

BOROUGH OF MANHATTAN COMMUNITY COLLEGE

City University of New York

Business Management Department



FNB 100 Intro to Finance

Title of Course: Intro to Finance

Class Hours: 3

Semester:

Course Number: FNB 100 Section ____

Credits: 3

1. Program Coordinator: Dr. Jeff S. Hong

Tel: 212)220-8388 (shong@bmcc.cuny.edu)

2. Day, Time and Classroom:

3. Required Texts:

1. Either *[Finance - Theory & Application](#), Cornett, Adair, Nofsinger, & "**Hong**" (BMCC Ed "FNB100" ISBN 9781260352528), 2017 McGraw-Hill
2. or [Finance - Theory & Application](#), Cornett, & Adair, Nofsinger (3 Ed), 2015 McGraw-Hill

4. Office & Office Hours: F730L & Hours TBD

5. Course Description

This course focuses on three general areas of 1) money and financial institutions, 2) business financial management and 3) investments. These areas are surveyed by covering such topics as value and creation of money, the Federal Reserve System, commercial banks, short and medium term financing and the behavior of securities markets in relation to financing the business enterprises. For an introductory level finance course, considerably greater amount of attention will be given to quantitative methodology. Students are also required to join the [class discussion group](#) set up with Yahoo for lively discussion, collaboration, and exchange of ideas on line. All lecture notes in electronic format, samples and solutions are available at the [class discussion group](#), and can be accessed on line.

Prerequisites and/or (Co-requisites): All remediation, (MAT 150/ MAT160, MAT 200, MAT 206)

6. Course Objective

a	To provide foundation for understanding the roles of money and financial institutions in both macroeconomic and microeconomic environments
b	To survey financial issues facing the firm and to develop an understanding of the role and function of the securities markets in a dynamic economy
c	To acquire in-depth understanding of financial instruments and their characteristics, time-value, risk-vs.-return relations, capital budgeting, discount factor calculation for valuation of financial instruments
d	To develop an understanding of, and acquire skills in quantitative methodology to apply to various security valuation models and financial analysis situations
e	To develop the students' skills and expertise in the use of EDP and quantitative software as a tool to conduct research, track, analyze and value securities, and conduct financial analysis

7. Student Learning Outcomes

Upon completion of the course, the students should be able to:

a	Read and correctly interpret economic and financial data series, charts and graphs;	Quiz, Exam
b	Analyze how Federal Reserve System operates and conduct monetary policy, interpret FRB/FOMC policy implications on economy-wide liquidity and interest rates, and predict ramifications these policy changes will entail;	Quiz, Exam
c	Perform intermediate-level mathematical and statistical techniques to evaluate investment opportunities using discounted cash flow method, compute present values, future values of various financial instruments including annuities, bonds, and stocks, find correct discount factor by correctly estimating beta coefficient using CAPM and/or other models;	Quiz, Exam
d	Demonstrate an introductory-level expertise and dexterity in constructing computer-based models to perform the activities in the learning outcome 3, and to conduct as asset management and capital budgeting;	Exam
e	Interpret the financial and economic issues at large in quantitative terms, identify, comprehend and analyze the quantitative nature of these problems and use information technology as a major tool to research and find solution to these problems;	Quiz, Exam

Below are the college's general education goals. The goals that are checked in the left-hand column indicate goals that will be covered and assessed in this course.


	General Education Goals	Measurements (means of assessment)
<input type="checkbox"/>	Communication Skills- Students will write, read, listen and speak critically and effectively.	
<input checked="" type="checkbox"/>	Quantitative Reasoning- Students will use quantitative skills and the concepts and methods of mathematics to solve problems.	Interpret the financial and economic issues at large in quantitative terms, identify & analyze the quantitative nature of these problems; Utilize intermediate-level mathematical & statistical techniques to evaluate investment opportunities and perform analysis. (Quiz, Exam)
<input checked="" type="checkbox"/>	Scientific Reasoning- Students will understand and apply the concepts and methods of the natural sciences.	Make observations based on data to identify possible correlation/causality between random variables; identify& analyze functional relationship between potentially interdependent factors; set up hypotheses to explain these relationships; and possibly build & run a model to statistically test hypotheses. (Quiz, Exam)
<input type="checkbox"/>	Social and Behavioral Sciences- Students will understand and apply the concepts and methods of the social sciences.	
<input type="checkbox"/>	Arts & Humanities- Students will develop knowledge and understanding of the arts and literature.	
<input checked="" type="checkbox"/>	Information & Technology Literacy- Students will collect, evaluate and interpret information and effectively use information technologies.	Identify and analyze the quantitative nature of economic & financial problems through information technology as a major tool for research and problem-solving. (Quiz, Exam)
<input type="checkbox"/>	Values- Students will make informed choices based on an understanding of personal values, human diversity, multicultural awareness and social responsibility.	


8. Course Outline


 Topic 1: [ROI & Rate of Return Basics](#)
[Monetary Policy & Money Supply](#)


 Topic 2: [Financial Statements & Financial Ratios](#)

 Topic 3: [Time Value of Money & Risk Measurement](#)
[Single Cash-Flow Models](#)
[Variations & Applications - Solving for Rate, Time & Other Variables with Powers & Logarithms](#)
[Multiple Cash-Flow Models](#)
[Variations & Applications - Sinking Fund & Amortization](#)


 Topic 4: [Investing in Bonds](#)
[Overview of the Long-Term Debt Instruments](#)
[Bond Valuation Model & Exercises](#)
[Advanced Bond Valuation Models & Exercises](#)

 Topic 5: [Risk Analysis & Risk Estimation](#)
[Risk & Return](#)
[Expected Return vs Required Return](#)
[Standard Deviation vs Beta](#)
[Regression for Beta & CAPM](#)

 Topic 6: [Investing in Equities](#)
[Equity: Common Stocks & Preferred Stocks](#)
[Stock Valuation Models: Fixed Div vs Div Growth vs CAPM-Based Risk-Adjusted vs P/E & PEG Ratio Models](#)

 [Exam Policy](#)

1. Interim Quizzes/Homework will be given at the first quarter point before the midterm and at the third quarter point between mid-tem and final. In case a quiz is administered, review questions will be provided beforehand. The quiz will mainly consist of a random number of the review questions from the handouts.
2. Midterm & Final will consist of T/F, multiple-choice & some mathematical problems not exceeding 30~33 questions in total. The questions will break down into 40% T/F, 40% multiple choice & 20% mathematical questions. The exam will also consist largely of the review questions both tested & untested through sporadic quizzes.

 [Grading Criteria](#)

1. Midterm: 25%
2. Final: 25%
3. 2 Homework/Quizzes: 20% each
4. Attendance: 10%

 [Attendance & Class Participation](#)

At BMCC the maximum number of absence is limited to one more hour than the number of hours a class meets in one week. For example, if you are enrolled in a 4 hour class that meets 2 times a week, you are allowed 5 hours of

	<ul style="list-style-type: none"> ▪ Continuous Compounding in the limit where $m \rightarrow \infty$ ▪ Review of Properties of Exponent ▪ Euler's number & Exponential function ▪ Logarithm & Natural Log ▪ Effective Interest Rate aka EAR/AER/APY ▪ Rule of 72 	Pre-built Problems
8-9	<p>Compound Interest (Time Value of Money)</p> <ul style="list-style-type: none"> • Multiple Cash Flow Models <ul style="list-style-type: none"> ○ Compounding & Discounting in Annuities <ul style="list-style-type: none"> ▪ Examples of FVA in life ▪ Solving for FVA, PMT, and NPER ▪ Mathematical Derivations of FVA, PMT, and NPER ▪ Examples of PVA in life ▪ Solving for PVA, PMT, and NPER ▪ Mathematical Derivations of PVA, PMT, and NPER ▪ Amortization ▪ Building Amortization Schedule 	Pre-built Problems Midterm
10-11	<p>Bond Valuation Models</p> <ul style="list-style-type: none"> • Zero-coupon Bond • Coupon Bond <ul style="list-style-type: none"> ○ Excel's "PRICE" function or PV function ○ Yield to Maturity ○ Excel's "YIELD" function or RATE function ○ Current Yield ○ Callable Bond ○ Call Premium ○ Call Bond Valuation • Bond Risks <ul style="list-style-type: none"> ○ Interest Rate Risk ○ Maturity Risk ○ Price Risk ○ Reinvestment Rate Risk • TIPS • Municipal Bond – Comparing Munis with Corporate Bond • Bond Quotation • Bond Ratings (Credit/Default Risk) 	Pre-built Problems
12-13	<p>Risk & Return</p> <ul style="list-style-type: none"> • Expected Return = Simple AVG (Mean) Return <ul style="list-style-type: none"> ○ Calculation of $E[R]$ from price data • Random Variable and Probability $\rightarrow E[R] = \text{WAVG Return}$ • Probability Distribution <ul style="list-style-type: none"> ○ Discrete ○ Continuous ○ Mean & Variance of Distribution ○ Normal Distribution Properties • Defining Risk with SD • Mean/Variance Ratio or Return/Risk Ratio for Asset Selection Criteria • Coefficient of Variation or $(\text{Return/Risk Ratio})^{(-1)}$ for Asset Selection Criteria • Well-diversified Portfolio for Minimization of Risk • Sources of Total Risk – Systemic & Non-systemic • Portfolio Variance in terms of Covariance & Correlation • Measuring Systemic (Market) Risk with Beta • CAPM & SML 	Pre-built Problems Quiz 2

14-15	<p>Stock Valuation</p> <ul style="list-style-type: none"> • Features of Common Stock • Features of Preferred Stock • IPO & Role of the IB • DDM Models <ul style="list-style-type: none"> ○ Intrinsic Value/ Rational Price/ Fair Value ○ Constant Div/Zero-Growth/Perpetuity Model ○ Constant (Div) Growth/ Gordon Growth Model ○ Variable Growth Model ○ Free Cash Flow Model ○ Limitations of DDM Models • Non DDM <ul style="list-style-type: none"> ○ P/E Multiple approach ○ Limitations of P/E approach 	<p>Pre-built Problems</p> <p>Final</p>
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