GOKHALE INSTITUTE OF POLITICS AND ECONOMICS

Deemed to be University u/s 3 of the UGC Act, 1956
PUNE 411004

(Approved by Board of Studies 26/02/2024 & 28/05/2024; Approved by Academic Council 5-6-2024)

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M.Sc. (Financial Economics)

COURSE STRUCTURE & SYLLABUS

Program Outcomes:

Disciplinary knowledge: Capable of demonstrating comprehensive knowledge and understanding of one or more disciplines that form a part of an undergraduate /postgraduate program of study.

Communication Skills: Ability to express thoughts and ideas effectively in writing and orally; Communicate with others using appropriate media; confidently share one's views and express herself/himself; demonstrate the ability to listen carefully, read and write analytically, and present complex information in a clear and concise manner to different groups.

Critical thinking, Problem solving and Analytical reasoning: Capability to apply analytic thought to a body of knowledge; analyses and evaluate evidence, arguments, claims, beliefs on the basis of empirical evidence; identify relevant assumptions or implications; formulate coherent arguments; critically evaluate practices, policies and theories, philosophies.

Acquiring research-related skills, scientific reasoning and reflective thinking: A sense of inquiry and capability for asking relevant/appropriate questions; ability to recognize cause-and-effect relationships, define problems, formulate and test hypotheses, analyses, interpret and draw conclusions from data; ability to plan, execute and report the results of an experiment or investigation.

Self-directed lifelong learning: Capability to use ICT in a variety of learning situations; ability to work independently, identify appropriate resources required for a project; ability to acquire knowledge and skills, through self-paced and self-directed learning aimed at personal development.

Employability Options: All the programs prepare the students for job profiles that demand numerical, analytical, and problem-solving skills, such as financial management, market research, business planning, budgeting, resource allocation, etc.

The present curriculum goes with Learning Outcome-based Curriculum Framework (LOCF) for all its programs. The approach is envisioned to provide a focused, outcome-based syllabus with an agenda to structure the teaching-learning experiences in a more student-centric manner. The LOCF approach has been adopted to strengthen students' experiences as they engage themselves in the program of their choice. Each program vividly elaborates its nature and promises the outcomes that are to be accomplished by studying the courses. Our students became eligible for all competitive exams like SSC, Indian Administrators, Insurance sector, Data Analyst, Tourism, Environment Management, Bank PO's, Media, MNC, NGO, and to prepare them for start-ups. In short, each program prepares students for sustainability and life-long learning.

Program Specific Outcomes:

- PSO 1: This Program is specifically designed to provide the students with profound, comprehensive and industry relevant knowledge of financial economics complete with the training in analytic and quantitative methods.
- PSO 2: The students learn how to use econometric software packages like STATA, E views and R to assist with data analysis.
- PSO 3: Critically comment on and participate in current debates on economic and financial policy.
- PSO 4: In addition to preparing the student for continued growth and life-long learning and help students pursue careers in research-oriented fields and corporates.

Pedagogy of this Course:

- Active learning by encouraging discussions in class.
- Inculcating team spirit by providing activities to be done in groups.
- Follow various modes of teaching, to help students adapt to different modes of work they will face post-graduation, to name a few, power point presentations, computer exercises etc.,
- Games and other simulation exercises since working in strategic environment with software packages and languages is inevitable these days.
- Encouraging to do literature review or to write summary of journal articles to keep them afloat with recent developments in the research frontiers.
- Assignments are given to be able to apply theories to real-word examples.
- Quizzes to have clarity of concepts.

Note: Various evaluation methods for students to develop different skills along the way.

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Course Code: C-01
Course Name: Microeconomics

Learning Outcome:

- To acquaint the students with introductory consumer theory and the limitations with an orientation towards behavioural approach (Module I)
- To understand how the choice will be made under uncertainty and how the attitude towards risk will be determined. (Module II)
- To introduce to the students, the concepts associated with the functioning of a firm. (Module III)
- To study the various types of markets prevelant in an economy and the nature of their decision making (Module IV)
- To study the information economics i.e. role of asymmetric information and its way out, designing of optimum incentive scheme under information asymmetry (Module V)
- To acquaint the students with the basics of game theory (Module VI)

Module 1:
Consumer Theory (8 hrs)

- Preference Relation and Its Properties.
- Consumer Preferences and Representation of Preferences by Utility Functions.
- Budget Constraint, Utility Maximization and Derivation of the Demand Function, The Indirect Utility Function and Its Properties, Roy's Identity
- Revealed Preferences. Endowments in the Budget Constraint, Difference between revealed and normative preference
- Limitations of the Consumer Theory
- Behavioral Approach

Module 2:
Choice Under Uncertainty (12 hrs)

- The Expected Utility Model, Utility on Lotteries, Axioms and Preferences under Uncertainty
- Critiques of the Expected Utility Model, Prospect Theory
- Measures of Risk--Domar-Musgrave Index, Roy's Safety Index, Mean-Variance, Semi Variance Mini-max Regret
- Lotteries, Preference Relation over Lotteries, N-M Expected Utility Theory
- Basic Axiom and Representation Theorem Violations of EU theory.
- Subjective Probabilities
- Risk Aversion – Jensen's Inequality, Acceptance Set and Risk Aversion
- Various Measures of Risk Aversion like Arrow-Pratt Measure of Absolute Risk Aversion, Relative Risk Aversion
- Certainty Equivalent and Risk Premium
- Arrow-Pratt Approximation of Risk Premium
- Pratt's Theorem
- Classes of Utility Functions: Decreasing Absolute Risk Aversion (DARA), Constant Absolute Risk Aversion (CARA), Increasing Absolute Risk Aversion (IARA), Decreasing Relative Risk Aversion (DRRA), Increasing Relative Risk Aversion (IRRA), Constant Relative Risk Aversion (CRRA) etc. and their comparative statics

- Applications to Various Settings and Comparative Static Results.

Module 3:
Theory of Firm (6 hrs)

- Theory of Organization. Measurements of Inputs and Outputs
- Profit Maximization, Comparative Statics, Profit Function. Hoteling's Lemma, Factor Demand Functions, Supply Function.
- Cost Minimization, Cost Functions, Average and Marginal Cost Functions, Short-Run and Long-Run Costs, Marginal Cost Pricing, Aggregation – Industry Supply Function, Shephard's Lemma, Conditional Factor Demand Functions.
- The Duality Between Production and Cost Functions.

Module 4:
Theory of Market (8 hrs)

- Perfect Competition: Short-Run and Long-Run Market Equilibrium.
- Monopoly: Monopoly Power, Equilibrium Output and Prices, Effect on Welfare, Price Discrimination – First, Second, And Third-Degree, Quality Choice Under Monopoly. Market Power, Sources of Market Power, Monopoly & Regulation of Monopoly. HHI or Any Other Index Used to Measure the Concentration of Firms.
- Monopolistic Competition.
- Oligopoly: Cournot Equilibrium, Stability, Comparative Statics, Bertrand Equilibrium. Quantity Leadership, Price Leadership. Conjectural Variations.
- Spatial Competition: Linear City Model, Circular City Model.
- Market failure, public goods and introduction to welfare economics,

Module 5:
Information Economics (10 hrs)

- Introduction: The Elements of the Problem
- Types of Asymmetric Information Problems– Moral Hazard, Adverse Selection, Signalling
- Static Full Information Benchmark
- Hidden Action in a Two Action-Two outcome model as well as in a Simple Continuous Action and Continuous Outcome Case
- Solution through First Order Approach and its Validity
- Value of Information and Characteristics of the Optimal contract
- Adverse Selection and Signalling: Akerlof's Model of Lemons,
- Signalling in the Spence's Model of Education
- The Notions of Pooling and Separating Equilibria.

Module 6:
Game theory (introduction) (6 hrs)

- Description of a Game, Normal Form Representation of the Game, Extensive Form Representation of The Game
- Solution Concepts—Nash Equilibrium, Mixed Strategies, Repeated Games, Sequential Games.

Suggested Readings:

Books:

- Serrano.R and Feldman. M.A. (2018). A Short Course in Intermediate Microeconomics with Calculus. Cambridge University Press
- Gravelle, H. and Rees R, 2003, Microeconomics, 3rd Edition, *Prentice Hall*
- Kreps, David. (1992). A Course in Microeconomic Theory, Eastern Economy Edition, *Prentice Hall of India*
- Mas-Colell.A, Whinston &Green, Microeconomic Theory. (1995). Oxford *University Press*
- Perloff.J. (2019). Microeconomics, 7th Edition, *Pearsom Education.*
- Pindyck, Robert S. and Rubinfield, Daniel L. (2017), 9th Edition Microeconomics, *Pearson College*

Articles:

- Arrow, K.J. (1965) Aspects of the Theory of Risk Bearing. Yrjo Jahnssonin Saatio, Helsinki.
- Hadar, J. and Russell, W. (1969). **Rules for ordering uncertain Prospects**. AER.
- Yan Sun & Shu Li, 2010. **The effect of risk on intertemporal choice**, Journal of Risk Research, Taylor & Francis Journals, vol. 13(6), pages 805-820, September.
- Kahneman, D.and Tversky, A. (1979). Prospect Theory: An Analysis of Decision under Risk.Econometrica. 47(2),pp263-291

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Course Code: C-02
Course Name: Macroeconomics

Course Outcomes:
The course will enable the students:

- To familiarize the students with the contributions of various schools of thought in Macroeconomics. (Module 2 and 3)
- To provide a wider vision of present discourse in Macroeconomics. (Module 6)
- To develop aptitude to relate concepts with research and policy. (Module 5)
- To understand macro-economic policy initiatives both in global and domestic context (Module 2)
- To understand the macroeconomic tools to manage business fluctuations. (Module 4)

Module 1:
Macroeconomic Measurement (8 hours)

- An overview of National Accounting.
  - Conventions about National Accounting Sectors.
  - Concept of value added by production.
  - National Product at market price and factor cost.
  - Gross and Net Production.
- Methods of Income estimation.
  - The Product Approach, The Expenditure Approach, The Income Approach.
- Accounting for Environmental and Social Dimensions.
  - Physical quality of life index and Human Development Index.
  - Environmentally Adjusted Net Domestic Product.

Module 2:
Background Concepts. (8 hours)

- History of macroeconomic thought- Classical, Keynesian and schools of thought after Keynes.
- Behavioral foundations of Macroeconomics:
- Consumption Function: Keynes Psychological Law and Kuznet's consumption puzzle, Fisher's intertemporal Choice Model, Permanent Income Hypothesis, Life Cycle Hypothesis and Relative Income Hypothesis.
- Investment Function: Neo-Classical Theory of Investment, Stock Market and Tobin's q-ratio, Accelerator Theory of Investment (simple and flexible acceleration models)
- The Monetarist School: The quantity theory of money approach.

Module 3:
Rational Expectations and new Classical Macroeconomics (4 hours)

- The basic concepts – the Phillips curve and Lucas Supply equation

Module 4:
Real Business Cycle School (6 hours)

- Real Business Cycle School and inter temporal substitution of labor.
- Real Business Cycle theory- technology shocks- neutrality of money and flexibility of wages and prices.
- Real Business cycle view on great depression.

Module 5:

Micro Foundations of real and nominal rigidities: New Keynesian School (8 hours)

- Imperfect competition and price setting- Real rigidity- Coordination failure models.
- Real Non Walrasian Theories- Small Menu Cost model and Staggering of prices, implicit wage.
- Contract theory- efficiency wage theory- Insider- Outsider model.

Module 6:

Basic Infinite Horizon Models (8 hours)

- Ramsey Problem: Command Economy, Decentralized economy, dynamic efficiency - Government in the decentralized economy.
- Overlapping Generations Model.
- OLG with production: tow period lives, dynamic inefficiency and altruism, Social Security Models under OLG

Suggested Readings:

Books:

- Barro, Robert J. & Sala-i- Martin, Xavier (1995), *Economic Growth*, McGraw Hill.
- Blanchard, Olivier (2000), *Macroeconomics*, Prentice Hall.
- Blanchard, Olivier and Stanley, Fischer (1989), *"Lectures on Macroeconomics"*, The MIT Press
- Dornbusch, Rudiger, Fischer, Stanley & Startz, Richard (2004), *Macroeconomics*, 9th Edition, McGraw Hill.
- Mankiw Gregory (2002), *Macroeconomics*, 5th Edition, Worth Publishers
- Romer, David (2003), *Advanced Macroeconomics*, 3rd Edition, McGraw Hill Publishers.
- Snowdon Brian and Vane Howard R, (2005) *Modern Macroeconomics: Its Origin, Development and Current State,* Edward Elgar Publishing Ltd.

Additional Reading List: Website Link

- https://www.imf.org/en/Publications/WEO/Issues/2022/07/26/world-economic-outlookupdate-july-2022
- https://www.federalreserve.gov/newsevents/pressreleases/monetary20220727a.htm
- https://www.ecb.europa.eu/press/pr/date/2022/html/ecb.mp220721~53e5bdd317.en.html
- https://www.ecb.europa.eu/press/blog/date/2022/html/ecb.blog220723~c2b1d4b654.en.html
- https://www.ecb.europa.eu/ecb/educational/explainers/tellmemore/html/interest_rates.en.html
- https://www.rbi.org.in/Scripts/BS_PressReleaseDisplay.aspx?prid=53904
- https://www.rbi.org.in/Scripts/PublicationsView.aspx?id=21035
- https://www.rbi.org.in/Scripts/PublicationsView.aspx?id=21038
- https://dea.gov.in/sites/default/files/MER%20June%202022_Final.pdf
- https://www.indiabudget.gov.in/doc/frbm1.pdf 16. https://www.rbi.org.in

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Course Code: C-03
Course Name: Statistics

Course outcomes:
The course will enable the students:

- To acquaint the students with hypothesis testing and to familiarize its use in real life. (module 1)
- To familiarize the students with distribution and its various types. (module 2)
- To acquaint the students with estimation, inference and its various methods (module 3)
- To familiarize the students with various qualitative tests. (module 4)
- To understand the various types of nonparametric statistics. (module 5)
- To acquaint the students with operational research and its various solving methods. (module 6)
- To improve the students' analytical and problem-solving skills, familiarize the students with various real life examples of linear programming problems. (module 7)

Module 1:
Testing hypotheses.

- Simple versus composite hypothesis.
- critical region, type I and type II errors, power of a test.
- The Decision Rule, trinity of classical tests (Wald test, Lagrange multiplier, likelihood ratio).
- application of hypothesis testing with known and unknown variances, test for correlation.

Module 2:
Special Distributions.

- Introduction
- Various types of distributions (The Poisson Distribution, The Normal Distribution, The Geometric Distribution, The Negative Binomial Distribution, The Gamma Distribution,
- The Central Limit Theorem.

Module 3:
Estimation and Inference.

- Introduction.
- Estimating Parameters.
- The Method of Maximum Likelihood, the Method of Moments.
- Interval Estimation, Properties of Estimators, Minimum-Variance Estimators.
- The Cramer-Rao Lower Bound, Sufficient Estimators, Consistency, Bayesian Estimation.

Module 4:
Bivariate Distributions.

- Contingency tables, joint and conditional distributions.
- Odds ratio, test of independence.
- Analysis of Variance (ANOVA), analysis of covariance.
  Module V: Nonparametric Statistics.
- Introduction.
- Sign Test, Wilcoxon Tests, The Kruskal-Wallis Test, The Friedman Test.
- Testing for Randomness, Comparing Parametric and Nonparametric Procedures.

Module 5:
Introduction to OR.

- Basic algorithms; Linear programming (LP).
- Graphical and Simplex.
- LP Formulation and LP with solver and sensitivity analysis.
- Transportation and transshipment models; Simulation; Decision Analysis.

Module 6:
Advanced algorithms in OR.

- Goal Programming; Queuing Theory, Networking Models.
- Markov chains; Data Envelopment Analysis (DEA); Analytical Hierarchical processing (AHP).

Reference list:

- Larsen, R. J., and Morris L. M. (2001): An Introduction to Mathematical Statistics and its Applications. 3rd ed. Upper Saddle River, NJ: Prentice Hall.
- Lewis M. (2011): Applied Statistics for Economists, Routledge.
- Newbold P. (2007): Statistics for Business and Economics (6th edition or later), Prentice Hall.
- Sweet, S. and Karen G.- M. (2008): Data Analysis with SPSS: A First Course in Statistics, Allyn & Bacon, 3rd Edition.
- Field A. (2013): Discovering Statistics using IBM SPSS Statistics. Fourth Edition, SAGE
- Render and Stair. (2012): Quantitative Analysis for Managerial Decision Making.
- Hiller and Liberman. (2011): Operations Research.
- Hamdy and Taha. (2013): Operations Research.

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Course Code: C-04
Course Name: Basic Econometrics

Course Outcome:
The course will enable the students:

- To provide an overview of the subject and build understanding about the concepts and techniques used in econometrics. (Module 1, 6, 8 & 9)
- To introduce basic econometric techniques that are widely used in empirical work in economics and other related disciplines. (Module 3 and 5)
- To enable conceptual understanding and 'hands on' applications using economic data drawn from real-world examples, rather than on formal theoretical proofs alone. (Module 2, 4 and 7)
- By the end of the course, students should be able to develop simple econometric models and interpret the econometric and statistical results reported in other studies.

Note: Students will be taught software packages for performing econometric applications. Computer exercises will be given.

Module 1:
The nature of Econometrics and Economic Data:

- Introduction, Model Specification and applied research
- The role of data in model specification
- The Structure of Economic Data
- Steps in Empirical Analysis
- Causality and the Notation of Ceteris Paribus in Econometrics, etc.

Module 2:
The Classical Linear Regression Model:

- Estimation and Inference: Ordinary least squares (OLS) estimation, the Classical assumptions, the Gauss-Markov theorem and properties of the OLS estimators
- Interval estimation and hypothesis testing and prediction
- Reporting and interpreting regression results
- Maximum Likelihood techniques
- Restricted Least Square estimation
- Likelihood Ratio (LR)
- Wald and Lagrange Multiplier (LM) Test
- Minimum Variance Bound (Rao-Cramer Inequality Theorem).

Module 3:
Non-linear regression:

- Conversion of non-linear forms into linear forms
- Testing linear verses non-linear functional form
- Appropriateness and relevance of the choice of functional form.

Module 4:
Regression Analysis with Qualitative information: Binary (or Dummy) Variables:

- Exogenous Dummy Variable- Formulating and interpreting coefficients on dummy explanatory variables
- Interactions involving dummy variables and use of dummy variables in seasonal analysis
- Piecewise regression analysis

- The dummy variable alternative to chow test.
- Discrete and Limited Dependent variable - Linear Probability Model, Problems relating to LPM
- Logit and Probit Model
- Multinomial Choice Models: Ordered Response Model; Unordered Response Model, Censored and Truncated Regression Model

Module 5:
Multicollinearity:

- Introduction, perfect verses imperfect Multicollinearity
- Consequences, tests for detection and remedies for Multicollinearity.

Module 6:
Violation of the OLS Assumptions:

- Introduction, Consequences of violation of OLS assumption
- GLS Estimation- Aitken's generalization of Gauss Marks Theorem.
- Heteroscedasticity & Autocorrelation: Causes and consequences, diagnostic tests and remedial procedural

Module 7:
Specifications: Choosing the Independent Variables and Functional Form

- Omitted variables: Too few variables, Irrelevant variables: variable overload, Criterion of choice, superfluous variables etc.
- The use and Interpretation of constant term
- Alternative Functional forms, Problem with incorrect functional form, test for choosing the appropriate functional form.

Module 8:
Lagged Variables and Distributed- Lag Models:

- Introduction, Consequences of applying OLS
- Almon's lag approach
- Koyak Transformation: Partial adjustment hypothesis and adaptive expectations hypothesis, estimation of distributed lag models etc.

Module 9:
Simultaneous Equation Models (SEM):

- Introduction, Structural, reduced form and final form model
- Rational behind the use of SEM - simultaneous bias and inconsistency of the OLS estimator
- Problem of Identification: Rank and Orders conditions
- Methods of estimation: ILS, 2SLS, Instrumental Variable, LIML (LVR), Mixed estimation Method, 3 SLS and FIML methods.

References

Books:

- Green, William H. (2014), Econometric Analysis, Prentice Hall.
- Griffiths, Hill and Judge (1993), Learning and Practicing Econometrics, Wiley, New York.
- Guajarati, Damodar, (2003), Basic Econometrics, 4th Edition, Tata McGraw Hill Publishing Company, New Delhi
- Johnston and Dinardo (1997), Econometric Methods, 4th Edition McGraw-Hill International Edition.
- Judge, G.G. et al., Introduction to the theory and Practice of econometrics, 2nd Edition John Wiley and Sons.
- Koutsoyiannis, A (2004), Theory of Econometrics, 2nd edition, Palgrave, N. Y.
- Madala G.S. (2001), Introduction to Econometrics, John Wiley & Sons.
- Pindyck & Rubinfeld (1997), Econometrics Models & Economic Forecast, 4th edition, McGraw-Hill/Irwin.
- Studenmund, A.H., (2005), Using Econometrics: A Practical Guide, Addison Wesley Publishing Company, Boston.
- Wooldridge J. (2009), Introductory Econometrics: A Modern Approach, South-Western College Pub.

Articles:

- Amemiya , Takeshi (1980), 'Selection of Regressors', International Economic Review, Vol. 21, No. 2, June, pp. 331-354,
- Amin and Islam (2014), 'Are There More Female Managers in the Retail Sector? Evidence from Survey Data in Developing Countries,' Policy Research Working Paper-6843, World Bank.
- Angrist and Kruger (2001), 'Instrumental Variables and search for Identification: From Supply and Demand to Natural Experiments,' Journal of Economic Perspective, Volume 15, November 4- Fell 2001, P 69-85
- Chen, Dhal, and Khan(2002), 'Nonparametric Identification and Estimation of a Censored Regression Model with an Application to Unemployment Insurance Receipt', Center For Labor Economics University of California, Berkeley Working Paper No. 54
- Chintagunta and Honore (1996), 'Investigating the effects of marketing variables and unobserved heterogeneity in a multinomial probit model,' International Journal of Research in Marketing, Elsevier Science, 13(1996) 1-15
- Comanor William S. and Wilson Thomas A. (1967), 'Advertising Market Structure and Performance', The Review of Economics and Statistics, Vol. 49, No. 4, Nov., pp. 423-440
- Dornbusch, R.and Pechman, Clarice (1985), 'The Bid-Ask Spread in the Black Market for Dollars in Brazil', Journal of Money, Credit and Banking, Vol. 17, No. 4, Part 1, November, pp. 517-520.
- Halvorsen, R. and Palmquist, R. (1980), 'The Interpretation of Dummy Variables in Semi logarithmic Equations', The American Economic Review, Vol. 70, No. 3, June. pp. 474-475
- Harvey, A. C. (1976), 'Estimating Regression Models with Multiplicative

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Course Code: FE-A-103
Course Name: Accountancy, IFRS and Financial Statement Analysis

Course Outcome:
The course will enable the students:

- The course enables the student to have a decision-maker perspective of accounting by emphasizing the relation between accounting data and the underlying economic implications for various security market and firm level portfolio management decisions. (Module 1)
- To create an ability to prepare final accounts statement (Module 2)
- To appreciate the various IFRS modules (Module 3, 4, 5 & 6)
- To appreciate the statement of changes in funds flow (Module 7)
- To analyze companies' annual reports (Module 6 &7)
- Overall, across all modules, the course enables the student to have a thorough understanding of various essential concepts of accountancy and preparation of financial statements using the IFRS framework India.

Module 1:
Basic principles (6 hours)

- Financial accounting & accounting standards
- Accounting equations; users of accounting statements.
- Importance − objectives and principles; accounting concepts and conventions;
- Principle of double entry book keeping and GAAP

Module 2:
Preparation of final accounts statement : (8 hours)

- Preparation of Financial Statements of Companies in Vertical Form.
- Introduction to IFRS-
- IAS 1-Presentation of Financial Statements
- IAS 8- Accounting Policies & Changes in Accounting Estimates and Errors
- IAS 10- Events After the Reporting Date
- IAS 18- Revenue
- IAS 37- Provisions
- Contingent Assets and Contingent Liabilities
- IAS 16- Property Plant and Equipment
- IAS 2 Inventories

Module 3:
(4 hours)

- IAS 38 Intangible Assets
- IAS 17 Accounting for Leases
- IAS 23 Borrowing Costs
- IAS 36 Impairment of Assets IFRS 5 Non-Current Assets Held for Sale and Discontinued Operations

Module 4:
(4 hours)

- IFRS 3 Business Combination
- IAS 27 Separate Financial Statements

- IAS 28 Investment is Associates and Joint Ventures

Module 5:
(6 hours)

- IAS 21 Effects of Changes in Foreign Exchange Rates
- IAS 12 Income Taxes
- IFRS 8 Operating Segments
- IAS 24 Related Party Disclosure
- IAS 33 EPS

Module 6:
(4 hours)

- IAS 39 Financial Instruments Recognition and Measurement
- IFRS 2 Share Based Payment

Module 7:
Statement of changes in funds flow statement : (6 hours)

- IAS 7 Statement of cash flows; funds from operations.
- Preparation and analysis of cash flow statement and funds flow statement.

Module 8:
Analysis of companies' annual reports : (8 hours)

- Provisions of the Companies Act 2013; provision affecting preparation, presentation & analysis of audit reports & Directors' reports.
- Du Pont analysis, other important financial ratios.
- Non-financial (strategic) models used for analysis of company performance.

References

Books:

Bernstein, L.,Wild, John, (1999), Analysis of Financial Statements, 5/ e, McGraw-Hill.
Bhattacharyya, Asish K. (2006), Financial Accounting for Business Managers, PHI.
Gupta, Ambrish (2007), Financial Accounting Management An Analytical Perspective, Pearson Education.
Stice and Stice (2007), Financial Accounting Reporting and Analysis, Thomson.
Bhattacharya, Ashish K. (2007), Introduction to Financial Statement Analysis, Elsevier India (P) Ltd.
Anthony, Robert N., Hawkins, David F. and Merchant, Kenneth A. (2005), Accounting: Text and Cases, TMH.
Horngreen (2007), Financial Accounting, 8/e, Pearson Education.
Weygandt, Kieso, Kimmel (2006), Financial Accounting, 4/e, Wiley India Edition
Ghosh, T.P., (2010), Understanding IFRS, Taxmann.

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Course Code: FE-A-105
Course Name: Financial Institutions, Markets and Regulations

Course Outcome

- To introduce the various domestic and foreign financial markets and describe the special functions of financial institutions (Module 1 and 8).
- To look at factors that determine interest rate levels, as well as their past, present, and expected future movements (Module 2)
- To describe the central bank's role and how monetary policy implemented by the monetary authority affects interest rates and, provide a comprehensive look at the regulations under which these financial institutions operate and, particularly, the effect of recent changes in regulation (Module 3).
- To take an analytical look at how financial markets and institutions benefit today's economy; (Modules 4, 5 and 7)
- To provide an overview describing the key characteristics and regulatory features of international financial institutions (Module 6)

Module 1:

Financial System: Structure and Role

- Significance of Banking and Financial Institutions
- Structure of the Financial System
- Banks and Other Financial Institutions
- Financial Innovation
- Function of Financial Markets
- Overview of Structure of Debt and Equity Markets, Primary and Secondary Markets, Exchanges and Over-the-Counter Markets, Money and Capital Markets
- Internationalization of Financial Markets- International Bond Market, Eurobonds, Eurocurrencies, World Stock Markets
- Function of Financial Intermediaries -Transaction Costs.

Module 2:
Banking and Non- Banking Institutions

- Institutional structure in India, Commercial, Cooperative banks, Private sector banks, Non-Bank Financial Intermediaries.
- Institutional structure in India, Types and comparison of asset liability structures of various NBFCs,
- Finance Companies, Mutual Funds, Lease finance, Housing Finance, Venture Capital funds, Money Market Mutual Funds, Hedge Funds – Insurance companies - Infrastructure Finance Companies.

Module 3:
Money Market

- Institutions and constituents
- Call Money Market
- The Discount Market
- The 'Parallel' Markets
- The Interbank Market
- The Market for Certificates of Deposit
- The Commercial Paper Market
- The Local Authority Market
- Repurchase Agreements
- The Euromarkets
- The Significance of The Parallel Markets
- Monetary Policy and the Money Markets
- Regulation of Money Markets and Clearing Houses.

Module 4:
Capital Market

- The Importance of Capital Markets, Characteristics of Bonds and Equities, The Trading of Bonds and Equities
- Bonds- Supply, Demand and Price,
- Equities-Supply, Demand and Price
- The Behaviour of Security Prices
- Hybrid Securities, Preference Shares, Convertible Debentures, Non-convertible Debentures (NCDs), Partially Convertible debentures (PCDs), Fully Convertible Debentures (FCDs), Warrants,Debt with Call and Put Options

Module 5:
Financial Regulation- Reserve Bank of India

- Reserve Bank of India as a Financial regulator and Financial Authority,
- Regulation and supervision of banking system,
- Basel Norms, Early Warning Signals of Credit Deterioration and Failure in banks
- The co-ordination between the financial sector regulators like SEBI, IRDA PFRDA and the RBI
- Vulnerability of Small Private Sector Banks
- The Board for Financial Supervision

Module 6:
Evolving areas for Financial Regulation

- Subprime Crisis
- Regulation of Non-Bank Financial Intermediaries
- Mortgage Backed Securities and OTC market
- Derivatives Markets
- Foreign Exchange Derivatives and Swaps.

Module 7:
Regulation of Capital Market - Securities Exchange Board of India

- Regulations
- Securities and Exchange Board of India Act, 1992, Securities Contract (Regulation) Act 1956

- Companies Act 1956
- Depositories Act 1996
- Prohibited Transactions, Insider Dealing, Market Abuse, Money Laundering, Corporate Governance and Management Guidance And Supervision, Role of stock exchanges and NSDL.

Reading List:

- Fabozzi, Frank, Modigliani, Franco, Jones, Frank (Feb 2009), Foundations of Financial Markets and
- Institutions, International Edition, 4th Edition, Pearson Higher Education.
- Mishkin, Frederic S. Find all the books, read about the author, and more.
- Eakins, Stanley G. (2005), Financial Markets and Institutions (5th Edition), Addison Wesley.
- Howells, Peter, Bain, Keith (2007), Financial Markets and Institutions, 5th Edition.
- Madura, Jeff (2008), Financial Markets and Institutions, 8th edition, Thomson Publications.
- Kidwell, David, Blackwell, David W., Whidbee, David A. et.al. (2008) Financial Institutions, Markets, and
- Money, 10th Ed., John Wiley & sons.
- Barth, James R., Caprio, Gerard, and Levine, Ross (2008), Bank Regulations are Changing: For Better or Worse?, Association for Comparative Economic Studies.
- Goldstein, Morris (2006), Financial Regulation after the Subprime and Credit Crisis, Washington: Peterson institute.
- Wymeersch, Eddy (2006), The Structure of Financial Supervision in Europe: About Single, Twin Peaks and Multiple Financial Supervisors, Social Science Electronic Publishing, Inc.

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Course Code: FE-A-106
Course Name: Corporate Finance And Capital Budgeting

Course Outcome:
The course will enable the students:

- To appreciate the study of financial management and corporate budgeting (Module I)
- To analyze the management of working capital (Module II)
- To identify with the decision making in selection of long term projects (Module III)
- To study the various patterns of financing (Module IV)
- To interpret the structure of long term capital (Module V)
- To critically evaluate derivatives and hedging with derivatives (Module VI)

Module 1:
Introduction : (6 hours)

- Finance Manager's Role –Separation of Ownership and Management
- Objectives of firm and Corporate Governance
- Financial Statements and Cash flow
- Financial Statements Analysis and Long Term Planning

Module 2:
Working Capital Management : (8 hours)

- Working capital components,
- Leverage
- Cash Management, Receivables Management and Inventory Management
- Financing current assets
- Regulation of bank finance

Module 3:
Capital Budgeting : (8 hours)

- Measures and choice of investments
- Financing decisions
- Time value of money, Net Present Value, Internal Rate of Return, Discounted Payback Period,
- Cost of capital
- Selection criteria risk, return and opportunity cost of capital
- Valuation of bonds and common stock
- Scenario testing and sensitivity analysis

Module 4:
Patterns of Financing : (8 hours)

- Internal funds, common stock, debt
- Financial Markets/Institutions
- Issue of securities, Venture Capital, initial public offering
- Securities sales and auctions, private placements and public issue junk bonds

Module 5:
Capital Structure and Financing Long Term Capital : (8 hours)

- Planning capital structure

- Capital structure choice
- Extended probabilistic analysis
- Dividend payout policies
- Share valuation
- Sources of long term capital
- Debt securities, debt policy and leverage risk management

Module 6:
Use of Derivatives and Corporate Finance : (10 hours)

- Options and corporate finance, along with extensions and applications
- Warrants and convertibles
- Derivatives and hedging risk

References

Books:

Ross, Stephen, Westerfield, Randolph, Jaffe, Jaffrey (February 2002), *Corporate Finance*, 6th Ed., McGraw-Hill Companies.

Berk, Jonathan, and DeMarzo, Peter (2007), *Corporate Finance*, Pearson International.

Brealey, R.A., Myers, S.C. and Allen, F. (2003), *Principles of Corporate Finance*, 7th Ed, McGrowHill.

Copeland, T., Weston, F., and Shastri, K. (2004), *Financial Theory and Corporate Policy*, 4th Ed., New York: Addison-Wesley.

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Course Code: FE-A-108
Course Name: Computational Finance

Course Outcome:
The course will enable the students:

- To demonstrate an ability to programme through R software (Modules 1 & 2)
- To familiarize in executing finance concepts in R (Module 3)
- To conduct computational financial methods and various numerical techniques in R (Module 4, 5 & 6)
- To formulate techniques of advanced numerical mathods in R (Module 7)
- Overall, the course enables the student to be able to execute computational financial topics in R software.

Module 1:
Introducing R software: (4 hours)

- Communication with R, R software, R interfaces, R syntax, R code, R help, R packages,
- Basic operations in R- vectors, matrices and lists in R, vector algebra, matrix algebra, computing asset returns
- Functions in R- Creating functions, calling functions, computing yields, bisection method, Newton-Raphson method, computing price volatility –
- Graphics in R - Ggplot, spot rates, extracting spot rates from yield curves, spot rate curve and yield curve

Module 2:
Data frames in R : (6 hours)

- Organizing values into data frames, loading frames from files and merging them.
- Basic R statistics – covariance, correlation, autocorrelation etc.,
- Descriptive statistics – histogram, sample mean, variances etc.,

Module 3:
Basic R probability : (8 hours)

- Univariate random variables and distributions
- Characteristics of distributions
- The normal distribution
- Linear function of random variables
- Quantiles of a distribution
- Value-at-risk

Module 4:
Computational Finance: Basic Financial Mathematics: **(4 hours)**

- Time Value of Money
- Annuities
- Amortization
- Bonds Yields, Bond Price Volatility .

Module 5:
Computational Methods for Fixed Income Securities: **(8 hours)**

- Price Volatility, Duration, Convexity
- Term Structure of Interest Rates

- Introduction, Spot Rates, Extracting Spot Rates from Yield Curves, Static Spread, Spot Rate Curve and Yield Curve, Forward Rates
- Term Structure Theories.

Module 6:
Computational Methods for Option Pricing: (8 hours)

- Basics, Exchange-Traded Options, Basic Option Strategies
- The Binomial Option Pricing Model
- The Black–Scholes Formula, Using the Black–Scholes Formula, American puts on a Non-Dividend-Paying Stock, Options on a Stock that Pays Dividends
- Traversing the Tree Diagonally
- Sensitivity Analysis of Options, Sensitivity Measures ("The Greeks").

Module 7:
Numerical methods for finance : (8 hours)

- Numerical differentiation and Greeks partial differential equations.
- Weighted Monte Carlo optimization/calibration, Fourier methods – Laplace inversion, finite difference methods.
- Mathematical design patterns.

References

Books:

Introductory Statistics with R, Second Edition (Statistics and Computing, Paperback), by Peter Dalgaard, Springer-Verlag, New York.

Financial engineering and computation by Yuh-Dauh Lyuu

Beginner's Guide to R by Alain Zuur, Elena Ieno and Erik Meesters, Springer-Verlag.

R Cookbook by Paul Teetor, O' Reilly.

Software for Data Analysis: Programming with R (Statistics and Computing) by John M. Chambers (Springer)

Hull, John C. (2005), Options, Futures and other Derivatives and Finance, 6th Ed., Prentice hall.

Ross, Sheldon M. (1999), An Elementary Introduction to Mathematical Finance, Cambridge Press.

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Course Code: FE-A-110
Course Name: Financial Econometrics

Course Outcome:
The course will enable the students:

- To understand the nature of time series properties and their applications in finance. (Module-1)
- To be familiar with univariate and multivariate time series models to assess behavior of risk and return in financial market. (Module 2, 3 and 4)
- Comprehend fundamental techniques to understand global financial market, panel data, high frequency data modules etc. (Module 5, 6, 7, 8 & 9)

Module 1:
Financial Econometrics: Scope and Methods (4 Hours)

- The Data Generating Process
- Financial Econometrics at Work
- Time Horizon of Models
- The Behavior of Financial Variables
- Distributions of Returns, Multivariate Returns, Empirical Properties of Returns.

Module 2:
Modeling Univariate Time Series (6 Hours)

- Stationarity
- Correlation and Autocorrelation Function
- Autoregressive Models, Properties of AR Models, Identifying AR Models in Practice, Goodness of Fit, Forecasting
- Moving-Average Models, Properties of MA Models, Identifying MA Order, Estimation, Forecasting Using MA Models
- ARMA Models, Properties of ARMA (1,1) Models, General ARMA Models, Identifying ARMA Models, Forecasting Using an ARMA Model.

Module 3:
Testing for Trends and Unit Roots (6 Hours)

- Unit Root Processes,
- Testing for Unit Roots - Dickey Fuller Test, Augmented Dickey Fuller Test, Phillips- Perron Test, KPSS Test
- Structural Change
- Problems in Testing for Unit Roots

Module 4:
Time-varying Volatility Models (10 Hours)

- Characteristics of Volatility, Stylized Facts
- The ARCH Model- Properties and Weaknesses of ARCH Models
- The GARCH Model- Extensions to the basic GARCH model
- Asymmetric GARCH models, Estimation of the GARCH Models
- Stationary ARMA-GARCH Models
- Lagrange Multiplier Test
- Multivariate GARCH Formulations.

Module 5:
Multivariate Time Series Analysis (8 Hours)

- Weak Stationarity and Cross-Correlation Matrices, Cross-Correlation Matrices
- Vector Autoregressive Models- Reduced and Structural Forms
- Estimation and Forecasting with VAR Models
- Impulse responses and variance decompositions
- Vector Moving-Average Models
- Vector ARMA Models.

Module 6:
Co integration and Error Correction Models (4 Hours)

- Linear Combinations of Integrated Variables
- Co-integration and Common Trends
- Co integration and Error Correction
- Testing for Co integration- Engle- Granger methodology, Johansen Test

Module 7:
The Evaluation and use of Foreign Exchange Rate Forecasting Services (4 Hours)

- Introduction,
- Construction of the Portfolio,
- Different approaches to the evaluation of forecasting services,
- Composite forecast approach.

Module 8:
High-Frequency Data Analysis and Market Microstructure (4 Hours)

- Modelling High Frequency Data, Data Sources and Filtering
- Modelling the Time between Trades, Intraday Volatility and Forecasting Volatility − Bid–Ask Spread
- Empirical Characteristics of Transactions Data
- Models for Price Changes, Duration Models.

Module 9:
Introduction to Panel Data Analysis: (4 Hours)

- Fixed Effect Vs Random Effect Model
- Dynamic Panel data analysis.

Reading List:

- Baltagi, B.H. (2008), Econometric Analysis of Panel Data, 4th Edition, Wiley
- Brooks, Christopher (2002), Introductory Econometrics for Finance, Cambridge University Press.
- Campbell, Lo and Mackinlay (1997), The Econometrics of Financial Markets, Princeton University Press.
- Gourieroux, Christian and Jasiak, Joann (2001), Financial Econometrics, Princeton University Press.
- Gujarati, Damodar and Porter, Dawn (2009), Essentials of Econometrics 4th Ed., Mcgraw-Hill/Irwin.
- Hamilton James (1994), Time Series Analysis, Princeton.
- Dougherty, Christopher (2007), Introduction to Econometrics, 3rd Ed., Oxford University Press.
- Studenmund, A. H. (2010), Using Econometrics: A Practical Guide, 6th Ed., Addison-Wesley.
- Tsay, Ruey S. (2002): Analysis of Financial Time Series, Wiley Series in Probability and Statistics.

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Course Code: FE-A-111
Course Name: International Finance – I

Course Outcome:
The course will enable the students:

- This module gives an overview of the importance of monetary systems in an environment of high inter-dependence of many financial markets. (Module 1)
- To understand the various risk management techniques that are in vogue. (Module 2)
- Inculcating the ability to view the channels through which risk is mitigated via currency and interest rate derivatives. (Module 3)
- To appreciate various theories of exchange rates and foreign exchange rates efficiency. (Module 4 & 5)
- To critically analyze various frameworks of forecasting and their relevance to the question in hand. (Module 6)
- Overall, across all modules, the course enables the student to understand the highly inter-dependent financial environment and the strategies various stake-holders use to make their decisions.

Module 1:
International Finance Introduction and Overview: (4 hours)

- International Financial Markets − Increasing Interdependence in the Global Economy
- Trends in International Trade and Cross Border Financial Flows − Impact on Risk Management
- Objectives and Decision Making of the Firm in Global Context
- Overview of International Monetary Systems and Recent Developments in International Markets, International Monetary System − Balance of Payments − IMF Standards for BOP Compilation, Accounting and Reporting-
- Euromarkets.

Module 2:
Nature, Exposure and Measurement of Risk in the Foreign Exchange Market: (6 hours)

- Foreign exchange spot and forward contracts
- Exchange Rate Foreign exchange swaps
- Speculation and Arbitrage in foreign exchange trading
- Relationship between Spot and forward contracts
- Decision making by private firms under exchange rate and Interest Rate Volatility
- Accounting treatment of risk exposure
- Conduct of business under pegged and floating rates.

Module 3:
Currency and Interest Rate Derivatives: (6 hours)

- Forward Contract Vs. Future Contract –
- Institutional Arrangements for Trading Futures
- Cash Settlement and Marking to Market, Future Pay-Offs as a Function of the Price of Underlying Asset, Use of Futures Contracts to Hedge a Risky Position, Pricing of Futures, Risk Premium
- Relation Between Futures Price and Future Spot Price, Market Volatility

- Currency and Interest Rate Options, Basic Concept, Institutional Arrangements for Trading Options, Put and Call Options at Prices at Maturity and at Prices Prior to Maturity, The Put-Call, Forward Parity Formula
- Replicating Portfolio Concept Used for Constructing an Option − Price an Option and Hedge an Option Position, Volatility
- Concept of Delta Hedging for Option Portfolio Pricing Currency and Interest Rate Swaps
- Origin and Growth of the Currency Swap, Market-Cash Flow Obligations in Currency and Interest Rate Swap Markets
- Transforming Cash Flows from Floating Rate Terms to Fixed Rate Terms and From Foreign Currency Terms to Domestic Currency Terms
- Price Risks- Management of Price Risks –Simulation Approach.

Module 4:
Theories of Exchange Rate: (8 hours)

- Parity Conditions and the Interrelationships Among Exchange Rates, Interest Rates and Other Capital Market Variables
- Use of Purchasing Power Parity (PPP) and Calculation of PPP Exchange Rates, Connection Between Real Exchange Rates and PPP
- Use of PPP by Private and Public Policy Makers for Strategic Decision Making
- Interest Rate parity, Fisher Open Condition
- The Relationship Between Interest Rates, Spot Rate and Forward Rate, Deviations from Interest Rate Parity and Arbitrage Transactions
- Spot Exchange Rate Determination
- Monetary Approach to Exchange Rates, Effects of Changes in Exchange Rates, Elasticity Approach, Absorption Approach, Portfolio Balance Approach
- Impact of Changes in Money Supply, Real Income, Short Term Interest Rate, Inflation Rates on Spot Exchange Rate
- Impact of Macroeconomic Variables on Spot Exchange Rate.

Module 5:
Foreign Exchange Market Efficiency: (8 hours)

- Definition of Foreign Exchange Market Efficiency
- Technical Trading Models for Measuring Spot Market Efficiency
- Empirical Evidence on Spot Market Efficiency
- Technical Models and Empirical Evidence on Forward Market Efficiency.

Module 6:
Exchange Rate Forecasting: (8 hours)

- Framework for the Process of Forecasting Exchange Rates
- Benefits of Using Different Techniques of Forecasting Under Different Circumstances, Evaluating the Forecasts, Accurate Vs. Useful Forecasts
- Techniques of Forecasting Exchange Rates at the Short, Medium and Long Run Horizons.

Reading List:

• Shapiro, Alan C. (2006) Multinational Financial Management, 8/e, Wiley & Sons. ISBN 0471737690.

• Eiteman, D. K., Stonehill, A. I., Moffeit, M. H. (1999) Multinational Business Finance, 8th Ed., Addison Wesley.
• Levi, Maurice D. (2009), International Finance, 5th Ed., Routledge.
• Levich, Richard M. (2001), International Financial Markets Prices and Policies,2nd Ed.,McGrow-Hill Irwin

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Course Code: FE-A-113
Course Name: Financial Derivatives

Course Outcome:
The course will enable the students:

- To sketch various derivative securities and markets. (Module 1)
- Understanding of options, futures, forwards, swaps, interest rate forwards and options, commodity derivatives. To learn real world trading mechanism and application in these modules. (Module 3, 4 & 5)
- To learn the conceptual understanding as well as practical knowledge about derivative markets in India. (Module 2 and 6)

Module 1:
Derivative Markets (6 hours)

- Definition and Origin of Derivatives –
- Derivative Markets and Instruments –
- Growth of Derivatives in India –
- Basic Derivatives − Forwards, Futures, and Options – Derivative Terminologies.

Module 2:
Forwards and Futures (8 hours)

- Structure of Forwards and Futures Markets
- Forward Contracts − Futures Exchanges and Contracts
- Types of Futures, Mechanics of Future Trading, Major Characteristics, Trading Process, Price Quotations, Hedging and Speculation with Commodity Futures, Interest Rate Futures, Currency Futures and Stock Index Futures
- Principles of Pricing Forwards
- Futures and Options on Futures Contracts
- Forwards and Futures Hedging
- Pricing of Index Futures Contracts − Stock Index Arbitrage

Module 3:
Options (6 hours)

- Option Pricing, Principles of Call and Put Option Pricing
- Binomial and Black – Scholes Option Pricing Models
- Factors Affecting Option Prices
- Basic and Advanced Option Strategies
- Types of Options, Interest Rate Options, Currency Options and Trading Strategies
- Options on Futures Contracts and Exotic Options
- Elementary Inventory Strategies, Complex Investment Strategies, Covered Call Writing, Protective Put, Straddles and Strangles, Spreads
- Evaluation of Option Based Investment Strategies
- Risk Associated with Options −Options Sensitivities.

Module 4:
Swaps (6 hours)

- Evolution of Swap Market, Interest Rate Swaps, Currency Swaps, Equity Swaps

- Swap Terminology , Motivations Underlying Swaps, Mechanics of Swap Transactions
- Valuation and Application of Swaps

Module 5:
Interest Rate Forwards and Options (10 hours)

- Forward Rate Agreements, Interest Rate Options, Interest rate Swaptions and Forwards
- Interest Rate Derivatives Strategies

Module 6:
Commodity Derivatives (10 hours)

- Evolution of Commodity Derivative Markets in India, Products, Participants, Functions
- Instruments Available for Trading, Pricing of Commodity Futures
- Hedging, Speculation, Arbitrage, Trading, Clearing and Settlement
- Risk Management − Regulatory Framework

Reading List:

- Hull, John, C. (2009), Options, Futures, and Other Derivatives, Pearson Prentice Hall.
- Kolb, Robert W., and Overdahl, James A. (2003), Financial Derivatives, John Wiley & Sons, Inc.
- Chance, Don M., and Brooks, Robert (2008), Introduction to Derivatives and Risk Management. Thomson South Western.
- Whaley, Robert E. (2006), Derivatives: Markets, Valuation, and Risk Management, John Wiley & Sons, Inc.
- Schofield, Neil C. (2007), Commodity Derivatives: Markets and Applications, John Wiley & Sons, Inc.

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Course Code: FE-A-114
Course Name: Financial Modelling and Engineering

Course Outcome:
The course will enable the students:

- To use excel both as simple computational tools as well as for complex analytics. (Module 1)
- To assimilate theoretical knowledge with practical applications and to understand various complex formulae that help in aiding and solving financial markets' problems and making models. (Module 2)
- To learn to program excel using VBA tools to make homemade formula to solve complex problems facing managers and financial markets. (Module 3 & 4)
- To learn to simulate using Microsoft Excel and to create own models. (Module 5 & 6)

Module 1:
Corporate Finance Models with Excel (4 hours)

- Basic financial Calculations, Present Value, Net Present Value, IRR and Multiple IRR, Discounting cash flows,
- Calculating Cost of Capital, Gordon Model, CAPM, Calculating Cost of Debt,
- Financial Statement Modelling,
- Sensitivity procedure,
- Project Finance Modelling Case study on Building a Model.

Module 2:
Excel applications for Portfolio Valuation: (6 hours)

- Introduction to portfolio models
- Calculating efficient portfolios, Computing Variance Co variance Matrix
- Estimating Betas and Security Market Line
- The single index model
- Black Littermen approach to portfolio optimiization
- Event Studies

Module 3:
Excel applications for Option Valuation: (6 hours)

- Pricing options using binomial trees
- Programming Binomial Option Pricing in VBA, Log normal Distribution
- The Black-Scholes-Merton Model – using VBA to define Black Scholes Pricing Function
- Calculating Implied Volatility, Option "Greeks"

Module 4:
Excel applications for Fixed Income Valuation: (6 hours)

- Discount factors, spot rates, forward rates, and yield to maturity
- Modelling Term structure
- Arbitrage and the Law of One Price
- Hedging and immunization

Module 5:
Monte Carlo Methods with Excel: (6 hours)

- Monte Carlo Simulation of the Investment Problem
- Using Monte Carlo Simulation for Option Pricing
- Monte Carlo plain Vanilla Call pricing convergence to Black Scholes

Module 6:
Value-at-Risk (VaR): Calculation with Excel (6 hours)

- Applied to stock, currencies, and commodities
- Applied to linear and non-linear derivatives, and securities with embedded options
- Structured Monte Carlo, stress testing, and scenario analysis , simulating data
- Bootstrapping , Limitations as a risk measure
- Coherent risk measures
- Volatility Models

Module 7:
Excel applications for Credit Derivatives (4 hours)

- Credit Derivative Products, Credit Linked Notes/Collateralized Debt Obligations
- Credit Derivatives/Default Risk, Pricing and Modelling
- Credit Derivatives − Applications/Markets

Module 8:
New Markets (6 hours)

- Inflation Indexed Notes and Derivatives
- Alternative Risk Transfer/Insurance Derivatives, Weather Derivatives New Markets, Property;
- Bandwidth, Macro-Economic and Environmental Derivatives, Tax and Structured Derivatives Transactions

Module 9:
erivatives Trading and Portfolio Management in practice: (6 hours)

- Evolution of derivatives markets
- Electronic Markets and Derivatives Trading
- Hedging interest rate risks
- Individual securities and portfolios − Delta hedging and option portfolio

Reading List:

- Simon Benninga, Financial Modelling with Excel, 3rd Ed., MIT Press.
- Bill Dalton, Financial Products-An Introduction using Mathematics and Excel, Cambridge.
- Danielle Stein Fairhurst, Using Excel for Business Analysis: A Guide to Financial Modelling Fundamentals, Wiley .
- Day Alastair, Mastering Financial Modelling in Microsoft Excel 3rd Edn: A Practitioner's Guide to Applied Corporate Finance (3rd Edition), FT Press, 2012.
- Das, Satyajit, Structured Products, Vol.1 & 2, Wiley, (Latest Edition).
- Fabozzi, Frank J., Davis, Henry A., Choudhry Moorad (2006), Introduction to Structured Finance, Wiley Finance.
- Stefano, Caselli, Stefano, Gatti (2005), Structured Finance: Techniques, Products and Market, Springer.
- Arnaud de Servigny (2007), Jobst, Norbert (ed.), The Handbook of Structured Finance, McGraw Hill

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Course Code: FE-A-115
Course Name: Financial Risk Management

Course Outcome: The course will enable the students:

- To understand the meaning of Risk Management, its significance in organizations and studying in brief banking regulations pertaining to risk. (Module 1)
- Learn building blocks of Market Risk Management – Understand the process for risk measurement for key asset classes, models used for risk measurement, numerical techniques and overview of risk reporting framework. (Module 2 & 3)
- Study the importance of volatility in risk models, various volatility measures and popular models for vol calculation, option pricing models (IR and FX). Relating volatility measures with Value at Risk and other techniques, Understanding volatility smiles (Module 4, 5)
- Overview of various techniques used to use for controlling market risk, relevance of options Greeks in risk measurement & control (Module 6)
- Study the building blocks credit risk, concepts of CVA, exposure monitoring etc. (Module 7)
- Importance of reporting framework – both regulatory and MIS for key risk measures (Module 8)

Module 1:
Introduction to Financial Risk Management (6 hours)

- Terminologies/Basic tenets of risk management,
- The meaning of risk, Types of risks – Market, Credit, Operational, Reputational, Legal & Compliance risks, like *fixed income, foreign exchange, credit and equity*.
- Risk Identification and assessment need to quantify their risk- For example Capital allocation, Economic Capital Vs Regulatory Capital, implementing suitable risk management strategies etc. ,
- Overview of risk management process Risk measurement Risk management/control Continual monitoring and feedback, Importance of Management Information Systems (MIS) reporting ,
- Requirement of Regulatory level risk reporting,
- Overview of various banking regulations having a bearing on the financial institutions including inter-alia: Basel, CRD IV, Dodd-Frank, Ring-fencing etc.

Module 2:
Market Risk- Risk identification and assessment (8 hours)

- Analysis of the organization's portfolio
- Identity the risk factors of the asset classes in the portfolio. Study/Analyse the factors before making the decision to hedge an exposure,
- Mean variance framework for an organization's portfolio risk, Importance of normal distribution in finance, set correlations and their contribution to portfolio risk,
- Relation between the increasing number of assets and its contribution to reduction of portfolio un-systematic risk.

Module 3:
Market Risk - Risk measurement (10 hours)

- Risk measurement parameters in market risk management:

- Portfolio Beta, PV01, Portfolio duration (Macaulay duration, modified duration, effective duration),Key rate duration, Convexity,
- Spread analysis (Z-spread, Option adjusted spread),
- Yield curve analysis (concepts of bootstrapping of the yield curve), forward rates, Growing importance of OIS curve.
- Introduction to modelling in MS Excel: construction of the zero curve, forward rates, basis adjustments to swap curves etc.

Module 4:
Volatility and Market risk measurement models (10 hours)

- Understanding volatility, Definition and insight into portfolio volatility, Volatility smiles, Introduction to volatility surfaces,
- Popular methods to measure portfolio volatility followed in the financial industry,
- Concept of Value at Risk, Types of VaR measures (VaR, incremental VaR, stressed VaR, etc.) Methodologies for measurement of VaR: Variance-Covariance VaR, Historical VaR, Monte-carlo VaR, Calculation of a portfolio VaR, VaR reporting to RBI,
- Measuring risk using Value-at-Risk, Marginal and relative VaR, Stress testing and back-testing VaR, Conditional VaR and its relevance, Comparison between VaR and cVaR.

Module 5:
Extreme Values, Quantiles, and Value at Risk (6 hours)

- Value at Risk, Risk Metrics,
- Econometric Approach to VaR Calculation, Quantile Estimation,
- Extreme Value Theory, Extreme Value Approach to VaR,
- New Approach Based on the Extreme Value Theory,
- VIX –Theory and Application

Module 6:
Market Risk - Market Risk Management/Control (4 hours)

- Role of derivatives in market risk management, Forward contracts Futures contracts Options contracts Swaps contracts Using interest rate derivatives (Cap, Floor, Collar etc.)
- Greeks Analysis: Definitions of various Greeks Greeks measurement and analysis (Delta, gamma, theta, rho)
- Concept of delta hedging using options, introduction to gamma hedging and vega hedging

Module 7:
Credit Risk (6 hours)

- Risk identification and assessment: Introduction to credit risk, Credit risk management process,
- Risk measurement: Credit risk management strategies – Credit VaR, Analysis of counterparty credit ratings and adjustment of credit spreads in the valuation etc.,
- Market Risk management/control: Introduction to Credit Value Adjustments (CVA) in financial instrument valuations, Credit default swaps (CDS), collateral management

Module 8:
Continual monitoring and feedback for market and Credit Risk Management: (2 hours)

- Overview of organizational level policies/procedures,
- Internal risk reporting, Regulatory risk reporting,
- Typical MIS reporting in an organization

Reading List:

- Financial Risk Management: Frank J Fabozzi.
- Financial Risk Management: A Practitioner's Guide to Managing Market and Credit Risk By Steve L. Allen
- Advanced Financial Risk Management: Tools and Techniques for Integrated Credit Risk and Interest Rate Risk Management (Wiley Finance) by Donald R. Van Deventer, Kenji Imai &Mark Mesler

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Course Code: FE-A-116:
Course Name: Project Appraisal and Finance

Course Outcomes:
The course will enable the students:

- To classify the projects based on need, participation etc. (Module 1)
- To design a project and allocate adequate, resources and finances. (Modules 2 & 3)
- To appraise different projects from cost benefit, social cost-benefit and risk angles. (Module 4, 5 & 6)
- To evaluate the projects from different stake holders, point of view. (Module 7)
- To formulate project plans and schedule the events using the network techniques like CPM and PERT. (Module 8)
- To draft a detailed project report with all the requisite inputs, to enable the competent authority to take appropriate decision about the project. (Module 9 & 10)

Module 1:
An Overview of Project Finance (4 hours)

- Introduction to project finance and overview of the project finance, market, project life cycle and its impact on the feasibility
- Project identification and formulation, Different types of needs leading to different types of projects under BMRED (Balancing, Modernization, Replacement, Expansion and Diversification), Considerations involved in decision under each of these types
- Macro parameters in project selection, Different considerations for project under private, public and joint sectors
- Project formulation: preparation of project profile, project report and detailed project report
- Broad criteria for pre-investment decisions.

Module 2:
Project appraisal (6 hours)

- Different types of appraisal, Technical, economic, organizational and managerial, commercial and financial
- Financial techniques for project appraisal and feasibility, discounted cash flow and non-discounted cash flow methods, Social cost benefit analysis and economic rate of return
- Non-financial justification of projects.

Module 3:
Project Risk Analysis (10 hours)

- Risk Analysis in Capital Investment Decisions
- What is Risk, Types of Risk, Measurement of Risk, Method of Incorporating Risk into Capital Budgeting
- Monte Carlo Simulation, Deal structuring through risk identification, assessment & mitigation
- Managing Project Risks
- How risk management creates value in project finance.

Module 4:
Global Projects - Issues (8 hours)

- A study of World Bank Project Reports
- Project Initiation and Resource Allocation
- The Importance of a Proper Allocation of Resources, Process of Resource Allocation at the Corporate Level, Process of Resource Allocation at the Business Unit Level
- Generation of Project Ideas and Creativity
- Political Risk Analysis
- Currency Risk Analysis.

Module 5:
Project Financing (6 hours)

- Pattern of financing, Sources of finance, Impact of taxation, Public loans, Small savings
- Surplus of public enterprises, Deficit financing, Foreign aid
- Public sector project financing
- Role of tax planning in project financing, Syndication, Leverage Leases, Various debt instruments and innovative Structures, Equator principles
- Securitizing project loans
- PPP Models of Project Finance, PPP models from Supply and Service Contracts, Management Agreements
- Leasing, DBO, BOT, BOO, Privatization
- Infrastructure Project Financing Case studies of projects: Hydro-electric project, Thermal, power Project, Irrigation Ports, Urban-Waste Management, Telecom sector.

Module 6:
Project Cost Systems (6 hours)

- Project cost accounting and monitoring
- Appointment of contractor and its problems, Labour and equipment costs
- Accounting, Codification, Development of cost data, Labour time, Reporting, Direct measurement of work quantities, Labour cost analysis, Equipment accounting
- Activity-based cost accounting
- Production rates for estimates, Control of cost, Computer application to cost control
- Concepts and uses of Project Evaluation and Review Techniques (PERT), Cost as a function of time, Project evaluation and reviews techniques/cost mechanisms
- Accountant's role in project evaluation and review techniques/cost budgeting
- Determination of least cost duration, Post project evaluation.

Module 7:
Valuing Projects (8 hours)

- Appraising a Project by Discounting and Non Discounting Criteria
- Appraising Projects with Special Features, FCF Approach, ERR Approach, Real Options
- Issues in valuing long term projects.

Module 8:
Project Administration (3 hours)

- Progress payments, Expenditure planning, Project scheduling and network planning, Use of Critical Path Method (CPM)
- Schedule of payments and physical progress, Time cost trade off

- Cash flow preparing, Cash forecast and monitoring of fund and other
- Resources, Control of groups of projects under one administration and associated problems in sharing resources.

Module 9:
Project Negotiation (3 hours)

- Multiple Projects and Constrains
- Conflicts in Ranking of Projects by Different Criteria, Resolution of the Conflict in Ranking
- Techniques for Selection of more than One Project from a Group

Module 10:
Detailed Project Reports (6 hours)

- Preparation of Detailed Project Report, Making Financial Projections.

Reading List:

- Finnerty, John D (2007), Project Financing: Asset Based Financial Engineering, 2nd Ed. John Wiley & Sons Inc.
- Chandra, Prasanna (2006), Projects: Planning, Analysis, Financing, Implementation, and Review, 6th Ed., Tata McGraw Hill.
- Nevitt, Peter K., Fabozzi, Frank J. (2000), Project Financing, 7th Ed. Euromoney Books.
- Benjamin, C. (2003), Modern Project Finance: A Casebook, John Wiley & Sons, Inc.
- Grundy, Tony (2003), Strategic Project Management, 1st ed. PA (I) Pvt. Ltd.

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Course Code: FE-A-118:
Course Name: Business Analytics

Course Outcomes:

- To develop a proficiency in analysing data using different techniques. (Module 1 to 8)
- To learn how to build and apply predictive models to forecast future outcomes. (Module 2 and 3)
- To gain knowledge of business outcomes. (Module 1 to 8)
- To apply optimization techniques to solve business problems. (Module 1 to 8)
- To understand the role of business analytics in strategic decision making. (Module 3 and 5)
- To learn skills and techniques for the application of R. (Module 4,6 and 7)

Module 1
The need for Analytics and Understanding Analytics

- Decision Making – Heuristics and Biases
- The need for analytics
- Impact of analytics on business
- Being analytically competitive
- The difference between analytics and BI
- Introduction to the business Analytics model
- Types of analytics
- Models and algorithms in Analytics
- The Analytics Methodology

Module 2
Tool and Tech Landscape

- A review of technology used in data storage, data processing, and data science
- Popular tools used in Data Science and when to use each

Module 3
Descriptive Analytics with excel and Tableau

- An introduction to Tableau
- Using descriptive statistics in analysis and reporting
- Advanced reporting with Tableau

Module 4
R programming

- An introduction to R
- Importing and exporting data in R
- Data Manipulation with R
- Advanced Data Manipulation with R
- Data Visualization with R

Module 5
Data Pre-processing

- Data Exploration and Assessment for Data Science
- Identifying and dealing with noise in Data

- Preparing data for Data Science Modelling

Module 6
Predictive Models in R

- Linear Regression Models and their applications
- Logistics Regression Models and Their applications
- Time Series Forecasting

Module 7
ML Models in R

- Clustering Algorithms and application
- Decision Tree Algorithms and applications
- Random Forest Algorithms and applications

Module 8
Storytelling with Data

- Communicating data science results
- Effective presentation skills
- Using Data visualizations for storytelling

References:

- Provost, F., & Fawcett, T. (2013). Data science for business: What you need to know about data mining and data-analytic thinking. O'Reilly Media.
- Davenport, T. H., & Harris, J. G. (2017). Competing on analytics: Updated, with a new introduction. Harvard Business Press.
- Evans, J. R., & Paquette, L. (2019). Business analytics: Methods, models, and decisions. Pearson.
- Shmueli, G., Bruce, P. C., & Patel, N. R. (2019). Data mining for business analytics: Concepts, techniques, and applications in R. John Wiley & Sons.
- Witten, I. H., Frank, E., Hall, M. A., & Pal, C. J. (2016). Data mining: Practical machine learning tools and techniques. Morgan Kaufmann.
- Kelleher, J. D., Mac Namee, B., & D'Arcy, A. (2015). Fundamentals of machine learning for predictive data analytics: Algorithms, worked examples, and case studies. MIT Press.
- Few, S. (2019). Show me the numbers: Designing tables and graphs to enlighten. Analytics Press.
- Cairo, A. (2019). The truthful art: Data, charts, and maps for communication. New Riders.

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Course Code: FE-A-120
Course Name: Security Analysis and Portfolio Management

Course Outcome:
The course will enable the students:

- To be able valuate equity shares (Module 1)
- To appraise equity shares in both fundamental analysis and technical analysis (Module 2 & 3)
- To analyze portfolio management of fixed income securities, equity and derivative securities as well as portfolio management of index funds and insurance companies. (Module 4)
- To critically analyze portfolio theory and evaluation of portfolio theory (Module 5 & 6)
- To be able to evaluate fixed income securities (Module 7)
- Overall, across all modules, the course enables the student to have an in depth understanding of the theories, principles, and techniques of security valuation, analysis and portfolio management.

Module 1:
Valuation of Equity Shares (8 hours)

- A Philosophical Basis for Valuation, The Role of Valuation
- Dividend Discount Models, Free Cash Flow to Equity Discount Models, Free Cash Flow to the Firm
- Cost of Capital Approach, Firm Valuation, Estimating Equity Value per Share, Relative Valuation − Earnings Multiples − Book Value Multiples − Valuing Financial Value Firms.

Module 2:
Valuation of Equity Shares -Fundamental Analysis (8 hours)

- Economic Analysis − Economic Forecasting and Stock Investment Decision
- Forecasting Techniques, Industry Analysis , Industry Life Cycle − Structural Analysis
- Techniques for Evaluating Relevant Industry Factors
- Sources of Information for Industry Analysis, and Company Analysis
- Analysis of Financial Statements
- Impact of Changes in Accounting Policies
- Sizing up the Present Situation & Prospects, Management Evaluation, Forecasting Earnings.

Module 3:
Valuation of Equity Shares -Technical Analysis (8 hours)

- Theory of Technical Analysis, Dow Theory- Bar Charts, Point and Figure Charts
- Contrary Opinion Theories
- Relative Strength Analysis, Moving Average Analysis
- MACD, Oscillator, Elliot Wave Theory Evaluation of Technical Analysis

Module 4:

Portfolio Theory –Models of Risk Reward Relationship (8 hours)

- Standard Capital Asset Pricing Model
- Characteristics of Opportunity Set Characteristics of Portfolio, Diversification, Minimum Variance Portfolio
- Efficient Frontier (with and without short sales**)** Arbitrage Pricing Theory
- Fama-French Three Factor Model.
- Single Index Model-Beta Estimation and Forecasting.

Module 5:

Portfolio Theory- (10 hours)

- Efficient Market Hypothesis (EMH), Various forms of Efficient Markets Hypothesis, Weak form − Semi-strong and Strong Form
- Empirical evidence on Efficient Market Hypothesis
- Implications of EMH for Security Analysis
- Portfolio Management and Investment
- Passive vs Active Management Strategies
- Index Funds Markowitz Risk Return Optimization, Sharpe's Optimization

Module 6:

Evaluation of Portfolio Performance and Risk adjusted Measures (4 hours)

- Return (Money Weighted v/s Time Weighted)
- Risk Adjusted Performance Measures-Sharpe's Ratio − Treynor's Ratio − Jensen's Alpha, Sortino Ratio, Fama's Decomposition of Overall Return
- Evaluation of Actively Managed Portfolios, Benchmark Based Performance Evaluation.

Module 7:

Valuation of Fixed Income Securities (6 hours)

- Bond Returns and Prices
- Systematic and Unsystematic Risk involved in Fixed Income Securities
- Present Value Model and Bond Valuation, Duration Shifts, Convexity, Bond Price Volatility
- Term Structure of Interest Rates
- Analysis of Bonds with Embedded Options.
- Bond Portfolio Management, Duration, Shift and Immunization
- Passive and Active Strategies

Reading List:

- Frank, Fabozzi (2011), Markowitz, Harry, Equity Valuation and Portfolio Management, Wiley.
- Reilly, Frank K. and Brown, Keith C. (RB) (2002), Investment Analysis and Portfolio Management, 7th Ed. Dryden.
- Frank, Fabozzi, (Ed.) (1989), Portfolio Investment Management, Probus Publishing.
- Das, Satyajit (2003), Swaps/Financial Derivatives, 3rd Ed., Vol. 1-4, Wiley Finance.
- Haugen, Robert (1987), Modern Investment Theory, Prentice-Hall of India.

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Course Code: FE-B-101
Course Name: International Finance-II

Course Outcome:
The course will enable the students:

- To get a comprehensive idea of principles of financial economics (Module 1)
- To describe the issues and problems of the international investment management & financing by the firms and multinational corporations in the global financial markets. (Module 5)
- To examine the firm level decision making problems like valuation techniques and financing decisions in a cross-border setting (Module 3)
- To paraphrase the cost of capital around the world, evaluation of investments in emerging markets, capitalizing on market imperfections while making financial and investment decisions (Module 4, 5 & 6)
- Overall, across all modules, the course enables the student to know how international corporate finance decisions are made in the real world.

Module 1:
Long Term Debt and Foreign Exchange Exposure (6 hours)

- Debt Denominated in Foreign Currencies: Eurobonds
- Debt and Foreign Exchange Net Cash Flow Exposures, Foreign Exchange Value Exposure, Foreign Exchange Equity Exposure, Hedging, Foreign Exchange Equity Exposure with Foreign Currency Debt
- Foreign Exchange Net Cash Flow Exposure Versus Foreign Exchange Equity Exposure, Debt Maturity Estimation of Foreign Exchange Equity Exposure
- Currency Swaps−Swap-Driven Financing.

Module 2:
Economic Foreign Exchange Exposure (8 hours)

- Economics of Foreign Exchange, Price, and Volume
- Compound Foreign Exchange Revenue Exposure, Competitive Foreign Exchange Revenue Exposure, Foreign Exchange Revenue Exposure
- Domestic Firm with a Foreign Competitor
- Foreign Exchange Operating Exposure of a Foreign Subsidiary with a Foreign Competitor.

Module 3:
Global Finance and the Cost of Capital (8 hours)

- Returns on Foreign Assets, Depositary Receipts
- Cost of Capital, The Capital Asset Pricing Model, Global Equity Beta and the Cost of Equity, Risk-free Rate, Cost of Debt and the WACC
- Systematic Foreign Exchange Risk, Risk-Adjusted Uncovered Interest Rate Parity Operating Risk Approach, Accounting Beta Method, Country Beta Method
- Emerging Market Investments, Cost of Capital in a Foreign Country
- Unlevering Equity Betas.

Module 4:
International Asset Portfolios (8 hours)

- International Equity Portfolios, Composition of Global Equity Market
- Techniques of Making International Equity Investments, Calculation of Hedged and Unhedged Return on a Foreign Equity Share, Benefits of Holding a Global Portfolio of Equities
- Risk and Return from Foreign Equity Investment
- The International Capital Asset Pricing Model, Equity Financing in the International Markets
- International Bond Portfolio Overall Composition of the Global Bond Market
- Unhedged and Hedged Return on a Bond Portfolio
- Active Vs. Passive Hedging of Currency Risk in a Global Bond Portfolio.

Module 5:
Financial Management in a Multinational Firm (8 hours)

- Short Term and Long Term Borrowing and Investment
- Cash Surplus Management, Centralised vs. Decentralised Cash Management, Cash Transmission
- The Central Financial Decisions Multinational Firms Must Make Concerning Capital Structure
- Risk Management and Tax Optimization, Decisions Regarding Capitalizing Subsidiaries Around the World, Forming Partnerships with Local Firms
- Exposure To Exchange Rates, Tax Considerations Factor Into Internal Financial Decision-Making.

Module 6:
International Financial Market Regulation (8 hours)

- Foreign Exchange Management Act (FEMA1999)
- Reserve Bank of India Regulation and Guidelines with Respect to External Commercial Borrowings (ECB)
- NRI Remittances − Clearing Corporation of India Ltd.(CCIL,2003)
- Regulations and Guidelines Regarding International Capital Flows
- SEBI Regulations of FIIs, Foreign Exchange Derivatives and Hedging
- Financial Stability and Regulation of Foreign Exchange Flows in India.

Reading List:

- O'brien, Thomas J. (2005), Corporate Decisions in Global Markets, 2nd Ed., Oxford University Press.
- Levi, Maurice D. (2009), International Finance, Routledge.
- Madura, Jeff (2006), International Financial Management, 6th Ed., Thomson Publications
- Choel, S. Eun and Bruce, Risnick (2001), International Financial Management, Tata Mc Graw Hill.
- Mark, N. (2001), International Macroeconomics and Finance, Blackwell Publishers.
- Choi, E. Kwan, Harrigan (Ed.) (2003), Handbook of International Trade, Blackwell Publishers.

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Course Code: FE-B-102
Course Name: Behavioral Finance

Course Outcome:
The course will enable the students:

- To understand the behavioral framework for financial decision-making and financial markets and distinct them from standard financial theories (Module I, VI, VIII)
- To enunciate the behavioral aspects to decision-making under risk and uncertainty (Module II, III)
- To contrast the influences of emotions on trading and stock markets against the traditional theories (Module IV, V, VII)
- Overall, across all modules, the course enables the student to appreciate the behavioral foundations of finance.

Module 1:
Foundations of Behavioural Finance (6 hours)

- Financial Decision Making
- The Expected Utility Rule
- Frames for Actions
- Contingencies and Outcomes
- The Discounted Utility Model: How and Why Discount Rates Vary,
- Hyperbolic Discounting Factors
- Learning: Rational Learning
- Over-Inference and Law of Small Numbers
- Disagreement
- Tastes and Capital Asset Pricing Model
- Bubbles − Past, Present and Future, Tulipmania and the Didactic Value of Bubbles
- Regulatory Origins of the Bubble

Module 2:
Investor Biases (6 hours)

- Overconfidence Bias
- Representativeness Bias
- Anchoring and Adjustment Bias
- Cognitive Dissonance Bias
- Availability Bias
- Self-Attribution Bias
- Illusion of Control Bias
- Conservatism Bias
- Ambiguity Aversion Bias
- Endowment Bias
- Self-Control Bias
- Optimism Bias
- Mental Accounting Bias
- Confirmation Bias
- Hindsight Bias
- Loss Aversion Bias
- Recency Bias

- Regret Aversion Bias
- Framing Bias
- Status Quo Bias.

Module 3:
Asset Pricing under Prospect Theory (6 hours)

- Basics of Prospect Theory
- Prospect Theory's Application to Finance
- The Cumulative Probability Version of the Prospect Theory: Cumulative Prospect Theory and Asset Pricing
- Does Prospect Theory Work?

Module 4:
Overconfidence and Optimism (6 hours)

- A Model of Trading Under Optimistic Investors − Price Setting
- Conditions for Overconfident Pricing of the Risky Asset
- Pricing in the Odean's Model: The Implications of Odean's Model for Financial Markets
- Do Investors Trade Too Much?
- Optimism in Corporate Finance − Facing Failure − Who Dares Loses?
- The Hubris Theory of Takeovers.

Module 5:
Theories of Overreaction and Under-reaction (6 hours)

- The DHS Model
- A Model of Investor Sentiment
- A Unified Theory of Underreaction
- Momentum Trading and Overreaction in Asset Markets: Empirical Findings
- Contrarian Investment
- Extrapolation and Risk
- Evidence on the Characteristics of Cross-sectional Variation in Stock Returns
- Market Efficiency and Biases in Brokerage Recommendations.

Module 6:
The Psychology of Financial Markets (6 hours)

- Herding: Models of Herding, Evidence on Herding and It's Effect
- Herding in Investment Advice
- Equity Premium Puzzle: Explaining the Risk Premium by Myopic Loss Aversion − Can Loss Aversion Explain the Puzzle?: Is Loss Aversion is Irrational
- Dividends : The Irrelevance of Dividends to Value
- Prospect Theory Explanation of Dividend Payments : Who Pays Dividends and Why?

Module 7:
Stock Valuation and Style Investing (6 hours)

- Keynes' Beauty of Competition
- The Irrelevance of Fundamentals
- Valuation and Behavioural Biases
- Cost of Capital, Factors from Limited Arbitrage: History

- Life Cycle of an Investment Style − Value Vs Growth − Risk or Behavioural?
- Style Rotation: Potential Gains to Style Rotation, Timing the Switch.

Module 8:
Efficient Markets Hypothesis and the Behavioural Finance (6 hours)

- Are Financial Markets Efficient
- Theoretical and Empirical Foundations and Challenges of EMH
- Analysts' Conflicts of Interest
- Evidence of Conflict of Interest
- Regulating Conflicts of Interest
- The Distributional Impact of Insider Trading
- The Hirshleifer, Subrahmanyam and Titman Model
- Insider Trading
- Stock Options and Construction of Earnings
- Consequence of Insider Trading for Outsiders.

Suggested Readings:

Books

- Forbes, William, 2011, Behavioural Finance, *Wiley- India Edition*.
- Shefrin, Hersh, 2005, A Behavioral Approach to Asset Pricing, *Elsevier Academic Press.*
- Montier, James, 2002, Behavioural Finance- Insights into Irrational Minds and Markets, *John Wiley & Sons Ltd.*
- Montier, James, 2007, Behavioural Investing- A Practitioner's Guide to Applying Behavioural Finance, *John Wiley & Sons Ltd*.
- Pompian, Michael M. 2006, Behavioral Finance and Wealth Management- How to Build Optimal Portfolios That Account for Investor Biases, *John Wiley & Sons Inc.*
- Thaler, Richard H. 2005, Advances in Behavioral Finance- Volume II, *Russell sage foundation*, New York.
- Shleifer, Andrei. 2000, Inefficient Markets- An Introduction to Behavioral Finance, *Oxford University Press.*

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Course Code: FE-B-105
Course Name: Strategic Finance and Investment Banking

Course Outcome:
The course will enable the students:

- The course aims at imparting a strong conceptual foundation in investment banking with focus of various modelling techniques like cash-flow, LBO modelling and mergers and acquisitions modelling (Module 1)
- To get an overview of financial restructuring (Module 2)
- To appreciate strategic perspectives and modeling of mergers and acquisitions (Module 3 & 4)
- To understand investment banking processes and best practices. (Module 5)
- To critically analyze various perspectives, valuation methods and financing structures (Module 6)
- Overall, across all modules, this course gives a comprehensive background of financial restructuring and mergers and acquisitions

Module 1:
Valuation Concepts for Mergers and Acquisitions: (8 hours)

- Valuation and Pricing of a company
- Modes of Valuation Earnings basis Asset basis Discounted Cash Flows (DCF)
- DCF valuation, and frequently encountered errors in practical implementation
- Return on Investments (ROI) – Return on Equity (ROE)
- Estimating synergy values , Relative Valuation

Module 2:
Broad Overview of Financial Restructuring: (8 hours)

- Changing shape of the corporates Forms of Business Alliances
- Strategic Choice of Type of Business Alliance, Merger and Acquisition and Takeover
- Introduction to restructuring problems
- Types of mergers, Reasons for Mergers and Acquisitions: Vertical, Horizontal, Conglomerate, Concentric Mergers
- Circumstances in which financial restructuring takes Place
- Factors Governing the M&A Process in India
- Developments in the competitive environment History of Mergers – The first to the fourth wave and causes thereof

Module 3:
Mergers & Acquisitions- Strategic Perspectives: (8 hours)

- The different motivations for business acquisition − The principles of acquisition search
- SWOT Analysis of the company Identification of the Target Company − Due Diligence Inquiry Selection of methods for merger or takeover Procedures and Processes in an M&A − Step-by-step approach Defining and Selecting Target
- Pricing of Mergers (Pricing the Competitive Bid for Take-over) − different forms of M&A activity − Negotiation/Approach for Merger
- Acquisition and Take-over Contracting, Implementation of Merger and Acquisition
- M&A statistics Managing Post-Merger Issues, Winner's curse Ethics in M&A.

Module 4:

Merger (Acquisition) Modelling: (8 hours)

- Uses for a Merger Model − How to build a Merger Model
- Calculation of Equity Value and Purchase Price, Explanation of Consideration used in Purchase (stock, cash, assumed debt)
- Discussion of Multiples Paid − Post-Merger Control Issues
- Synergies and pre-tax Synergies required to breakeven, Revenue and EBITDA contribution − Proforma Income Statement, EPS Dilution for Acquirer
- Discussion of Goodwill, Other accounting treatment issues − Sensitivities.

Module 5:

Complete LBO Modelling: (8 hours)

- Uses for An LBO Model on Sell-side and Buy-side
- Review of LBO Model Structure, Purchase Price Calculations and Considerations, Capital Structure Options / Reviews
- Discussion of Typical Financing Sources for LBO, Creation of a Sources and Uses Worksheet, Proforma Income Statement, Balance Sheet, Cash Flow, Goodwill Calculation
- Integration of Income Statement, Balance Sheet, Cash Flow − Debt and Interest Schedule −Revolver and mandatory / option debt prepayment and impact on returns
- Returns Analysis - IRR on debt, hybrid instruments and equity investments.

Module 6:

Investment Banking Process and Best Practices: (8 hours)

- Conclusion of Financial Modeling –
- Investment Banking Process –
- M&A and Private Placement − Investment Bank − Industry Overview –
- Market Overview, Client, Valuation, Process, Buyer/Investor Descriptions
- Financing, Investment Bank, Industry

Reading List:

- Weston, Fred, Mitchell, Mark L. and Mulherin, Harold (2004), Takeovers, Restructuring, and Corporate Governance, 4th Ed. Pearson.
- Reed and Reed Lajorex (1999), The Art of Mergers & Acquisitions, McGraw Hill.
- S. Ramanujam (2000), Mergers et al., Tata MacGraw Hill.
- Sridharan and Pandian (2002), Guides to Takeover and Mergers, Wadhava Publications.
- Weston, Sen and Johnson (2003), Takeovers, Restructure and Corporate Governance, Prentice Hall.
- Gaughan, Peirick A. (2003), Mergers, Acquisitions and Corporate Restructuring, John Wiley & Sons.
- Liaw, K. Thomas (1999), The Business of Investment Banking, J. Wiley & Sons.
- Fleuriet, Michel (2008), Investment Banking Explained: An Insider's Guide to the Industry, McGraw-Hill.
- Joshua, Rosenbaum, Joshua, Pearl (2009), Investment Banking: Valuation, Leveraged Buyouts, and Mergers & Acquisitions, Wiley Finance.
- Stowell, David (2010), An Introduction to Investment Banks, Hedge Funds, and Private Equity: The New Paradigm, Elsevier

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Course Code: FE-B-106
Course Name: Marketing of Financial Services

Course Outcome:
The course will enable the students:

- To introduce students to the concepts and techniques of service marketing (Module 1 & 2)
- To analyze the regulatory environment and to comprehend the evolution of FSI (Module 3)
- To appreciate market segmentation, targeting and positioning of FSI (Module 4)
- To critically analyze consumer behavior in FSI (Module 5)
- To have the ability to launch FSI (Module 6)
- Overall, across all modules, the course is designed to cover all-important aspects of marketing of services, increase students understanding of marketing practices and strategies as applied in the service sector

Module 1:
Financial Products and Services: (6 hours)

- Introduction to the entire product spectrum of financial services;
- Business logic, and how they converge and compete with one another and the value addition by specific financial services
- Classification of financial products into Core Product; Banks' savings/current accounts, term deposit, insurance, pension, other value added services as unique selling points (USP).

Module 2:
Marketing the Financial Products and Services : (8 hours)

- Difference between marketing financial services and marketing physical goods and marketing other services
- Transfer of information vs. transfer of physical goods
- Role of IT in marketing financial services - relational transactions vs one-time transaction

Module 3:
Regulatory Environment and Evolution of Financial Services Industry: (6 hours)

- The issues and environmental forces that shape the financial services marketplace
- Main features and sectors of the FSI
- Marketing norms and regulations for various financial sector entities like insurance companies, NBFCs, Banks etc
- Regulatory guidelines by SEBI,IRDA and RBI for marketing of respective financial products in India.

Module 4:
Market Segmentation, Targeting and Positioning in the FSI : (8 hours)

- Need for segmentation; segmentation approaches; segmentation Bases Target
- Concentrated marketing; positioning; organizational positioning in financial markets
- Need for customer service; ways of improving customer service; dimensions of quality.

Module 5:

Consumer Behaviour in the FSI : (10 hours)

- Consumer behaviour in the various financial services sectors − Retail and Commercial FS
- Customer focus in marketing financial products
- Consumer behaviour Factors
- The role of marketing research market analysis information
- Importance of Customer Relations management (CRM) in marketing financial products

Module 6:

Financial Product Designing and Launching in the FSI : (8 hours)

- The critical factors in product development and product launching
- The concept of service product
- Product management; influencing product strategies
- Product mix strategies; branding in financial; product development and launching in various financial service.

References
Books:

Estelami, Hooman (2006), *Marketing of Financial Services*, Dog Ear Publishing LLC.
Farquhar, Jillian and Meidan, Arthur (2010), *Marketing of Financial Services*, 2nd Ed. Palgrave Mac Millan.
Pezzullo, Mary Ann (1998), *Marketing Financial Service*, American Bankers Association

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Course Code: FE-B-107
Course Name: Taxation

Course Outcome:

- To learn the taxation system in India as segregated between Direct Taxes and Indirect taxes
- To be able to co-relate taxation laws with "legislative intent" and "economic intent"
- To paraphrase the inter-relationships between Income Tax Act, 1961, GST Law and Customs Act
- To contrast the difference between tax management and tax avoidance

Module 1:
New Industrial Establishment and Tax Planning: (6 hours)

- Distinguish between Tax planning and Tax Evasion
- Taxation of various entities such as Individual, Partnership, LLP, Company
- Tax implications in International Joint Venture
- Tax aspects of mergers and amalgamations.

Module 2:
Tax Considerations Arising with Regard to Specific Management Decisions: (8 hours)

- Tax Management via various deductions
- Tax deductions v. Tax exemptions and tax rates
- Slump sale
- Capital investment decisions and tax implications

Module 3:
Various Heads of Income (**6 hours)**

- Income Tax Act, 1961
- Income salaries, Income house property
- Income profits and gains of business and profession
- Income capital gains, Income from other sources

Module 4:
Corporate Income Tax: (8 hours)

- Carry forward losses and its various types
- Methodology of set-off of carry forward losses
- Understanding types of losses such as speculation loss, horse race loss, business loss, depreciation loss, losses under the head capital gains, losses under House Property, Losses under Other Sources

Module 5:
Clubbing of income (10 hours)

- Understanding concept of clubbing of income
- Tax implications if such provisions are not complied
- Co-relationship of offering to tax income and claim of TDS
- Co-relationship of clubbing sections with other sections under the IT Act, 1961

Module 6:
Goods and Service Tax Law- (8 **hours)**

- Concept of GST and its legislative background viz. IGST, SGST (UGST), CGST
- Important definitions- Supply, Time of supply
- Concepts of eligibility – Ailment – utilization of input tax credit
- Tax implications of Registration under GST Law
- Sensitive provisions under GST Law affecting business and other taxation systems
- Calculation of GST liability – Illustrations

Module 7:
Customs Act: (10 hours)

- Customs Duty Legislative background and economic implications
- Concept of Taxable event for import and export of goods
- Understanding various types and rates of custom duties
- Valuation, documentation
- Various export benefits
- Exemption and remission from customs duty
- Clearing & Forwarding Agents

Reading List:

Datey V. S., Indirect Taxes (Latest Edition).
T N Manoharan – Income Tax Act, 1961
Ahuja & Gupta – Income Tax Act, 1961
V K Singhania – Income Tax Act, 1961
Study material of ICAI – CA – IPCC and CA-Final
Study material of ICSI – CS – Executive and CA-Final
Study material of ICAI – CMA – Intermediate and CMA-Final
Bare Acts and rules of the relevant taxes.
Indirect Tax Laws by Taxman (Latest Edition).

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Course Code: FE-B-108
Course Name: Insurance Economics

Course Outcome:
The Course will enable the students:

- To know the conceptual inputs related to Insurance Environment in India (Module I)
- To understand implications of insurance legislation in India (Module II)
- To have insurance product knowledge – both life and non life for all classes of business so as to succeed in techno marketing assignment (Module III)
- To apply principles of economics and related mathematics to insurance(Module IV & V)
- To get knowledge of underwriting acceptances and risks measurement including pricing
  (Module VI)
- To have awareness of new techniques, products and processes of Insurance which will be covered for remaining updated in the industry (Module VII)

Module 1:
Introductory Inputs (7 Hours)

- Insurance concepts like, Historyand Advantages of insurance , Insurance Environment, Contribution to economy, Latest Trends.
- Insurance value chain PESTLE Analysis, H'ubiverse's Theory of Human Life Value.
- Principles Of Insurance like Indemnity , Utmost good faith, Insurable interest and proximate cause.
- Basic terms like Risk, Perils, Hazard, Spread of Risk, Co insurance, Reinsurance etc.

Module 2:
Insurance Legislation (7 Hours)

- Like Insurance Act, Indian Contracts Act, IRDAI Act.
- Latest IRDAI Regulations, Investment Norms for insurers, Organizational Structure of insurance companies.

Module 3:
Types of Insurance Products (9 Hours)

- Life Insurance policies like ULIPs, Double Endowment, Term Assurance, Survival benefits, death cover, Group Insurance Policies.
- Key man Insurance, Whole life policies, types of Annuities, Life & Death Annuities, Immediate & Deferred Annuities.
- Various types of Health Insurance policies including Mediclaim & OMP, Group Health Insurance Policies for Corporates etc. critical illness, OPD covers, corona kavach etc.
- Various types of Nonlife Policies like Fire, Motor , Marine , Liability , PA , Engineering etc.

Module 4:
Principles of Economics (6 Hours)

- Approach of Mathematics and basic actuarial concepts like theory of probability, law of large numbers.
- Mortality, Morbidity, Risk Based underwriting, Maximum & Minimum probable loss.
- Control of expenses, aiming at profitability, claim minimization measures, contingency risks v/s investment risks, sharing & Spreading risks.

Module 5:
Mathematics of Insurance (9 Hours)

- Special features of Insurance accounting, Investment function in insurance companies, present value methods, compounding effect, perpetuities.
- Discounted cash flow, sinking fund, life fund, yield, profitability, stationary population, select mortality tables, survival rates, morbidity concept, BMI, Valuation of surplus, Assets & Liability.
- Types of Financial Reserves in Insurance Companies Balance Sheets, Premium Loadings, Pricing of insurance products etc. Bonus/Malus concepts, "Fair Value" of assets/liabilities, life office valuations.
- Concepts of Estate & Trading Profits, distribution of surplus, payment of dividends/bonus, profit centers, management expenses, fresh/renewal expenses, solvency margins etc.

Module 6:
Underwriting (7 Hours)

- Definition, importance, profits generation , underwriting process , physical & moral hazards.
- Extras & discounts in rating structure, deductibles, underwriting factors in Life Insurance & General Insurance.
- Risk inspection, risk minimization, adverse selection, Use of riders, Loss sensitive pricing, Embedded devices, comparison between Indian & Global underwriting practices and need for contract certainty, proposal form.

Module 7:
Basic Concepts (5 Hours)

- This module is for creating awareness for advanced course in insurance.
- Reinsurance, claims settlement, coinsurance.
- Risk Management, Insurance Marketing and Intermediaries, Futuristic Insurance Products , "Insure Tech".

References
Text Books

Understanding General Insurance - PC James PCJ Value Media , Bengaluru
Insurance Institute of India Books on various aspects of general insurance IC 51 to IC 54 , IC 71 to IC 74, IC 77.
Black, Kenneth Jr, Skipper, Harold D Jr, Life & Health Insurance Latest Edition, Prentice Hall.
Rejda George E (2010)
Principles of Risk Management and Insurance Prentice Hall (11th Edition)
Zartman, Lester W (2003), Yale Readings in Insurance , Life Insurance, William S Hein & Company
Bates, Ian and Atkins, Derek (2009) Management of Insurance Operations, Global, Professional, Publications.

Research Papers

Underwriting Prudence – Winning Strategy, MD Garde, BIMAQUEST, Volume 17, January 2017.
KPMG Report titled "The Connected Ecosystem a New Business Model for Insurance.
"BIMAQUEST" & "Pravartak" Publications of National Insurance Academy, Pune.
Asian Insurance Review, Publication from Singapore.
The Journal, Insurance Institute of India.

Webliography References :

https://www.insuranceinstituteofindia.com
https://www.licindia.in
https://www.agriinsurance.gov.in/pmfby.aspx

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Course Code: FE-B-109
Course Name: Law and Economics - I

Course Outcomes:

- To identify the interaction between economics and the legal system.
- To explain the impact of legal rules on economic institutions.
- To apply laws of economics as per the legal system.
- To learn the regulatory framework of various laws such as contract, tort, etc. in order to promote economic development.
- To critically evaluate the legal system meant for externalities and its application in Economics.
- To evaluate the competitiveness of Indian policies.

Module 1:
Introduction to Law and Economics (6 Hours)

- Economic Analysis of Law: An Introduction
- Why do economists need to be concerned about law? - Relationship between law and economics
- Economic Concepts and their relevance to Law
- Legal Concepts - The Common Law and the Civil Law Traditions, Introduction to Judicial System in India, Economic Approach to Legal Rules, Methodological Aspects of Legal Rules, Efficiency, Justice and the inherent rationality of Private Law,
- Development of efficient Rules: Selected Cases

Module 2:
Economic Analysis of Contract Law (6 Hours)

- Introduction - Economic Theory of Contract - Perfect Contracts, Imperfect Contracts
- Economics of Remedies for Breach of Contract - Expected Damages, Opportunity Cost, Reliance Damages, Restitution, Specific Performance
- Differences between Contracts and Torts - The Foreseeability Rule in Contract Law, Pure Economic loss in Torts

Module 3:
Economic Analysis of Tort Law (6 Hours)

- Introduction, Economic Theory of Torts Law - Accident Costs and their minimization, Liability Rules, Negligence, Contributory Negligence, Comparative Negligence, Strict Liability, Economics of Tort Liability –
- Liability v. Regulation, Causation in Torts, Joint and Multiple Liability,
- Product Liability: Producers' Responsibility, and Consumer Protection through Consumer Courts, Environmental Liability,
- Immaterial Damages: Pain and Suffering

Module 4:
Economic Analysis of Property Law (6 Hours)

- Introduction, An Economic Theory of Property, Economics of Property Law - Market strategies, Non- market strategies,

- Allocation of Property Rights - First come first served, Good faith purchase, Title to Land,
- Establishment of entitlements - Property Rule, Liability Rule, Inalienability Rule

Module 5:
The Coase Theorem (6 Hours)

- Externalities, Transaction Costs,
- Efficiency Hypothesis & Invariance Hypothesis.

Module 6:
Economic Analysis of Criminal Law (6 Hours)

- Introduction, Principal Types of Crime,
- Optimal Criminal Sanctions: Economics of Crime and Punishment, Criminal Intent,
- The Defence of Necessity,
- The Economics of Organised Crime

Module 7:
Economic Analysis of Competition Law (6 Hours)

- Introduction, Economic Theory of Competition Law –
- Workable Competition: Structure- Conduct- Performance, Competition as Dynamic Process, Reappraisal of Price Theory –
- Vertical Restraints: Vertical Price Fixing,
- Predatory Pricing: Lowering Prices,
- Control of Concentration: Collusion, Transaction Cost Approach, Theory of Contestable Markets, Applications to USA and EC Competition Policy

Module 8:
Competition Policy in India (6 Hours)

- Monopolies and Restrictive Trade Practices Act, and Competition Policy Report, Divestment of Public Sector Units and Deregulation,
- Regulated Competitions and Regulatory Authorities (Power, Telecom, Insurance, Banking)

Basic Reading List

- Posner Richard A – Economic Analysis of Law (7th Edition 2007)
- Cooter Robert & Ulen Thomas- Law and Economics (5th Edition 2007)
- Shavel Steven – Foundation of Economic Analysis of Law (2004)
- Harison Jeffrey L. & Theeuwes Jules - Law and Economics (2008)
- Mercuro Nicholas, Medema Steven G. – Economics & the Law- Second Edition (2006)
- Baird, Gentner & Picker – Game Theory & the Law (1994)

Further Readings

- Bouckaert, B. & De Geest, G., Encyclopedia of Law and Economics
- Divan, S. & Rosencronz, A. *Environmental Law and Policy in India*, Oxford University Press, New Delhi, 2001, 2nd ed.
- Schmidth, P., *An Economic Analysis of Crime and Justice*, Academic Press, Orlendo, 1984.
- Williamson, O.E., *The Economic Institutions of Capitalism: Firms, Markets, Relational Contracting*, The Free Press, New York, 1985.

Articles:

- Alessi De Louis & Staaf, R. J., "Subjective Value in Contract Law", *Journal of International and Theoretical Economics*, Vol. 145, 1989, pp. 561- 577.
- Bebchuk, L. A. & Shavell, S.,"Information and the Scope of liability for Breach of Contract: The Rule of Hadley vs. Baxendale", *Journal of Law, Economic Organisation*, 1991, pp. 284-312.
- Murali Prasad Panta, "The relative efficiency of Liability vs. Regulation in providing incentives to the tortfeasor" *Journal of the Indian Law Institute*, 41, (3&4), pp.405-428, 1999.
- Niskanen, W. A. "Bureaucrats and Politicians", *Journal of Law and Economics*, Vol. 18, 1975, pp. 617- 641.

Additional Reading List.

- Ayres, I. & Gertner, R., "Filling Gaps in Incomplete Contracts: An Economic Theory of Default Rules", *The Yale law Journal*, 1989, pp. 101- 107.
- Calabresi, G. & Klevorick, K. A., "Four Tests for Liability in Torts", *Journal of Legal Studies*, Vol. 14, No. 3, December 1985, pp. 585- 627.

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Course Code: FE-B-110:
Course Name: Law and Economics - II

Course Outcomes:

- To understand the legislative procedure for economies.
- To develop an integrated approach of contract law and economics.
- To evaluate the environmental protection laws and the working of the economy.
- To learn about land acquisition procedure and evolution of the economy's growth with respect to this.
- To learn about the planning structure of economies and setting up of SEZs in order to grow.

Module 1:
Economic Theory of Legislation: (5 Hours)

- Legislative process, Delegated legislation, Precedents, Rules v/s Standard, Interpretation of Statute

Module 2:
Economic Analysis of Litigation: (5 Hours)

- Rules of procedure, Rules of Evidence, The adversarial and inquisitorial trial mode, Alternative dispute resolution (ADR), Lok Adalat, Arbitration, Conciliation and mediation, Settlement, Appeals and error correction, Cost of litigation, Case -load and Court Delay Crisis

Module 3:
Economic approach to Contract law in India: (5 Hours)

- Contract Act, Specific Relief Act, Court approach to formation, validity, performance, interpretation, breach of contract and remedies for breach

Module 4:
Economic Approach to Environmental Protection Laws: (5 Hours)

- Environmental protection laws and Court decisions, Principles and doctrines evolved by Supreme Court for protection of Environment, Air pollution, Water pollution, Sound pollution, Automobile and industrial pollution, Climate change, Carbon credits – emerging market

Module 5:
Economic Approach to Issues in Land Acquisition Laws: (5 Hours)

- Acquisition of land for public purpose, Acquisition for companies, Purpose and suitability, Market value and compensation

Module 6:
Town Planning Laws: (5 Hours)

- Allocation of land – for residential, industrial, commercial, agricultural purposes, Reservation of land for public purpose

Module 7:
Special Economic Zones: (5 Hours)

- Concept, Law, Policy and Problems

Module 8:
Intellectual Property Rights: (5 Hours)

- Patents, Copyrights, Trademark, Trade secrets, Plant varieties & Farmers' Rights, Salient features of Indian Laws

Module 9:
Economic Analysis of Corporate Law Issues: (5 Hours)

- Formation of a company, share capital and fund raising, Separation of ownership and control, Majority power and minority protection, Corporate governance, Regulation of security markets and protection of investors and SEBI, Management of foreign investment and foreign exchange under FEMA

Basic Reading List

- Posner Richard A – Economic Analysis of Law (7th Edition 2007)
- Cooter Robert & Ulen Thomas- Law and Economics (5th Edition 2007)
- Polinsky Mitchell A – An Introduction to Law and Economics (2003)
- Friedman David D. – Law's Order (2000)
- Wittman Donald A – Economic Analysis of Law- Selected Reading (2003)
- Micali Thomas J – The Economic Approach to Law (2009)
- Hirsch Werner Z - Law and Economics (1999)
- Salient Features of Civil Procedure Code, 1908 and Indian Evidence Act, 1872.

Additional Reading List

- Indian Contract and Specific Relief Acts.
- Patent Act, 1970.
- Copyright Act, 1957.
- Trademark Act, 1999.

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Course Code: FE-B-111
Course Name: Company Law

Course Outcome:
The course will enable the students:

- To have a detailed exposition to legal aspects of the firm in Indian environment.
- To focus on the characteristics of company as a legal entity, legal financial powers of various parties like shareholders, directors. (Module 2, 3, 4 & 5)
- To appreciate the provisions regarding multinational companies (Module 6-10)
- Overall, across all modules, the course enables the student to understand company law and its functioning.

Module 1:
Company (4 hours)

- Meaning of Company, Essential characteristics
- Corporate Personality and Lifting the Corporate Veil
- Forms of Corporate and Non-Corporate Organisations, Corporations, Partnerships and Other Associations of Persons, State Corporations, Government Companies. Public Sector -Private Sector −Their Role
- Functions and Accountability of Companies.

Module 2:
Incorporation (5 hours)

- Memorandum of Association, Various Clauses, Alteration therein, Doctrine of Ultra Vires, Articles of Association, Binding Force Alteration, Its Relations with Memorandum of Association
- Doctrine of Constructive Notice and Indoor Management Exceptions, Prospectus, Issue, Contents
- Liability for Misstatements, Statement in Lieu of Prospectus, Promoters, Position, Duties and Liabilities

Module 3:
Shareholders (5 hours)

- Shares, General principles of Allotment Statutory Restrictions, Share Certificate its Objects and Effects
- Transfer of Shares, Restrictions on Transfer, Procedure for Transfer, Refusal of Transfer
- Role of Public Finance Institutions, Relationship Between Transferor and Transfers, Issue of Shares at Premium and Discount
- Shareholder, Who Can Be and Who Cannot Be a Shareholder Modes of Becoming a Shareholder Calls on Shares, Forfeiture and Surrender of Shares, Lien on Shares Rights and Liabilities of Shareholder
- Share Capital, Kinds, Alteration and Reduction of Share Capital, Further Issue of Capital, Conversion of Loans And Debentures Into Capital Duties Of Court To Protect The Interests Of Creditors and Shareholders.

Module 4:
Directors (5 hours)

- Directors, Position, Appointment, Qualifications, Vacation of Office, Removal, Resignation, Powers and Duties of Directors, Meeting, Registers

- Loans Remuneration of Directors, Role of Nominee Directors, Compensation for Loss of Office, Managing Directors and Other Managerial Personnel, Meetings, Kinds procedure, voting.

Module 5:
Dividends, Debentures, Borrowing Powers (5 hours)

- Dividends, Payment, Capitalization of Bonus Shares, Audit and Accounts
- Borrowing, Powers, Effects of Unauthorised Borrowing, Charges and Mortgages, Loans to Other Companies Investments, Contracts by Companies,
- Debentures, Meaning, Floating Charge, Kinds of Debentures, Shareholder and Debenture Holder, Remedies of Debenture Holders.

Module 6:
Majority Rule (4 hours)

- Protection of Minority Rights, Prevention of Oppression and Miss-Management, Who Can Apply, When Can He Apply, Powers of the Court and of the Central Government

Module 7:
Other Allied Aspects (5 hours)

- Private Companies, Nature Advantages Conversion into Public Company Foreign Companies, Government Companies, Holding and Subsidiary Companies,
- Investigations, Powers,
- Reconstruction and Amalgamation, Defunct Companies, National Company Law Tribunal: Powers and Functions.

Module 8:
Law and Multinational Companies (4 hours)

- Collaboration Agreements for Technology Transfer,
- Control and Regulation of Foreign Companies, Taxation of Foreign Companies, Share Capital in Such Companies.

Module 9:
Winding Up (4 hours)

- Winding up, Types, By Court, Reasons, Grounds, Who Can Apply, Procedure,
- Powers of Liquidator, Powers of Court Consequences of Winding Up Order,
- Voluntary winding up by members and creditors winding up subject to supervision of court.

Module 10:
Winding Up Proceedings (4 hours)

- Appointment of liquidator, Powers and duties of official liquidator
- Liability of past members, Payment of liabilities, Preferential payments
- Unclaimed dividends
- Winding up of unregistered company

Module 11:
Law and Economics of Corporate Law (5 hours)

- Characteristics of corporation, functions of corporate law, Basic constituents and stake holders, Gatekeepers,

- Various branches of economics and theories of firm-Neoclassical Economics, Transaction Cost Economics,
- New Institutional Economics, Economics of Organization, Contract Theory,
- Economics of Information, Financial Economics, Corporate Finance, Behavioural Economics

Reading List:

- Ramaih, A Guide to Companies Act, Wadhwa Publications.
- Singh, Avatar, Company Law, Eastern Book Company, Lucknkow.
- Raman, Anantha, Lectures on Company Law, Wadhwa and Company.
- Tandon, M.P., Company Law, Allahabad Law Agency, Allahabad.
- Rai, Kailash, Company Law, Allahabad Law Agency, Allahabad.
- Majumdar, Company Law, Taxman Publications.
- (Note: The latest editions of each of the books should be referred.)

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Course Code: FE-B-112
Course Name: Linear Economics-I

Course Outcome:
The course will enable the students:

- Appreciation of the major shortcomings of Neoclassical Economics (Module 1)
- Develop understanding of analytical Classical Economics (Module 2)
- Develop understanding of von Neumann, Leontief, Sraffa, Kaldor and Pasinetti models and their applications (Module 3 and 4)
- Construction of Empirical General Equilibrium Models (Module 5)

Module 1:
Critique of the Neo-classical Theory (8 hours)

- Critique of Marshall's demand-supply theory
- Critique of marginal productivity theory
- Critique of Neoclassical production functions

Module 2:
Leontief System (8 hours)

- Introduction to static open and closed input-output models
- Construction of input-output tables
- Dynamic input-output analysis

Module 3:
Sraffa System (8 hours)

- Critique of von-Neumann model
- Introduction to Sraffa system and its properties
- Construction of standard commodity
- Reduction to dated labour

Module 4:
Income Distribution (8 hours)

- Alternative models of income distribution
- The Kaldor Pasinetti model and its development

Module 5:
A theory of General equilibrium (8 hours)

- Closure of Sraffa System
- Construction of a Sraffian General Equilibrium
- Its empirical relevance.

Reading List:

Books:

Hadley, G(1961), Linear algebra, Addision-Wesley Massachusetts

Shanti, Narayan, Lipson Marc (2002), A text book of matrices, Schaum Outlines Series.

Bellman, Richard (1970), Introduction to matrix analysis, 2nd edition, McGraw-Hill, New York, NY.

Leontief (1986), Input-output economics (2^{nd} edition), Oxford University Press

Leontief, W.W., Structure of American economy 1919-1939 (third edition), Oxford University Press, New York.

Mathur P.N. & Bharadwaj R. (1968), An application with dynamic Input-output model for planning

Sraffa, Piero (1960), Production of commodities by means of commodities Cambridge University Press, Cambridge.

Kurz, H. and Salvadori, N. (1995), Theory of Production: A Long Period Analysis, Cambridge University Press, Cambridge.

Parchure, R. (1989), The Pure Theory of Value: The Times Research Foundation Pune.

Pasinetti, L.L. (1977), Lectures on the theory of production: Mathematical appendix, New York, Columbia University Press.

Fabio Petri (1999) "Hahn on the 'Neo-Recardian' Criticism of Neoclassical Economics", in the Value, Distribution and Capital eds. Gary Mongiovi and Fabio Petri, pp. 19-68,London.

Garegnani, P. (1970) "Heterogeneous Capital, The Production Function under Theory of Distribution" Review of Economic Studies. Vol.

Garegnani, P. (1990) "Reply" in Bharadwaj K. and B. Schefold eds. Essay on Piero Sraffa, Critical Perspectives on the Revival of Classical Theory, Oxford University Press, Oxford.

Hahn, F.H. (1975) "Revival of Political Economy: The Wrong Issues and the Wrong Argument" Economic Record.

Article:

Hahn, F.H. ((1982) "The Neo Ricardians", Cambridge Journal of Economics, Vol.6.

Harcourt, G. C. (1969) "Some Cambridge Controversies in the Theory of Capital", Journal of Economic Literature, 7:369-405.

Hayek, F.A. (1932) "Reply" Economic Journal.

Hawkins D. and H. Simon (1949) "Note: Some Conditions of Macroeconomic Stability." Econometrica Vol.17.

Kaldor, N. (1956) "Alternative Theories of Distribution," Review of Economics Studies, Vol. 23.

Pasinetti, L.L. (1962) "Rate of Profit and Income Distribution in Relation to the Rate of Economic Growth," Review of Economic Studies, VOl.29.

Pasinetti, L.L. (1978) Lectures on the Theory of Production, Macmillan, London.

Robinson Joan (1956) The Accumulation of Capital. London: Macmillan.

Sraffa, P. (1960) Production of Commodities by Means of Commodities, Cambridge University Press, Cambridge.

Von Neumann J. (1945-46) "A Model of General Economic Equilibrium." Review of Economic Studies. Vol.13.

Whitin, T.M. (1953) "Classical Theory, Graham's Theory, and Linear Programing in International Trade," Quarterly Journal of Economics, Vol.67.

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Course Code: FE-B-113
Course Name: Linear Economics – II

Course Outcome:
The course will enable the students :

- Incorporation of Money and Finance in General Equilibrium theory (Module 1)
- Proof of Essentiality and non-neutrality of modern money (Module 2 and 3)
- Construction of Keynesian model with deflationary gap (Module 4)
- Multi-country general equilibrium model of exchange rates (Module 5)
- Trade equilibrium with many countries and commodities (Module 6)

Module 1:
Critique of trade models and exchange-rate theories (8 hours)

- Critique of the Heckscher-Olin-Samuelson model of trade
- Non-viability of reduction of reality to 2 x 2 x 2 models.
- Critique of exchange rate theories

Module 2:
Frank D. Graham's theory of multi-country multicommodity trade (8 hours)

- Introducing the theory of Frank D. Graham
- Extensions of the theory to tariffs, intercountry transfers and taxation.
- Trade in intermediate and final goods.

Module 3:
Keynesian Revolution (8 hours)

- Money in general equilibrium theory: Patinkin's findings of Arrow, Clower, Hahn, Ostroy.
- Keynesian Counter revolution.

Module 4:
Building the Keynesian critique of the Classical theory (8 hours)

- The Static Keynesian economy with money.
- Critique of IS-LM model.
- Possibility of unemployment equilibrium. Fiscal Policy. General ineffectiveness of monetary policy instruments including TARP, etc.

Module 5:
Integrated model of the level and structure of spot interest rates. (8 hours)

- Dichotomy in the theories of the level and theories of the term structure of interest rates.
- Integrated model of the level and structure of spot interest rates.

Module 6:
Dynamic Keynesian economy (8 hours)

- The dynamic Keynesian economy with money and several financial assets.
- General disequilibrium.
- Role of fiscal and monetary policies.

Reading List:
Books:

Graham, F. D. (1948), The theory of International Values; Princeton University Press
Parchure, Rajas (1994), The Theory of International Values, Wiley Eastern, New Delhi

Article:

Garegnani (1983) “Two Routes to Effective Demand: Comment on Kregel”, in J. A. Kregel (ed)., Distribution, Growth and International Economic Relations, London: Macmillan

Hahn, F.H. 1965. “On Some Problems of Proving the Existence of an Equilibrium in a Monetary Economy,” in The Theory of Interest Rates, ed. F.H. Hahn and F.P.R. Brechling, 126-135, London; Macmillan.

Hahn, F.H. 1971. “Equilibrium with transaction costs”. Econometrica 39, 417-39.

Hahn F. H. (1977) "Keynesian Economics and General Equilibrium Theory: Reflections on Some Current Debates" in Microeconomic Foundations of Macroeconomics ed. G. C. Harcourt.

Hahn (1978) "On non-Walrasian Equilibria" Review of Economic Studies, 45, 1-17.

Hicks, J.R. 1937. “Mr Keynes and the Classics: A Suggested Interpretation”, Econometrica, 5, 147-159.

Keynes, J.M. 1936. The General Theory of Employment, Interest and Money, London: Macmillan.

Keynes, J.M. 1937. “The General Theory of Employment” Quarterly Journal of Economics, 51, 209-223.

Kurz H. D. (2016) Economic Thought, A Brief History, New York: Columbia University Press.

Kurz, M. 1974. “Equilibrium in a finite sequence of markets with transactions cost”. Econometrica 42, 1-20.

Ostroy, J.M. and Starr, R.M. 1974. “Money and the Decentralization of Exchange”, Econometrica, 42, 1093-1113.

Pigou, A.C. 1943. “The classical stationary state”. Economic Journal, 53, 343-51.

Posner R. (2011) “Walras, Keynes and the ‘Great Recession’, in Bridels P. (ed.) General Equilibrium Analysis. A Century after Walras, New York: Routledge.

Shapley, L. and Shubik, M. 1977. “Trade using one commodity as a means of payment”. Journal of Political Economy 85, 937-68.

Smith, A. 1776, ‘The Wealth of Nations ’ , J.M. Dent, London.

Sraffa P. (1960). “Dr. Hayek on Money and Capital”, The Economic Journal, 42, 42-63.

Starr R. (2010). “Sequence Economies” in The New Palgrave, Dictionary of Economics, Palgrave Macmillan.

Tobin J. ‘A General Equilibrium Approach to Monetary Theory’ reprinted in J. Tobin, Essays in Economics, 1971, vol.I, 322-338, Amsterdam: North-Holland.

Sraffa, P. (1962) “The Laws of Returns under Competitive Conditions,” Economic Journal, Vol.36.
Sraffa, P. (1932a) “Dr. Hayek on Money and Capital,” Economic Journal, Vol.52.
Sraffa, P. (1932b) “Rejoinder”, Economic Journal, Vol.52.

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Course Code: FE-B-114
Course Name: Mathematics For Economic Analysis

Course Outcomes:
The course will enable the students:

- The course aims at providing students an understanding of mathematical concepts along with economic applications, and introduces them to mathematical thinking and vocabulary. The concepts and techniques discussed in this course will find applications in the various branches of Economics. (Module 1,3,4)
- To Emphasize use of Real analysis in core economics to mathematically model and analyze economic concepts and behaviors of economic functions, in order to make predictions and informed decisions. (Module 2)

Module 1:
Linear Algebra (10 hours)

- Review of Matrices
- Eigenvalues and Eigenvectors, Principal Minors and Sign Definiteness
- Introduction to Vector Spaces
- Applications of Linear Algebra in Economics and Econometrics

Module 2:
Real Analysis (10 hours)

- Open and Closed Sets, Compact Sets, Convex Sets
- Rolle's Theorem and Mean Value Theorem
- Taylor Series
- Convex and Concave Functions,
- Brouwer and Kakutani Fixed Point Theorems

Module 3:
Static Optimization and Comparative Statics (10 hours)

- Introduction to Linear Programming and Game Theory
- Unconstraint and Constraint Optimization
- Euler's Theorem
- Kuhn-Tucker Conditions and Non-Linear Programming
- Maximum Value Functions and Envelope Theorem
- Comparative Statics
- Applications in Microeconomics
- An Overview of Matrix Differentiation and Applications to Econometrics

Module 4:
Dynamic Optimization (10 hours)

- First and Second Order Differential Equations and Difference Equations
- Simultaneous Differential and Difference Equations
- Optimal Control Theory
- Applications in Macroeconomics and Growth Theory
- Dynamic Programming
- Applications in Macroeconomics

Suggested Readings:

- Chiang, A.C., Fundamentals Methods of Mathematical Economics, McGraw-Hill, 2005
- Chiang, A.C., Elements of Dynamic Optimization, McGraw-Hill, 1992
- Dorfman, R., P. A. Samuelson and R. M. Solow, Linear Programming and Economic Analysis, Dover Publications, Inc., 1958
- Hoy, M., J. Livernois, C. McKenna, R. Rees, T. Stengos, Mathematics for Economics, PHI Learning Private Ltd., 2011
- Intriligator, Michael D., Mathematical Optimization and Economic Theory, Prentice Hall, 1971
- Shone, R., An Introduction to Economic Dynamics, Cambridge University Press, 2001
- Shone, R., Economic Dynamics: Phase Diagrams and their Economic Applications, Cambridge University Press, 2002
- Simon, Carl P. and Lawrence Blume, Mathematics for Economists, W. W. Norton & Company, Inc., 1994
- Sydsaeter, K and P. J. Hammond, Mathematics for Economic Analysis, 2002

Additional Readings

- Anton H. and Chris Rorres, Elementary Linear Algebra, Wiley India, 2005
- Bartle R. G. and D. R. Sherbert, Introduction to Real Analysis, John Wiley & Sons, 2000
- Binmore, K., Foundations of Analysis, Books 1, Cambridge University Press, 1980
- Binmore, K., Foundations of Analysis, Books 2, Cambridge University Press, 1981
- Dhrymes, P. J., Mathematics for Econometrics, Springer, 2013
- Strang, G., Linear Algebra and Its Applications, Cengage Learning, 2007

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Course Code: FE-B-115
Course Name: Development Finance

Course Outcome:
The course will enable the students:

- To associate with an introduction to development finance. (Module 1)
- To appreciate the project appraisal techniques. (Module 2)
- To understand the role of Government in development finance. (Module 3)
- To enunciate the role of NGO's in the modern day finance environment. (Module 4)
- To appreciate the various types and sources of development finance. (Module 5 & 6)
- To critically evaluate the various technology-based and other contemporary financing modes. (Module 7 & 8).
- Overall, the course enables the student to appreciate the importance of development finance.

Module 1:
Overview of Development Finance (6 hours)

- Background on Financing for Development Issues
- Changing concepts of development- from GDP to SDGs and wellbeing, financial inclusion goal
- Overview of finance needs of various types of projects, programs and activities ranging from industrial, commercial to social sector spending and programs
- Difference between development finance, social finance and conventional finance, problems of development finance
- Introduction to the agencies involved government, multi national, organizations, international financing , NGOs −agencies involved
- Recent trends developing country problems. Emergence of new protocols in financing such as ESG criteria, Equator principles.
- Financial Landscape- overview of global capital flows –multilateral efforts for development finance & UN aegis, traditional and new such as impact investments for development, Development finance landscape global and India , financial intermediaries, DFIs & others , relationship between financial and real sector ,financial inclusion and economic development.

Module 2:
Project Appraisal for Developmental Projects and Programs (8 hours)

- Social cost Benefit analysis, How it differs from the private cost benefit analysis
- Issues and problems, shadow pricing
- Methods of social cost benefit analysis.
- Issues in monetisation
- Applications to industrial, infrastructure ,energy, transport & social sector projects, social impact assessment
- Development of metrics for evaluation

Module 3:

Government Financing of Development (8 hours)

- Public finance resources, taxation, public expenditure and deficit, public debt, issues related to India , (official development assistance (oda) ,
- Public private partnership, role of private finance, governments & financial sectors role in enhancement of private financial participation in development.

Module 4:

Role of NGOS in Development Finance (8 hours)

- Meaning and Definition, Role of NGOs
- Types of NGOs and History of NGOs in India
- NGOs and the State: Withdrawing of the State and Expanding Role of NGOs
- Role of NGOs in Socio-Economic Development , financial advocacy,
- Sustainability of NGOs and Globalisation
- Non-Profit Financing Sources, Structure and Management
- Sustaining the Social Development Partnership
- International Agencies Supporting NGOs and NGOs of India Donor Agencies, World Bank, Asian Development Bank, Melinda and Gates Foundation, SEWA, PRADHAN, Disha, Asha, CINI, Seva Mandir, MYRADA.

Module 5:

Types of Development Finance (8 hours)

- Financial Inclusion: Microfinance concept,Grameen model, global trends: development, contribution, problems, criticisms − strategic issues in microfinance sustainability, Effective Interest Rates for micro credit − National Development Banks and other "inclusive" credit policies: Types, contribution, problems.
- Structured Finance-brief recitations- securitisation, derivatives,swaps, relevance to developmental finance-projects, infrastructure finance- features, hedging costs – alternatives- local currency financing, exchange risk funds, credit guarantees, masala bonds.
- Infrastructure Finance- characteristics, non recourse financing ,types of projects , boo bot. etc, ppp models –issues, smart city financing , financial assistance for infrastructure projects, risk mitigation, some sectors analysis & policy overview
- Export Finance - role in development finance, factoring, forfaiting, risk mitigation
- Role of Private Finance in Development- usage of credit enhancement and blended finance & policy issues.

Module 6:

New Sources of Developmental Finance (8 hours)

- Genesis ,economic and social impacts and current status
- Financial transactions tax, environmental taxation, carbon pricing/emission trading systems,
- Creation of new SDRs for development financing, international finance facility-(used in global health vaccines, reproductive health hiv &now education),
- Philanthrophic funds, global lottery, remittances from emigrants,
- Sovereign wealth funds, airline tax, billionaire tax, reduction of illicit financial flows.- plugging the leaks.

Module 7:

Technology Enabled Finance (5 hours)

- Role in financial systems, economic development , trade and financial inclusion, mobile and internet based payment systems, document negotiation and settlement systems,

Module 8:

C**ontemporary Developments (5 hours)**

- Pertinent equity and debt markets: new types of capital, impact finance for development finance
- Philanthrophic outcomes based financing, social finance and any others.

Reading List:

- Addison, Tony, McGillivray, Mark, and Mavrotas, George, (Ed.) (2005) Development Assistance and Development Finance. UNU-Wider.
- Giles, Susan L., Blakely, Edward J. (2004), Fundamentals of Economic Development Finance, Sage Publications.- third edition kindle edition by Susan Giles Bischak (author), David Baxter (foreword) format: kindle edition oct 2019}
- Stiglitz, Joseph (2000), The Economics of Public Sector, W.W. Norton & Co.
- Atkinson, A. B. (Editor) (2004), New Sources of Development Finance, Nuffield College, Oxford University.
- Ledgerwood, J. (2001), Microfinance Handbook: An Institutional and Financial Perspective, World Bank Publications
- Armendáriz, B. and Morduch, J. (2005) The Economics of Microfinance, The MIT Press.
- Truman, Edwin M., (2010), Sovereign Wealth Funds: Threat or Salvation? Peterson Institute
- Development Finance: Challenges and Opportunities, July 2017 ISBN 978-1-137-58031-Publisher: Palgrave Macmillan UK by Gianluigi Giorgioni University of Liverpool
- Development Finance, Innovations for ustainable Growth, Editors: **Biekpe**, Nicholas, **Cassimon,** Danny, **Mullineux,** Andrew William (eds.)2017 Online resources .

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Course Code: FE-B-116
Course Name: Introduction to Game Theory

Course Outcome:
The course will enable the students:

- This module enables students to understand what a game is and how to model a game in matrix format (Module 1)
- To learn how to model real life situations in a game theoretic form and to find the solutions and outcomes of such situations through Nash equilibrium (Module 2 & 3)
- To learn dynamic games and their solution concepts (Module 4)
- To appreciate the outcomes in finite repeated games vs infinite repeated games (Module 5)
- To learn games of incomplete and imperfect information along with solving the Bayesian Nash equilibrium of these games (Module 6)
- The last module enables students to differentiate between non-cooperative games and cooperative games along with some cooperative games and Shapley value (Module 7)
- Overall, the course enables the student to analyze strategic situations in game theoretic form in facing real-life situations.

Module 1:
Introduction (7 hours)

- Introduction and uses of game theory,
- the normal form,
- payoffs,
- dominant strategies

Module 2:
The Nash Equilibrium (7 hours)

- Pune and mixed strategy Nash Equilibrium –
- existence, properties and applications

Module 3:
Finite Two-Player Games (7 hours)

- Basic definitions,
- finite zero-sum two-player games,
- Nash Equilibria in finite two-person games

Module 4:
Extensive Form Games (7 hours)

- Extensive form (trees), Strategic Form,
- Backward Induction,
- Subgame perfect Nash equilibrium,
- Introduction to imperfect-information games

Module 5:
Repeated Games (7 hours)

- Repeated prisoners' dilemma,
- Finite and infinite repeated games,
- Folk theorems for Nash equilibrium

Module 6:
Games of Incomplete Information (7 hours)

- Bayes-Nash equilibrium, signaling games

Module 7:
Introduction to Cooperative Games (7 hours)

- Introduction to TU-games, core,
- Shapley Value, Nucleolus

Reading List:

- Game Theory, by Fudenberg and Tirole, 1st Edition, MIT Press
- Thinking Strategically: The Competitive Edge in Business, Politics, and Everyday Life (Norton Paperpack), Dixit and Nalebuff
- Games of Strategy, Dixit, Skeath et al, W.W. Norton and Co., 2020
- Games and Decisions, Luce and Raiffa, Dover Publications
- Collected Papers, Vol. 1, Robert J Aumann

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Course Code: FE-B-117
Course Name: Economics of Banking

Course Outcome:
The course will enable the students**:**

- To gain the basic economic aspects of the functioning of banks (Module 1)
- To understand policy implications of functioning of commercial banks in general and of India in particular. (Module 2 and 3)
- To comprehend the risks in banking and tools and strategies for managing those risks. (Module 4)
- To demonstrate an ability to appreciate the overall functioning of banks in India and to help students gain insights into novel ways of looking at banking and bank's role in monetary policy. (Module 1, 2 and 3)
- To identify with the new developments in banking technology and its implications (Module 5)

Module 1:
Structure of the Indian Banking System (10 hours)

- Financial intermediation by banks - their functions;
- What do commercial banks do in particular and why? Impact of the banking structure
- Twin Balance sheet problem;
- Impact of innovation and globalisation on financial intermediation;
- Is banking essential to banks?

Module 2:
Banks and Their Business (12 hours)

- Structure of financial statements (balance sheet and Profit and Loss) of a bank;
- Profit Equation; Fund and non-funded based products and services;
- Banks as providers of liquidity insurance and of delegated monitoring due to their information advantages and imperfect (incomplete) markets;
- Trends in the structure of balance sheet and profit and loss accounts of banks in India;
- Regulations related to banks in India and their limitations;
- Maintenance of CRR and SLR - Debate; Capital Market Exposures; Directed Lending

Module 3:
Structure, Conduct and Performance of Banks in India (10 Hours)

- Optimal size of a banking system;
- Analysis of various components of income and costs of banks;
- Business models of Banks – competitive bank and monopoly bank pricing of loans and deposits;
- RBI guidelines on Interest rates on deposits and loans - PLR, BPLR, Base Rate and MCLR - impact on profit maximisation strategies of Banks;
- Methods of bank liquidity management - a simple model of portfolio theory of wholesale and retail interest income;
- Equivalence of fees and bank minimum balance requirements for operation of customer accounts;
- Ownership and Bank performance;
- CAMEL Rating of Banks

Module 4:

Risks in Banking Business and Management (14 hours)

- Types of bank risks - credit risk, market risk and operational risks and their quantification;
- Simple models of credit risk management; Asset-Liability GAP method of management of liquidity and interest risk;
- Introduction to risk capital and its impact on lending costs- Securitisation and its role in management of originator bank's risk-capital;
- Basel I, II and III norms;
- Credit and Forex Derivatives- the what, why and how of them for banks;
- IRAC Norms and Loan loss provisioning

Module 5:

Banking in the 21st Century (14 hours)

- New trends in Banking Technology - block chain - crypto currencies - artificial intelligence - implications for future banking;
- India as the youngest nation and the need for life-cycle banking;
- Income and geographic diversification of business and banking risk;
- Non-performing assets;
- Prompt Corrective Action (PCA) Framework of RBI;
- Norms for declaring banks as weak banks and prescription of Narrow banking;
- Report on Trends and Progress of Banking in India;
- Financial Stability Report of RBI

Reference:

Text books

Barbara, C., Girardone, C., and Molyneux, P. (2015). *Introduction to Banking*, 2nd Edition, Pearson.

Berger, A.N., Molyneux, P., Wilson, J. O. S. (2010). *The Oxford Handbook of Banking*, Oxford University Press.

Chorafas, D.N. (1998). *Handbook of Commercial Banking*, Palgrave Macmillan (1998).

Freixas, X. (2008). *Microeconomics of Banking*, 2nd Edition. MIT Press.

Gup, B.E and Kolari, J.W. (2004). *Commercial Banking: Management of Risk*, 3rd Edition, Wiley.

Kidwai, N. Lal. (2012). *Contemporary Banking in India*. 1st Edition. Business World.

Mathews, K and Thomson, J., 2008. *The Economics of Banking*, 2nd Edition, John Wiley & Sons.

Sinkey, J., 2002. *Commercial Bank Financial Management*, 6th edition, Prentice Hall.

Research papers:

Blundell-Wignall, A., Wehinger, G. and Slovik, P. (2009). The elephant in the room: The need to deal with what banks do. *Financial Market Trends*, V2, 1–26.

Boot, A.W. A. (2000). Relationship Banking: What Do We Know? *Journal of Financial Intermediation*, 9(1), pp. 7-25.

Charles W. C. (2013). What Is Meaningful Banking Reform, Why Is It So Necessary and So Unlikely? World Scientific Book Chapters, in: Viral V Acharya & Thorsten Beck & Douglas D Evanoff & George G Kaufman & Richard Portes (ed.),

The Social Value of the Financial Sector Too Big to Fail or Just Too Big? chapter 3, pages 23-32, World Scientific Publishing Co. Pte. Ltd.

David T. L. (1999). The New Economics of Banking. SUERF studies 5, The European Money and Finance Forum, Vienna.

Efma and Oracle. (2010). Are Banks ready for the Next Generation Customer? Financial Services Software Limited, 4–17.

Ganti, S. and Reddy, K.S. (2022). Banks, Financial Markets and Economic Development: Some Evidence for India. *Journal of Quantitative Economics*, 20(3), 693-700.

Prasad, E.S. and Rajan, R.G. (2008). Next Generation Financial Reforms for India. *Finance and Development*. 45(3), September.

Rajan, R. G and Zingales, L. (1998). Financial Dependence and Growth. *The Journal American Economic Review*, 88 (3), 559–86.

Reid, R. (2010). Financial Development: A Broader Perspective. ADBI Working Paper Series No.258.

Subbarao, D. (2013). Banking Structure in India: Looking Ahead by Looking Back. Speech at FICCI–IBA Annual Banking Conference, Mumbai, 13 August 2013.

Duvvuri Subbarao (2012), *Basel III in International and Indian Contexts Ten Questions We Should Know the Answers for*, Reserve Bank of India (RBI).

Other Readings:

CAFRAL (2014), *Funds Transfer Pricing in Banks*, Centre for Advanced Financial Research and Learning.
Reserve Bank of India (2013), *Discussion Paper on Banking Structure in India - The Way Forward*.
Reserve Bank of India (2012), *Report of the High Level Steering Committee for Review of Supervisory Processes for Commercial Banks*, Chapter 3.
Reserve Bank of India (2008), *Evolution of Banking in India*, Report on Currency and Finance, Reserve Bank of India.
Reserve Bank of India - *Master Circulars related to Banking Matters*.
Reserve Bank of India - *Reports of Working Groups on Banking Matters*.
Reserve Bank of India - *Speeches related to Banking*.

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Course Code: FE-B-118
Course Name: Social Exclusion and Inclusive Policy

Course Outcome:

- To develop an understanding of the origin, basis and different forms of Social Exclusion (Module I)
- To study the diverse theoretical perspectives on discrimination, social choice and welfare. (Module II)
- To understand the social order of different caste and concepts associated with the exclusion of geographically excluded population. (Module III)
- To formulate policy paradigms for their inclusion in the economy. (Module IV)
- To create awareness about the social excluded people from an economic and social policy perspective as well as to analyze social inclusive policy for them. (Module V)
- To study the institutional role in affirmative action and reservation policies for inclusive policies (Module VI)

Module 1:
Understanding Social Exclusion (10 hours)

- Conceptualising Social Exclusion, Origin and Basis of Social Exclusion
- Forms of Social Exclusion like Religion, Race, Caste, Gender, Ethnicity, Region, Culture, Language, Disability, Migrants and Refugees
- Excluded Groups and Socio-Economic Disparities: Scheduled Castes, Tribals, Minorities, Women, Old Aged and the Physically Challenged;
- Contemporary Discussions on Social Exclusion

Module 2:
Theoretical Perspectives on discrimination (12 hours)

- Economics of Discrimination; Marxist and Liberal Perspective
- Capability Approach and Theories of Poverty
- Economic Justice, Economic Freedom and Welfare
- Social Choice and Human Rights Approach

Module 3:
Social Exclusion of Caste, Tribe and Minority (8 hours)

- Indian society: Social Order in Caste, Tribe and Minority; Caste System as an Institution of Exclusion
- Exclusion of Tribes: Nation-State Formation, Industrialisation, Urbanisation, Globalisation etc
- Dimensions of Exclusion for Marginality: Development, Issues of Identity and Human Rights Violation

Module 4:
Dimensions of exclusions and inclusive policy perspectives (8 hours)

- Scheduled Castes, Minorities and Affirmative Action;
- The Question of Reservation and Affirmative Action – Constitutional Provisions and Contemporary Debates with reference to the Mandal Commission Report and the Sachar Committee Report

- Labour Market Discrimination, Wage Differentials, Problems of Employability, Social Security and Pension
- Access to Finance, Micro Finance and Financial Inclusions of the Excluded People

Module 5:
Physically challenged and Old Aged Social Exclusion (10 hours)

- Physically Challenged and Social Exclusion: Constitutional Provisions, National and State Policies and Social Security Policy;
- Community Support, Awareness and Assimilation Activities;
- Aging: Social and Economic Exclusion; Gerontology Outlook in Policy Framework: Government Laws and Welfare Programmes

Module 6:
Institutions and Inclusive Policies (12 hours)

- Inclusive Policy Agenda: United Nations Organisation, Constitutional Provisions, Nodal Government Agencies and Planned State Interventions
- Human Rights Framework, Affirmative Action and Reservation Policies
- Designing Innovative Strategies for Inclusive Policies

Suggested Readings:

- Sen, A. (2000), 'Social Exclusion: Concept, Application, and Scrutiny -*/&, Asian Development Bank, Manila.
- Byrne, David (2003), 'Social Exclusion: Issues in Society', Open University Press, 2005.
- Lal, A.K. (2005) (Ed.), 'Social Exclusion: Essays in Honour of Dr. Bindeshwar Pathak', New Delhi, Concept.
- Hills John, Le Grand, J. and Piachaud, D (2002) (eds.), 'Understanding Social Exclusion',Oxford University Press
- Saith, R. (2001), 'Social Exclusion: The Concept and Application to Developing Countries',Queen Elizabeth House Working Paper Series 72, Queen Elizabeth House, Oxford.
- Jordan, Bill (1996), 'A Theory of Poverty and Social Exclusion', Polity Press.
- Breman, Jan (2002), 'The Labouring Poor in India: Patterns of Exploitation, Subbordination, and Exclusion', Oxford University Press.

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Course Code: FE-B-119:
Course Name: Insurance Economics (Advanced Practices)

Course Outcome:
The Course will enable the students:

- To know the marketing principles applied to insurance (Module I)
- To deal with claim matters as after sales service (Module II)
- To get knowledge of innovative insurance products (Module III)
- To learn the importance of reinsurance and its methods (Module IV)
- To understand applications of risk management to insurance issues (Module V)
- To learn the best practices followed globally including India (Module VI)

Module 1:
Insurance Marketing (10 Hours)

- Fixing premium goals annually, need for marketing strategy, front desk skills, insurance intermediaries like agents, brokers etc.
- Bancassurance tie ups as a win – win mechanism, direct/tied clients servicing, Market funneling, segmentation.
- New products development, PR & Publicity, Customer Service Pre – Sale , POS & Aftersales, Lead generationthro referrals, Broker development programs.
- Customer focus at all levels, grievances resolution etc.

Module 2:
Insurance Claims (8 Hours)

- Use of claim form, need for Claims Investigations, Importance of claims as a service parameter, types of claims for each class of insurance business.
- Stages involved in the claims process, control over claims ratio , typical claim disputes, out sourcing of claims function, arbitration process.
- Compliance of section 64 VB, salvage disposal, reinstatement and loss of profits claims , fraudulent claims handing etc.

Module 3:
Innovative Insurance Products (8 Hours)

- Innovative policies in Health Insurance. The process of product innovation as a 24×7 activity, Customer Focused & Tailor Made Products.
- New Global Products Like Autonomous Car Insurance, PAYD, Genetic Defects Coverage, Aerospace Related Products, Cyber Liability, Robot Surgeons Cover , Political risk.
- Demat Policies , Drone Insurance , Sports events , Retirement Products, Managed Care , Retroactive Liability ,Gaming & Entertainment Covers.

Module 4:
Reinsurance (7 Hours)

- Types of risks covered in reinsurance, Definition , Importance and the process involved, various methods of reinsurance like Reciprocal , surplus Treaties etc. concept of lines, layers, avoidanceof "Spiral" effect.

- Advantages of Reinsurance, reinsurance brokers , consortiums in reinsurance, Increasing retention capacities.
- Big Reinsurance Companies & Reinsurance Brokers.

Module 5:
Risk Management (9 Hours)

- Definition and process, its importance, various methods, advantages , covering maximum risk at minimum premium, Risk identification, transfer, evaluation, finance & controlling,
- Risk inspection reports, Types of risks covered, Global risk report, Insurance and reinsurance as risk transfer mechanisms.
- Need for Enterprise Risk Management (ERM)

Module 6:
Global Insurance Best Practice (8 Hours)

- Underwriting desk bench , formation of KPO's, LPO's BPO's, Demat policies.
- Online claims & underwriting, implementation of Insure Tech, Telematics, Telemedicine, Embedded Devices.
- CRM solutions, Artificial Intelligence tools in insurance underwriting & claims, fraud investigations.
- Better practices of Pvt. Insurance Companies in India Project Insurance.

References:

Text Books

Insurance Institute of India IC 22 to IC 26 , IC 81 & 85

Gastel, Ruth (Ed) (2004) Reinsurance : Fundamentals and New Challenges, Insurance Information Institute latest Edition.

Fundamentals of Risk Management By Paul Hopkin (irm) (Kogan Page Publications , London).

Cummins, J David and Doherty, Neil A (2005) The Economics of Insurance Intermediaries, Wharton School, University of Pennsyivania.

Research Papers

Case Study, Motor Claims Management, M D Garde and Gautam Prasad, BIMAQUEST, Volume 17, Jaunary 2017.

Enterprise Risk Management – A Strategy to build a resilient organization & be a Busines Partner – by Delzad D Jivasha – Legal Era Magazine – October 2017 issue.

Webliography References :

https://www.irdai.gov.in

https://www.policyholder.gov.in

https://www.insurancethebox.com/telematics

https://www.ibm.com/blogs/insights-onbusiness/insurance/customerengagement-services-excellencein-insurance

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Course Code: FE-B-120:
Course Name: Urban Economics

Course Outcomes:

- To understand the fundamentals of urban economics with the help of case studies. (Module 1)
- To get familiar with the conditions of urban cities. (Module 2 and 3)
- To understand the role of urban infrastructure. (Module 4, 5, and 6)
- To synthesize the approaches and limitations associated with urban infrastructure. (Module 4, 5 and 6)
- To analyze the situation of land and rent. (Module 3)
- To critically evaluate the role of local government for urban development. (Module 6)

Module 1:
Introduction (7 Hours)

- Urban Economics, Existence and importance of cities, 5 axioms of urban economics, Case Studies and Reports related to important Indian cities**.**

Module 2:
The Development of Cities: Clusters & Agglomeration; City Size and Urban Growth (7 Hours)

- Development of a factory town, firm clustering, labor pooling, localization and urbanization economies, differences in city sizes
- Urban employment growth and the multiplier, the effects of taxes and subsidies on location choices

Module 3:
Land Rent & Markets and Land use pattern (7 Hours)

- Land rent and urban structure, Residential Land Market, Urban Land Markets with Factor Substitution
- The Spatial Distribution of Employment and Population, The Monocentric City- Rise and Demise, Urban Sprawl, Neighborhood Choice, Zoning and Growth controls
- Case study of Mumbai and Pune

Module 4:
Urban Transportation (7 Hours)

- Congestion Externalities, Congestion Tax and Alternatives, Autos and Air Pollution, Automobiles and Poverty.
- Commuting and transit Ridership- the Cost of Travel and Model Choice, Efficient Volume of Ridership, Designing a Transit System

Module 5:
Urban Infrastructure (7 Hours)

- Spending and Educational Achievement- Education Production Function, Spending Inequalities and Public Policy
- Crime Facts, the Rational Criminals, the Equilibrium Quantity of Crime, Legal Opportunities and Education
- Water supply and sanitation, Access to basic urban amenities

Module 6:
Housing (7 Hours)

- Importance of Housing- Durability, Detritions and Maintenance, the Filtering Model of Housing Market
- Housing Policy- Public Housing, Housing Vouchers, Rent Control and Rent Regulation

Model 7:
Local Government (7 Hours)

- The Role of Local Government, Local Government Revenue and Expenditure, The Tiebout Model and Property tax
- Financial Instruments (municipal Bonds)

*Students would be encouraged to go through the case studies on Indian Cities related to above mentioned topics.

Text Books

Arthur O'Sullivan, Urban Economics (7th edition), McGraw Hill Irwin, 2008.

Jan K Brueckner, Lectures on Urban Economics, the MIT Press, 2011

Reference Books

Edward L. Glaeser, Cities, Agglomeration, and Spatial Equilibrium: the Lindahl Lectures, New York, Oxford University Press, 2008 (ISBN-13: 9780199290444)

(Focus on Mathematical Modeling)

Klein, Daniel B., Moore, Adrian T., and Reja, Binyam. Curb Rights: A Foundation for Free Enterprise in Urban Transit. (New York: Brookings Institution, 1997 (ISBN: 978-0815749394)

William Cronon. Nature's Metropolis: Chicago and the Great West. W.W. Norton, 1991.

James Howard Kunstler. The Geography of Nowhere. Free Press, 1994

William Julius Wilson. The Truly Disadvantaged: The Inner City, the Underclass and Public Policy.University of Chicago Press, 1987.

Brueckner, Jan (1987) "Structure of Urban Equilibria: A Unified Treatment of the Muth-Mills Model," Handbook of Regional and Urban Economics, Volume II, Edwin W. Mills Ed., 821-845.

Arzaghi & Henderson (2008) "Networking off Madison Avenue" Review of Economic Studies (2008) 75, 1011–1038

Edward Glaeser (1998) "Are Cities Dying?" Journal of Economic Perspectives 12(2): 127-138.

Adam Jaffee et al. (1993) "Geographic Localization of Knowledge Spillovers as Evidenced by Patent Citations." Quarterly Journal of Economics 108(3): 577-598

Quigley (1998) "Urban Diversity and Economic Growth" Journal of Economic Perspectives—Volume 12, Number 2—Spring 1998—Pages 127–138

Roger G. Noll and Andrew Zimbalist (1997) "Sports, Jobs, and Taxes: Are New Stadiums Worth the Cost?" The Brookings Review 15: 35-39.

Kerr & Kominers (2010) "Agglomerative Forces And Cluster Shapes", Nber Working Paper, 1663918(4): 177-200.

Glaeser, Edward L., Matthew Kahn, and Jordan Rappaport (2007) "Why do the poor live in cities?" Journal of Urban Economics.

Book_ Newman, P. and Kenworthy, J. (1999) "Sustainability and Cities. Overcoming automobile dependence". Washington D.C.: Island Press ISBN-13: 978-1559636605, ISBN-10: 1559636602

Glenn Blomquist, Mark Berger, and John Hoehn (1988) "New estimates of the quality of life in urban areas." The American Economic Review 78(1): 89-107.

Glaeser, Edward L., Matthew Kahn, and Jordan Rappaport (2007) "Why do the poor live in cities?" Journal of Urban Economics.

Glenn Blomquist, Mark Berger, and John Hoehn (1988) "New estimates of the quality of life in urban areas." The American Economic Review 78(1): 89-107.

Caitlin Knowles Myers (2004)"Discrimination and neighborhood effects: Understanding racial differentials in US housing prices." Journal of Urban Economics 56(2): 279-302.

Michael Greenstone Enrico Moretti (2004) "Bidding for Industrial Plants: Does Winning a "Million Dollar Plant" Increase Welfare?" Working Paper Series, MIT (0-39)

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Course Code: FE-B-121:
Course Name: Economics of labour

Course Outcomes:

- To introduce students to micro-economic foundations of the economics of labour. (Module 1, 2 and 3)
- To introduce students to equilibrium concepts of labour market, both from the demand side and supply side of the economy. (Module 4 and 5)
- To appreciate the income distribution, wage adjustment process and unemployment issues pertaining to labour market. (Module 6, 7 and 8)
- To enunciate the macro-economic aspects of the labour market. (Module 9 and 10)
- Unions and labour contracts are discussed. (Module 11 and 12)
- Overall, the course gives a comprehensive view of labour economics.

Module 1:
Supply (5 Hours)

- Static Labour-Leisure Choice – Effects of Social Programs and Income Taxes – The Life-Cycle Model – Investments in Human Capital – Collective Models of Household Labour Supply – Occupational Choice

Module 2:
Demand (5 Hours)

- Static Cost, Profit and Labour Demand Functions – Elasticity of Derived demand: the Hicks-Marshall Rules; Adjustment Costs and Dynamic Labour Demand

Module 3:
Equilibrium (5 Hours)

- Compensating Differences – Adam Smith – Evidence on Premium for Risky or Nasty Jobs – Efficiency Wages – Segmented Labour markets – Migration

Module 4:
Wage Structure (5 Hours)

- Industry Wage Differentials – Productivity and Real wages – Returns to Education – Signaling – Pensions and Retirement – Training – Minimum Wage Laws

Module 5:
The Distribution of Income (5 Hours)

- Earnings by Size – The Roy Model – Functional Distribution – Intergenerational Income Mobility

Module 6:
Cyclical Fluctuations (5 Hours)

- Equilibrium Models of Employment Fluctuations – Real Wages over the Business Cycle

Module 7:
Discrimination (5 Hours)

- Economic Effects of Prejudice: Theoretical Analysis – Wage Differentials by Race and Sex

Module 8:

Unemployment (5 Hours)

- Definition and Measurement – Variations over time and Space – Job Search – Effects of Unemployment Insurance

Module 9:

Macroeconomics of Labour Market (5 Hours)

- Classical Analysis – Neoclassical Analysis – Keynesian Analysis – Dual and Segmented Labour Market Theory – Marxian Alternative – Human Capital theory – Flexibility and Institutions in Labour Market

Module 10:

Unions (5 Hours)

- Objectives and Political Structure – Bargaining Theories – Relative Wage Effects – Strikes – Union Growth and Decline – Unions in the Public Sector – Union-Oligopoly Models

Module 11:

Labour Contracts (5 Hours)

- Employment Determination – Allocation of Risk – Compensation – Bonding; Tournaments; Incentive Pay – Multi- tasking – Team Production – Relational Contracts – Career Concerns – Wages and Promotions

Module 12:

Regulations and International Labour Standards (5 Hours)

- Regulation of Labour – Experience of India vis-à-vis Other Countries – Entry and Product Market Regulation – International Labour Standards – Comparative Analysis – International Trade and Labour Markets

Reading List

- Sundaram, K, 2001, 'Employment- Unemployment Situation in the Nineties: Some Results from the NSS 55th Round Survey', Economic and Political Weekly, P.931-40.

- Robinson, Joan, R, 1936, 'Disguised Unemployment', The Economic Journal, June
- Banerjee, P C, 1960, 'Full Employment and Low Full Employment in a Developing Economy', Indian Journal of Labour Economics, 2(4): 227-243.

- Rakshit, Mihir, 1983, The Labour Surplus Economy: A Neo-Keynesian Approach, Macmillan India Limited, New Delhi.

- Seth, V K and S C Aggarwal, The Economics of Labour Markets: Policy Regime Changes and The Process of Labour Adjustment in the Organised Industry in India. New Delhi: Ane Books, 2004

- Basu, K, 1984, The Less Developed Economy: A Critique of Contemporary Theory, New Delhi: Oxford India Paperbacks. (Chapter 5: The structure of Dual Economy; Chapter 6: Migration and Unemployment).

- Stephen, Donald Deere. 1994. "Unionization and Profitability: Evidence of Spillover Effects," *Journal of Political Economy*, 102(6): 1281-128

- Schmidt, C. M., A. Stilz and K. F. Zimmermann (1994): "Mass Migration, Unions, and Government Interventions," *Journal of Public Economics*, 55, 185- 210.

- Laffont, J. and Martimort, D. (2002), *The Theory of Incentives: The Principal-Agent Model*, Princeton University Press

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Course Code: FE-B-121:
Course Name: Economic Sociology

Course Outcomes:

- To discuss the various sociological approaches and its boundaries. (Module 1)
- To appreciate the various schools of sociological views of the economy and to critically appraise them. (Module 2)
- To understand the various social contexts of economic action. (Module 3)
- To enunciate the labour market outcomes based on sociological concepts. (Module 4)
- To similarly appraise the consumption aspects of sociological concepts. (Module 5)
- All the above modules culminate in understanding the socio-cultural aspects of economic development. (Module 6)

Module 1:
Emergence of economic sociology and its boundaries; sociological approaches to the study of economy.

Module 2:
Classical sociological views of the economy:
Marx: critique of political economy; Durkheim: division of labour; Weber: sociology of capitalism, religious ethics and economic rationality; Polanyi: economy as instituted process
.

Module 3:
Social contexts of economic action:
Economic action, varieties of embededness, social networks in economic behaviour, social structure and competition

Module 4:
Sociology of labour markets:
Sociological approaches to labour market; social determinants of inequalities in wage and earning

Module 5:
Sociology of consumption:
Sociological theories of consumption (Marry Douglas and Baron Isherwood: the use of goods, Jean Baudrillard: the system of objects, Pierre Bourdieu: forms of capital, Veblen: conspicuous consumption); socio-cultural aspects of consumer spending

Module 6:
Socio-cultural aspects of economic development:
Impact of religion, caste, gender, ethnicity, family on economy, social background of business groups and entrepreneurship, debate on influence of social capital and public action on economic progress; social movements and economic development

Basic Reading List

- Dobbin, Franf. 2004, "Comparative and Historical Approaches to Economic Sociology" in Neil J. Smelser, and Richard Swedberg, (eds.) *Handbook of Economic Sociology,* Princeton: Princeton University Press.
- Durkheim, Emile, 1960, *The Division of Labour in Society*, Glencoe: The Free Press. (2nd edt: Chapter one & two, 3rd edt: Chapter one)
- Gerth H. H and C. Wright Mills, 1946, *From Marx Weber,* New York: Oxford. (Part III: Chapter 12th &13th)
- Smith-Doerr, Laurel and Walter W. Powell, 2005, "Networks and Economic Life" in Neil J. Smelser, and Richard Swedberg, (eds.) *Handbook of Economic Sociology,* Princeton: Princeton University Press.
- Streeck Wolfgang, 2004, "The Sociology of Labour Markets and Trade Unions" in Neil J. Smelser, and Richard Swedberg, (eds.) *Handbook of Economic Sociology,* Princeton: Princeton University Press.
- Weeden, Kim, 2002, "Why do some occupations pay more than others? Social Closure and Earning inequality in the United States", *American Journal of Sociology,* 108, (55-101).
- William P. Bridges and Robert L. Nelson 2001, "Economic and sociological approaches to Gender Inequality in Pay" in Mark Granovetter and R. Swedberg, (eds.) *The Sociology of Economic Life,* Boulder: Westview Press.
- Sen, Amartya, 2004, "How does Culture Matter?" in Vijayendra Rao and Michael Walton (eds.) *Culture and Public Action,* Delhi: Permanent Black.
- Wuthnow, Robert. 2004, "New Directions in the Study of Religion and Economic Life", in Neil J. Smelser, and Richard Swedberg, (eds.) *Handbook of Economic Sociology,* Princeton: Princeton University Press.

Additional Reading List:

- Kalpagam, U. 1993, Labour and Gender: Survival in Urban India. New Delhi: Sage.
- Kalpagam, U. Analytics of Work and Survival.
- Agarwal, B. 1999, The Gender and Environment Debate: Lessons from India in Menon, N. (Ed.), Gender and Politics in India. New Delhi: OUP.
- Banerjee, N. 1991, Indian Women in a Changing Industrial Scenario. New Delhi: OUP.
- Yadav, Sushma and A. Dutta Mishra (2003), *Gender issues in India: Some Reflections,* Radha Publications, New Delhi.

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