simply count the four quizzes that are completed. **No make-up quizzes will be given.** The quiz solutions and scores will be posted on the class web site within a day or so of taking the quiz.

■ Homework

There are four homework assignments with due dates indicated below and in the class schedule. The homework assignments may be discussed in groups. However, the solution submitted by each student must be his/her own individual work. It is not acceptable to copy another student's work and submit it as your own. Doing so will be considered an act of cheating. The homework assignments #1, #2, and #4 will be available on the course website. They must be submitted via **Canvas by the due date and time listed below. Please do not hand in a hard copy to me or the TAs. It will not be accepted.** Scores and solutions for homework assignments #1, #2, and #4 will be posted online on the course website within a day or so of the homework being due.

The homework assignment #3 consists of preparing a written solution for either Case #10, #11, or #12 as indicated in the class schedule below. This homework assignment must be submitted **as hard copy** (no more than 3 pages) at the beginning of class when the respective case is on the class schedule. Each student must only pick one of the three cases. Again, the case solutions may be discussed in groups, but the write-up submitted must be each student's own work.

■ Class Participation and Conduct

Class participation grades are based on what you add to the learning experience of the entire class. Students who consistently make contributions that facilitate discussions, help to clarify technical points, or provide new insights will receive 5 points. No contribution or contributions that are obvious, confusing or peripheral will result in zero points. Consistently discourteous behavior (see below) will also result in zero class participation points. Contributions between the endpoints will receive between 1 and 4 points, accordingly. Please display name tents to make it easier for me to keep track of participation (I'm not great with names – sorry, and thank you!).

Both as a courtesy to your fellow students and the professor, and to ensure that everyone has the greatest opportunity to learn, please observe the following:

- Students should sit in the same seat each class session to help me keep track of where everyone is.
- Class starts and ends on time. If a unique situation arises such that you must come in late, please inform your professor ahead of time and sit in an open aisle seat close to the door you arrived through.
- Students should remain in attendance for the duration of class, except in an emergency. If a unique situation arises such that you must leave early, please inform your professor before class and sit in an open aisle seat near the exits of the classroom.
- All phones and other electronic devices should be turned off, with the exception of computers/tablets. Use of computers/tablets, however, must be strictly for the purpose of this class.
- Please do not carry on private conversations during class.

■ **Student Preparation**

Students should come to class having reviewed the daily class slides and, on days with an assigned article or case study, having read these materials and worked through the case questions. It is also recommended that students read the suggested chapter sections from the textbook either before or immediately after the class, and work through at least some of the suggested practice problems from the textbook.

■ **Teaching Assistants and Review Sessions**

There are seven teaching assistants for the course. Each of these TAs is a second-year MBA student who performed extremely well in the introductory financial accounting course last year. The TAs will hold regular office hours on four out of five days every week (except during breaks or for holidays) based on the schedule posted on the course website.

During office hours, one of the TAs will be present and will assist with questions about concepts, assigned problems/cases, or homework problems (however, they will not give you the solution to the homework assignments). Note that the TAs are jointly servicing both ACCT 611 and ACCT 613, so you may encounter students from both courses attending the same office hours.

■ Ethics Matrix

The Wharton MBA Code of Ethics typically requests an Ethics Matrix for each class to provide ground rules and ethical guidelines for course materials and assistance from classmates or others. Below is the completed matrix for ACCT 613. If you have any questions about the matrix, please feel free to ask me.

	Materials					People						
	Approved calculator	Laptop / other electronics	Summary sheet of notes	Current book / class notes	Past notes / summaries	Past exams / assignments	Internet content / other outside materials	Learning team / approved work team	Other student(s) in same section	Student(s) in other sections (same term)	Wharton student not taking the class this term	Person outside of Wharton
In-Class Readings & Cases	A	A		A			A	W	W	W		
Homework Problem Sets	A	A		A			A	D	D	D		
In-Class Quizzes	A											
Midterm & Final Exams	A		A									

A = Allowed material W = Allowed to work together Shaded Cell = Not allowed

D = Discussion of general concepts and procedures is allowed but no sharing of specific answers.

The information above covers many common situations but will not cover every circumstance. Remember: The **Wharton MBA Code of Ethics** that you accepted requires, among other things, that you represent yourself and your work honestly, don't try to gain unfair advantage over other students, follow the instructor's guidelines and respect confidentiality of your work and the work of others.

Should you have questions, please contact your ethics liaison or professor.

Course Outline (ACCT 613) Fundamentals of Financial and Managerial Accounting**KEY**

TB refers to the Dyckman et al. textbook (Wharton custom edition);
 x-y means problem y in chapter x of the textbook.

All of the topics listed below will be covered.

Session 1. Introduction

Slides:	Session 1
TB Reading:	Chapter 1
TB Problems:	M1-24, E1-28, E1-29, P1-36, P1-37
Add. Reading:	Basics of Accounting Are Vital to Survival; Tesla Loss Widens as Spending Jumps

Session 2. Accounting Process; Mapping Business Activity into Financial Statements

Slides:	Session 2
Case #1:	Animatronics (Q1 – Q4)
TB Reading:	Chapters 2 and 3
TB Problems:	Chapter 2: M2-18, M2-19, M2-26, E2-33, E2-44 Chapter 3: M3-22, M3-24, E3-32, E3-38
Add. Reading:	Apple Warns EU Investigation Could Result in Back Taxes; Driverless Car is Officially a Risk

Session 3. Economics vs. Accounting; Balance Sheet Presentation; Introduction to Accrual Accounting

Slides:	Session 3
TB Reading:	Chapters 2 and 3
TB Problems:	Chapter 2: P2-58, P2-64 Chapter 3: P3-42, P3-49
Add. Reading:	How Binge Viewing Could Rock Netflix Stock

Session 4. Revenue Recognition; Accrual Accounting and the Matching Principle

Slides:	Session 4
Case #2:	United Airlines
TB Reading:	Chapter 6, p. 267-277
TB Problems:	M6-14, M6-24, E6-32, E6-39, E6-40
Add. Reading:	Accounting Shift Would Lift Tech Profits; Zynga Explains Method for Recording Real Revenue; Boeing Hits a Milestone; SEC Investigating Smirnoff Maker; Tech Startups Woo Investors; Microsoft Financials

Session 5. Statement of Cash Flows

Slides:	Sessions 5 & 6
Case #1:	Animatronics (Q5)
TB Reading:	Chapter 4
TB Problems:	M4-23, M4-26, M4-31, E4-34, E4-38, E4-41, E4-44
Add. Reading:	Cash Never Flow Lies; Chevron Needs to Boost Cash Flow to Cover Dividend
Quiz #1:	10-20 minute quiz, covering Sessions 1-4

Session 6. Statement of Cash Flows (continued)

Slides:	Sessions 5 & 6
Case #3:	Callaway Golf
TB Reading:	Chapter 4
TB Problems:	P4-51, P4-54
Add. Reading:	Quick Cash Via Receivables Deals

Session 7. Introduction to Financial Statement Analysis (FSA)

Slides:	Session 7
TB Reading:	Chapter 5
TB Problems:	M5-14, M5-24, E5-27, E5-33, P5-46
Add. Reading:	Decline of the P/E Ratio; The 109,894-Word Annual Report; Home Depot Working Capital; PepsiCo Financials

Session 8. Accounts Receivable

Slides:	Session 8
Case #4:	Barnes & Noble
TB Reading:	Chapter 6
TB Problems:	M6-18, M6-20, E6-33, E6-34
Add. Reading:	Accounting Issues at WorldCom; At Nortel, Warning Signs Existed Months Ago
Quiz #2:	10-20 minute quiz, covering Sessions 5-7

Session 9. Inventory, Product Costing, and Cost of Goods Sold

Slides:	Session 9
Case #5:	Research in Motion
TB Reading:	Chapter 7
TB Problems:	M7-15, M7-19, M7-22, E7-26, E7-29, E7-31
Add. Reading:	Big Oil's Accounting; Unraveling Inventory's Riddle; Supplement to LIFO vs. FIFO

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

Slides:	Session 10
TB Reading:	Chapter 17, p. 17-1 to 17-19
TB Problems:	M17-14, M17-15, E17-21, E17-25, E17-26
Add. Reading:	Boeing Hits a Milestone; Chesapeake's Obscure Costs

Homework #1 due at 6 p.m. two days after Session 10

Topics covered: Accounts Receivable and Inventory

Session 11. Long-Lived Assets

Slides:	Sessions 11 & 12
TB Reading:	Chapter 8
TB Problems:	M8-11, M8-14, E8-24, P8-36
Add. Reading:	IFRS Spells Write-Downs; DirecTV Write-Downs

Session 12. Long-Lived Assets (continued)

Slides:	Sessions 11 & 12
Case #6:	Berwick Tools
TB Problems:	M8-17, M8-21, E8-29, E8-32, E8-35
Add. Reading:	Sprint Takes Write-Down as Brand Value Loses Value; What is Big Data Really Worth?

Homework #2 due at 6 p.m. two days after Session 12

Topics covered: Long-Lived Assets

MIDTERM EXAM

Topics covered: Sessions 1-12, inclusive

Session 13. Long-Term Debt

Slides:	Sessions 13 & 14
TB Reading:	Chapter 9, Appendix A (Time-Value of Money)
TB Problems:	M9-21, M9-22, M9-29, M9-31, M9-34, E9-39
Add. Reading:	Citigroup Finds a Profit

Session 14. Long-Term Debt (continued) and Leases (begin)

Slides:	Sessions 13 & 14; Session 15
Case #7:	Starbucks
TB Problems:	M9-23, M9-26, E9-47, P9-53
Add. Reading:	Morgan Stanley to Post a Loss from Bonds; Demystify the Lehman Shell Game

Session 15. Leases (continued)

Slides:	Session 15
TB Reading:	Chapter 10, p. 453-466
TB Problems:	M10-13, M10-15, E10-23, E10-26
Add. Reading:	New Accounting Rules Ruffle the Leasing Market; Leases Suffer Identity Crisis; Northeast Airlines Financials

Session 16. Deferred Taxes (begin)

Slides:	Session 16
TB Reading:	Chapter 10, p. 476-483
TB Problems:	M10-22, E10-33
Add. Reading:	Piles of Overseas Profits Investors Cannot Touch; Motorola Deal Offers Google Tax Benefits
Quiz #3:	10-20 minute quiz, covering Sessions 13-15

Session 17. Deferred Taxes (continued); Owners' Equity (begin)

Slides:	Session 16 & Session 17
Case #8:	PepsiCo
TB Reading:	Chapter 11
TB Problems:	Chapter 10: P10-40, P10-41 Chapter 11: M11-20, M11-21
Add. Reading:	Sony Profits Are Far Off with Write-Down; Friending Becomes a Source of Funds; Stock Options Debate Comes to Silicon Valley

Session 18. Owners' Equity (continued)

Slides:	Session 17
Case #8:	PepsiCo (continued)
TB Reading:	Chapter 11
TB Problems:	M11-25, M11-35, E11-45, E11-54
Add. Reading:	Stock Buybacks Consume Cash; Time for BofA to Bid Warren Buffett Adieu

Session 19. Managerial Accounting & Cost Concepts

Slides:	Sessions 19 & 20
TB Reading:	Chapters 13 and 15
TB Problems:	Chapter 13: M13-14, E13-22, E13-24 Chapter 15: M15-11, M15-12, M15-16, E15-25
Add. Reading:	Lobster Glut Slams Prices; Will Costs Drive U.S. Firms Home?
Quiz #4:	10-20 minute quiz, covering Sessions 16-18

Session 20. Cost Concepts (continued)

Slides:	Sessions 19 & 20
Case #9:	Forest Gump
TB Reading:	Chapter 16
TB Problems:	M16-12, M16-15, M16-17, E16-22, E16-26
Add. Reading:	Paramount Pictures Resolves Lawsuit; Delta Air Lines Gains Altitude

Session 21. Cost Allocation and Activity-Based Costing

Slides:	Session 21
Case #10:	Wilkerson Company (HW #3)
TB Reading:	Chapters 14 and 18, p. 18-1 to 18-13
TB Problems:	Chapter 14: M14-11, M14-14, P14-27 Chapter 18: M18-10, M18-13, M18-16, E18-22
Add. Reading:	Knee Replacements Boost Health Costs

Session 22. Customer Profitability Analysis

Slides:	Session 22
Case #11:	Infinity Bank (HW #3)
TB Reading:	Chapters 18, p. 18-14 to 18-17, and 19, p. 19-1 to 19-9
TB Problems:	Chapter 18: M18-18, E18-26, E18-27 Chapter 19: M19-17
Add. Reading:	Free Checking Accounts Cost More; P&G's Brand Cull
Quiz #5:	10-20 minute quiz, covering Sessions 19-21

Session 23. Decentralization and Transfer Pricing

Class Notes:	Session 23
Case #12:	Caribbean Brewers (HW #3)
TB Reading:	Chapters 22, p. 22-1 to 22-9, and 23, p. 23-7 to 23-10
TB Problems:	Chapter 22: MA22-42 Chapter 23: M23-19, E23-24, MA23-41
Add. Reading:	Tax Court Rules Against IRS

Session 24. Final Review and Course Wrap-Up

Slides:	Session 24
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Homework #4, due at 6 p.m. on the day after Session 24

Topics covered: Managerial Accounting, Cost Concepts, Cost Allocation

FINAL EXAM

Topics covered: Sessions 13-24, inclusive

Corporate Finance (FNCE 611/612)

■ Course Description

These courses serve as an introduction to business finance (corporate financial management and investment) 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 (FNCE 611/612) Waiver and Placement 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 economics and/or 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 (FNCE 611), the accelerated, half-semester version (FNCE 612), and the half-semester version (FNCE 614). Students who hope to take the accelerated version of Corporate Finance (FNCE 612) should register for the Pre-Term preparation class, FNCE 604.

Exam Preparation

Either of the following two books can be used to prepare for the Waiver and Placement Exams.

- R. A. Brealey, S. C. Myers, and F. Allen, *Principles of Corporate Finance*, 11th edition (New York: McGraw Hill, 2014).
- J. Berk, and P. DeMarzo, *Corporate Finance*, 3rd edition (Boston: Pearson, 2014).

PLACING BY EXAM OR CREDENTIALS INTO FNCE 612

Students who have earned an undergraduate finance major can indicate this designation in the online waiver module. Placement will then be verified via the transcript submitted to admissions. Students then have the option to enroll in FNCE 612. Students who were not finance majors but would like to take FNCE 612 will need to pass the Placement Exam to be eligible to register.

Syllabus FNCE 611

■ Overview

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

■ Course Materials

TEXTBOOK

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

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

SLIDES

PowerPoint slides for all of the class sessions will be printed and handed out in class. I will also make them available on Canvas in the Slides folder under the Files tab.

CASES

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

ADDITIONAL MATERIAL

Additional copywritten material (e.g., readings) will be made available on Study.net. Noncopywritten material (e.g., notes, supplemental exercises, supplementary material) will be made available on Canvas under the Files tab.

■ Class Preparation and Participation

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

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

■ Cases

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

■ Homework Assignments

Homework assignments are available on MyFinanceLab. Please see the attachment at the end of this syllabus for details on signing up for this service, and the course schedule for homework due dates. The purpose of the homework assignments, like preparing for course, is to keep you up to date with the course material. Because students have unlimited attempts at the homework problems on MyFinanceLab before the assignment due date, almost all students receive full points on the homework. (You can re-take the homework assignment as often as you like by undertaking “similar exercises” in MyFinanceLab.) Therefore, getting less than full points on a homework assignment puts you at a considerable disadvantage when the final grade is computed.

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

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

■ Exams

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

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

■ Grading

Your course grade will be determined by your class participation (10%), performance on the case questions (15%), completion of the MyFinanceLab homework assignments (15%), a midterm (25%), and a final exam (35%). If your score on the final exam is greater than that on the midterm, I will replace your midterm score with your final score, which will then count for 50% of your grade. However, this substitution can only occur if you take the midterm and receive a minimum number of points to be determined at the time of the exam.

Class grades are determined using a class-wide (i.e., across all of my sections) curve that respects any constraints imposed by the University or Wharton.

Students have exactly one week from the day they receive their midterm exam to request a regrade. The request must be attached to the exam and clearly state the reason(s) for the regrade. The only valid reason for a regrade is an error on my part. I will not debate the merits of my grading scheme. If the regrade request is accepted, the exam will be regarded in its entirety. As a result, the revised score may go up, down, or stay the same.

I will schedule two days during the Spring semester during which you may view your final and discuss your grades. These days will be announced during the semester. Any concerns regarding final exam or course grade will be settled at that time.

■ Course Etiquette

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

Students are expected to respect the University of Pennsylvania’s Code of Academic Integrity ([7](#)) and to behave with integrity in all aspects of the course. Students are encouraged to discuss the cases and other content of the course with first-year MBA student in their own section and in other sections. However, students should not discuss the content related to the current day’s class discussion or exam during the time period between sections to avoid giving later sections an unfair advantage.

Violations of the honor code will be immediately reported to the administration.

■ Attendance

Students are expected to attend all classes and arrive on time. I also ask that you avoid disrupting class by leaving early. I recognize that personal emergencies arise, causing a student to miss a class or part of a class. If such a circumstance arises, please notify me via email of the situation. If circumstances do not permit prior notification, please do so as soon after the missed class as possible.

Course Outline FNCE 611

Course Introduction and Overview

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

Topic 1: Time Value of Money

Read: Chapter.Section:
 3.2 (Interest Rates and the Time Value of Money)
 4.1 (The Timeline)
 4.2 (The Three Rules of Time Travel)
 4.3 (Valuing a Stream of Cash Flows)
 4.5 (Perpetuities and Annuities)
 4.6 (Using an Annuity Spreadsheet or Calculator)
 4.7 (Non-Annual Cash Flows)
 4.8 (Solving for the Cash Payments)
 4.Appendix (Solving for the Number of Periods)
 5.4 (Risk and Taxes)

Concepts: Discounting, Compounding, Present value, Future value, Taxes, Inflation
Applications: Valuing zero-coupon bonds, Valuing and structuring annuities and perpetuities, Savings, Retirement planning

Topic 2: Interest Rates

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

Concepts: APR, Periodic Rates, Effective Annual Rate, Yield to maturity, Yield curves, Spot Rates

Applications: Savings vehicles, Mortgage financing and refinancing decisions

Topic 3: Discounted Cash Flow (DCF) Analysis

Read: Chapter.Section:
 2 (Introduction to Financial Statement Analysis)
 3.1 (Valuing Decisions)
 3.3 (Present Value and the NPV Decision Rule)
 7.1 (NPV and Standalone Projects)
 8.1 (Forecasting Earnings)
 8.2 (Determining Free Cash Flows and NPV)
 8.3 (Choosing Among Alternatives)
 8.4 (Further Adjustments to Free Cash Flow)

Concepts:	Free cash flow, Discount rates and cost of capital, Discounted cash flow (DCF), Net present value (NPV), Sensitivity analysis, Scenario analysis, Breakeven analysis, Value drivers, Profit margins and operating leverage, Profitability index
Case:	Callaway Golf FX-1
Applications:	Strategic decision-making, Capital budgeting, Financial statement analysis, Strategic decision making with resource constraints

Topic 4: Return on Investment

Read:	Chapter.Section: 7.2 (The Internal Rate of Return Rule) 7.4 (Choosing Between Projects)
Concepts:	Internal rate of return, Hurdle rate
Case:	Should you pay cash for a new car?
Applications:	Amortizing loans, Personal finance (auto loans, leases, mortgages), Financial negotiating strategies

Topic 5: Fixed Income Securities

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

Topic 6: Valuing Stocks

Read:	Chapter.Section: 9.1 (The Dividend Discount Model) 9.2 (Applying the Dividend Discount Model) 9.3 (Total Payout and Free Cash Flow Valuation Models) 9.4 (Valuation Based on Comparable Firms)
Concepts:	Measuring returns, Equity cost of capital, Dividend yield, Capital gains, Dividend discount model, Cum- and Ex-dividend prices,

Applications:	Share repurchases, Price-Earnings (P/E) ratio, Return on investment, Enterprise value, Comparable analysis Mergers and Acquisitions, Corporate defenses
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Topic 7: Risk and the Cost of Capital**Read:**

- Chapter.Section:
 10.1 (Risk and Return: Insights from 86 Years of Investor History)
 10.2 (Common Measures of Risk and Return)
 10.3 (Historical Returns of Stocks and Bonds)
 10.4 (The Historical Trade-Off Between Risk and Return)
 10.5 (Common Versus Independent Risk)
 10.6 (Diversification in Stock Portfolios)
 10.7 (Measuring Systematic Risk)
 10.8 (Beta and the Cost of Capital)

Concepts:

Bond markets and institutions, Expected return, Stock volatility, Risk-return tradeoff, Portfolio risk, Diversification, Equity market integration, Mean-variance frontier, Minimum variance portfolios, Efficient portfolios, Short sales, Leverage, Sharpe ratio, Beta

Case:

Partners Healthcare

Applications:

Portfolio management

Of Interest:

Portfolio Optimizer and Instructions (on the course website)

Topic 8: CAPM**Read:**

- Chapter.Section:
 11.7 (The Capital Asset Pricing Model)
 11.8 (Determining the Risk Premium)
 12.1 (The Equity Cost of Capital)
 12.2 (The Market Portfolio)
 12.3 (Beta Estimation)
 12.4 (The Debt Cost of Capital)
 12.5 (A Project's Cost of Capital)
 12.6 (Project Risk Characteristics and Financing)

Concepts:

Capital market line, Security market line, Market Beta, Market risk, Volatility, Beta Estimation, Alpha, Security mispricing

Case:

Cost of Capital at Ameritrade

Applications:

Portfolio management, Capital budgeting

Topic 9: Corporate Capital Structure**Read:**

- Chapter.Section:
 14.1 (Equity Versus Debt Financing)
 14.2 (Modigliani-Miller I: Leverage, Arbitrage, and Firm Value)
 14.3 (Modigliani-Miller II: Leverage, Risk, and the Cost of Capital)
 14.4 (Capital Structure Fallacies)
 14.5 (MM: Beyond the Propositions)

- 15.1 (The Interest Tax Deduction)
- 15.2 (Valuing the Interest Tax Shield)
- 15.3 (Recapitalizing to Capture the Tax Shield)
- 15.4 (Personal Taxes)
- 15.5 (Optimal Capital Structure with Taxes)
- 16.1 (Default and Bankruptcy in a Perfect Market)
- 16.2 (The Costs of Bankruptcy and Financial Distress)
- 16.3 (Financial Distress Costs and Firm Value)
- 16.4 (Optimal Capital Structure: The Trade-off Theory)

Concepts: Leverage, Modigliani and Miller Irrelevance Propositions, Weighted Average Cost of Capital (WACC), Arbitrage, Equity issuance dilution fallacy, Earnings per share (EPS) fallacy, Market Imperfections, Interest Tax Shields, Bankruptcy, Bankruptcy costs, Direct and indirect costs of financial distress, Tradeoff theory, Valuation with Leverage

Case: Blaine Kitchenware Inc.

Applications: Industry capital structure, Optimal capital structure, Refinancing, Share Repurchase Programs

Topic 10: Risk Management

Read: Chapter.Section:
 30.1 (Insurance)
 30.2 (Commodity Price Risk)
 30.3 (Exchange Rate Risk)
 30.4 (Interest Rate Risk)
 20.1 (Option Basics)
 20.2 (Option Payoffs at Expiration)
 21.1 (The Binomial Option Pricing Model)
 21.2 (The Black-Scholes Option Pricing Model)

Concepts: Price-fixing contracts, Forwards, Futures, Options, Covered interest parity, Put-Call-Parity, Option Premia, Basis risk, Price-insurance contracts, Binomial Option Pricing Model, Black-Scholes Option Pricing Model

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

Syllabus FNCE 604

■ Overview

This pre-term course is intended for those students wishing to prepare for the Placement Exam to get into FNCE 612. The FNCE 612 course will fulfill the core requirement in finance in half a semester, instead of the usual full semester course, FNCE 611. Since the pace of FNCE 604/612 is fast,¹ only students with prior knowledge of finance (either by coursework or by practical experience) or with strong analytical backgrounds should consider taking this course sequence.

Together, FNCE 604 and FNCE 612 form the foundation for subsequent courses in corporate finance, project valuation, investments, venture capital financing, and financial derivatives. Their purpose is to develop a framework for analyzing a firm's investment and financing decisions. This course, FNCE 604, will provide an introduction to present value, bond valuation, stocks, and value creation. The FNCE 612 course will start where FNCE 604 stops, and will cover project valuation and capital budgeting, risk and return, the efficiency of capital markets, the capital structure and payout policy of the firm, and options.

Since the emphasis is on the fundamental concepts underlying modern finance, the approach will be analytical and rigorous, yet with emphasize on developing students' intuition. This approach requires familiarity with accounting, mathematical and statistical tools. This "academic" approach is necessary to provide you with a strong foundation for the more applied elective courses at Wharton.

■ Prerequisites

Although there are no official prerequisites for FNCE 604 and FNCE 612, both courses will make use of mathematical and statistical manipulations at the level taught in the pre-term course. In particular, knowledge of calculus is not at all necessary for this course, nor is it for the Placement Exam or FNCE 612. Finally, some basic familiarity with Excel will be assumed for both FNCE 604 and FNCE 612.

■ Course Material

The textbook for FNCE 604/612 (and for FNCE 611) is:

- Berk, Jonathan, and Peter DeMarzo, *Corporate Finance*, 3rd edition, Pearson: Boston.
(Referred to as **BD** below)

The textbook should be purchased with the option to access the web platform offered by Pearson, called MyFinanceLab². Although this web platform is optional for FNCE 604, it will be used for homework assignments and course grading in FNCE 612 (and FNCE 611). Note that, if you prefer a soft copy of this textbook, Pearson also makes it available in digital format at www.pearsonhighered.com/berk_demarzo/.

¹ The pace of FNCE 604/612 will be about 35-40% faster than that of FNCE 611.

² It is also possible to subscribe to MyFinanceLab separately, if the book does not come with access to it.

The rest of the material for the course will be made available only electronically. In particular, my notes for every lecture will be available on Canvas at least one day in advance. It is your responsibility to bring a printed or electronic copy with you to class. Additional materials will also be made available on Canvas. They will include problem sets (and their solutions), practice exams (and their solutions), and other useful handouts.

■ **Grading and Exam Schedule**

As the course is only a preparatory course for the Placement Exam, it will not be graded. In fact, students are allowed to take the Placement Exam even if they choose not to take this course. The Placement Exam will allow students to place into FNCE 612. You may bring one two sided page to the Placement exam. You can also use a calculator, but email-capable devices (laptops, tablets, cell phones, etc.) will not be allowed.

The Placement Exam also constitutes the first half of the Waiver Exam. The second half of the Waiver Exam will follow the Placement Exam and will cover the material taught in FNCE 612.³ If you are aiming to waive the entire core course in finance, you must complete both parts of the exam. If you are only aiming to place into FNCE612, you can leave after the Placement Exam (i.e., the first half of the Placement and Waiver Exam).

The two halves of the exam are graded separately. Thus, it is possible to fail the Waiver Exam overall but do sufficiently well in the first half to pass the Placement Exam and qualify for FNCE 612. Conversely, good performance in the second half of the Waiver Exam does not facilitate placement into FNCE 612.

■ **Class Etiquette and Code of Conduct**

I do not grade attendance nor participation as I trust students to attend and contribute where appropriate. Particularly for an accelerated course, it is essential to (a) attend class in order to absorb the material, and (b) ask questions if anything in the lecture is unclear.

While I am flexible regarding the above, I expect classroom conduct to be on a high level. Students should arrive on time for class and remain until the class is completed. **During class it is not acceptable to use cell phones or send text messages, leave temporarily to get coffee or make a call, do other work, or use laptop computers for any reason other than to take notes.**

Although it should go without saying, I fully expect you to adhere to the school's Code of Academic Integrity (www.upenn.edu/academicintegrity/ai_codeofacademicintegrity.html). In particular, the use of past problem set solutions or past exams (except when distributed by the instructor) is expressly forbidden. Any violation of this code, such as cheating in any form, will be treated with severity.

³ If you are taking both Placement and Waiver exam, you may also bring one two sided page for the Waiver exam.

■ Preparing for Classes

The material for this course (and for FNCE 612) needs to be absorbed consistently. As the course progresses, students should work on the problem sets distributed on Canvas and, optionally, on the textbook problems that I will recommend from MyFinanceLab. Even though these problems are not formally graded in FNCE 604 (they will be in FNCE 612), they are an integral part of the course and it is insufficient to just attend lectures for a full understanding of the material. The Placement Exam will systematically include questions that are very similar to the recommended problems.

Since I will move at a fast pace, it is recommended that you read up on the lecture notes ahead of time. Students are also encouraged to read from the BD textbook the chapters/sections relevant to the material covered (and to be covered) in class.

■ Canvas

The course website on Canvas contains the material for FNCE 604 as well as the most updated information and announcements for the course. This website is the information center for the course. Please check the course website regularly.

■ MyFinanceLab

Although access to MyFinanceLab will be required for FNCE 612 (and FNCE 611), it is optional for FNCE 604. For FNCE 604, access to MyFinanceLab will allow you to work on some extra textbook problems. That is, if you feel that the problem sets available on Canvas are not quite sufficient to prepare for the Placement Exam, you have the option to work on a few extra problems online.

■ Calculators and Computers

You will definitely need a calculator for the course (and the Placement Exam). 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.

Financial calculators are not necessary for this course. However, if you would like to acquire one, consider buying an HP-17BII, HP-19BII, or their subsequent models. However, mail-capable devices (like laptops, tablets, cell phones..) will not be allowed for the Placement or Waver Exams.

Course Outline FNCE 604

The material for this course corresponds to the lecture notes we will be covering in class and it essentially corresponds to selected parts of the first 9 chapters of the BD textbook. Below is the sequence of topics that will be covered in class, along with the relevant chapters/sections in BD.

Session 1. Introduction, Time Value of Money

- Readings:** **BD:** chapter 1, chapter 3, chapter 4, sections 5.1-5.2.
Topics:
- a. Introduction to financial decision-making
 - b. compounding and future value, discounting and present value, the concept of net present value, more frequent compounding, effective annual rate

Session 2. Time Value of Money, Bond Valuation, Stock Valuation

- Readings:** **BD:** section 5.3, sections 6.1-6.3, sections 9.1-9.4.
Topics:
- a. b. above (cont.)
 - b. Pricing zero-coupon bonds, pricing coupon bonds, yield to maturity, the yield curve, Bond prices and interest rates changes, interest rates risk, bond duration.
 - c. Fundamentals of value creation, three valuation models, valuing growth opportunities and PVGO, multiples based valuation.

Session 3. Stock Valuation, Investment Evaluation and Capital Budgeting

- Readings:** **BD:** section 5.3, sections 7.1–7.4, sections 8.1 – 8.
Topics:
- a. c. above (cont.)
 - b. Investment evaluation in three basic steps, identifying relevant cash flows, inflation and real versus nominal interest rates, investment criteria – NPV, IRR, Payback, Profitability index

***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 FNCE 612

■ Overview

This course is intended for students with prior knowledge of finance or with strong analytical backgrounds. Together with the pre-term preparation course (FNCE 604), it forms the foundation for subsequent courses in corporate finance, corporate valuation, investment, venture capital financing, and financial derivatives. Its purpose is to develop a framework for analyzing a firm's investment and financing decisions. The course will start where FNCE 604 ended. Specifically, it will provide an introduction to the relationship between risk and return, the operation and efficiency of capital markets, the optimal capital structure and payout policy of the firm, and options. In short, it will cover all the topics of a typical semester-long finance introduction class (FNCE 611) in six weeks.¹

While the course does not concentrate exclusively on theory, the basic theoretical underpinnings of the various topics will be formally discussed as they are necessary for competent financial analysis. The course emphasizes the development of problem-solving skills based on a good understanding of general principles that can accommodate the constantly evolving nature of the business environment. Because of the practical importance of the material and as an illustration of the relevant theory, several examples and applications will be discussed throughout the course.

■ Prerequisites

The course assumes that students are familiar with the material covered in FNCE 604, and will often make use of this material. No time will be spent reviewing it. As a result, FNCE 612 is available only to those students who placed into it based on past credentials or by successfully passing the Finance Placement Exam.²

The course makes use of mathematical and statistical manipulations at the level taught in the pre-term “Math for Business” course (STAT 611). Although the first section of the notes in FNCE 612 will include a review of the statistics material that will be used throughout the course, very little class time will be spent on it. Finally, as in FNCE 604, some basic familiarity with Excel will be assumed for FNCE 612.

■ Course Material

The textbook for the course is:

- Berk, Jonathan, and Peter DeMarzo, *Corporate Finance*, 3rd edition, Pearson: Boston.
(Referred to as **BD** on the course outline)

¹ Of course, since FNCE 604 has already covered some of the material studied in a typical finance introduction class, the pace of FNCE 612 will be effectively about 35-40% faster than that of FNCE 611.

² Students who placed into the course by credentials should make sure that they are still comfortable with all the topics covered in FNCE 604. All FNCE 604 files are in the folder FNCE 604 on the FNCE 612 canvas site.

The textbook should be purchased with the option to access the web platform offered by Pearson, called MyFinanceLab.³ This web platform will be used for homework assignments and course grading. Note that, if you prefer a soft copy of this textbook, Pearson also makes it available in digital format at www.pearsonhighered.com/berk_demarzo/.

To show you how the concepts developed in class can be applied to the real world, we will cover a number of case studies throughout the course. These case studies will be available through Study.Net (www.study.net), which is itself accessible through Canvas.

The rest of the course material will be made available only electronically. In particular, the notes for every lecture will be available on Canvas at least one day in advance of each class. It is your responsibility to bring a printed or electronic copy with you in class. Additional materials will also be made available on Canvas. They will include additional problem sets (and their solutions), practice exams (and their solutions), spreadsheets, and other useful handouts.

Appendix C of this document contains a list of relevant reference books for interested students.

■ Grading

The course grade will be based on two exams, and three case studies. Students will also have the option to work on periodic individual homework assignments that will be factored into their grade.⁴

EXAMS

The final and midterm exams will account for 60% and 40%, respectively, of the exams grade, denoted by **E**. However, the exam grade will be your final exam grade, denoted by **F**, if your performance in it exceeds that on your midterm exam, denoted by **M**. Thus your exams grade **E** is given by

$$E = \text{Max}\{F, 0.6 \times F + 0.4 \times M\}$$

The midterm exam will test the material already covered up to that point. The final exam is comprehensive; that is, it will test the material for the entire course. The material covered in FNCE 604 will not be directly examined again in FNCE 612. Of course, we will still need to use many of the tools developed in that course (e.g., annuity formulas, NPV rule, free cash flows, etc.). The exact material covered in each of the two exams will be announced in class.

In case the median of the final exam is below that of the midterm exam, the medians of the midterm and final exams will be standardized so that they are equal. For example, if the midterm and final have medians of 85 and 75 respectively, 5 points will be subtracted from all midterm scores and 5 points will be added to all final scores so that both exams have a median of 80. This is to ensure that a sufficient number of students end up with a better score in the final than the midterm and therefore benefit from this weighting system, even if the final turns out to be difficult.⁵

³ It is also possible to subscribe to MyFinanceLab separately, if the book does not come with access to it.

⁴ More information about the cases and individual homework assignments is provided below.

⁵ The grades on the case reports and homework assignments will not be adjusted.

ASSIGNMENTS

There are two types of assignments in the course: Three **mandatory case studies** to be done in teams, and five **optional individual homework assignments**. Each case study will be graded on a 0-5 scale, so total case studies grade, denoted by C, will be between 0 and 15. Each of the optional individual homework assignments will be graded on a 0-3 scale, so total individual homework assignments grade will be between 0 and 15 points. Thus, your overall assignments grade, denoted by A, will be between 0 and 30 points.

COURSE FINAL GRADE

Your course final grade, denoted by FG, will be calculated according to the following formula

$$FG = A + (1 - A) \times E.$$

Note, however, that I will subtract 3 points from your FG for each case study that is not submitted.

Under this grading scheme you don't lose points from getting less than perfect grades on individual homework assignments, submitted case studies, and the midterm exam. Regardless of your scores on these, scoring 100 on the final exam guarantees a course grade of 100, provided that you submit all three case studies. In case you get less than 100 points on the final exam, any point that you earn on the individual assignments will increase your course grade and points you earn on your midterm exam may increase or not affect your course grade.

Your letter grade for the course will be based on your ranking in the course (curve), and on performances/scores that I consider reasonable for this course.

MAKE-UP EXAMS

There will be **absolutely no make-up exam** for the midterm exam. If a student cannot take or even chooses not to take the midterm exam, the final exam will count for the entirety of the exam weight in his/her final grade. There is no need to notify the instructor in that event. That said, it is strongly recommended that you prepare for and take the midterm exam if you can.

Students who, for some reason, cannot attend the final exam will either be allowed to take the same exam early (upon signing an honor agreement that they will not disclose its content), or a different exam later, depending on the circumstances. To be clear, this will only be considered for extraordinary circumstances, as judged by the instructor.

If extraordinary circumstances prevent a student from attending the final exam, it is his/her responsibility to notify the instructor before the exam or, if impossible, as quickly as possible after the exam. Please note that, as per Wharton policy, traveling, interviews and job-related absences are not considered to be **extraordinary circumstances**. In the case of illness, a signed doctor's note must be provided.

REGRADING POLICY

Regrade requests for the midterm and final exams must be made within one week after the graded exams are distributed back to students. All such requests must be made in writing. Hard copies of the exams and the request will then be forwarded to the TA who graded the question(s) to be regraded. **The TA's decision is final and may not be appealed.** In making your requests, keep in mind that the whole exam is potentially subject to regrading.

■ Case Studies

Preparation for the case studies is done in groups of four to five students, all from the same section of the course. Students were randomly assigned to teams by the instructor. Your team and team leader is published on Canvas.

A total of three case studies will be discussed in class. The exact dates of the various case discussions will be announced as the course progresses. For each of the case studies, teams are expected to prepare a case write-up consisting of a **maximum of 2-page double-spaced text** plus a maximum of 4 pages of exhibits to support the recommendation. Case studies will be submitted in a pdf file, accompanied by easy to read Excel spreadsheet that contains their analysis by 11:55pm on the day before the class discussion. I will present the main points of the case in class, so no need for students to prepare a presentation. All students should come to class ready to discuss issues relevant to the case.

In analyzing cases, take the perspective of an external consultant to the case decision-makers, i.e., CEO, CFO, Board of Directors, etc. Write-ups should roughly conform to the following format:

- 1. Statement of the problem:** State the main problem of the case as precisely as possible.
- 2. Statement of facts and assumptions:** State the relevant facts of the case. Those facts that are not obvious from the case itself should be supported either by a calculation in the body of the write-up or in an exhibit. Clearly state any assumptions. Provide any necessary justification for your assumptions.
- 3. Analysis:** This contains your analysis of the various courses of available actions.
- 4. Recommendation.**

Please note that I view you as my consultants on the case study. Consequently, other than clarifying questions, you can not discuss any aspect of case studies with me or the course TAs before submitting them. **I will not distribute case solutions. All action takes place in class discussions.**

Appendix A of this syllabus provides you with **questions for consideration** for each of the case studies. These questions are provided to help guide and focus your analysis and are not intended to be a complete list of the relevant issues. **Don't submit your case study analysis in a question-answer format.**

Appendix B of this syllabus discusses the case study approach.

■ Individual Homework Assignments

Individual homework assignments will be assigned periodically from MyFinanceLab, Pearson's website for the textbook by Berk and DeMarzo. The site can be accessed from the following address: www.pearsonmylabandmastering.com. I will announce the homework assignments and submission deadlines on Canvas as the course progresses.

■ Supplementary Problem Sets

In addition to the team case studies and individual homework assignments, supplementary problem sets (and their solutions) will be distributed via Canvas throughout the term. These problem sets are structured to reinforce the major themes in the course material and to provide students with extra practice for the two exams. Write-ups for these problem sets will not be collected or graded.

■ Class Etiquette and Code of Conduct

I do not grade attendance nor participation as I trust students to attend and contribute where appropriate. Particularly for an accelerated course, it is essential to (a) attend class in order to absorb the material, and (b) ask questions if anything in the lecture is unclear.

Students should attend the section of the course for which they are registered, especially on days that include a case discussion. When a conflict is unavoidable, students can attend another of my sections without notifying me. If it is impossible to make any section on a given day, you may miss class without notifying me, and are trusted to catch up on the material in your own time.

While I am flexible regarding the above, I expect classroom conduct to be on a high level. Students should arrive on time for class and remain until the class is completed. **During class it is not acceptable to use cell phones or send text messages, leave temporarily to get coffee or make a call, do other work, or use laptop computers for any reason other than to take notes.**

Although it should go without saying, I fully expect you to adhere to the school's Code of Academic Integrity (www.upenn.edu/academicintegrity/ai_codeofacademicintegrity.html). In particular, the use of past problem set solutions or past exams (except when distributed by the instructor) is expressly forbidden. Any violation of this code, such as cheating in any form, will be treated with severity.

■ Preparing for Classes

The material for this course needs to be absorbed consistently. As the course progresses, students should work on the problems that I will assign from MyFinanceLab and, optionally, on the supplementary problem sets that I will make available. These problems are an integral part of the course and it is generally insufficient to just attend lectures for a full understanding of the material. The two exams will include questions that are very similar to these problems.

Since I will move at a fast pace, it is recommended that you read up on the lecture notes ahead of time. Students are also encouraged to read from the BD textbook the chapters/sections relevant to the material covered (and to be covered) in class.

■ Canvas

The course website on Canvas contains the material for FNCE 612 as well as the most updated information and announcements for the course. This website is the information center for the course. Please check the course website regularly.

■ Teaching Assistants

Several Ph.D. students and 2nd-year MBA students will be assisting me in this course. Their names, functions and schedules will be posted on Canvas and announced in class.

■ Calculators and Computers

You will definitely need a calculator for the course (and the two exams). Any calculator that has a y^x button will do. In fact, when constructing the exams, I will make sure that the people who do not have a fancy calculator are not at a disadvantage.

Financial calculators are not necessary for this course. However, if you would like to acquire one, consider buying an HP-17BII, HP-19BII, or their subsequent models. Finally, please note that email-capable devices (like laptops, tablets, cell phones, and so on) will not be allowed for the two exams.

■ Semester Deadlines

Students are allowed to drop the course (and join FNCE 611) during Wharton's official drop/add period. Students who choose to join the FNCE 611 course are encouraged to promptly contact the instructor in that course to make sure that they have not missed any deadlines.

Course Outline FNCE 612

The material for this course essentially corresponds to chapters 10-18 and 20-21 of the **BD** textbook. Below is the sequence of topics that will be covered in class, along with the relevant chapters/sections in **BD**. Note that the first four modules of the FNCE 604/612 sequence were covered during the pre-term.

Module 5 (cont.) – Investment Evaluation and Capital Budgeting⁶

- | | |
|--------------------|---|
| Readings: | BD: Section 7.5. |
| Topics: | Capital rationing; investment criteria and capital rationing. |
| Case Study: | Energy Gel – A New Product Introduction (A). |

Module 6 – Risk and Return: Measurement

- | | |
|------------------|--|
| Readings: | BD: Sections 10.1-10.2 and 10.4-10-6; sections 11.1-11.3. |
| Topics: | Returns as random variables; mean, variance, and covariance of returns; using historical returns; diversification. |

Module 7 – Risk and Return: Capital Assets Pricing Model

- | | |
|------------------|--|
| Readings: | BD: Sections 11.4-11.8; sections 12.1-12.3. |
| Topics: | Portfolio risk and return; portfolio choice and Sharpe ratios; equilibrium and the market portfolio; dealing with superior information; the Capital Asset Pricing Model (CAPM); estimating beta. |

Module 8 – Cost of Capital

- | | |
|--------------------|--|
| Readings: | BD: Sections 11.7-11.8; Chapter 12. |
| Topics: | Debt, equity, and the cost of capital; comparable firms, leverage, and asset betas; cost of capital for a division or project. |
| Case Study: | Midland Energy Resources, Inc.: The Cost of Capital. |

Module 9 – Market Efficiency and Asset Management

- | | |
|------------------|---|
| Readings: | BD: Chapter 13. |
| Topics: | Index investing; average abnormal return and performance evaluation; market efficiency and active portfolio management; multifactor models and hedge funds; behavioral finance. |

Module 10 – Capital Structure

- | | |
|--------------------|---|
| Readings: | BD: Chapter 14; chapter 15; sections 16.1-16.4. |
| Topics: | Capital structure in a perfect capital market; the role of corporate taxes; the role of personal taxes; the trade-off theory. |
| Case Study: | Bed Bath & Beyond: The Capital Structure Decision. |

⁶ Note that Module 5 is the basis for the entire course. As such, it will be in its entirety on the course exams. Please make sure to review Module 5 and problem set 3.

Module 11 – Payout Policy

- Readings:** BD: Sections 17.1 - 17.6.
Topics: Dividends and share repurchases; the role of taxes; tax clienteles; the signaling role of payout policy; the effects of agency costs.

Module 12 – Valuation

- Readings:** BD: Sections 18.1-18.3 and 18.5.
Topics: Weighted average cost of capital; adjusted present value.

Module 13 – Options

- Readings:** BD: Sections 20.1-20.4; sections 21.1-21.4.
Topics: Financial options; payoffs at maturity; binomial option pricing; the Black-Scholes formula.

***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 (**FNCE 613/615**)

■ Course Description

The purpose of Macroeconomics is to train students 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 and data to understand the workings of financial markets and the operation and impact of government policies. Specifically, the course studies the determinants 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 (**FNCE 613/615**) 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. International students, in particular, have found the emphasis on American markets and institutions to be unique and unlike the material covered in their previous courses.

WAIVING BY EXAM

EXAM DATE: Waiver and Placement Exam Schedule, and sample course exams 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 (FNCE 613) and, of course, the half-semester version (FNCE 615). Students who score somewhat less well, but demonstrate substantial mastery of the subject can waive FNCE 615, but not FNCE 613.

Please note that a waiver for FNCE 615 will not be sufficient to enable a student to become a Finance major.

Exam Preparation

Macroeconomics (eighth edition), by Andrew B. Abel, Ben S. Bernanke, and Dean Croushore, Addison-Wesley Publishing Co., 2014.

PLEASE NOTE: FNCE 613 is taught by several faculty members, thus there is variation in the course content. The following four syllabi and course outlines show the variations in the course content.

Syllabus-1 FNCE 613

■ Overview

Finance 613 is a course in macroeconomic analysis and policy in the context of globally integrated economies.

Its purpose is to train students 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, we study 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 exact structure of the class and topic coverage will be linked to the current economic issues around the world.

■ Course Materials and Information

COURSE SITE

The Canvas site contains all lecture notes and readings, many useful links, and general course information. There is a detailed Calendar of all course activities and due dates. **Quizzes and Assignments must be submitted there.** Finally, Canvas will serve as hub for all course-related discussions. The website for this course can be found on Canvas for currently enrolled students.

TEXTBOOK

There are several good textbooks covering the core theoretical concepts in macroeconomics at an intermediate level. The best is *Macroeconomics*, 8th edition, by Abel, Bernanke and Croushore. This is an excellent text in macroeconomic theory and you are strongly encouraged to use it both to complement our class discussions and to cover additional theoretical issues in greater detail. Many end-of-chapter problems in this textbook will be useful to prepare for the Quizzes and the Final Exam. This book can also be purchased in a full package that contains access to MyEconLab. However this suite of additional resources will not be used in this class.

ADDITIONAL READINGS

The Wall Street Journal, *The Financial Times*, and *The Economist* are all world-class publications that offer many insightful discussions about the global economy. I assume everyone will subscribe to one of them or at least follow an alternative news outlet of nearly identical quality. When relevant, a few timely articles or reports may be added to the list of required readings during the term.

■ Grades

The final grade breakdown for this course is as follows:

Quizzes	30%
Class Discussions	30%
Final Exam	40%

Attendance is not required but it is difficult to participate in the Class Discussions without being present.

EXAM INFORMATION

The final exam is **comprehensive**. You will be able to bring **one double-sided sheet** with notes and one calculator. Most if not all questions are multiple choice and conceptually similar to those in the quizzes.

PROBLEM SETS AND QUIZZES

There will be 12 online quizzes during the first half of the term. They can be accessed and submitted on Canvas. Due dates are also posted there. The 10 quizzes with the highest score will count for your grade. **You can work on the Quizzes with your classmates but everyone must submit individually.**

Each Quiz recommends a few problems from the textbook to help you prepare for the Quiz. Solutions to the textbook problems as a several additional ones are available on Canvas.

PRESENTATIONS AND DISCUSSIONS

There will be 10 in class discussions. Students will be assigned readings in advance and asked to prepare and submit a brief summary for possible in class presentation. You can **work on these in groups of 2 or 3 students, but anyone can be randomly selected to present**. The 6 best grades from these presentations/discussions count towards your final grade.

SCHEDULING CONFLICTS

If you have a conflict with the date for the Final Exam you should drop the class now. Any additional conflicts will be resolved according to the MBA Resource Guide. Specifically:

- If you find yourself with a conflict due to your career search or recruiting activity, you should **work with the MBA Career Management Office** to find a resolution.
- It is Wharton policy that you **should not approach instructors with requests to reschedule exams or to make special accommodations**.

EXAM REGRADE

Any requests for a review of an exam must be submitted in writing within **7 days** from the date that exams are made available and must be accompanied by the *Statement of Honesty in Regrade Request* form posted on Canvas.

■ Teaching Assistants, Office Hours and Online Discussions

The Discussion module on Canvas will be used to deal with overflow or extra material that could not be covered in depth during class and you are strongly encouraged to contribute to these discussions. This module will also be used to answer specific questions about assignments and the course in general. Discussions will be monitored regularly by me and several teaching assistants.

If you wish to meet with me outside class my regular office hours are on Tuesday 1:30-2:30 p.m. Please email at gomesj@wharton.upenn.edu to schedule an appointment at another time. My office is Steinberg Hall-Dietrich Hall 2329.

Course Outline-1 FNCE 613

This outline is tentative.

Session 1. Is China The New Number 1? Measuring Economic Power

Session 2. How The West Won: Growth And Productivity

Session 3. Why Do Americans Eat So Much? Household Consumption And Savings

Session 4. Why Are Interest Rates So Low? Savings And Investment

Session 5. Why We Love Money So Much. The Demand for Money

Session 6. Are Europeans Lazy?The Labor Market

Session 7. Putting it All Together.The IS/LM/FE Model

Session 8. Hard Times. A First Look At The 2008 Crisis

Session 9. Banks Are People Too (!) A Second Look At The 2008 Crisis

Session 10. Is China Starving? Understanding Trade Deficits

Session 11. Why Is The Dollar So High?The Macroeconomics of Currency Values

**Session 12. Why The Euro Might Be Doomed And Other Sad Stories.
Exchange Rate Politics**

Session 13. Macroeconomists As Kings. A Century Of Policymaking

Session 14. Discussion: What is the Fed Going to Do?

**Session 15. Discussion: Why Are Stocks So Darn Expensive? Macro Data and
Financial Valuations**

Session 16. Discussion:The End Of a Fairytale. The Collapse Of Spain

Session 17. Discussion:The 2016 Outlook: Asia And The Middle East

Session 18. Discussion:The 2016 Outlook: Africa And Latin America

Session 19. Discussion: Has Brazil Blown its Chance?

Session 20. Discussion: Is Africa Worth the Trouble?

Session 21. Discussion: Is India The Next China?

Session 22. Discussion: Did the Government Lie to Us? Debts And Other Promises

Session 23. Discussion: Challenges For The Next 50 Years

Session 24. Final Review and Conclusion

Syllabus-2 FNCE 613

■ Overview

Finance 613 is a course in intermediate macroeconomic analysis and policy in the context of globally integrated economies.

Its purpose is to train students 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, we study 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 exact structure of the class and topic coverage will be linked to the current economic issues around the world.

■ Course Materials

WEBSITE

The Canvas site will contain all lecture notes and other additional readings, useful links, and general course information. This is also a useful hub to start and participate in course-related discussions. The website for this course can be found on Canvas for currently enrolled students.

READING MATERIALS (MANDATORY)

There are several good textbooks covering the core theoretical concepts in macroeconomics at an intermediate level. The one I recommend is *Macroeconomics*, 8th edition, by Abel, Bernanke and Croushore. This is an excellent text in macroeconomic theory and you are encouraged to use it as supplement to our class discussions, which are generally more applied. Several of the problems in the book will also be useful preparation for the Quizzes and Final Exam.

Throughout the semester, you should keep current with economic news. A subscription to *The Financial Times*, *The Wall Street Journal*, *The Economist*, or a close substitute is recommended. Selected articles from these sources may be added to the list of required readings later during the semester. These sources are accessible through the Penn library.

■ Grades

The final grade breakdown for this course is as follows:

Quizzes	25%
Class discussions	25%
Midterm	25%
Final exam	25%

■ Exams

All exams are closed-book but you are allowed to bring one 8.5"x11" cheat-sheet to the midterm and two sheets to the final. Cheat-sheets can only contain your own notes and in your own handwriting. In particular, they may not contain large portions of reproduced notes or any other course materials such as slides, solutions manuals, answer keys etc. You can write on both sides of each sheet. The final exam is cumulative but will focus on the material not covered by the midterm.

You will need your University ID to be admitted to an exam. You may use a calculator, but only if it cannot communicate with other devices. Please come to the exams a few minutes early. They will start on time.

SCHEDULING CONFLICTS

If you have a conflict with the date of an exam you should drop the class now. Any additional conflicts will be resolved according to the MBA Resource Guide. Specifically:

- If you find yourself with a conflict due to your career search or recruiting activity, you should **work with the MBA Career Management Office to find a resolution.**
- **You should never approach your instructors with requests to reschedule exams or to make special accommodations.**

EXAM REVIEW

Any requests for a review of an exam must be submitted in writing within 7 days from the date that exams are made available and must be accompanied by the *Statement of Honesty in Regrade Request* form posted on Canvas.

■ Office Hours

Office hours with the professor and the TAs will be announced during lecture and posted on Canvas. We prefer to meet at these times, but if you cannot make it to any of the office hours you may make an appointment by email.

Course Outline -2 FNCE 613

This calendar and the list of topics are subject to change. In particular, we might add some discussions.

Session 1. Background: World Economy Today

Reading: Ch. 1

Session 2. Measuring Macroeconomic Performance: Income

Reading: Sec. 2.1-2.3

Session 3. Measuring Macroeconomic Performance: Prices

Reading: Sec. 2.4

Session 4. The Core Macroeconomic Model

Reading: Sec. 3.1; FRB/US Model

Session 5. Household Consumption and Savings

Reading: Sec. 4.1, 4.A

Session 6. Corporate Investment

Reading: Sec. 4.2, 2.5

Session 7. Budget Deficits and Interest Rates

Reading: Sec. 15.1, 4.3

Session 8. International Trade and Finance

Reading: Sec. 5.1

Session 9. Sources of Trade Deficits

Reading: Sec. 5.2-5.5

Session 10. Money and Inflation

Reading: Sec. 7.1-7.3, 7.5

Session 11. Money and Financial Markets

Reading: Sec. 7.4

MIDTERM EXAM

Session 12. The Labor Market

Reading: Sec. 3.1-3.4

Session 13. Labor Frictions and Unemployment

Reading: Sec. 3.5-3.6, 11.1

Session 14. General Macroeconomic Equilibrium

Reading: Sec. 9.1-9.3

Session 15. Understanding Business Cycles

Reading: Sec 8.1, 9.4-9.6

Session 16. Monetary Policy and Institutions

Reading: Ch. 14

Session 17. Macroeconomics in an Open Economy

Reading: Sec. 13.1-13.4

Session 18. Discussion: determined by current events

Session 19. Fixed Exchange Rates

Reading: Sec. 13.5

Session 20. A Brief History of Economic Cycles

Reading: Sec. 8.2-8.3

Session 21. Discussion: World Economic Outlook

Reading: IMF World Economic Outlook

Session 22. Long Run Growth

Reading: Ch. 6

Session 23. Discussion: The Fiscal Outlook

Reading: Sec 15.3, CBO Budget Outlook, IMF Fiscal Outlook

FINAL EXAM

Syllabus-3 FNCE 613

■ Overview

FNCE 613 is an introductory course in global economics for managers with the primary goal of providing applied tools to optimize business in the global economy. The course is motivated by the following simple observation: both general and leading managers in all fields and firms need a solid understanding of both country-level and global trends in order to formulate successful operation-, marketing-, strategy-, and finance-related decisions. For this reason, the whole course (readings, applications, and slide deck) is designed to provide strong connections to most of the other core courses. These connections build a unified framework and provide strong foundations for many subsequent elective courses.

Each topic relates to a crucial aspect of the macro-economy that affects firms, consumers, and policy making. Business leaders are asked to (i) choose effective responses to the external environment; (ii) anticipate global economic challenges and opportunities; and (iii) shape business environment and policy making. To do so, knowledge of management and leadership on a macro scale is required. We will study not only how firms should respond to policy variables, but also how economic policies are determined. These policies are relevant because they affect millions of consumers, workers, entrepreneurs, and intermediaries. Managers that understand these policies create a strong advantage for their firms, as they better determine short and long-term international investments.

MBA graduates use what they learned in this course differently at different points in their careers. Many students immediately use what they learned about interest rates, exchange rates, fiscal policy and balance of payments. Most graduates use this knowledge as they progress in their career and become prominent business figures. Their opinions on international economic dynamics become increasingly in demand in several venues, not only on the job place.

GOALS OF THE COURSE

Knowledge oriented goal

This course provides a simple and coherent framework for analyzing macroeconomic events (e.g. recessions and booms) and macroeconomic policies (e.g. monetary and fiscal policy). Step by step, we will patiently build a workhorse economic framework used by general managers. Our model is designed to develop strong analytical thinking about the economy without requiring any special calculus skills, so that most of the focus will be on **the “big picture,” not on the math.** Learning this framework will provide what I call “macroeconomic knowledge for the long-run”, i.e., a tool which students can use for the rest of their life.

Skills oriented goal

Students will be trained to develop the ability to prepare short briefings on macroeconomic conditions. Specifically, discussions in class will require daily reading of articles related to current economic issues and the ability to summarize the main economic takeaway.

■ Course Material

WEBPAGE

The course is “self-contained” in the sense that the class-notes, the websites, and the articles assigned for reading provide the backbone for studying and understanding the topics of the course. There is no course pack for FNCE 613: all documents will be provided in electronic form on Canvas. Most of the class will be taught with slides. These slides, together other useful documents, will be posted on our course webpage throughout the term. All files essential to the course will have a name starting by “1_”. Other files important for interviews but not necessary to perform well in the course (articles from specialized newspapers, html pages from economic institutions, or extra slides) will be denoted as “2_”. Files that I may or may not discuss in class might appear on Course portal in the category “Temp_”. If I end up discussing them in class, I will change their category to “1_”, otherwise I will mark them as “2_” or even delete them.

ECONOMIC NEWS

While no subscription to any particular newspaper or journal is required, I strongly encourage you to regularly read any of the following: *The Economist* (available for free through the University), the economic calendar of Nasdaq.com (available on the web for free), *Wall Street Journal* (available for free through the University), or equivalent publications.

SUGGESTED TEXT BOOK

Students that have not had the privilege of having been exposed to Macro may find the following **optional** book useful:

(ABC) Abel, Bernanke, and Croushore. *Macroeconomics*. Addison-Wesley.

■ Lecture Structure

My lectures will typically, **but not always**, have the following format:

1. Short review of previous lecture and connection with current topic
2. Current topic and clarifying questions
3. Application:
 - a. Economic Indicators; and/or
 - b. Current economic events in the US and abroad; and/or
 - c. Case study.

The time allocation tends to be balanced, but I will always retain the option of having a 100% “theory-based” class if we fall behind with the analysis of our economic framework, or a more “application-based” lecture if a sudden and relevant current event should happen.

POLICY ABOUT QUESTIONS IN CLASS

By default, FNCE 613 is a very challenging course since it is extremely concentrated. In less than four months we will need to cover topics that tend to have a large breath. This implies that I will need to be very selective with questions. In order to keep our course efficient and focused on the essential, I anticipate that I may often postpone interesting and legitimate questions for my office hours. If one of your questions is postponed, keep in mind that there is nothing personal about it. It is my way to optimally manage common class time.

■ Grading

The course grade is based on the following components:

Take-home quizzes	1% per quiz (# of quizzes TBA)
In-class midterm	30% or 0%
Final exam	40% or 70%
In-class discussion	15%
Group peer evaluation	0 to -5% (depending on severity)
Participation	TBA

TAKE HOME QUIZZES

These quizzes are provided on Canvas and are automatically graded. They are based on what has been done in class and are similar to the practice quizzes I provide in class. Each quiz gets a weight of just 1%, a weight small enough so that you are not penalized for your mistakes during your learning process, but large enough to give you an incentive to regularly review our topics.

MIDTERM AND FINAL EXAM

The midterm refers to the first part of our course. The final exam focuses on the second part. Keep in mind that, the second part of the course builds on the topics seen in the first part. Both midterm and the final exam will be “open book.” Feel free to bring with you a paper copy of whatever source you think will be useful. **Laptops and flat devices are allowed, but internet has to be OFF at all times. Honor code applies.** All examinations will be based on what is done in class and their structure will be consistent with the practice final exam that I will give you during the course. Based on previous years, you should expect an average of 80-85 out of 100 for my final exam.

INSURANCE POLICY ON EXAMINATIONS

The final grade depends on both your group performance (discussions count overall for 15%) and your individual performance (quizzes, midterm, final exam, and participation count for the remaining 85%). The score of your individual performance will be computed as follows:

- If your relative performance on the midterm is better than your relative performance in the final exam, I will assign 30% to the Quiz and 40% to your final;
- If your relative performance in the final exam is better than your relative performance in the Quiz, I will assign a weight of 70% to your final and 0% to your Quiz.

This formula provides a great deal of insurance against both scheduling conflicts (inability to come to class for the Quiz) and anomalous performance (a bad day either for the Quiz or the Final exam). As a result, **no requests to reschedule or retake the Quiz will be entertained** unless specifically mandated by university policy.

GROUP WORK

Group work is very beneficial when it comes to promoting economic discussion and analysis. The overall weight on group work is 15%. To be totally fair, students will receive anonymous peer evaluations within their study group on the day of the final exam. Poor evaluations could result in a penalization as high as 5%, depending on the gravity of the case. **Randomly, I will ask your group to introduce the readings of the day or of the previous lecture.** I have no fix policy about this: some days I may call nobody; other days I may call multiple groups. I give more credits to groups in which each member says something about the topic of the day.

CLASS PARTICIPATION

Students are expected to attend classes, to arrive on time, and to stay for the duration of the class. Your peers will make your learning experience easier, more pleasant, and, most importantly, more complete. Class participation will be encouraged, but only when it is a contribution. High-quality comments will increase your class participation score, and they will make the discussion more valuable for your classmates.

REGRADING OF EXAMS

Any requests for regrading of exams must be submitted in writing within one week from the date that exams are returned in class, and must be accompanied by the *Regrade Request* form and *Statement of Honesty in Regrade Request* form, which are available on Canvas. The one-week period for submission of exams for regrading begins on the date that the exams are returned in class, not on the date that you pick up the exam, if for some reason you are absent from class the day the exams are returned. If you miss the class during which the exams are returned, it is your responsibility to pick up your graded exam within the one-week period. Requests for regrading must be very specific.

Do not mark or make notes on your exam, and do not alter in any way the answers to the questions. Such alterations will be construed as violations of the Code of Academic Integrity and may be referred for disciplinary action. When you request a regrade, I retain the right to regrade your entire exam. Please be aware that your exam score may fall as a result of regrading, if I determine that you received too many points for the question(s) you identify, or for other questions on the exam.

SCHEDULE

By default, our schedule will follow the University calendar, subject to a few exceptions and to sudden changes that sometimes happen (i.e., weather conditions, ...). Changes will be announced in advance in order to minimize disruption and to be fair with everybody. The Canvas' calendar will be updated regularly so that it will reflect our effective schedule.

Re-Scheduling

Students should take note of the section on Examination Policies in the Academic Policies section of the MBA Resource Guide: www.wharton.upenn.edu/mbaresource/misc/academic-policies.cfm

■ Responsibilities and Obligations

As in every well-functioning society, our community has set forth guidelines that govern our participation in the school. These can be generally categorized in two groups. One outlines our values while the other describes our responsibilities. Below, I provide a summary of both.

THE HONOR CODE FOR THIS COURSE

If you have questions about your responsibility under the honor code, please bring them to me. This document contains policies and procedures pertaining to the student honor code for my course. Your full participation and observance of the honor code is expected.

The following acts, among others, are expressly prohibited by the honor code:

1. **Unauthorized assistance or unauthorized collaboration** in connection with academic work, whether or not for a grade.
2. **Cheating** on examinations or other academic assignments, whether graded or otherwise, including but not limited to the following:
 - a. Using unauthorized materials and methods (notes, books, electronic information, telephonic or other forms of electronic communication, or other sources or methods);
 - b. Violating or subverting requirements governing administration of examinations or other electronic assignments;
 - c. Compromising the security of examinations or academic assignments;
 - d. Representing another's work as one's own; or
 - e. Engaging in other actions that compromise the integrity of the grading or evaluation process.

What is permitted

1. You should work with your study group on group assignments.
2. You may seek help for grammar or composition on all graded assignments, especially if you are an international student. You may not, however, seek help for any other aspect of the assignment.

3. You may consult with me regarding any question you have with respect to whether a proposed action is permitted in my class. Your failure to consult with me regarding questionable or dubious behavior shall be considered should I decide that you have violated the Honor Code.
4. I create my own problems, so while working on problem sets you and your group are allowed to search the web, textbooks, etc. for similar sample exercises if you find that helpful. During the final exam, however, I expect you to use only your own notes and books (electronic format is fine).

What is not permitted

1. You may not consult with any other person via the internet, text messaging, email, in person, etc. during (1) the midterm; (2) the “take-home” quizzes on Canvas; and (3) the Final Exam.
2. You may consult resources on the internet for help with the homework, but not if those resources are, on the other end, human beings. You cannot post questions in chat rooms or discussion boards, for example. For the in-class discussions, you may sometimes be absent, but you are expected to talk to your group and contribute to the preparation of the required short briefing.

Course Outline-3 FNCE 613

Topic 1. Economic Performance

Broad measures of economic performance

- What is Gross Domestic Product (GDP) and how it is measured?
- The main limitations of our common GDP measures
- Main components of GDP (Consumption, Investment, Government Expenditure, and Net Exports)
- GDP across sectors (services vs manufacturing)
- GDP across countries
- GDP data: implications for consumers (demand) and firms (supply) behavior
- What is inflation? Why excessive inflation is a source of concern?
- What is deflation? Why is it a source of concern?
- Global drivers of local economic performance

Macroeconomic uncertainty

- What is a recession? How frequently do we get a recession? How long lasting recessions are?
- Consumers and producers behavior during recessions
- Consumers and producers behavior during slow recoveries with excessive debt
- Recovering while deleveraging: implications for consumers and businesses
- Economic data during recoveries: news and stock market reactions
- Great Recessions: what is concerning about them?
- Recessions as times of opportunities: innovation and the macro economy

Topic 2. Labor market slack

- Hiring, firing and quitting decisions over time.
- Labor dynamics and global factors: outsourcing trends and re routing
- What is unemployment? What is underemployment? How do we measure them?
- Monthly employment reports: what they mean for business decisions
- Monthly production costs reports: what they mean for future hiring
- Why do we have unemployment? Why is long term unemployment a major concern?
Implications for income, products demand, and monetary policy.
- Employment: where is job creation coming from? Business innovation and productivity.
- Employment: where are skilled workers coming from? Education and the challenge of growing student loans. Minimum wage or minimum education?
- Unemployment outlook and lessons for general managers

Topic 3. Interest rates: implications for global demand and supply

- What is a nominal interest rate? What is a real interest rate? Which one drives economic decisions?
- How do we measure a risk free interest rate? Pros and cons of using government bonds
- Deflation in a market with zero nominal interest rate: implications for both consumers (demand) and producers (supply)
- Business investment outlook in an economy with zero short term interest rates and substantial uncertainty

- Business investment in an economy with big public deficits
- Business investment depressed in economies with policy uncertainty
- The role of interest rates across industries (labor/capital intensive) and countries (developed/emerging).

Topic 4. Understanding and anticipating Central Banks

Conventional Monetary Policy

- What is money and how it is measured?
- Is Bitcoin (electronic currency) money?
- How does a central bank inject money in the economy? Purchases of financial assets
- How does a central bank withdraw money from the economy? Implications for the private financial markets.
- How can money injections reduce the interest rates? How does the interest rate affect consumer and producers? Is there a difference across sectors?
- What is the mandate of the US central bank?
- What are the rules of thumb of monetary policy? When should we expect higher rates?
- How does monetary policy respond to excessive inflation?
- How does policy respond to deflation? What are the limitations of conventional monetary policy?

Quantitative Easing

- What is Quantitative Easing (QE)?
- What does it mean to reduce long term rates? Why should it matter?
- What is the difference between QE1, QE2, QE3? What do these policies do? What could happen to GDP once these policies are terminated?
- Consumers and producers reactions to quantitative easing
- Consumers and producers reactions to the exit strategy from quantitative easing
- Japan: will QE ever work? US: was QE effective?
- Should the US monetary policy globally coordinated?
- How has QE affected demand for equity vs. long bonds by investors/savers? What are the implications for consumer credit and firms that sell products and financing in a package?

Topic 5. Global Economy and External Imbalances

- What is the balance of payment?
- What is the current account? How is it related to net exports? How do we measure net exports?
- What is the capital and financial account? How do we measure capital flows?
- What does it mean to have a current account deficit?
- What does it mean to have a capital account deficit?
- How do we measure the net external debt of a country? What prevents excessive international leverage?
- Can external imbalances be permanent? If not, when do countries change their net exports policy?
- What does this all mean for international producers? What does it mean for international consumers?
- What are the implications of changing capital flows for firms, whether they sell domestically or have substantial export exposure?

Topic 6. Exchange Rates

- What is a nominal exchange rate and how is it measured?
- What is a real exchange rate? How should we interpret it? Why is it relevant for business decision?
- Why should an international producer care about exchange rates?
- Why should a domestic consumer care about exchange rates? CPI and imported inflation.
- What is a fixed exchange rate regime? How do we control exchange rates?
- What are the benefits and costs of a fixed exchange rate regime?
- Is there an optimal exchange rate level?
- How does the exchange rate affect international bond investments?
- How does the exchange rate affect international trade of goods and services?
- How do currencies respond to QE? Is monetary policy uncertainty a driver of currencies?
- How do exporters think about selling in the domestic vs. overseas markets as a function of exchange rate changes and central bank decisions? What are the implications for staffing of firms (since overseas sales typically rely on local not US staff)?

Topic 7. Fiscal Stimulus vs Austerity: effects on economic activity

- Why does more government expenditure expand output?
- Why does lowering taxes expand output?
- Are fiscal stimulus sustainable forever? What is the best financing strategy for public debt?
- Are fiscal stimulus able to stimulate the economy forever? Is there a long run cost?
- Austerity: reducing excessive public debt. What are the pros and cons for producers and consumers?
- Should fiscal policy coordinate with monetary policy? What are the best practices?
- Should we inflate away public debt?
- Should fiscal policy be coordinated across countries to be effective?
- Is public debt threatening long term growth? The EU perspective and the US concerns.

Syllabus-4 FNCE 613

■ Overview

The main objective of the course is to enable the student to think systematically about the current state of the economy and macroeconomic policy in the global economic environment. The classroom lectures and discussions will describe the workings of the relevant markets – the various assets, the goods, the labor and the foreign exchange markets. The course will primarily focus on the nature of the business cycle, its determinants and, in particular, the role of monetary and fiscal policies both domestically as well as in a global context with a special emphasis on the Global Financial Crisis that precipitated the Great Recession of 2008-09 and its aftermath leading up to the current situation. The students are encouraged to read publications such as the Wall Street Journal, The Economist and the Financial Times to stay abreast of the relevant domestic as well as global macroeconomic and monetary developments.

■ Course Material

Students are required to purchase the following course material which is available in the bookstore as a single package:

Macroeconomics Plus NEW MyEconLab with Pearson eText — Access Card Package, 8/E
Abel, Bernanke and Crushore. Prentice Hall/Pearson. 8/e, 2014. ISBN-10: 01334079261

ONLINE RESOURCES

- Canvas Course site
- Online Economics and Finance Dictionary: <http://investopedia.com/dictionary>

■ FAQS

Will Canvas be used?

Yes, extensively. All lectures and other relevant material (including Discussion Boards) will be placed on Canvas and it will be the essential dashboard for navigating the course.

May students use laptops and mobile devices in class?

Yes, for the purposes of viewing class materials. However, any misuse (such as texting or viewing material unrelated to the course) may result in revocation of this privilege.

May students eat food in class?

No solid food, only water and soft drinks.

Do you hold attendance?

Occasionally.

What about other forms of class participation?

Highly encouraged. There will be student mini-presentations about current macroeconomic issues and web reports as well as interaction about the class material. There will also be graded in-class break-out sessions.

Are there consequences for lateness or early departure?

Leaving early and arriving late has significant negative externalities in terms of learning environment so I want to discourage this very seriously. Such behavior patterns will adversely affect your grade.

Do you use a seating chart?

Yes.

Do you expect name tents to be used?

Yes.

Do you hold office hours?

Yes (as do TAs) and I welcome you to come talk with me after the class and/or during the office hours.

When are the exams? Are they cumulative?

This is all detailed in the syllabus. In general, one mid-term and one (cumulative) final during the Core Course exam slots. If midterm is excused due to a University approved reason, the weight will be transferred to the final. No make-ups.

How can I be ready for class?

Read before you come in and pay attention to the Canvas posts and schedule for the course.

How can I do well in the exam?

Come to class regularly, read before and after the class, interact with the TAs and the professor and take care of all the assignments in a timely fashion.

■ Grading

The course grade will be based on the following:

Midterm Exam	20 %
Final Exam (Cumulative)	40 %
Web Reports/ Class presentations	20 %
Problem Sets/Break-Out Sessions	20 %

Note: There will be no make-up exam for the missed Midterm exam; instead, for pre-approved absences, the relative weight of the Final Exam may be proportionately increased.

Course Outline -4 FNCE 613

PART I: INTRODUCTION (2 LECTURES)

Topic 1. Introduction to Monetary Economics

Readings: Chapter 1

Topic 2. Measurement of National Output

Readings: Chapter 2

HW Assignment: MyEconLab Ch. 2

Web Report # 1: After surfing www.bea.gov for about half an hour, prepare a one page single-spaced typed report describing three items that you found of interest. Also, include a brief personal commentary on the contents and/or the web site. A class discussion will also be held the day the report is due.

Topic # 1: Mysteries of the GDP Measurement (Hand Out or H. O. # 1)

Topic # 2: CPI-based Inflation Rate: Problem and Solutions (H.O. # 2)

PART II: MARKETS, MARKETS, EVERYWHERE (6 LECTURES)

Topic 3. Labor Market and Trend Growth

Readings: Chapter 3

HW Assignment: MyEconLab Ch. 3

Topic 4. Introduction to Bonds, Stock and Money Markets.

Readings: Money (Asset) Market Equilibrium Chapter 7

Central Banking System (FED) Chapter 14 (14.1-14.2)

HW Assignment: MyEconLab Ch. 7, Ch. 14a

Topic 5. Goods Market Equilibrium

Readings: Chapter 4

Fisherean Model (Appendix 4.A)

HW Assignment: MyEconLab Ch. 4

PART III: GENERAL EQUILIBRIUM MODEL OF THE ECONOMY

(IS-LM-FE FRAMEWORK) (4 LECTURES)

Topic 6. G. E. Framework (IS-LM-FE)

Readings: Chapter 9 (except section 9.6); Numerical Illustration (App. 9.A)

HW Assignment: MyEconLab Ch. 9a

MIDTERM EXAM: Coverage: Reading List Items 1 – 6

PART IV: MODELS OF BUSINESS CYCLES AND THEIR POLICY IMPLICATIONS (6 LECTURES)

Topic 7. Nature of Business Cycle

- Readings:** Chapter 8 (except 8.4); (H. O. #3)
- HW Assignment:** MyEconLab Ch. 8
- Web Report #2:** After surfing www.nber.org/cycles.html and www.nber.org/cycles/sept2010.html for about half an hour, prepare a one page single-spaced typed report on how the NBER determines the turning points of the business cycles in the U. S. Also, include a brief personal commentary on the topic. A class discussion will also be held the day the report is due.

Topic 8. The Classical Model and RBC Model

- Readings:** Chapter 10 (except 10.3), (H. O. #4, 5)
- HW Assignment:** MyEconLab Ch. 10

Topic 9. The Keynesian Model

- Readings:** Chapter 11, (H. O. # 6)
- HW Assignment:** MyEconLab Ch. 11

Topic 10. Fiscal/Monetary Policy Implications of the Classical and Keynesian Models

- Readings:** Chapter 9 (section 9.5); Chapter 15 (sections 15.1-15.3);
Chapter 14 (sections 14.3-14.5); Chapter 10 (sections 10.4-10.5);
Chapter 11 (section 11.3)
- HW Assignment:** MyEconLab Ch. 9b, 15, 14b, 10b, 11b
- Topic # 3:** What we do or don't know about Macroeconomic Policy Making (H. O. # 7)
- Web Report # 3:** After surfing www.federalreserve.gov for about half an hour, prepare a one page single-spaced typed report about the functioning of the Federal Reserve, in particular, its conduct of the monetary policy in response to the Global Financial Crisis of 2007-09, and its currently ongoing transition towards normalization of monetary policy after the end of the so called “Quantitative Easing” policy. Include a brief personal commentary as well. A class discussion will also be held the day the report is due.

Optional readings regarding the Monetary Policy and Credit/Financial Crisis:

1. **U.S. Monetary Policy: An Introduction:**
 - a. www.frbsf.org/publications/federalreserve/monetary/index.html
2. **U.S. Monetary Policy during the 1990s**
 - a. www.nber.org/digest/dec01/w8471.html
3. **Anatomy of the Global Financial Crisis of 2008-2009**
 - a. “Anatomy of America’s Subprime Mortgage Crisis of 2007-08: Channels of Contagion”, by Tayyeb Shabbir. Published in Refereed Conference Proceedings of the Global Academy of Business and

- Economic Research, Houston, March, 2008. Re.: H. O. # 8
(In Handouts Folder).
- b. www.soas.ac.uk/cdpr/publications/dv/50940.pdf
 - c. www.stanford.edu/~chadj/CurrentEvents2009.pdf
- 4. FED's QE policy towards the Global Financial Crisis of 2008-2009**
- a. www.globaleconomiccrisis.com/blog/archives/tag/federal-reserve
 - b. <http://news.bbc.co.uk/2/hi/business/7934920.stm>
- 5. Fed Maps Exit from Stimulus—Normalization and beyond**
- a. <http://online.wsj.com/article/SB10001424127887324744104578475273101471896.html>
 - b. Yellen: Normalizing Monetary Policy: Prospects and Perspectives
March 2015
www.calculatedriskblog.com/2015/03/yellen-normalizing-monetary-policy.html

PART V: OPEN ECONOMY MACROECONOMICS (7 LECTURES)

Topic 11. Open Economy Macroeconomics: MP and FP, Currency Markets and Currency/Financial Crises, Euro zone financial crisis.

Readings: Chapter 5 (5.1-5.2; (optional: 5.4))
Chapter 13 (13.1- 13.3 and class notes; 13.4 (optional))

HW Assignment: MyEconLab Ch. 5
MyEconLab Ch. 13

Optional reading regarding the Global Imbalances:

- a. "Role of the Middle Eastern Sovereign Wealth Funds in the current global financial crisis", by Tayyeb Shabbir in *Topics in Middle Eastern and North African Economies*, electronic journal, Volume 11, Middle East Economic Association and Loyola University Chicago, September, 2009, www.luc.edu/orgs/meea/volume11/PDFS/Paper-by-Shabbir.pdf
- b. "Uneven Growth — short and long-term factors" IMF
www.imf.org/external/pubs/ft/weo/2015/01/pdf/text.pdf April, 2015.

FINAL EXAM: Cumulative Coverage. Exam will be held during the official Core Exam Period.

Syllabus FNCE 615

■ Overview

Macroeconomics and the Global Economic Environment is intended for non-finance majors. It is a half-semester course in macroeconomics with an emphasis on current events and policy applications. The goal of this course is to provide the foundation needed to recognize and understand broad economic and financial movements in the global economy. Key topics include national income accounting, production and economic growth, employment, consumption, investment, business cycles, monetary policy, and international trade and finance. By the end of this course, students will be able to evaluate and discuss the global economic environment in which business and financial decisions are made.

■ Course Material

CANVAS

The Canvas website contains the syllabus, lecture notes, weekly quizzes, teaching assistants' office hours and locations, regrade request forms, and other useful information. You need to have a Wharton account to access the website. You can apply for a Wharton account online if you do not have one.

READING MATERIAL

The bulk of the course material comes from the lecture notes and course readings. The lecture notes are available on Canvas. Most course readings come from *The Economist* newspaper and from Federal Reserve Banks's publications. They are hyperlinked to web sources from within the syllabus.

There is no assigned textbook for this course. However, I strongly recommend you to read sections of *Macroeconomics* (eighth edition) from Andrew B. Abel, Ben S. Bernanke and Dean Croushore, Addison-Wesley, 2014 (referred to as ABC in the syllabus) and *Macroeconomics* (third edition) from Charles I. Jones, Norton, 2014 (referred to as Jones in the syllabus). These textbooks are at the Lippincott library reserve. The study guides that supplement these textbooks are useful aids to students who would benefit from additional explanations and practice with the material.

In addition to the regular course material, you are expected to follow current economic events. While no subscription to any particular journal is required, it is recommended that you regularly read *The Wall Street Journal* and *The Financial Times*.

■ Grading

The course grade will be based on the following:

Final examination	70 %
Six weekly quizzes	10 %
Class participation	20 %

Class participation includes attendance, but primarily depends on coming to class prepared to discuss the assigned material.

EXAMINATIONS

The final examination is comprehensive and closed book. Calculators are permitted. **The final examination can be rescheduled only if required by university policy and only during the official make-up period.**

SCHEDULING CONFLICTS

Scheduling conflicts should be resolved according to the *MBA Resource Guide*. If you find yourself with a conflict due to your career search or recruiting activity, you should work with the MBA Career Management Office to find a resolution. You should never approach your instructor with requests to reschedule exams or to make special accommodations.

REGRADE REQUESTS

Regrade requests must be submitted using the *regrade request* form and the *statement of honesty* posted on Canvas and must be accompanied by your exam. Requests must be submitted within one week from the date the examination is returned (whether or not you actually pick up the exam on that date). Regrade requests must be very specific. For any request, the entire exam will be automatically regraded; meaning, the grade may stay the same, go up or go down after regrading. Any alteration of the exam is therefore strictly forbidden and will be considered as a violation to the Code of Academic Integrity.

QUIZZES

There will be six quizzes on Canvas. The quizzes are designed to reinforce key concepts from the classes and to help you prepare for the final examination. Your final quiz grade will be the average of your best five quizzes. In other words, I will drop your lowest quiz grade. Due dates are indicated in the table below and under the course outline section of this syllabus. The quizzes must be submitted by 9:00 a.m. on the due date. **Quizzes will not be accepted late and no regrade requests will be entertained.** Answers to quizzes will be posted on Canvas shortly after the due date.

Quiz topics

1. National income, 2. Production, employment, and growth, 3. Consumption, Saving, and Investment, 4. The business cycle, 5. Monetary policy, 6. The global economy

■ Academic Integrity

All relevant University policies regarding Academic Integrity must be followed. Please consult the *Code of Academic Integrity* for details.

Course Outline FNCE 615

TOPIC 1: INTRODUCTION TO MACROECONOMIC DATA

Session 1. National Income Accounting

Readings: ABC Ch. 2.1-2.3

Jones Ch. 2.1-2.2

“Boundary problems,” *The Economist*, August 2013

Topics: origin of national income accounting, definitions and measurements of Gross Domestic Product (GDP), GDP components, production, income, and expenditure approach of measuring GDP, saving and investment, GDP and happiness

Session 2. Measuring Economic Changes over Time

Readings: ABC Ch. 2.4-2.5

Jones Ch. 2.3-2.4

“Low for longer,” *The Economist*, January 2015

Topics: nominal and real GDP, GDP across countries, growth rates, the rule of 70, price indexes and inflation, nominal and real interest rates, the Fisher equation

QUIZ #1 DUE

TOPIC 2: PRODUCTION, EMPLOYMENT, AND ECONOMIC GROWTH

Session 3. Production and Economic Growth

Readings: ABC Ch. 3.1 and 6.1

Jones Ch. 4

“Is China growth miracle over?” *Economic Letter*, Federal Reserve Bank of San Francisco, August 2015

Topics: production function, return to scale, Cobb-Douglas production function, capital and labor inputs, Total Factor Productivity (TFP or technology), marginal product of capital and labor, diminishing marginal products, capital and labor inputs allocation, production and shocks to labor, capital, or technology, capital and labor income share, sources of economic growth, income differences across countries, growth accounting

Session 4. The Labor Market

Readings: ABC Ch. 3.2-3.6

Jones Ch. 7

“The Effects of Minimum Wages on Employment,” *Economic Letter*, Federal Reserve Bank of San Francisco, December 2015

“Reducing Poverty via Minimum Wages, Alternatives,” *Economic Letter*, Federal Reserve Bank of San Francisco, December 2015

“Changes in Labor Participation and Household Income,” *Economic Letter*, Federal Reserve Bank of San Francisco, February 2016

- Topics:** the U.S. labor market, labor demand, labor supply, income and substitution effects, labor market equilibrium, full-employment output, wages and inequality, labor market measurements, frictional vs. structural unemployment, natural rate of unemployment, Okun's law

QUIZ #2 DUE

TOPIC 3: ECONOMIC MARKETS

Session 5. Consumption and Saving Decisions

- Readings:** ABC Ch. 4.1 and appendix 4.A
Jones Ch. 16
 "U.S. household deleveraging and future consumption growth," *Economic Letters*, Federal Reserve Bank of San Francisco, May 2009

- Topics:** consumption and saving decisions, the intertemporal budget constraint, income and wealth, income and substitution effects, permanent-income hypothesis, Ricardian equivalence, borrowing constraints, empirical evidence on consumption

Session 6. Investment and Goods Market Equilibrium

- Readings:** ABC Ch. 4.2-4.3
Jones Ch. 17
 "Why are interest rates so low?" Part 1, Part 2, Part 3 by Ben Bernanke, March-April 2015.
Topics: firms' investment decisions, the user cost of capital, desired capital stock and investment, components of physical investment, saving and investment equilibrium and the real interest rate

QUIZ #3 DUE

TOPIC 4: THE BUSINESS CYCLE

Session 7. Firms Pricing Behavior and the Phillips Curve

- Readings:** ABC Ch. 11.2 and 12
Jones Ch. 12
 "Sticky situations," *The Economist*, November 2006
Topics: the business cycle, firms pricing behavior, unemployment and inflation, the Phillips curve, the role of inflation expectations

Session 8. Aggregate Demand and Aggregate Supply

- Readings:** ABC Ch. 9.5-9.6
Jones Ch. 13
 "The high cost of falling prices," *The Economist*, February 2015
 "Will the Economic Recovery Die of Old Age?" *Economic Letter*, Federal Reserve Bank of San Francisco, July 2012

- Topics:** aggregate demand curve, aggregate supply curve, the AS/AD framework, the liquidity trap, the dangers of deflation, expectations and economic activity

QUIZ #4 DUE

TOPIC 5: MONETARY POLICY

Session 9. The Federal Reserve System and U.S. Monetary Policy

- Readings:** ABC Ch. 14.1-14.3
 “Tools of Monetary Policy,” Ch. 15 by Frederic Mishkin on Study.Net
 “Age shall not weary her,” *The Economist*, December 2013
 “Monetary policy, money, and inflation,” *Economic Letter*, Federal Reserve Bank of San Francisco, July 2012
- Topics:** the Federal Reserve System, central banking around the world, the Federal Open Market Committee, money supply creation, conventional monetary policy, open market operations, the federal fund market

Session 10. Monetary Policy Rules and Unconventional Monetary Policies

- Readings:** ABC Ch. 14.4-14.5
 “Will unconventional policy be the new normal?” *Economic Letter*, Federal Reserve Bank of San Francisco, October 2013
 “After the First Rate Hike,” *Economic Letter*, Federal Reserve Bank of San Francisco, January 2016
- Topics:** monetary policy rules, the Taylor rule, the limits of conventional monetary policy, the Great Recession, unconventional monetary policy, macroprudential policies and regulations

QUIZ #5 DUE

TOPIC 6: THE GLOBAL ECONOMY

Session 11. International Trade

- Readings:** Jones Ch. 19
 “Global Fallout from China’s Industrial Slowdown,” *Economic Letter*, Federal Reserve Bank of San Francisco, November 2015
- Topics:** facts about international trade, reasons for trade, risk sharing, absolute and comparative advantage, costs and benefits of international trade

Session 12. International Finance

- Readings:** ABC Ch. 13
 Jones Ch. 20
- Topics:** the nominal and real exchange rates, the law of one price, the foreign exchange market, interest rates and exchange rates movements, the real exchange rate and net exports

QUIZ #6 DUE

Session 13. What should Janet Yellen do?

Readings: "Monetary policy when the spyglass is smudged," *Economic Letter*, Federal Reserve Bank of San Francisco, November 2014

"Mixed signals: Labor markets and monetary policy," *Economic Letter*, Federal Reserve Bank of San Francisco, December 2014

Case study: "What should Janet Yellen do?" by Anthony Landry on Canvas

Review Session

FINAL EXAMINATION

Economics of Managerial Decision Making (MGEC 611)

■ Course Description

Microeconomics for Managers Foundations (.5 cu) establishes the micro-economic foundations for understanding business decision-making. Students with an economics background should still enjoy the application-oriented approach to basic economic concepts. The course covers demand, supply, market equilibrium under full information and policy interventions (4 lectures), perfectly competitive markets and pricing with market power (3 lectures), an introduction to game theory (3 lectures), a lecture on auctions (1 lecture), and additional topics of current interest. Students are expected to have mastered these materials before enrolling in the second quarter course: Microeconomics for Managers: Advanced Applications.

■ Waiver by Exam

Incoming students who have an extensive background in economics may waive out of the first quarter of Microeconomics for Managers by passing a waiver exam. The second quarter covers advanced topics and is required for all students.

To be exempted from enrolling in MGEC 611: Microeconomics for Managers: Foundations, students have to pass a 90-minute waiver exam.

It should be noted that MGEC is a cohorted class, and offers the opportunity to work together with your learning team on problem sets and group projects, and so students report enjoying participating in both quarters, even if some of the material is review.

The MGEC 611 waiver exam tests mastery of the following topics:

1. Reservation Prices and Demand Curves
2. Market Equilibrium and Elasticity
3. Government Interventions
4. Cost-Minimizing Production
5. Producing in Perfect Competition
6. Optimal Monopoly Production and Pricing
7. Vertical Relations: Double Marginalization and Solutions
8. Game Theory: Simultaneous games
9. Game Theory: Sequential Games
10. Advanced Game Theory: Repeated/Infinite Games
11. Auctions and Bidding Strategies

Please note, you should not expect to pass the waiver exam if you have a passing familiarity with these topics, or even some deeper expertise in a subset of the topics. The MGEC course teaches these topics at a very advanced level, with specialized applications to business settings, and the waiver exam is designed to mirror this content. Many students who have undergraduate economics degrees still find they need to take the course, as they may not have covered all topics in depth, or may need to review some areas.

Syllabus MGEC 611

■ Readings

The principal readings for the course will take the form of short popular press articles, posted on Canvas. Each class session will have one to three articles assigned for reading in advance of class. For students who wish to supplement the lectures, the primary textbook is *Microeconomics*, Doug Bernheim and Michael Whinston, 2nd Edition, McGraw-Hill [BW below]. It is not mandatory, but may be useful for students with no or little background in economics, or those who have not seen similar material in many years. The text is available at the bookstore.

Before each class, we expect all students to have read the assigned newspaper articles for that class to facilitate a classroom discussion on the lecture's lesson. PDF versions of the assigned articles are available under "Files\Reading" on Canvas.

■ Teaching Assistants

TAs are responsible for holding office hours, teaching TA sessions, and performing grading. For the most part, we request that you not email TAs, and rather ask questions on the central Canvas site—this allows all students to benefit from your question, and prevents the TAs from having to answer the same thing several times, since they have so many students to assist.

TA office hours are a time to receive one-on-one help from TAs. This is essentially free "tutoring" time, when the TA can go through any concepts you might be struggling with. We do ask, however, that students not ask directly about the problem sets in office hours. Instead, please come prepared to ask for help with similar questions, or the general concept being covered by a certain problem. If you have clarifying questions on problem sets, please ask them on Canvas.

■ TA Sessions

Lecture time is scarce, and will thus be targeted at conveying the core concepts, motivating the intuition behind the concepts and their usefulness, providing an outline of how to solve problems, and class discussion. If you have not taken economics before, do not have a quantitative background, or find yourself struggling to understand the slides, you can go to TA sessions (also called "recitations") for more details on how to solve problems and step-by-step description of the math involved. This combination of lecture plus TA recitation sessions allows us to target lecture to the "median student," with recitation to supplement for students who find the pace too fast. While going to recitation is not mandatory, it will be extremely helpful if you struggle to understand the lecture materials. The TA will go through the problems solved in lecture more slowly, in greater detail, as well as doing supplementary problems when time allows. There will also be fewer students in each TA session, which will allow you to ask questions and receive more customized assistance.

You do not need to register for TA recitation sessions, but should plan to choose the one that fits your schedule and attend it regularly.

■ Mathematical Requirements

In this class, you are required to be able to do algebra and calculus. If you struggle with these, you may consider investing in a graphing calculator (TI-89) that can take derivatives for you. To be successful in this class, you should:

1. Be able to graph an equation, especially a linear equation.
2. Be able to solve a system of two linear equations and two unknowns.
3. Be able to compute the derivative of a simple equation.
4. Know how to find the maximum or minimum of a function using derivatives.

If you struggle with any of the above, we suggest reviewing the Math for Business course, available on Canvas, in addition to attending the first recitation session.

■ Grading Policies

We encourage students to work together with their learning teams to solve the problem sets. However, each student must write up and submit an individually generated problem set. If you need to collaborate with someone outside your learning team, please write their name on your problem set, e.g., “Additionally consulted: Susan C. Wharton.” Working together with your learning team is a great way to build a community that will be with you throughout your Wharton experience, and to learn from one another’s strengths.

Problem sets should be submitted to the section-labeled hanging folders just inside **1041 Steinberg Hall-Dietrich Hall** (i.e. the smaller door to the left of the main entrance to the 1400 suite). Please submit your problem set to the correct folder associated with your section. The door will be closed at 4 pm on the day of the deadline. Please be mindful that this is a working office. **Submissions will not be accepted once the door is closed, and submissions will not be accepted through any other method, including email.**

The exam is closed book, but a one page “crib sheet” of formulas is allowed along with a stand-alone (not a phone or a computer) calculator (details to be discussed in class).

Each problem set is graded on a twenty-point scale across all problems in the problem set. Full points will be given for correct answers showing the derivations; Points will be subtracted for mathematical and logical errors. Zero points will be given for no answers OR correct answers without supporting derivation.

If you wish to dispute a grade on an assignment or an exam, you must do so by set deadlines. For problem sets, this deadline will be the Friday after the problem sets are handed back. For exams, the deadline will be announced, but will be no more than 1 week after the exams are available for pickup. In order to file a dispute, you must ante up 5% of the value of the assignment. If we conclude that your dispute is valid, you will receive the 5% back, but if not, we will keep it. We also reserve the right to re-grade all parts of a disputed assignment, not only the specific parts you

wish to dispute. Finally, your dispute must be put into writing, attached to the original graded problem set or exam, and submitted to the same place that the homework assignments are submitted, by 4 pm on the dispute deadline. Again, **disputes will not be accepted beyond the deadline, which will be no more than 1 week after graded materials are available for review, and disputes will not be accepted through any other method.**

Any evidence of cheating is sent immediately to the Dean.

Your score for the course will be calculated according to the following table. Course grades will be “curved” by individual instructors.

Assessment	% of Grade
Problem Set 1	13%
Problem Set 2	13%
Problem Set 3	13%
MGEC 611 Exam	50%
Attendance and Participation	11%

■ Classroom Policies

1. Each student must sit in his or her assigned seat with name-card displayed.
2. You are expected to have read the assigned articles before class. We suggest that you briefly discuss them with your learning teams as well.
3. We will cold-call people. If this is an issue for you, please discuss it with your instructor.
4. If you would like to take notes electronically, tablets — but not laptops or smartphones — can be used in the classroom.
5. Wharton “concert rules” apply: be seated when class is scheduled to start and don’t leave the room unless absolutely necessary.

■ Attendance Policies

We will rely on the attendance app developed by the MBA Program Office (MBAPO) in conjunction with the seating chart to record attendance. Arriving FIVE or more minutes late for class is treated as an absence and absences will be excused only for the specific reasons listed on the MBAPO website. Please review the MBAPO’s core course attendance policy here:
<https://spike.wharton.upenn.edu/mbaprogram/Policies/MBA%20Program%20Attendance%20Policy.cfm>

■ **How to be Successful in this Class**

This is a quantitative class, and the exams will test your ability to solve problems with the tools we learn, rather than your memorization of facts. Because of this, the best way to study is to go through the problems we do in class and redo the problem sets carefully on your own. Repetition, in particular of actually answering quantitative problems yourself, is very helpful.

We recommend going through the lecture notes between classes with a pen and paper, doing the example problems out long-form. Additionally, working through the problem sets is not merely busy-work for a grade — they are truly the best preparation for the exam!

If you are struggling, please go to office hours and TA sessions early in the term—do not wait until you are behind!

Course Outline MGEC 611

KEY

BW Microeconomics, Doug Bernheim and Michael Whinston, 2nd Edition, McGraw-Hill.

UNIT 1: THE CONTEXT IN WHICH FIRMS OPERATE

Session 1: Course Introduction and Market Demand

1. Overview of the Course
2. Reservation Prices and Demand
3. Aggregating Demand Curves

Article: “Frustrations of Air Travel Push Passengers to Amtrak,” Ron Nixon, *The New York Times*, 08/15/2012 www.nytimes.com/2012/08/16/business/hassles-of-air-travel-push-passengers-to-amtrak.html

Textbook: BW Chapters 2.1, 14.2 section on “Market Demand,” 14.5

Session 2: Equilibrium and Elasticity

1. Supply and Market Equilibrium
2. Welfare: Consumer and Producer Surplus
3. Understanding Consumer Demand: Price elasticity, income elasticity, and cross-price elasticity

Article: “A Deeper Look at Uber’s Dynamic Pricing Model,” Bill Gurley, *Above the Crowd*, 3/11/2014 <http://abovethecrowd.com/2014/03/11/a-deeper-look-at-ubers-dynamic-pricing-model/>

Article: “Dynamic Pricing in a Post-Uber World,” Erika Morphy, *Forbes*, 8/31/2014. www.forbes.com/sites/erikamorphy/2014/08/31/dynamic-pricing-in-a-post-uber-world/

Textbook: BW Chapters 2.3, 2.4

Session 3: Government Interventions: Taxes and other Regulation

1. How interventions affect a market equilibrium
2. Incidence of interventions
3. Externalities, and why governments intervene.

Article: “PA House passes cigarette tax for Philly schools,” Kevin McCorry, *WHYY*, 7/2/2014. www.newsworks.org/index.php/homepage-feature/item/69972-cigarette-tax-for-philly-schools-clears-major-hurdle-in-pa-house

Article: “A Price Tag on Carbon as a Climate Rescue Plan,” Justin Gillis, *The New York Times*, 5/30/2014. www.nytimes.com/2014/05/30/science/a-price-tag-on-carbon-as-a-climate-rescue-plan.html

Textbook: BW Chapter 15.1, 15.2, 20.1, 20.3

UNIT 2: PRODUCTION DECISIONS AND PRICING

Session 4: Production and Supply Curves

1. Types of costs firms face
2. Production functions
3. Solving for the optimal ratio of inputs
4. Solving for a variable cost function

Article: “Game over for 520 Zynga workers,” Brett Molina and Jon Swartz, *USA Today*, 06/04/2013. www.usatoday.com/story/tech/gaming/2013/06/03/zynga-layoffs-mark-pincus/2385291/

Article: “There’s some serious cost-cutting going on at ESPN — and it should make everyone nervous,” Myles Udland, *Business Insider*, 7/10/2015.

www.businessinsider.com/cost-cutting-is-coming-to-espn-2015-7

Textbook: BW Chapters 2.2, 7.2, 7.3 (through p. 223), 8.1-8.

Session 5: Producing in Perfectly Competitive Industries

1. What do we mean by a “perfectly competitive” market?
2. Profit maximization by perfectly competitive firms
3. Market outcomes in perfectly competitive markets
4. Short Run vs. Long Run decision-making

Article: “Asian Group Tries to Stem Rubber’s Swoon,” Huileng Tan, *The Wall Street Journal*, 2/10/2014. <http://online.wsj.com/news/articles/SB10001424052702304558804579374410575515906>

Article: “Gourmet Cupcakes Are An Awful Business,” Max Nisen, *Business Insider*, 4/18/2013. www.businessinsider.com/gourmet-cupcakes-business-strategy-2013-4

Textbook: BW Chapter 9 (in particular 9.3), 14.3, 14.4

PROBLEM SET 1 DUE

Session 6: Producing with Market Power: Monopoly

1. What is market power?
2. Marginal Revenue and choosing how much to produce (“setting price”)
3. Sources of Market Power: patents, licenses, etc.
4. The Inverse-Elasticity Pricing Rule

Article: “Officials Question the Rising Costs of Generic Drugs,” Elisabeth Rosenthal, *The New York Times*, 10/7/2014. www.nytimes.com/2014/10/08/business/officials-question-the-rising-costs-of-generic-drugs.html?partner=rss&emc=rss&_r=1

Article: “What #SharkWeek Can Teach You About Scarcity in Your Pricing Strategy,” Grace Losso, *Price Intelligently*, 8/13/2012. www.priceintelligently.com/blog/bid/153373/What-SharkWeek-can-Teach-You-About-Scarcity-in-Your-Pricing-Strategy

Article: “Competition Is for Losers,” Peter Thiel, *The Wall Street Journal*, 9/12/2014.
www.wsj.com/articles/peter-thiel-competition-is-for-losers-1410535536

Textbook: BW Chapter 17.1-17.3

Session 7: Pricing in Vertical Markets

1. How market structure at different levels affects the final goods market
2. Double markups and how to avoid them
3. Implications of forms of downstream/retail competition
4. Optimal contracts to overcome vertical market distortions

Article: “New Made-to-Order Mattress Startup Will Make You a Personalized Bed at Half the Price,” Sage Lazzaro, *Observer.com*, 08/04/2015.

<http://observer.com/2015/08/new-made-to-order-mattress-startup-will-make-you-a-personalized-bed-at-half-the-price/#ixzz3hynXQMOF>

Article: Letter to FCC re: Comcast/Time Warner and Net Neutrality, Al Franken, 02/27/2014.
www.franken.senate.gov/files/letter/140227FCCLetterComcastTWC.pdf

Article: “Sticker shock: Why are glasses so expensive?,” Lesley Stahl, *CBS News*, Oct 7 2012.
www.cbsnews.com/news/luxottica-eyewear-why-are-glasses-expensive/

Textbook: PR Appendix to Chapter 11, available on study.net.

UNIT 3: GAME THEORY FUNDAMENTALS

Session 8: Simultaneous Move Games

1. Overview of MGEC 612
2. Game theory as a framework for thinking about strategy
3. The elements of a game and different types of games.
4. Simultaneous move games: drawing a game board, dominant strategies, dominated strategies, and Nash Equilibrium

Textbook: BW Chapter 12.1-12.2, 12.3 (through p. 406), 12.4 (through p. 417)

Video: “Golden Balls” 1: www.youtube.com/watch?v=p3Uos2fzIJ0

Video: “Golden Balls” 2: www.youtube.com/watch?v=S0qjK3TWZE8

Session 9: Sequential and Repeated Games

1. Sequential games, the game tree, and backwards induction.
2. Credible and non-credible threats.
3. Changing the game structure to change the outcome.

Textbook: BW Chapter 12.4 (from p. 418), 12.5

Article: “Best Buy Holiday Pricing Will Match Rivals Even After Items Are Sold,” Mae Anderson, *Associated Press*, 11/21/13. www.huffingtonpost.com/2013/11/21/best-buy-will-match-price_n_4319427.html

Article: "Did Greece Score an Own Goal with Game Theory?" Dhara Ranasinghe, *CNBC*, Jul 7, 2015. www.cnbc.com/2015/07/07/did-greece-score-an-own-goal-with-game-theory.html

Session 10: Repeated and Infinite Game

1. Finitely-Repeated simultaneous move games.
2. Review of time-value and discounting principles
3. Strategies in repeated interactions
4. Application: Price Wars
5. Mixed strategies and wars of attrition

Textbook: BW Chapter 19.5

Article: "\$1 Pizza Slice is Back After a Sidewalk Showdown Ends Two Parlors' Price War," Matt Flegenheimer, *The New York Times*, September 5 2012.

www.nytimes.com/2012/09/06/nyregion/two-manhattan-pizza-parlors-end-price-war.html

Article: "Silicon Valley Tech Giants Struck Deals on Hiring, Say Documents," Jeff Elder, *The Wall Street Journal*, April 20 2014.

<http://online.wsj.com/news/articles/SB10001424052702304626304579509700352730842>

Session 11: Bidding and Selling in Auctions

1. Common issues in auction design and format
2. Bidding functions in different auctions
3. The winner's curse
4. Considerations when running or bidding in auctions

Textbook: Varian Chapter 17

Article: "IPO Dutch Auctions Vs. Traditional Allocation," Ari Weinberg, *Forbes*, 5/10/2014.

www.forbes.com/2004/05/10/cx_aw_0510mondaymatchup.html

Article: "Google shares took off, but the IPO didn't," Ari Levy, *CNBC*, Aug 19 2014.

www.cnbc.com/2014/08/19/es-took-off-but-the-auction-didnt.html

Marketing Management: Program Design (MKTG 611)

■ 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. To waive MKTG 611 altogether, the course must have included decision-oriented case analyses with analytical rigor and the student must have earned a grade of A- or better. To substitute MKTG 611 by an upper-level elective marketing course of 0.5 credit units or more to be taken for a grade, the course need not have included case analysis and the student must have earned a grade of B or better.

Documenting Your Credentials

A copy of the syllabus which includes the title and author of textbooks used in the class, and also the titles of the cases analyzed. The transcript from your admissions file will also be reviewed to ensure you meet the credential grading requirements.

WAIVING BY EXAM

There is no waiver exam for this class.

Syllabus MKTG 611

■ Overview

The first-quarter marketing course (MKTG 611) has two main objectives:

1. First, to help you understand how organizations benefit by creating and delivering superior value to their customers and other stakeholders.
2. Second, to help you develop analytical skills, apply decision tools, and learn frameworks that will discipline your approach to market analysis.

You will learn to make sound decisions regarding:

1. **Segmentation, targeting, and positioning:** How to assess market potential, understand customer behavior, and focus appropriate resources on target segments and against competitors.
2. **Branding:** How to create and position a brand. How to measure and leverage brand equity.
3. **Pricing:** How to set prices that reflect and capitalize on underlying economic value to the customer, and thereby appropriate value for the firm.
4. **Distribution channels:** How to conceptualize a distribution channel, and how to optimize the way in which distributors, retailers, and other intermediaries deliver products, services, and information to customers.
5. **Marketing communications:** How to create effective content, develop integrated marketing and communications plans, and assess attribution for changes in customer behavior.

Throughout the course, you will be required and encouraged to:

- Make and defend marketing decisions in stylized real-world problem situations with incomplete information (e.g., case studies and exercises that we will conduct in the classroom and via assignments).
- Make cross-functional connections between marketing and other areas of business, including finance, operations, and strategy.

The skills you acquire in MKTG 611 will be useful regardless of the industry or geography in which you decide to pursue your career.

■ Course Materials

The MKTG 611 cases and copyrighted reading materials are available through Study.Net.

The MKTG 611 Canvas site houses additional readings, handouts, and other materials.

There is no required text. The following optional books were written by your instructors and are available in hard copy and electronic form. Each of them touches on various aspects of the course.

- *Global Brand Power: Leveraging Branding for Long-Term Growth:* <http://whr.tn/1CUN4lY>
- *Location Is (Still) Everything: The Surprising Influence of the Real World on How We Shop, Search, and Sell in the Virtual One:* <http://amzn.to/1VFknzl>
- *Contagious: Why Things Catch On:* <http://amzn.to/1HOgxfX>
- *Marketing For Financial Advisors: Build Your Business By Establishing Your Brand, Knowing Your Clients and Creating a Marketing Plan:* <http://amzn.to/1RYgKVN>

The following books are general recommended marketing textbooks.

- *Strategic Marketing Management*, 8th edition
www.amazon.com/exec/obidos/ASIN/1936572192/marketingbooksto
- *Marketing Management*, 14th edition
www.amazon.com/Marketing-Management-Edition-Philip-Kotler/dp/0132102927

■ Learning Support

Teaching Assistants (TAs) are second-year MBA students who performed exceptionally well in MKTG 611. They will be available to review course materials and concepts. You will be introduced to your cohort's TA on the first day of class. Their background and contact information will be provided in class and included in a document on Canvas.

Canvas will be used to:

- Distribute case preparation questions,
- Share additional materials, and
- As a forum for ongoing discussion (We encourage you to post at least one element of content, e.g., video, article, podcast, etc., that further enriches our understanding of a particular issue).

■ Grading

Your MKTG 611 grade is determined as follows:

Class participation and attendance	25%
Weekly hand-in assignments	25%
Final examination	50%
Total	100%

CLASS PARTICIPATION AND ATTENDANCE (25%)

Attendance and participation are required.

Attendance = 13 points (1 point per session; 1 bonus point for perfect attendance)

You should check-in to each class using the Wharton Connect mobile app. Students who are more than 5 minutes late and have no reasonable explanation for the delay will receive no credit. If you are unable to attend a class session, you must send an email to your TA ahead of time (note: the MBA Office must approve all excused absences). Two or more unexcused absences will result in a grade of zero for class participation and attendance.

Participation = 12 points (1 point per session)

Constructive participation is based on analysis rather than opinion, and builds on the discussion flow at the time (a good participant is a good listener). The TA will score the quality of your participation during class (note: it is possible to make a comment but receive no credit for it), which may be modified by your professor afterwards.

HAND-IN ASSIGNMENTS (25%)

See the instructions and due date information in the **Case Preparation Document (CPD)**. All case assignments are due at 9:00 a.m. All of these assignments should be uploaded via Canvas and will be graded via Speed Grader on Canvas.

FINAL EXAMINATION (50%)

The exam will be a timed 2-hour in-class exam. Additional details TBA.

Exams will be graded by the TAs, under the supervision of the faculty.

Grades will be posted online. If you believe: (1) that there is an error in calculating your score, or (2) there is a significant mistake, please contact your professor by email within one week of the exam scores posting (requests after this point will not be considered). In your request for a re-grade, please explain your reasons in detail (do not forget to include your section number and Penn ID number with your request).

- Calculation errors will be corrected immediately.
- If you are challenging the points you receive for a given answer, we shall examine your explanation for why you believe you deserve a higher score, and if it is reasonable, we shall re-grade the entire exam, not just the part you identified; therefore, your final score might go up or down, or remain the same.

■ Policy on using outside sources of information

Graded Work and Case Preparation: **Do not use any outside information when preparing for case discussions.** Outside sources of information include the library, the mass media, the Internet, and, on group-based assignments, any people outside of your learning team. For non-case assignments, please feel free to use outside information that will enrich your work.

Non-graded Work: For course topics in general, in contrast, you are obviously welcome to use outside sources to expand your knowledge.

■ Case Discussion Questions

A set of questions related to each of the 5 cases that will be used in the course, have been uploaded onto Canvas. Answers to these questions are due at 9:00 a.m. on the day the case will be discussed. The answers should be short and direct. We are looking for case memos that are NO LONGER than 2 pages in length, 12 point font, 1.5 line spacing.

Although the memos should be short, come to class prepared to discuss the analyses that you used to answer these questions in detail. Many of these questions will include a quantitative analysis of the problem facing the decision-maker in the case. It is important that each student works on these questions and submits their answers based on their **independent work** before talking to others on your learning team about it. Each student is responsible, in-class, to be prepared to address these and other questions.

■ Ethics Matrix

Case Discussions and Questions	
Working with Learning Team	No
Working with Other Classmates	No
Discussing with Other Classmates	No
Consulting Material from Former Students (e.g., formula sheets, solutions, old exams, etc.)	No
Using Material from External Sources* (e.g., reports, articles, books, online research, etc.)	No
Final Examination	
Study with Learning Team	Yes
Study with Other Classmates	Yes
Discussing with Other Classmates	Yes
Using a Formula Sheet / Note Sheet during the exam	Yes
Using Material from External Sources* (e.g., reports, articles, books, online research, etc.)	No
Consulting Textbook / Class Notes	No

Course Outline MKTG 611

KEY

MME: “Marketing Math Essentials” posted on Canvas

CPD: “Case Preparation Document” posted on Canvas

The course alternates between “lectures”, i.e., core content and principles, and “applications” which include case discussions and other exercises

Session 1: Lecture: Introduction, Analyzing Customers and Markets (1)

Session 2: Lecture: Analyzing Customers and Markets (2)

MME: Notes on CLV

Session 3: Application: Uri Minkoff, CEO, Rebecca Minkoff

CPD: Background

Session 4: Application: Unilever Case

CPD: Case questions

Case Assignment #1 must be uploaded on Canvas by 9:00 a.m.

Session 5: Lecture: Branding

Session 6: Application: Mountain Man Brewing Case

CPD: Case questions

Case Assignment #2 must be uploaded on Canvas by 9:00 a.m.

Session 7: Lecture: Pricing

Session 8: Application: Dropbox Case

MME: Notes on EVC

CPD: Case questions

Case Assignment #3 must be uploaded on Canvas by 9:00 a.m.

Session 9: Lecture: Distribution

Session 10: Application: Eataly Case

CPD: Case questions

Case Assignment #4 must be uploaded on Canvas by 9:00 a.m.

Session 11: Lecture: Marketing Communications

Session 12: Application: Sephora Case

CPD: Case questions

Case Assignment #5 must be uploaded on Canvas by 9:00 a.m.

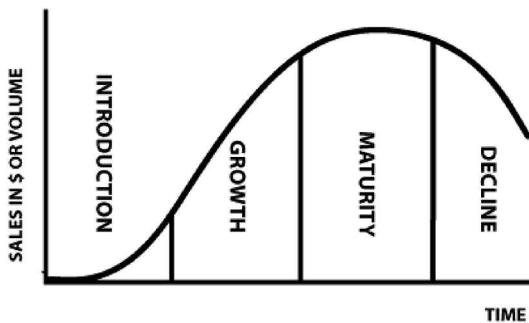
Review Sessions

Final exam review sessions will take place once each day for four days, prior to the final.
Times and locations TBA.

FINAL EXAM

Marketing Management: Strategy (MKTG 612)

■ Description



This course focuses on helping you refine your skills in developing a marketing strategy and seeing how the marketing tactics selected need to be in alignment with that strategy. We 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), pictured above. Students will develop strategic thinking skills and learn to apply analytical tools to help formulate effective marketing tactics in each phase of the PLC.

■ The Marketing Management: Strategy Waiver Process

WAIVER BY CREDENTIAL

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

Waiver by credential will be given only to students meeting one or both of the following criteria:

1. Did you complete a full-term marketing simulation using SABRE or a close parallel (e.g., Markstrat), and receive a grade of A- or better?
2. Did you complete a course at a four-year college that included a minimum of 6 weeks of exposure to cases/lectures on marketing strategy, and receive a grade of A- or better?

Permission to substitute MKTG 612 or MKTG 613 by an upper-level elective marketing course of 0.5 credit units or more which must be taken for a grade (not pass/fail), will be given only to students meeting one or both of the same criteria, except that the required grade is B or better.

Documenting Your Credentials

Supporting credentials must include course syllabi of the marketing courses claimed to meet the criteria. The transcript from your admissions file will also be reviewed to ensure you meet the credential grading requirements.

WAIVER BY EXAM

There is no waiver exam for this class.

■ Fulfilling the Marketing Flexible Core Requirement

Please note that to fulfill the MKTG flexible core requirement, students are required to take either MKTG 612 or MKTG 613 (students also have the option to take both if they have the interest). A waiver by credential of MKTG 612 or MKTG 613 will fulfill this requirement; students do not have to submit credentials to waive both.

Syllabus MKTG 612

■ 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 three 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. In fact, it will distract from the case discussion as we are learning how to make better strategic marketing decisions given the information available at the time of 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 of this 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.

■ Course Materials

Course materials will be available at www.study.net and on the course Canvas site.

■ Course Website

Many of the course's activities will involve the use of Wharton's Canvas software, which is available to currently enrolled students.

Please bookmark this website and check it as often as necessary. This site will contain copies of class handouts, and other general information about the course.

■ Grading

The weighting of the inputs for the final course grade is:

Class Participation	25%
Midterm Examination (take home)	40%
Final Assignment (take home)	35%

Missing more than two sessions (unexcused) will result in an automatic loss of your full class participation grade (i.e. you will receive 0 of 25%).

CLASSROOM PARTICIPATION

All course sessions involve active classroom discussion based on careful preparation of the readings and cases, with a focus on both theoretical questions and practical implications. You should be prepared both to share your ideas and to listen to and interpret issues presented by others. *The quality of your contribution counts for much more than the quantity.* Comments that move a discussion forward in a productive direction are particularly welcome.

In each class, your participation will be scored on a 0-4 scale, first by the TA in attendance and then adjusted by me after class. Students who are seated in class at the regular start time would initially receive a CP score of “2”, and this value could then be either increased (or possibly decreased) based on the quality of your discussion/contribution. Students who arrive late would initially receive a CP score of “1”. An unexcused absence from a class will be scored a “0”.

Also included in your class participation grade are numbers that are due for the Medicine’s Case and Canadian Children’s Cereal Case, your 1-page article on “Customer Analytics in the News”, and participating in the FutureView Simulation. All of these assignments are due PRIOR to the class in which they are covered, and the due dates are clearly listed on the course calendar. **No late assignments will be accepted.**

If you have documentable special circumstances such as time conflicts between multiple exams, illness, or grave personal difficulties such as a death in the family, you should petition the MBA Program Office, which will work with me in appropriate cases to find a resolution. The MBA Program Office will require documentation of your conflict as a matter of course.

If you find yourself with a conflict due to your career search or recruiting activity, you should work with the MBA Career Management Office to find a resolution. Employers cannot require a student, as a condition of his or her employment candidacy, to participate in recruiting-related activities at a time that conflicts with his or her academic schedule. An employer’s inflexibility on this issue is considered a violation of Wharton’s recruiting policies. A time conflict due to a job interview, a career pursuit or travel is not an appropriate reason to request accommodation on an academic commitment.

■ Assignments and Examinations

ASSIGNMENTS

The links for the Medicine's company numbers, CCC case assignment, "Customer Analytics in the News", and FutureView will all be in the course Canvas site. Each of these assignments will also be discussed in the lecture that precedes their due date.

All assignments should be submitted via Canvas, and/or the weblink on Canvas that provides a form for submitting numbers.

MIDTERM EXAMINATION

The midterm examination for this course will be a take-home examination. It will be made available on the course Canvas site. The exam will consist of short essay questions about marketing strategy, and will also cover the cases that we have discussed in class (up until this point). In particular, the first six lectures of material in the course are covered. From the time that you start the examination (not download, but start), you have 2 hours to complete it. You must then upload your answers to the canvas site prior to the due date. The Wharton School and University of Pennsylvania Honor Code applies. This is an individual-level examination. You are not allowed to discuss this exam with anyone, during or even after the examination period. You may use outside materials, and it is openbook and open-notes, but note that the 2 hour time limit includes any time you might use to do outside research, look at your notes, etc....

FINAL ASSIGNMENT

You have one of three options for your final assignment. There is no advantage, or disadvantage, from a grading perspective by choosing any of the three. My intent is to allow flexibility so that you choose the final assignment that best fits your skill set.

OPTION 1: Imagine that there was an additional lecture in MKTG 612. Create a powerpoint deck, with graphics, content (text), builds/animations, etc... that would reflect that content. The powerpoint deck should be no more than 35 slides in total. Your grade will be based on the choice of topic area, the content of the slides, the coherence of the layout, and the presentation style.

OPTION 2: While we covered numerous cases in the course (Kindle Fire, Shell Oil, Medicines Company, Canadian Children's Cereal, and Aqualisa Quartz), one could imagine other cases that would add to the course content going forward. Your assignment is to write a mini-case that is complete with exhibits (tables and figures), questions for readers, and a "teaching note" (instructing a professor how to teach the case and the key takeaways) that would add to the content of MKTG 612. The case should be no more than 15 pages (including the figures and tables) and the teaching note should be no more than 5 pages.

OPTION 3: Choose from one of the topics below and write a paper on this subject.

1. How do you measure the financial return of social media? Provide a roadmap of how to assess the financial returns of social media efforts. Use a specific example.

2. How should a firm decide between how much to spend on traditional advertising versus online advertising? Create a process for making this evaluation.
3. Market sizing and product diffusion plays a very significant role in marketing strategy. If you were Apple Inc, how would you forecast the number of units sold, price elasticity, and diffusion curve for next i-device?

This report should not exceed fifteen double-spaced typewritten pages (including tables and appendices).

Course Outline MKTG 612

Session 1: Overview of Strategic Marketing Issues

Case: Kindle Fire

Session 2: Market Research for New Product Design

Case: Shell Oil (mini-case + in-class)

Session 3: Social Media and Product Diffusion

Social Media Question due previous day

Session 4: Pricing for New Product Launch

Case: The Medicines Company (A)
Medicine's Case numbers due previous day

Session 5: Pioneering v. Follower (Entry Strategy)

Session 6: Competing in the Growth/Mature Phase

Session 7: Dealing with Competition

Case: Canadian Children's Cereal
CCC case assignment due previous day

MIDTERM EXAMINATION DUE

Session 8: Multi-Product Resource Allocation

Session 9: Customer Analytics for CLV growth in mature markets
“Customer Analytics in the News” due two days prior

Session 10: Marketing in the Decline Stage

Session 11: Marketing for Products of the Future

FutureView Simulation due two days prior

Session 12: Selecting the Entire Marketing Mix/Course Wrap-Up

Case: Aqualisa Quartz

FINAL ASSIGNMENT DUE

Strategic Marketing Simulation (**MKTG 613**)

■ Description

Marketing 613 is an intensive immersion course designed to develop skills in formulating and implementing marketing strategies for brands and businesses. The central activity will be participation in a realistic integrative product management simulation named SABRE. In SABRE students will form management teams that oversee all critical aspects of modern product management: the design and marketing of new products, advertising budgeting and design, sales force sizing and allocation, and production planning. As in the real world, teams will compete for profitability, and the success that each team has in achieving this goal will be a major driver of the class assessment.

The SABRE simulation is used to convey the two foci of learning in the course: the changing nature of strategic problems and their optimal solutions as industries progress through the product life cycle, and exposure to the latest analytic tools for solving these problems. Specifically, SABRE management teams will receive training in both how to make optimal use of marketing research information to reduce uncertainty in product design and positioning, as well as decision support models to guide resource allocation.

■ The Marketing Management: Strategy Waiver Process

WAIVER BY CREDENTIAL

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

Waiver by credential will be given only to students meeting one or both of the following criteria:

1. Did you complete a full-term marketing simulation using SABRE or a close parallel (e.g., Markstrat), and receive a grade of A- or better?
2. Did you complete a course at a four-year college that included a minimum of 6 weeks of exposure to cases/lectures on marketing strategy, and receive a grade of A- or better?

Permission to substitute MKTG 612 or MKTG 613 by an upper-level elective marketing course of 0.5 credit units or more which must be taken for a grade (not pass/fail), will be given only to students meeting one or both of the same criteria, except that the required grade is B or better.

Documenting Your Credentials

Supporting credentials must include course syllabi of the marketing courses claimed to meet the criteria. The transcript from your admissions file will also be reviewed to ensure you meet the credential grading requirements.

WAIVER BY EXAM

There is no waiver exam for this class.

■ Fulfilling the Marketing Flexible Core Requirement

Please note that to fulfill the MKTG flexible core requirement, students are required to take either MKTG 612 or MKTG 613 (students also have the option to take both if they have the interest). A waiver by credential of MKTG 612 or MKTG 613 will fulfill this requirement; students do not have to submit credentials to waive both.

Syllabus MKTG 613

■ Pedagogic Approach

The learning objectives of the course will be achieved through a blend of large-group common lectures, small group consulting interactions with faculty, and independent team work on the SABRE simulation. While the exact structure of each day varies somewhat (see course schedule below), the general format is:

- 1. Large-group Lecture.** The goal of each the large-group lecture is to provide both common exposure to tools and frameworks that can be used to make decisions in the SABRE simulation, as well as how these tools are used in the real world. More specifically, early in the week lectures will focus more on analytic topics as how to interpret and apply marketing research information, while later in the week lectures will focus on how strategies should be modified as consumer tastes change and competition becomes more intense---two central features of business dynamics that arise both in SABRE and the real world.
- 2. Application of Lecture ideas to SABRE.** After each lecture the class will be broken up into smaller management teams who will review the results of their latest decisions and plan their next decision. Each lecture will be designed to provide a new set of formal tools or frameworks that can be used to aid decision making at that stage in the simulation, and teams will have the opportunity to immediately apply these ideas.
- 3. Team-based consulting meetings.** During the course of independent group work faculty will schedule short meetings with each team. The goal of these meetings is to give faculty an opportunity to customize the application of the day's lecture materials to each team's particular strategic situation, as well as for each team to seek faculty guidance on how they might ideally proceed in the simulation.

■ Course Materials

All course materials will be available on Canvas (Files Folder)

■ Grading

The weighting of the inputs for the final course grade is:

SABRE Performance	
Periods 1-3	40%
Periods 4-6	40%
Final SABRE Memo and Presentation	20%
Total	100%

DETAILED COURSE EVALUATION CRITERIA

1. Measuring SABRE Performance

Your team's performance in the SABRE simulation will constitute a major part of your grade. The primary measure we will use is the net cash flow generated by your business ("Cumulative Net Contribution"), which you will be striving to maximize within your virtual industry. Each industry will have six independent teams with different starting positions.

In order not to discourage any team prematurely, we will measure and grade your SABRE team based on Cumulative Net Contribution at two points in time, first for the early three decisions (periods 1-3) and then again for the later three decisions (periods 4-6). This will give us the possibility to reward turnarounds and penalize "fizzle-outs." Hence, you will receive two scores which will then be averaged for your grade in this component of the course.

When your SABRE decisions have been run, you will receive an email. Then, you may download your results and data for the next round of decisions. See the course outline at the end of the syllabus for specific dates and times.

2. Final SABRE Memo – TEAM ASSIGNMENT

Discuss the evolution of your strategy as the simulation progressed. This report should address three major aspects:

1. Your initial market position, including your products, competitors, and potential for growth. In doing so, consider questions such as: How did buyer-preferences vary throughout the market? What were the principal strengths and weaknesses of your firm and its starting position? What was your strategy based on this analysis?
2. Your final market position, including your products, competitors, and discuss how your strategies have changed over time in response to competition, industry evolution, and other strategic dynamics. Write this memo as if the audience were the next marketing management team that will be taking over your firm in the next hypothetical period. Discuss strengths and weaknesses, "blind spots" that you missed, and things that you would do differently. Describe briefly the strategy you foresee for your firm in the next hypothetical six periods. Please provide a clear statement of your firm's future objectives, strategies and tactics looking forward, based on what you have learned throughout the 613 course. This report should use the results through round five decisions made by each team.
3. **In addition, provide a forecast of what you predict will be your team's period-six dollar market share will be within the Regaldo and Innovo markets** (actual performances will be revealed in the last class).

This report should not exceed SIX double-spaced typewritten pages (not including tables and appendices) and 10 pages in total.

Course Outline MKTG 613

**Session 1: Common Lecture: Opening Class Overview:
The Mechanics of the Sabre Simulation**

Session 2: SABRE Decisions and Faculty consulting meetings

Session 3: Optional Large Group Q&A session

Session 4: SABRE Decisions and Faculty consulting meetings

SABRE Decision 1 Due

Session 5: Common Lecture: Marketing Research for Strategic Decision Making

Session 6: Common Lecture: Optimal Resource Allocation

Session 7: Decisions and Faculty consulting meetings

SABRE Decisions 2-4 Due

Session 8: SABRE Decisions and Faculty consulting meetings

SABRE Decision 5 Due

**Session 9: Common Lecture: Target-market selection and new-product
Launch decisions, PLC Forecasting**

Session 10: SABRE Decisions and Faculty consulting meetings

SABRE Decision 6 Due

Session 11: SABRE Final Report, Presentation Preparation

**Session 12: Common Class: team presentations, summary, share results
across industries**

Regression Analysis for Business (STAT 613/621)

■ Course Description

These courses develop 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 (STAT 613/621) Waiver and Placement Process

The Statistics Department recognizes the varying degrees to which incoming students have been exposed to statistical analysis in a classroom setting. While we encourage only those students who have recently completed substantial work in statistics to waive core course work entirely, we recognize that some students are equipped to begin their study of statistics at a more advanced level. We therefore invite those students who have studied statistics prior to matriculation at Wharton to consider the half-credit unit course, STAT 621, which covers the statistical methodology known as regression analysis and presupposes a student’s knowledge of the fundamental methods of statistical analysis.

For data on the percentage of last year’s entering class who waived STAT 613, 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 before 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 STAT 613 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 STAT 613, focuses upon the interpretation and critique of statistical results with most of the calculation left to the computer. For example, the waiver exam includes questions regarding the violation of assumptions that underlie regression coefficients. 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.

PLACING INTO STAT 621 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 possess a mastery the concepts outlined in the prerequisites for the STAT 621 course must prove that mastery by passing a placement exam administered prior to Pre-Term in order to register for STAT 621. Students may not place into STAT 621 by credential. The placement examination itself is open-book, with a limit of one textbook. You are also permitted to bring a calculator to the placement exam, though it will not be very useful.

Placement Exam Preparation

Students who wish to review the prerequisite material for STAT 621 and thus prepare for the placement exam are encouraged to enroll in STAT 608, a preparatory course for the placement examination, which will be held before Pre-Term. Students who intend to sit for the placement exam are encouraged though not required to participate in the preparatory course. Registration for this course will take place during Pre-Term registration.

Syllabus STAT 613

■ Overview

This course provides the fundamental methods of statistical analysis, the art and science if extracting information from data. The course will begin with a focus on the basic elements of exploratory data analysis, probability theory and statistic inference. With this as a foundation, it will proceed to explore the use of the key statistical methodology known as regression analysis for solving business problems. 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.

■ Source Material

REQUIRED

- **Class Notes:** These can be downloaded directly from the STAT 613 Canvas e-room. They will be published in weekly installments.
- JMP 11 (software), SAS Institute, downloadable from <http://upenn.onthehub.com>.
- Stine and Foster, *Statistics for Business*, Addison Wesley.

OPTIONAL (on reserve at Lippincott Library)

- Sall, Creighton, Lehman, *JMP Start Statistics*, 5th edition, SAS Institute.
- Freedman, Pisani and Purves, *Statistics*, 4th edition, Norton.
- Keller, *Statistics for Management and Economics*, 8th edition, South-Western Cengage Learning.
- Ellenberg, *How Not To Be Wrong: The Power of Mathematical Thinking*, 2014, Penguin Press. (Not on Reserve).

The fundamental material for the class is contained in the Class Notes, which will be discussed and elaborated in the class lectures. The Stine and Foster (SF) textbook elaborates on most (but not all) of the Class Notes. Links to the relevant readings in SF appear throughout the Class Notes.

JMP is the computer package we'll use extensively for statistical calculations and graphics. In particular, an essential component of STAT 613 will be project work requiring 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.

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 an example-rich guide to statistical analysis with the statistics package JMP. FPP is a highly verbal and conceptual book—an excellent introduction both for “poets” who are unfamiliar with technical readings and for “quants” who would like a better sense of the reasoning behind statistics. K is in the style of a traditional “reference manual” and explains details and provides many formulas for statistical procedures that are not covered in class.

■ Class Preparation

As soon as possible, you should obtain and install JMP. 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 upon itself and it is crucial to not fall behind. The classes focus on critical interpretation of results and analysis of assumptions. We use JMP to carry out the computations, although the software itself is not the main focus of the course.

You should also read the relevant sections of the SF textbook as annotated throughout the Notes and shown in this syllabus. We strongly recommend that you review the exercises that conclude each chapter. The exercises in each chapter of the SF textbook begin with matching, true/false, and conceptual questions. You should routinely skim these exercises in every chapter; they review notation and basic properties of the methods covered in class. In addition, the course outline identifies specific additional “you do it” exercises that require data analysis or computation that is related to examples and topics of lectures. These exercises will not be graded but are useful for review.

■ Attendance

Attendance is an important aspect of the Wharton commitment. Wharton students are admitted in part because of the experiences they bring to the community that they can add to class discussions. Without attending, learning as a collaborative process cannot exist. Accordingly, absences are only appropriate in cases of personal emergency. In addition, late arrival is disruptive to the learning environment and promptness is expected. Please make note of the start of the term and the time of deliverables and exams as you make travel plans. In case of illness, we require a letter of confirmation from Student Health Services. If you find yourself in a conflict due to your career search or recruiting activity, you should work with the MBA Career Management Office to find a resolution. Absences due to recruiting are not excused. Employers are prohibited from requiring recruiting-related activities (e.g., interviews, events or travel) that conflict with a student’s academic commitments. An employer’s inflexibility on this issue is a violation of Wharton’s recruiting policies.

■ Exercises, Quizzes and Exams

There will be weekly exercises as indicated in the course syllabus. These exercises will not be collected, but they are essential for the learning process and you should treat them as a requirement. The textbook supplies brief answers to these questions and office hours are available for further questions.

There will be six in-class quizzes throughout the course. Quizzes will take place on Wednesdays, see the Canvas calendar.

There will be a two-hour midterm and a two-hour final exam.

■ Learning Team Project

A project will be assigned to each learning team during the course. It will entail the statistical analysis of a data for a business application that your team will describe in four installments. It will be possible to complete these installments before the listed due dates, and you are encouraged to submit them early.

This project must reflect the work of only your learning team. You are strictly forbidden from discussing this project with anyone outside your learning team.

■ Teaching Assistants (TAs)

TAs for STAT 613 will hold office hours throughout the course. Times and locations will be posted in the STAT 613 Canvas e-room.

■ Classroom Expectations-Concert Rules

- Class starts and ends on time.
- Sit according to the seating chart (posted online in Canvas).
- Late entry or reentry only under exceptional circumstances.
- Name tents displayed.
- Phones, laptops and other electronic devices turned off. Tablets (e.g., an iPad) can be used to take notes in class.

■ Grading

Grades for the course will be based on the following components:

Final Examination	35%
Midterm Examination	25%
In-class Quizzes (6)	15%
Project	20%
Concert rules, including attendance	5%

Course Outline STAT 613

KEY

SF refers to Stine and Foster, *Statistics for Business*, Addison Wesley.

Session 1: Course Overview, Variation

- Key Topics:** histogram, boxplot, mean, median, interquartile range, standard deviation, skewness, logarithm
Reading (SF): Ch 4, SIA p.142
Exercises: 4.55-56, 59; SIA 1-4, p. 147

Session 2: Probability models

- Key Topics:** independence, random variable, distribution, expected value, SD and variance
Reading (SF): 7, 9
Exercises: 7.45, 47; 9.35, 37, 43, 49; 4M (p. 217)

Session 3: Normal models

- Key Topics:** continuous random variable, quantiles (Empirical Rule), quantile plot, log-normal
Reading (SF): 12
Exercises: 12.39, 41, 43, 49; 4M (p. 286)

Session 4: Association

- Key Topics:** contingency table, mosaic plot, chi-squared, Simpson's paradox, lurking variable
Reading (SF): 5
Exercises: 5.39, 43, 45, 53
QUIZ

Session 5: Conditional probability

- Key Topics:** dependence, Bayes rule
Reading (SF): 8
Exercises: 8.39, 45, 47, 49

Session 6: Sampling distributions

- Key Topics:** simple random sample, iid, Central Limit Theorem
Reading (SF): 13, 14.1, SIA p. 296

Session 7: Confidence intervals

- Key Topics:** inference, t-distribution, confidence level, margin of error
Reading (SF): 15
Exercises: 15.39, 43, 49, 51
QUIZ

Submit Project Installment 1

Session 8: Hypothesis testing

- Key Topics:** null and alternative hypotheses, type I and II errors, α -level, p -value, break-even analysis
- Reading (SF):** 16
- Exercises:** 16.39, 43, 45, 47

Session 9: Comparing two samples

- Key Topics:** confounding, two-sample t -test, confidence interval for difference
- Reading (SF):** 18
- Exercises:** 18.29, 31

Session 10: Comparing dependent samples

- Key Topics:** experimental design, paired sampling, covariance
- Reading (SF):** 6,18

Session 11: Fitting lines to data

- Key Topics:** slope and intercept, fitted values and residuals, r-squared
- Reading (SF):** 19
- Exercises:** 19.39, 41, 43, 47
- QUIZ**

REVIEW LECTURE

- Key Topics:** variation, inference, testing

Submit Project Installment 2

MIDTERM EXAM

Session 12: Fitting curves to data

- Key Topics:** transformations (logarithm, reciprocal), elasticity
- Reading (SF):** 20
- Exercises:** 20.31, 33, 35

Session 13: Simple regression model

- Key Topics:** parameters, assumptions, basic diagnostics
- Reading (SF):** 21.1-2

Session 14: Inference for the Simple Regression Model

- Key Topics:** tests, confidence intervals, prediction intervals
- Reading (SF):** 21.3-4
- Exercises:** 21.39, 41, 43, 47
- QUIZ**

Session 15: Remedies for common problems

- Key Topics:** nonlinearity, dependence, heteroscedasticity, outliers
Reading (SF): 22
Exercises: 22.37, 39, 45; 4M (p. 572)

Session 16: Multiple regression

- Key Topics:** scatterplot matrix, marginal and partial slope, path diagram
Reading (SF): 23.1-2

Session 17: Multiple regression model

- Key Topics:** R^2 , F-statistic, model profile, diagnostic plots
Reading (SF): 23.3-5
Exercises: 23.39, 41, 43, 47

Session 18: Collinearity in multiple regression

- Key Topics:** variance inflation factor
Reading (SF): 24
Exercises: 24.33, 35, 37, 41
QUIZ

Submit Project Installment 3

Session 19: Using categorical variables in regression

- Key Topics:** dummy variable, partial F-test, model profile
Reading (SF): 25.1-4
Exercises: 25.39, 41, 43, 47

Session 20: More categorical predictors

- Reading (SF):** 25.5

Session 21: Review: building a regression model

- Key Topics:** stepwise regression, data mining
Reading (SF): SIA p. 736
QUIZ

Session 22: Forecasting with regression models

- Key Topics:** lagged variable, autoregression, Durbin-Watson, seasonality
Reading (SF): 27.2-3
Exercises: 27.33, 35, 39

Session 23: Final Review Lecture

Submit Project Installment 4

FINAL EXAM

Syllabus STAT 621

■ Overview

The course assumes that you are familiar with the material covered in the first half of STAT 613 which is basic probability and inferential statistics. With this as a foundation, the course critically explores the use of the key statistical methodology known as regression analysis for solving business problems. 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.

■ Source Material

REQUIRED

- Class Notes. These can be downloaded directly from the STAT 621 Canvas e-room.
- JMP 11 (software), SAS Institute, downloadable from upenn.onthehub.com
- Stine and Foster, *Statistics for Business*, Addison Wesley.

OPTIONAL (ON RESERVE AT LIPPINCOTT LIBRARY)

- Sall, Creighton, Lehman, *JMP Start Statistics*, 5th edition, SAS Institute.
- Freedman, Pisani and Purves, *Statistics*, 4th edition, Norton.
- Keller, *Statistics for Management and Economics*, 8th edition, South-Western Cengage Learning.

The fundamental material for the class is contained in the Class Notes, which will be discussed and elaborated in the class lectures. The Stine and Foster (SF) textbook elaborates on most (but not all) of the Class Notes. Links to the relevant readings in SF appear 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 an example-rich guide to statistical analysis with the statistics package JMP. FPP is a highly verbal and conceptual book - an excellent introduction both for “poets” who are unfamiliar with technical readings and for “quants” who would like a better sense of the reasoning behind statistics. K is in the style of a traditional “reference manual” and explains details and provides many formulas for statistical procedures that are not covered in class.

JMP is the computer package we'll use extensively for statistical calculations and graphics. In particular, an essential component of STAT 621 will be project work requiring 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.

■ Class Preparation

As soon as possible, you should obtain and install JMP. 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 upon itself and it is crucial to not fall behind. The classes focus on critical interpretation of results and analysis of assumptions. We use JMP to carry out the computations, although the software itself is not the main focus of the course.

You should also read the relevant sections of the SF textbook as annotated throughout the Notes and shown in this syllabus. We strongly recommend that you review the exercises that conclude each chapter. The exercises in each chapter of the SF textbook begin with matching, true/false, and conceptual questions. You should routinely skim these exercises in every chapter; they review notation and basic properties of the methods covered in class. In addition, the course outline identifies specific additional “you do it” exercises that require data analysis or computation that is related to examples and topics of lectures. These exercises will not be evaluated but are useful for review.

■ Attendance

Attendance is an important aspect of the Wharton commitment. Wharton students are admitted in part because of the experiences they bring to the community that they can add to class discussions. Without attending, learning as a collaborative process cannot exist. Accordingly, absences are only appropriate in cases of personal emergency. In addition, late arrival is disruptive to the learning environment and promptness is expected. Please make note of the start of the term and the time of deliverables and exams as you make travel plans. In case of illness, we require a letter of confirmation from Student Health Services. If you find yourself in a conflict due to your career search or recruiting activity, you should work with the MBA Career Management Office to find a resolution. Absences due to recruiting are not excused. Employers are prohibited from requiring recruiting-related activities (e.g., interviews, events or travel) that conflict with a student’s academic commitments. An employer’s inflexibility on this issue is a violation of Wharton’s recruiting policies.

■ Exercises, Quizzes and Exam

There will be weekly exercises as indicated in the course syllabus. These exercises will not be collected, but they are essential for the learning process and you should treat them as a requirement. The textbook supplies brief answers to these questions and office hours are available for further questions.

There will be four 10 minute in-class quizzes. Quizzes will take place on Mondays.

There will be a two-hour final exam.

■ Learning Team Project

A project will be assigned to each learning team during the course. It will entail the statistical analysis of data for a business application that your team will describe in two installments.

This project must reflect the work of only your learning team. You are strictly forbidden from discussing this project with anyone outside your learning team.

■ Teaching Assistants (TAs)

TAs for STAT 621 will hold office hours throughout the course. Times and locations will be posted in the STAT 621 Canvas e-room.

■ Classroom Expectations – Concert Rules

- Class starts and ends on time.
- Sit according to the seating chart (posted on-line in Canvas).
- Late entry or reentry only under exceptional circumstances.
- Name tents displayed.
- Phones, laptops and other electronic devices turned off. We do permit the use of tablets (e.g., an iPad) for taking notes in class.

■ Grading

Grades for the course will be based on the following components:

Final Examination	50%
In-class Quizzes (4)	20% (5% each)
Project	25% (10% and 15%)
Concert rules, including attendance	5%

Attendance is mandatory. One unexcused absence is allowed during the quarter without penalty; beyond that, each unexcused absence removes a $\frac{1}{2}$ percentage point from your total grade.

Course Outline STAT 621

KEY

SF refers to Stine and Foster, *Statistics for Business*, Addison Wesley.

Session 1: Course Overview

- Key Topics:** Review of the key ideas from inferential statistics to be used regression
Reading (SF): Chapters 1-18

Session 2: Fitting lines to data

- Key Topics:** Slope and intercept, fitted values and residuals, r-squared
Reading (SF): 19
Exercises: 19.39, 41, 43, 47

Session 3: Fitting curves to data

- Key Topics:** Transformations (logarithm, reciprocal), elasticity
Reading (SF): 20
Exercises: 20.31, 33, 35

Session 4: Simple regression model

- Key Topics:** Parameters, assumptions, basic diagnostics
Reading (SF): 21.1-2

Session 5: Inference for the Simple Regression Model

- Key Topics:** Tests, confidence intervals, prediction intervals
Reading (SF): 21.3-4
Exercises: 21.39, 41, 43, 47

Session 6: Remedies for common problems

- Key Topics:** Nonlinearity, dependence, heteroscedasticity, outliers
Reading (SF): 22
Exercises: 22.37, 39, 45; 4M (p. 572)

Session 7: Multiple regression

- Key Topics:** Scatterplot matrix, marginal and partial slope, path diagram
Reading (SF): 23.1-2

Session 8: Multiple regression model

- Key Topics:** R^2 , F -statistic, model profile, diagnostic plots
Reading (SF): 23.3-5
Exercises: 23.39, 41, 43, 47

Session 9: Collinearity in multiple regression

Key Topics: Variance inflation factor

Reading (SF): 24

Exercises: 24.33, 35, 37, 41

Session 10: Using categorical variables in regression

Key Topics: Dummy variable, partial F-test, model profile

Reading (SF): 25.1-4

Exercises: 25.39, 41, 43, 47

Session 11: More categorical predictors

Reading (SF): 25.5

Session 12: Review: building a regression model

Key Topics: Stepwise regression, data mining

Reading (SF): SIA p. 736

FINAL EXAMINATION