NEW YORK CITY
COLLEGE OF TECHNOLOGY
the senior-level college of technology
of The City University of New York

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of
New York

Department of Business

Financial Forecasting: BUS 2341
Writing Intensive
3 Credits/ 4 Hours per week

Professor Shakira Henry

Fall 2023
Class Meets: Mondays (Synchronous) 6 p.m. – 9:20 p.m.
Office Hours: By Appointment
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Course Outline

Pre-requisites & Co-requisites: BUS 2339 OR BUS 2340.
Required Textbook(s) & Supplemental Material(s):
Fundamentals of Financial Management (FFM) -16th Edition
By Brigham & Houston. Publisher: South-Western/Cengage.

Financial Forecasting - Fall 2023 Course

1. Go to GetEnrolled.com

2. Enter this Course Key: MTPP98X3QV0S

3. Follow the on-screen instructions to complete your registration.

Course Description/Overview:

This writing intensive course focuses on your writing contributions. Students are graded based on the content and quality of their writing in the homework assignments, Mid-Term exam, Final Exam, and the Term Project. The sectional integrated cases and other informal writing assignments will be graded with little to no impact on your final grade.

This course provides an opportunity to develop and hone your critical thinking skills, solving complex problems, and enhance effective communication practices. This writing intensive course objective is to break down the writing process and allows students to refine their researching, organizing, drafting, revising/ editing skills with assignments provided that will prepare for better product for the Term Project at the end of the course. There will be formal writing opportunities in the homework assignments and quizzes. These assignments must completed to fulfill the 15-page writing requirement for the course.

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 and team projects will require MS-Excel or other spreadsheet programs to create models. Students will need to prepare presentations using MS-PowerPoint and reports using MS-Word.

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.
- Work together in groups with shared responsibilities, developing trust and team ethics
- 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, 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 sustainability of a business.	Weekly homework will be used to assess how the 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 a 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.

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

College Attendance Policy: A student may be absent without penalty for 10% of the number of scheduled class meetings during the semester as follows:

Class Meets	Allowable Absence(s)
1 time/week	2 classes
2 times/week	3 classes
3 times/week	4 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 Policy:
Mid-term Exam – 20 Long Answer Questions ~ 2 pages total (15%),
Final Exam – 25 Long Answer Questions ~ 2 pages total (15%),
Homework – 11 Homework Assignments ~ 3 pages total (10%),
Term Project – 5 - 8 Written Pages (25%)
Quizzes – 4 Quizzes: Equivalent to 1 written page each, 4 pages total (20%)
Sectional Integrated Cases: 4 Cases – 8 pages total (15%)

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

A = 93 - 100
A- = 90 - 92.9
B+ = 87 - 89.
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: **Homework (**2-page requirement total), **Integrated Case Assignments** (2-page writing requirement each), **Quizzes** (1-page writing requirement each), **Midterm Exam** (2-page writing requirement), **Student Term Project** (5-page writing requirement), **Final Exam** (3-page writing requirement)

Course Technology: Cengage. Blackboard. MS Excel. MS PowerPoint. Aplia

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

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 on Cengage Course Site (Laboratory Session)

WEEK 2: <u>Introduction to MS Excel II</u>
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 Cengage Course Site (Laboratory Session)

WEEK 3: <u>Basic Financial Accounting & Ratio Analysis using MS Excel</u>
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.

WEEK 4: <u>Basic Managerial Finance using MS-Excel I</u>
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: <u>Basic Managerial Finance using MS-Excel II</u>
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: <u>Introduction to Forecasting and Modeling</u>
Readings: ISHO and FFM, Statistics Supplement 1
We will discuss the team project, choose teams, and brainstorm.
Possible topics will depend on student interest, current events, etc.

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: <u>Financial Forecasting with Data</u>
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: <u>Mid-Term</u>
(The laboratory session will also have an exam –part of the mid-term exam.)

WEEK 9: <u>Putting it together: Simple Portfolio Analysis</u>
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: <u>Modeling Loans and Payments</u>
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: <u>Forecasting and Capital Budgeting</u>
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: <u>Project Analysis with</u> Randomness
Readings: FFM, Chapters 13 and 18
Using derivatives, e.g., futures and options, to hedge against unforeseen events. Modeling Options in MS Excel.
<u>Class Schedule</u> (cont'd):

WEEK 13: <u>Student In-Class Presentations I</u>
(Also in the Laboratory Session)

WEEK 14: <u>Student In-Class Presentations II</u>
(Also in the Laboratory Session)

WEEK 15: <u>Review for Final Exam</u>
(Also in the Laboratory Session)

WEEK 16: <u>Final Exam</u>

**The syllabus is subject to change at the discretion of the instructor.