DEPARTMENT OF ECONOMCS
UNIVERSITY OF DELHI

Subject: Common Pool of DSE
Sem.:   IV/VI/VIII
Course & Code: Financial Economics ECON046
Duration (per week):   4 (3 lectures + 1Practical)
Date & Time   25/11/2024 at 1.00 PM
Venue: 104, Department of Economics, Delhi University
Convenor: Satyendra Gupta, Reetika Garg
College Teachers

Animesh Naskar	Hansraj College
VAIBHAV PURI	SGGSCC

Learning Objectives
- To equip students with essentials tools for understanding Finance at undergraduate level.
- To enable students to use modelling techniques to solve Financial Economics concepts.
- To develop necessary skill and knowledge for financial problem solving

Learning outcomes
- After studying this course, students would be able to understand the basic concepts of finance and financial variables
- They would develop an understanding of basics of finance including interest rates, annuity, and cash flow.
- The analytical approach adopted in this paper will strengthen and channelise their skills for more advance approaches in finance.

Following points were discussed and agreed upon.

- No change in evaluation scheme, i.e.
  - Regarding the End Semester (Final) Exam (90 marks) the weightage of Unit 1, Unit 2, Unit 3, and Unit 4 was decided to be 20, 30, 30, 10 respectively; students will be required to attempt 5 out of 7 questions.
  - Regarding the Internal assessment (30 marks), it was decided to conduct two tests of 12 marks each and 6 marks will be for attendance.
  - Continuous assessment (40 marks) will be as per University Rules.

SYLLABUS OF DSE: FINANCIAL ECONOMICS

1. Deterministic cash-flow streams

Basic theory of interest; discounting and present value; internal rate of return; evaluation criteria; fixed-income securities; bond prices and yields; interest rate sensitivity and duration, convexity; immunization; the term structure of interest rates; yield curves; spot rates and forward rates.

Brealey, Richard A., Myers, Stewart, C., Allen, Franklin:
Chapter 5: Net Present Value and Other Investment Criteria (Section 5.3, pages 107-115)

Bodie, Kane, Marcus
Chapter 14: Bond Prices and Yields (Section 14.1-14.3, Pages 445-460,
Chapter 15: Term Structure of Interest Rate (Section 15.1-15.3, Pages 487-497)
Chapter 16: Managing Bond Portfolios (Section 16.1,16.2 16.3, Pages 515 – 530, 535 – 543)

David G. Luenberger:
Chapter 3: Fixed Income Securities (Pages 40 – 65, 68-70)

Berk, DeMarzo (For Teacher's Reference)
Chapter 4: Time Value of Money (all sections)
Chapter 6: Valuing Bonds (all sections)
Chapter 7: Investment Decision Rules (all sections)

Questions: Berk, DeMarzo Chapter 4: Time Value of Money (Examples 4.1 – 4.11) and Chapter 16 backend questions of Bodie, Kane, Marcus

2. Single-period random cash flows

Random asset returns; portfolios of assets; portfolio mean and variance; feasible combinations of mean and variance; mean – variance portfolio analysis; the Markowitz model; risk-free assets

Bodie, Kane, Marcus
Chapter 7: Optimal Risky Portfolio (Section 7.1 – 7.3, 7.4 Pages 205-218 till Example 7.3, 220 – 228)

Berk, DeMarzo
Chapter 11: Optimal Portfolio Choice and CAPM: (Sections 11.1 – 11.6, pages 351 – 378)

David G. Luenberger:
Chapter 6: Mean-Variance Portfolio Theory (Section 6.1, 6.4 - 6.9 Pages 137 – 140, 150 – 167,

170-171)

3. Capital Asset Pricing Model (CAPM)

The capital market line; the capital asset pricing model; the beta of an asset and of a portfolio; security market line; use of the CAPM model in investment analysis and as a pricing formula.

#Bodie, Kane, Marcus
Chapter 9: Capital Asset Pricing Model (Section 9.1, Pages 291-300)

#Berk, DeMarzo
Chapter 11: Optimal Portfolio Choice and CAPM: (Sections 11.7 – 11.8 , pages 379 - 399)
Chapter 12: Systematic Risk and Equity Risk Premium (Pages: 397-428)

David G. Luenberger:
Chapter 7: The Capital Asset Pricing Model (Section 7.1-7.7, Pages 173 – 190, 193-194)

4. Market Efficiency & Behavioural Finance

Bodie, Kane, Marcus
Chapter 12: Behavioural Finance & Technical Analysis (Pages: 388-413)

Brealey, Richard A., Myers, Stewart, C., Allen, Franklin
Chapter 13: Efficient Markets & Behavioral Finance (Sections 13.2, 13.5, Pages 314 – 318, 329-333)

These references in section-3 are suggested for solving numerical problems.

Practical Component (30Hours)
1. Present Value and Net Present Value
2. Internal Rate of Return and Loan Tables \
3. Multiple Internal Rates of Return
4. Future Values and Applications
5. Continuous Compounding
6. Analyzing the Cash Flows by NPV or IRR
7. Portfolio Models
8. Calculating Efficient Portfolios When There Are No Short-Sale Restrictions
Reference for Practical:
Simon Benninga, Financial Modelling, MIT Press, Third Edition, 2008:
Chapter 1: Basic Financial Calculations (Sections: 1.2, 1.3, 1.4, 1.6, 1.8)
Chapter 8: Portfolio Models
Chapter 9: Calculating Efficient Portfolios When There Are No Short-Sale
        Restrictions

Books:

Bodie, Kane & Marcus, Investments McGraw Hill 10th Edition, 2014

Berk, DeMarzo, Corporate Finance, Pearson, 3rd Edition, 2014

Brealey, Richard A., Myers, Stewart, C., Allen, Franklin, Principles of Corporate Finance, McGraw Hill 10th Edition, 2011

David G. Luenberger, Investment Science, Oxford Press, 1998

Simon Benninga, Financial Modelling, MIT Press, Third Edition, 2008