Discipline Specific Elective 16 (DSE-16): Financial Economics

Semester	Course title & Code	Credits	Duration (per week)			Eligibility Criteria	Prerequisite
			Lecture	Tutorial	Practical / Practice		
IV/VI/VIII	Financial Economics – ECON046	4	3	0	1	Class XII with Mathematics	Introductory Mathematical Methods for Economics/ Basic Statistics

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.

SYLLABUS OF DSE: FINANCIAL ECONOMICS

Unit 1. Deterministic cash-flow streams (12 Hours)
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; immunisation; the term structure of interest rates; yield curves; spot rates and forward rates.
Berk, DeMarzo
Chapter 4: Time Value of Money (all sections)
Chapter 6: Valuing Bonds (all sections)
Chapter 7: Investment Decision Rules (all sections)
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 15.1-15.5, Pages 487-504)
Chapter 16: Managing Bond Portfolios (Section 16.1, 16.3, Pages 515 – 525, 535 – 543)

Unit 2. Single-period random cash flows (12 Hours)
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)

Unit 3. Capital Asset Pricing Model (CAPM) (12 Hours)
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. Arbitrage pricing theory(APT) and multi-factor model of risk and return.
Bodie, Kane, Marcus
Chapter 9: Capital Asset Pricing Model (Section 9.1, Pages 291-300)
Chapter 10: Arbitrage pricing theory(APT) and multi-factor model of risk and return.
Berk, DeMarzo
Chapter 11: Optimal Portfolio Choice and CAPM: (Sections 11.7 – 11.8 , pages 379 - 399)
Brealey, Richard A., Myers, Stewart, C., Allen, Franklin
Chapter 8: Portfolio Theory and the Capital Asset Pricing Model (Section 8.4, pages 199-203)
David G. Luenberger:
Chapter 7: The Capital Asset Pricing Model (Section 7.3 & 7.7, Pages 177 – 179, 187 - 190)

Unit 4. Market Efficiency & Behavioural Finance(09 Hours)
Bodie, Kane, Marcus
Chapter 11: Efficient Market Hypothesis (Sections 11.1-11.2, 11.4, Pages 349 – 357, 362-63)
Chapter 12: Behavioural Finance & Technical Analysis
Brealey, Richard A., Myers, Stewart, C., Allen, Franklin
Chapter 13: Efficient Markets &Behavioral Finance (Sections 13.2, 13.5, Pages 314 – 318, 329-333)

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 7: The Financial Analysis of Leveraged Leases(Sections: 7.1, 7.2, 7.3)
Chapter 8: Portfolio Models
Chapter 9: Calculating Efficient Portfolios When There Are No Short-Sale Restrictions

Essential/recommended readings
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

Note: Examination scheme and mode shall be as prescribed by the Examination Branch, University of Delhi, from time to time.