BUS 2341 Sections OL60 Financial Forecasting Sections

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Pre-requisites & Co-requisites: BUS 2339 OR BUS 2340.

This is a fully ONLINE course, it means we never meet in class, all is taught online.

HELLO STUDENTS! WELCOME TO BUS 2341! THIS CLASS IS FULLY ONLINE, THIS MEANS WE NEVER MEET IN CLASS. ALSO, IT IS ASYNCHRONIZED WHICH MEANS YOU DO NOT NEED TO MEET AT A SPECIFIC TIME.

Suggested Textbook:

Fundamentals of Financial Management, 15th Edition, by Brigham & Houston Note that you do *not* need to purchase it, but you could purchase an old Edition. I will provide you in Blackboard with documents supporting the material we will cover during the semester.

Mandatory Registration:
You MUST enroll in Accepi. Please go to the Registration Link below to register with Accepi, the platform we will be using this semester. All of your graded Assignments/HW/exams will be on that platform. Use an email address that you check daily.

Registration link: Go to my first Announcement on Blackboard for the Accepi Registration link or use this link:

accepi.com/register?t=6W0ntpR8

Course Description/Overview: This course provides an in-depth analysis of the principles and techniques needed for financial forecasting, advanced financial management, modeling techniques, and their application to decision-making in a firm. The emphasis will be on the forecasting and modeling needs faced by business professionals. Topics include: capital budgeting principles and applications, modeling using MS-Excel including built-in "add-ins," multinational finance, and risk management. Additionally, students will learn to model various investments, portfolio theory, and instruments for hedging, such as derivatives, options, etc. Issues faced by business professionals in the fashion,

technology, financial services, and professional services fields will be addressed specifically. Individual lab assignments will require MS-Excel or other spreadsheet programs to create models.

Learning Objectives - Course Specific: After completion of the course, students will be able to:

- Use software to build financial models.
- Create sales projections, amortization tables, etc.
- Plan how to maximize a firm's use of capital.
- Construct portfolios and use financial markets for hedging.
- Devise ways to address various risk management issues.
- Demonstrate proficiency in MS-Excel, MS-PowerPoint, and MS-Word.
- Research and present a project in which projections and forecasting is central.
- Incorporate issues of international exchange into forecasting models.
- Explain the various derivative instruments, e.g., equity options, and how they can help a business protect itself against risks. Estimate/project the cost of capital.
- Analyze complex projects where the risk of the project changes over time.
- Perform sensitivity analysis and break-even analysis.

Learning Objectives - General Education:

- **Knowledge** of the role of risk in in the economy and in society at large.
- Developing statistical thinking **skills** which can be applied to many disciplines.
- **Integrating** compute, mathematical, and financial knowledge to solve interdisciplinary problems.
- Become comfortable with a wide range of **databases** (**information** sources), including self-generated data, in order to apply theory to real-world situations.

Student Learning Outcomes – Course Specific:

LEARNING OUTCOMES	ASSESSMENT METHODS
Demonstrate an understanding of the theories of risk and forecasting as they apply in business and financial environments. They will be able to distinguish different forms of risk.	The midterm and final exams and/or assignments, which will include complex problems, will test students' understanding of business forecasting and risk.
Demonstrate knowledge of the tools used to predict and assess randomness and risk in the business setting.	Class discussions and student presentations using MS-Excel will be used to measure understanding of tools.
Apply tools to solve real-world style business challenges that impact profits, employees, and the sustainability of a business.	Assignments/homework will be used to assess how well the student is able to integrate theoretical understanding with practical, hands-on tools.
Develop a breadth and depth of knowledge of how to approach business and financial decision-making methodically and practically.	Using case study, students will focus on a particular problem/issue, the challenges posed by that issue and critically examine various solutions.

Student Learning Outcomes – General Education:

LEARNING OUTCOMES	ASSESSMENT METHODS
KNOWLEDGE: Develop an understanding of the key concepts and theoretical ideas behind financial forecasting and risk management.	Quizzes that both test an understanding of basic concepts and that require students to express their understanding by solving short problems.
SKILLS: Develop and apply the tools of financial forecasting; to be able to critically analyze and discuss risk management issues; develop the ability to construct a complete plan of action/response to a business situation.	Student presentations of questions tied to topics covered in class and to timely relevant issues; students use MS-Excel to analyze problems and demonstrate results in class.
INTEGRATION: Apply the tools acquired in the course to be able to build upon an understanding of financial management across disciplines, both in the social sciences and other disciplines.	Research projects which require students to select and define an issue and examine possible solutions, drawing upon the tools of financial forecasting and risk management.
VALUES, ETHICS, AND RELATIONSHIPS: Work creatively with others in group problem solving; develop a respect for diverse viewpoints and apply the skills and concepts covered in the course to the analysis of related issues and concepts in other disciplines	Group assignments which encourage student discussion and sharing of ideas and perspectives.
INFORMATION LITERACIES: Gather, interpret, evaluate, and apply information discerningly from a variety of sources.	Research projects which require students to use online data-bases and information technology to analyze the issue and to draw conclusions.

CUNY's Academic Integrity Policy: *Academic dishonesty is prohibited in The City University of New York*. Penalties for academic dishonesty include academic sanctions, such as failing or otherwise reduced grades, and/or disciplinary sanctions, including suspension, or expulsion.

Cheating is the unauthorized use or attempted use of material, information, notes, study aids, devices or communication during an academic exercise.

Plagiarism is the act of presenting another person's ideas, research or writings as your own. The following are some examples of plagiarism, but by no means is it an exhaustive list:

Internet Plagiarism includes submitting downloaded term papers or parts of term papers, paraphrasing or copying information from the internet without citing the source, and "cutting and pasting" from various sources without proper attribution.

For a more detailed explanation, you can find the full Academic Integrity Policy here: http://www.citytech.cuny.edu/aboutus/docs/policies/CUNY_ACADEMIC_INTEGRITY_6-2011.pdf

This does not apply to fully online classes.

Excessive Absence:
If a student's class absences exceed the limit established for a given course or component, the instructor will alert the student that a grade of "WU" may be assigned. If a student remains officially registered for a course and never attends that course, a final grade of "*WN" will be assigned. If the student withdraws officially from the course, he/she will be assigned a grade in accordance with the existing withdrawal policy of the College.

Grading: There will be periodic graded Assignments worth 100% of the final grade.

Grading System:

All grades will be based in proportion to the following scale:

A	=	93 - 100
A-	=	90 - 92.9
B+	=	87 - 89.9
B	=	83 - 86.9
B-	=	80 - 82.9
C+	=	77 - 79.9
C	=	70 - 76.9
D	=	60 - 69.9
F	=	59.9 and below

Assessment Methods: Each of these learning objectives contains elements of theory, requires technical proficiency, and may be used specifically or more generally. Because of the complex nature of Business Decision Making, "solutions" typically involve several ideas and/or tools. For the same reason, there are often several "correct" solutions. Thus, assessment is based, to some degree, on the ability of the student to integrate and coordinate the ideas and methodologies addressed in class, in the laboratory, and online.

Course Technology: MS Excel, Powerpoint, internet.

Class Schedule (order may change):

WEEK 1: Introduction to MS-Excel I
Overview of the course, how our course is graded, and what is expected of us. Readings: Instructor-Supplied Hand-Outs (ISHO)

In this section, we will be introduced to basic MS-Excel functionality. We will learn

- Entering formulas
- Applying formulas to collections of cells
- Linking cells on the same and from different worksheets
- Formatting cells for data content, appearance, etc.
- Practice in Computer Lab (Laboratory Session)

Assignment: Read the MS-Excel Handout and complete the exercises at the end. You will need to download some data from Blackboard.

WEEK 2: Introduction to MS-Excel II

Readings: ISHO

In this section, we will learn about the built-in add-in packages in MS-Excel. We will learn how to solve a variety of problems including

- Statistical
- Mathematical
- Financial
- Logical/Boolean operations
- Searching & Sorting
- Graphing & Charting
- Practice in Computer Lab (Laboratory Session)

WEEK 3: Basic Financial Accounting & Ratio Analysis using MS-Excel Readings: Fundamentals of Financial Management (FFM), Chapter 3

In this section, we will review basic concepts from Managerial Finance by constructing

- Balance Sheets
- Income Statement
- Statement of Cash Flows (all in MS-Excel).
- We will learn to use their worksheets to solve a variety of problems. Example: Weekly Inventory & Sales Report (WISR) from a franchise restaurant. (Laboratory Session)

WEEK 4: Basic Managerial Finance using MS-Excel I

Readings: FFM, Chapter 4

- In this section, we will construct an MS-Excel version of the DuPont System for analyzing financial ratios.
- We will construct a worksheet that allows them to compare different business plans with different fixed costs, variable costs, etc. by graphing a profit line. We will use this tool to study breakeven points, etc. (Laboratory Session)

WEEK 5: Basic Managerial Finance using MS-Excel II

Readings: FFM, Chapter 5, Sections 5.1 – 5.11

- In this section, we will use MS-Excel to build various tables involving Time-Value-Money (TVM) issues.

- We will forecast value in simple and compound interest accounts, study NPV analysis for a business with a variety of future cash-flows. Costs of capital under various scenarios will be discussed. (Laboratory Session)

WEEK 6: Introduction to Forecasting and Modeling
We will discuss the team project, choose teams, and brainstorm. Possible topics will depend on student interest, current events, etc.
Readings: ISHO and FFM, Statistics Supplement 1
In this section, we will be introduced to forecasting and modeling. Different paradigms including

- Casual – "scientific"
- Statistical/econometric
- Monte-Carlo will be demonstrated in MS-Excel. We will learn how MS-Excel can simulate randomness and how this can be used to test model performance in unknown circumstances. Projects ideas will be suggested. (Laboratory Session).

WEEK 7: Financial Forecasting with Data
Readings: FFM, Statistics Supplement 2
In this section, we will learn how to incorporate financial data, e.g., historical data freely available on the Internet, into their projections. We will calculate

- Historical returns and historical volatility
- Correlation
  The idea of "risk" as "deviation" from "expected" will be discussed and applied to issues in business. The "risks" of major importance to businesses, e.g., exchange rates, interest rates, etc., will be addressed.
- Team Meetings (Laboratory Session).

WEEK 8: Review

WEEK 9: Putting it together: Simple Portfolio Analysis
Readings: FFM, Chapter 8
A simple 2-Asset Portfolio model will presented and the MS-Excel SOLVER add-in will be demonstrated. By the end of this session, we will be able to

- Download stock data from the Internet into an MS-Excel spreadsheet
- Calculate the optimum weight of each asset in the portfolio to achieve different aims
- Construct the Markowitz Efficient Frontier
- Practice in Computer Lab (Laboratory Session).

WEEK 10: Modeling Loans and Payments
Readings: FFM, Chapter 5, Sections 5.12 – 5.18
We will learn to construct amortization tables and use them to study borrowing and financial decision making. We will construct one in the lab session. (Laboratory Session).

WEEK 11: Forecasting and Capital Budgeting
Readings: FFM, Chapters 10 and 11

Financing models will be constructed and used to project possible scenarios regarding

- Business expansion plans
- Pro-forma financial statements
- Sales estimates
- Team Meetings and Project Q/A (Laboratory Session).

WEEK 12: Project Analysis with Randomness
Readings: FFM, Chapters 13 and 18
Using derivatives, e.g., futures and options, to hedge against unforeseen events. Modeling Options in MS-Excel.

Qualifications: *If for any reason I believe that it is in the best interest of the class, I reserve the right to amend this syllabus during the course of the term.*