2018

550-01 Fundamentals of Finance

R. Stafford Johnson
Xavier University

Follow this and additional works at: https://www.exhibit.xavier.edu/finance_syllabi

Recommended Citation
https://www.exhibit.xavier.edu/finance_syllabi/548

This Restricted-Access Syllabus is brought to you for free and open access by the Finance at Exhibit. It has been accepted for inclusion in Finance Syllabi by an authorized administrator of Exhibit. For more information, please contact exhibit@xavier.edu.
FINC 550: Fundamentals of finance, Spring 2018
R. Stafford Johnson

108 Smith Hall
Phone: 513-745-3108 (office), 859-468-2312 (cell)
E-Mail: JohnsonS@xavier.edu

Course Objective
The purpose of this course is to provide MBA students with an understanding of both basic and advanced financial management theories and strategies. Students should be able to discuss and understand with some depth the financial system, how equity and debt securities are valued, the capital formation process, portfolio and capital market theory, capital structure, corporate investments, capital budgeting, mergers and acquisitions, and financial derivatives.

Student Learning Objectives

Objective: At the end of this class, students will be able to:
1. Value bonds, stocks, and derivatives
2. Statistically measure the expected return and risk of a security and portfolio
3. Apply modern portfolio theory to the construction of equity portfolios
4. Derive the Capital Asset Pricing Model
5. Value equity using fundamental DCF and multiplier approaches
6. Explain the financial anatomy of a company
7. Explain how the different financial markets function and how securities are traded
8. Explain the Efficient Market Theory in terms of its propositions and implications
9. Explain the weak-form, semi-strong-form, and strong-form-tests of the EMH and some of the empirical studies and methodologies used to tests these hypotheses.
10. Explain capital structure theory
11. Evaluate corporate investments using capital budgeting tools
12. Evaluate a merger
13. Explain how the options, futures, and swaps markets functions

Readings
- Chapters from Johnson, Debt Markets and Analysis, Bloomberg Press/Wiley (Canvas). Page Proofs on Canvas
- Chapters from Johnson, Introduction to Derivative, Oxford University Press (Canvas). Page Proofs on Canvas
Canvas Folders

- Modules: Assignments, Audio/PPTs, PPTs, Zoom Recordings of lectures, end-of-chapter problems, test review material, solutions, chapter PDFs from debt and derivative book, and Excel programs can be downloaded from the modules
- Assignment: End-of-the Chapter Problems and Bloomberg Project can be downloaded and the work submitted by uploading from “Assignments”

Live Online Lectures, Office Hours, Test Review

Sessions via Zoom

- I will be available before class to review the material covered for that week, work problems, and answer questions.
- Please feel free to Email me at any time to set up a Zoom session.
- You may also find it helpful to form study groups using Zoom.
- You can join the online session by using the following Zoom Link: https://xavier.zoom.us/
- Your password: 859 468 2312

Modules

The course consists of a series of Modules and Assignments. On Canvas, you will see a list of all of the modules in this course. In Assignments, you will find the assignments that you are responsible for completing, instructions, and links for submitting assignments. The assignments require that you work select chapter problems by hand or in Excel. I would like that you do your work by hand and then submit it by uploading a scanned PDF.

Module 1: Equity and Bond Valuation

This module covers Chapters 3 from Equity Markets and Portfolio Analysis: Bond and Equity valuation; Chapters 4 and 5 from Johnson's Debt Markets and Analysis; Ross, Westerfield, and Jordan Chapter 5, 6, 7, and 8.

SLO:

- Calculate the values and rates of return on bonds and stocks
- Explain the determinants of interest rates and the terms structure of rates
- Explain bond credit risk, call risk, and market risk
- Explain the relation between bond risk and bond spreads
- Explain duration and convexity
Topics:
- Review of time value of money
- Bond valuation
- Bond price relations
- YTM
- Total return
- Spot rates and equilibrium bond prices
- Geometric mean
- Stock returns and valuation
- Fundamental stock valuation
- Two-stage and three-stage growth models
- Level and Structure of Interest Rates
- Term Structure of Interest Rates
- Debt Risk

Readings and Assignments
- Read Ross, Westerfield, and Jordan Chapter 5, 6, 7, and 8
- Read Johnson, Equity Book, Chapters 3
- Readings: Chapters 4 and 5 from Johnson's Debt Markets and Analysis
- Chapter Audio/PPTs
- Zoom Recordings
- Assigned Problems

Module 2: Return and Risk, Portfolio Analysis, and Capital Market Theory
This module covers Chapters 6-10 in Equity Markets and Portfolio Analysis and Ross, Westerfield, and Jordan Chapter 12 and 13: Stock Return and Risk, Portfolio Analysis, Capital Asset Pricing Model (CAPM), Technical Analysis, and Efficient Market Theory.

SLOs:
- Estimate a stock’s return and risk using statistics
- Evaluate a portfolio in terms of its expected return and risk
- Construct a Portfolio
- Derive the Capital Asset Pricing Model
- Explain Technical Analysis Theories
- Explain the Efficient Market Theory

Readings and Assignments:
- Read Chapter 6-9, 14, and 15 from Johnson, Equity Markets and Portfolio Analysis
- Ross, Westerfield, and Jordan Chapter 12 and 13
- Lecture: Audio/PPTs covering the chapters OR Zoom Recordings
- Work select end-of-the-chapter problems from chapters
Test 1: Modules 1 and 2

Module 3: Equity Markets, Trading, and Investment Funds
Module 3 covers Chapters 4 and 5 from *Equity Markets and Portfolio Analysis* and Ross, Westerfield, and Jordan Chapter 8

SLOs:
- Differentiate the major types of equity and investment funds in terms of their characteristics
- Explain how the different financial markets function

Assignments and Readings:
- Reading: Johnson, Equity Book: Chapters 4 and 5 (or corresponding PPTs)
- Ross, Westerfield, and Jordan Chapter 8
- Equity Institutions Question are part of the material for test 2 (take-home test)
- Zoom Recording

Test 2, Take-Home: Module 3

Module 4: Fundamental, Technical, and Efficient Market Analysis
This module covers Chapters 11 and 12 from *Equity Markets and Portfolio Analysis* and Ross, Westerfield, and Jordan Chapter 8: the financial anatomy of company, valuations of stocks and indexes using DCF and multipliers approaches,

SLOs
- Explain the financial anatomy of company
- Value stocks and indexes using fundamental DCF and multiplier approaches

Readings and Assignments:
- Ross, Westerfield, and Jordan Chapter 8
- Read Johnson, Chapters 11 and 12
- Lecture: Chapter 11-15 Audio/PPT
- Zoom Recordings
- Zoom Lecture Recordings
- Assigned end-of-the-chapter problems
Module 5: Corporate Valuation, Capital Structure, Mergers, and Capital Budgeting

Capital Structures Topics
- Corporate Valuation Revisited
- Old View of Capital Structure
- Modigliani and Miller
- Hamada
- Practical Considerations

Reading Material and Assignments:
- Ross, Westerfield, and Jordan Chapters 16 and 17
- Capital Structure PPT
- Zoom Recoding
- Capital Structure Problem

Corporate Investment Decisions—Capital Budgeting

Capital Budgeting Topics
- Classification of capital budgeting projects
- Elements of the capital budgeting process
- Steps in capital budgeting process
- Approaches to estimating the cost of capital
- IRR
- NPV Profile
- IRR decision Rule
- When IRR and NPV approaches for mutually exclusive projects are inconsistent
- Nonconventional projects and NPV Profile
- TR for capital budgeting
- Operating leverage
- Financial leverage
- Rule for inflation adjustments
- Rule for choice of depreciation
- Equivalent Annual Net Benefits Approach to Evaluating Projects with Different Lives
- Replacement Frequency
- Dependence: Erosion and Enhancement
- Real Options: Definition, types, and examples
- Payback Method
- Discounted Payback Method
- Profitability Index
- Break-Even Analysis
- Decision-Tree Analysis
Reading Material and Assignments:
- Ross, Westerfield, and Jordan Chapters 9, 10, and 11
- Capital Budgeting PPT
- Zoom Recoding
- Capital Budgeting Problem Set

Mergers and Acquisitions

Topics
- Differences in acquisition, merger, consolidation, horizontal merger, vertical merger, conglomerate merger, tender offer, and synergy.
- Technical considerations to consider in a merger: corporate charter, tax treatment, accounting issues, and antitrust considerations
- Reasons for synergy
- Comparative analysis and valuation approaches to evaluating mergers
- Tactics used in an unfriendly merger by the potential acquiring firm
- Defensive tactics target companies may take to stop current or anticipated takeover

Reading Material and Assignments:
- Johnson, Chapter 11, pp. 422-433
- Ross, Westerfield, and Jordan Chapter 26
- Mergers PPT
- Zoom Recordings
- Merger Problem

Test 3: Online: Modules 4 and 5

Module 6: Debt Markets and Securities
Module 6 covers the different debt securities and their markets.

SLOs:
- Differentiate the major types of bonds in terms of their characteristics
- Explain how the different debt markets function

Reading Material and Assignments:
- Readings: Johnson's Debt Markets and Analysis, Chapters 7, 8, and 9
- Audio/PPT: Chapters
- Zoom Recordings
Test 4, Take Home: Modules 6

Module 7: Derivatives

Equity Derivatives

Chapters 16 and 17 from *Equity Markets and Portfolio Analysis*, Chapters 14 from Johnson's *Debt Markets and Analysis*, Ross, Westerfield, and Jordan Chapter 24 and 25.

SLOs:
- Evaluate fundamental option strategies in terms of profit graphs
- Explain how options trade on organized exchanges
- Evaluate a stock portfolio insurance strategy
- Define the B-S OPM
- Explain the futures market
- Explain the carrying-cost model
- Explain uses of futures for hedging and speculation
- Understand the use of interest rate swaps for financial management
- Understand Credit Default Swaps

Reading Material and Assignments
- Chapters 16 and 17 from Johnson, *Equity Markets and Portfolio Analysis* and corresponding PPTs
- Chapters 14 from Johnson's *Debt Markets and Analysis*
- Ross, Westerfield, and Jordan Chapter 24 and 25
- Zoom Recordings
- Assigned end-of-the-chapter problems

Final: Tests 1 and 3 Questions and Problems and Module 7

Bloomberg Workshop, Time: TBD

This is workshop held in the Fifth-Third Trading Room.
SLOs
- Access Bloomberg from your own account
- Navigate the Bloomberg system
- Search and screen for securities and news
- Access economic data and information
- Construct a portfolio
- Apply Excel to access Bloomberg information
- Create a Bloomberg Launchpad
• Work Bloomberg Exercises

Reading Material:
• Chapter 2 from *Equity Markets and Portfolio Analysis* (Canvas)
• Chapter 2 PPT (Canvas)

Tests, Assignments, and Grading

1. **Tests**: Tests are based on material from lectures, readings, and assigned study problems. There will be three tests during the semester.

   Make-up tests will be given to students who receive permission from me in advance of the test date

2. **End-of-the Chapter Problems**: 15 Problem Sets

3. Bloomberg Exercise Projects

4. **Grading Weights**

   - Test 1: 20%
   - Test 2: 5%
   - Test 3: 20%
   - Test 4: 7.5%
   - Final 30%
   - Problems 10%
   - Bloomberg Project 7.5%

5. **Grading Scale**:  

   - 93-100: A  
   - 89-92: A-  
   - 85-88: B+  
   - 80-84: B  
   - 77-79: B-  
   - 74-76: C+  
   - 65-73: C  
   - 50-64: C-  
   - 0-49: F

6. **Modifications**: The course is subject to modification during the semester.