

MA/MSC IN ECONOMICS SYLLABUS UNDER CBCS

Department Of Economics, Gauhati University

(Effective from August, 2016)

COURSE CODE	First Semester
ECO 1016	Principles of Microeconomics (C)
ECO 1026	Elements of Macroeconomics (C)
ECO 1036	Quantitative Orientation *(C)
ECO 1046	Elements of Development Economics(C)
ECO 1054	Statistical Software for Data Analysis*[VA]
Second Semester	
ECO 2016	Advanced Microeconomics (C)
ECO 2026	Macroeconomic Theory and Policy (C)
ECO 2036	Quantitative Tools*(C)
ECO 2046	Development Economics : Theory and Practice(C)
ECO 2054	Quantitative Aptitude and Test of Reasoning [VA]
Third Semester	
ECO 3016	Elements of Econometrics*(C)
ECO 3026	Public Finance (C)
ECO 3036	International Economics(C)
ECO 3046	Financial System [E]
ECO 3056	Industrial Economics[E]
ECO 3066	Environmental Economics[E & O]
ECO 3074	Project Formulation and Execution [VA]
Fourth Semester	
ECO 4016	Indian Economy in the Global Context(C)
ECO 4026	Demography [E]
ECO 4036	Operations Research* [E]
ECO 4046	Econometric Methods*[E]
ECO 4056	Model Building and Simulation in Economics*[E]
ECO 4066	Agricultural and Resource Economics[E]
ECO 4076	Financial Operations & Management♦[E]
ECO 4086	Indian Economy: Post Independence Evolution and Present Perspective [O]
ECO 4094	Research Methodology for Social Science[VA]

Notes:

1. The first digit indicates the semester, the next two the course number and the fourth the credit per week the course carries
2. There will be four courses per semester plus a non-graded Value Added Course
3. (C)= Core, [E] =Elective, [O]=Courses open for students of other disciplines
[E-O] = Elective and Open for students of other disciplines
[VA]= Value Added Course
(Please refer to Clause 4a of CBCS regulations for details)
4. *These Papers will involve exercises using computers
5. ♦Paper ECO 4076 is available only for those students who had taken up Financial System (ECO 3046) in the third semester.

ECO 1016

Principles of Microeconomics

Unit 1: Theory of Production and Cost

Production function and related concepts – Isoquants and Substitution between Factors – Elasticity of Substitution – Returns to Scale and Returns to a Factor – Technical Progress and Production Function – Forms of Production Function; Cobb-Douglas, CES and Fixed coefficient Type – the Ideas of Partial and Total Factor Productivity - Single Decision of a Firm; Choice of Optimal Factor Combination – Expansion Path – Derivation of Cost Function from Production Function – Multi-product Firm: production Efficiency Locus, Production Possibility Frontier and Choice of Optimal Combination of Output of Products

Unit 2: Analysis of Consumer's Choice

A Review of Indifference Curve and Revealed Preference Approach – Violation of the Premises of Indifference curve Approach: Satiation and Lexicographical Ordering – Indirect Utility Function – Dual Properties of Utility and Expenditure Functions, Ray's Identity-ordinary and compensated demand curves and measures of welfare change – Linear Expenditure System.

Unit 3: Market Structure and Pricing of Products

A Review of Perfect Competition Equilibrium – Monopoly and its Regulation – Monopolistic Competition: Price-Output Equilibrium – Duopoly Models of Cournot, Bertrand and Stackelberg – Kinked Demand Curve Model of Oligopoly – Collusive Oligopoly: Price Leadership Models. - Contestable Markets.

Unit 4: Business Accounts and Managerial Theories of the Firm

Profit and Loss Account, Balance Sheet and Cash Flow Statements of a Firm, Break Even Analysis; A critique of the Traditional Theories of Firm –Contributions of Baumol, Morris and Williamson to Managerial Theories of the Firm

Recommended Readings:

1. Pindyck, R. & Rubinfeld, D.L., “Microeconomics”
2. Snider and Nicholson, “Microeconomics”
3. Ryan and Pearce, “Price Theory,” Macmillan.
4. Koutsoyiannis, A., “Modern Microeconomics”, Macmillan.
5. Anindya Sen, “Microeconomic Theory”, Oxford University Press.
6. Madalla and Miller, “Microeconomics”, McGraw Hill.
7. Mukherjee, S., “Business and Managerial Economics”

ECO 1026

Elements of Macroeconomics

Unit 1: A Review of Aggregate Income and its Determination

The Ideas of Income, Domestic Income and National Income; GDP as a Production Total and its sectoral composition, NDP as an Income Total, the Circular Flow and GDP as an Expenditure Total; Introduction to Equilibrium and Disequilibrium in the Macro-economy; Classical Model of Full Employment; Keynes Criticism of Classical theory, The Simple Keynesian Framework and the Multiplier

Unit 2: Income Determination with Money Market

Liquidity Preference and the Rate of Interest; the IS-LM framework and Policy Analysis, IS-LM Model with Flexible Prices; Real Balance Effect and Patinkin's Full Employment Equilibrium

Unit 3: Consumption Function

The Consumption Function Puzzle; The Relative Income Hypothesis; The Permanent Income Hypothesis; The Life Cycle Hypothesis; Random Walk Hypothesis; Consumption Theories and Policy Implications

Unit 4: Investment and Business Cycles

Firm Business Investment: The Rental Price of Capital, the Cost of Capital and Determination of Investment; Residential and Inventory Investment: nature and determinants; the Accelerator Model; Business Cycles as Multiplier Accelerator Interaction Process

Unit 5: Open Economy Macroeconomics

The Exchange rate and its Determination; Balance of Payment and its Adjustment under Fixed and Flexible Exchange Rate Regimes, Effectiveness of Devaluation; The Open Economy IS-LM Model; Capital Flow and the Mundell-Fleming Model; Foreign Trade Multiplier

Recommended Readings:

1. N. Gregory Mankiw, Macroeconomics
2. Brian Snowdon and H R Vane, Modern Macroeconomics
3. Raghavendra Jha, Macroeconomics for a Developing Economy
4. Soumen Sikdar, Principles of Macroeconomics
5. Don Patinkin, D., Money, Interest and Prices
6. Levacic and Rebman: Macroeconomics: An Introduction to Keynesian Neo-Classical Controversies
7. Ola Olson, Essentials of Advanced Macroeconomic Theory

ECO 1036

Quantitative Orientation

Unit 1: Classical Optimization

Unconstrained maxima and minima with a single explanatory variable – applications to cost minimization, revenue maximization, tax revenue maximization, profit maximization and equilibrium of firm, Unconstrained maxima and minima with more than one explanatory variables – applications to discriminatory monopoly, Multiproduct equilibrium, Multiplan equilibrium, equilibrium of firm with advertisement cost and subsidy.

Unit – 2: Optimization with Equality Constraint

Optimization with equality constraints, Lagrange's multiplier method – application to consumer's equilibrium and producer's equilibrium in factor market

Unit – 3: Integration

Applications relating to derivation of total functions from marginal functions, estimation of consumer's surplus, producer's surplus, problems relating to investment, capital formation and derivation of simple growth process (Domar).

Unit 4: Matrix Algebra and its Applications

Rank, Norm and Trace of a matrix, Partition matrix, Matrix inversion, Structure of input-Output table, Static Leontief system – Domestic and External sector

Unit – 5: Probability: Basic Ideas

Axiomatic Definition and derivation of Basic Probability Rules – Conditional Probability, Baye's Theorem (Concept only) – Random variable – Mathematical Expectation and Moments relating to Discrete random variables

Unit – 6: Theoretical Probability Distributions

Binomial, Poisson and Normal Distributions with Properties – Moment Generating Function – The Central Limit Theory (without Proof).

Recommended Readings:

1. A.C. Chiang, "Fundamental Methods of Mathematical Economics", McGraw Hill.
2. S. Baruah, "Basic Mathematics and its Economics Applications", MacMillan.
3. J. M. Henderson and R. E. Quandt, "Micro-economic Theory – A Mathematical Treatment."
4. R.G.D. Allen, "Mathematical Analysis for Economists."
5. Mouhammed, "Introduction to Mathematical Economics", Prentice Hall of India
6. Hoy. M. and others: Mathematical Economics
7. Yamane, Taro, "Statistics – An Introductory Analysis".
8. Hooda, P.R., "Statistics for Business and Economics", Macmillan.
9. Gupta, S.C. and Kapoor, U.K., "Fundamentals of Mathematical Statistics"
10. Nagar, A.L. and Das, R.K., "Basic Statistics", Oxford.
11. Salvatore, Dominick and Reagle, Darrick, "Statistics and Econometrics", TMH

ECO 1046

Elements of Development Economics

Unit – 1: Development and its Measurement

Problems in Defining Economic Development, Per Capita Income as an Index of Development, Alternative Measures of Development Gap: HDI, GDI and related indices.

Unit – 2: Poverty and Inequality

Poverty: Concepts and Measurement, Income Inequality: Axioms, Index and Measures, Redistribution with Growth

Unit – 3: Classical Development Theories

Theories of Evolution of a Capitalist Economy: Classical, Marx and Schumpeter, Theories of Persistence of underdevelopment: The Vicious Circle Theory, The Stages of Growth: Rostow

Unit – 4: Development Strategies

Big Push: Rosenstein-Rodan, Balanced Growth: Nurkse, Unbalanced Growth: Hirschman, Critical Minimum Efforts: Leibenstein.

Unit-5: Dualistic Pattern of Development

Unlimited Supply of Labour and the Dual Economy - Models of Arthur Lewis and Fei-Renis, Rural-Urban Migration: The Harris–Todaro Model, Core-Periphery Models - The Process of Cumulative Causation: Myrdal, Neo-Colonial Dependence Model

Unit – 6: Development Planning

The Concept and Types of Planning, Rationale for Planning in a Developing Economy, The Planning Process: Projection of Macro Variables, Input-Output Models and Sectoral Projections, Project Evaluation and Social Cost-Benefit Analysis, Plan Failures, Market Versus Planning, Planning in a Market Oriented Economy, Plan Models in India

Recommended Readings:

Barro & Salai-Martin, “Economic Growth”, Prentice Hall of India.
Basu, K., “Analytical Development Economics:”, OUP.
Meier, G.M., “Leading Issues in Economic Development”, OUP.
Roy, D., “Development Economics”, OUP.
Thirlwal, A. P. “Growth and Development” Palgrave
Todaro, M.P., “Development Economics”, Pearson.
UNDP, “Human Development Reports”, OUP.
World Bank, “World Development Reports”, OUP

ECO 1054
Statistical Software for Data Analysis and Presentation
(Value Added)

This course will give an idea to students about the use of computer for presenting and summarizing data. Students can learn appropriate use of diagrammatical and tabular presentation of information. The use of computer and other statistical software in computing basic statistical tools and other relevant statistical technique will also be covered in this course. There will be hands-on training for each student with single computer.

Unit 1: Presentation of data

Diagrammatic Presentation- One dimensional –single, subdivided, multiple deviation; Two dimensional- histogram, pie diagram; Three dimensional- rectangular, cube; Pictograms and cartograms, scatter, line and radar diagrams; Tabular Presentation -Single; Double, Multiple

Unit 2: Basic statistics

Frequency, Summation, maximum, Minimum, Mean, Median, Mode, standard deviation, skewness

Unit3: Statistical relations

Covariance; correlation- Bivariate, Partial, Rank, Correlation matrix; Simple Linear regression

ECO 2016

Advanced Microeconomics

Unit 1: Inter-temporal Choice and Choice under Uncertainty

Discounting and Present Value – Inter-temporal Consumption Decision – Inter-temporal Production Decision – Evaluation of Investment Projects – Determination of the Rate of Interest; Attitude towards Risk – Expected Utility – Measures of Risk Aversion – Certainty Equivalence and the Cost of Risk

Unit 2: Economics of Insurance and Information

Economics of Insurance – Asymmetric Information and Adverse Selection – Moral Hazard – Signaling and Screening - the Principal Agent Problem

Unit 3: Determination of Factor Prices

Pricing of Factors under Perfect Competition – Factor Share and Technical Progress – Backward Bending Supply Curve of Labour – Monopsony

Unit 4: General Equilibrium

Partial Versus General Equilibrium Approaches –Walrasian General Equilibrium System: Existence, Stability and Uniqueness of the Equilibrium - Tatonnement and Non-tatonnement Process–Arrow and Debreu re-specification of the Walrasian Economy – Idea of Fixed Point Theorems and their Application to Existence Proof – Uncertainty and the Contingent Markets – Ideas of Computable General Equilibrium

Unit 5: Welfare Economics

Pareto Optimality – The Fundamental Theorems of Welfare Economics – Market Failure: Externality and Public Good – Welfare Effects of Non-price Allocations and Price Control – Problem of Welfare Maximization: Compensation Principle, Social Welfare Function – Social Choice: Contributions of Arrow and Sen.

Recommended Readings:

1. Layard and Walters, “Microeconomic Theory”,
2. Snyder and Nicholson “Microeconomics”
3. Madalla and Miller, “Microeconomics,” Tata McGraw Hill.
4. Varian, Hall, “Intermediate Microeconomics.”
5. Hands, D.W., “Introductory Mathematical Economics”
6. Baumol, W.J., “Economic Theory and Operations Research”, Prentice Hall.
7. Sen, Amartya., “On Economic Inequality”

ECO 2026

Macroeconomic Theory and Policy

Unit 1: Money, Inflation and Unemployment

Inventory and Portfolio Balance Approaches to Demand for Money; Friedman's Restatement of the Quantity Theory of Money; Inflation-Unemployment Trade-off: the Philips Curve Analysis; Monetarists' Criticism of the Trade-off, Natural Rate of Unemployment and the Long Run Philip Curve; Adaptive versus Rational Expectations, New Classical School and the Policy Ineffectiveness Hypothesis

Unit 2: Supply of Money

Supply of Money and its Components, Inside and Outside Money, Determinants of Money Supply, High-powered Money, Money Multiplier, Money Supply Determination in an Open Economy

Unit 3: Advances in Business Cycle Theory

Theory of Real Business Cycles, Interpretation of the Labour Market, Importance of Technology Shocks, Neutrality of Money; New Keynesian Economics: Menu Cost Model, Recessions as Coordination Failure

Unit 4: Growth Theory

Determinants Growth, Harrod-Domor Model: Instability of Equilibrium, Solow's Neoclassical Model and Steady State Growth, the Alternative Theory: Kaldor's theory of Distribution and Growth

Unit 5: Further Issues in Growth Theory

The Convergence Debate, Role of Technical Progress, Learning by Doing, Role of Human Capital, Endogenous Growth Theories, Accounting for Sources of Economic Growth, Overlapping Generation Models

Recommended Readings:

1. N. Gregory Mankiw, Macroeconomics
2. Brian Snowdon and H R Vane, Modern Macroeconomics
3. Levacic and Rebman: Macroeconomics: An Introduction to Keynesian Neo-Classical Controversies
4. Soumen Sikdar, Principles of Macroeconomics
5. Ola Olson, Essentials of Advanced Macroeconomic Theory
6. David Romer, Advanced Macroeconomics
7. Debraj Ray, Development Economics
8. A P Thirlwal, Growth and Development

ECO 2036

Quantitative Tools

Unit – 1: Calculus for Dynamic Analysis

First and second order differential equation and its solutions – application to dynamic stability of market and simple growth process (Harrod-Domar), First order difference equation and its solution application of difference equation – lagged market model (Cobweb) and Harrod’s model of growth; Optimal Control Theory-
Basic Idea– Procedure – A few illustrative examples

Unit – 2: Optimization with inequality constraint

Linear programming, General formulation Transportation problem, diet problem and production problem – Simplex method of solution for well behaved and ill behaved functions (two variables, two constraints only) – Concept of duality, Formulation of dual equations.

Unit – 3: Game Theory

An overview of game theory, Nash equilibrium-economic application, Prisoner’s dilemma-economic application, Repeated games, Finitely repeated Prisoner’s Dilemma and Infinitely repeated Prisoner’s Dilemma.

Unit – 4: Sampling and Estimation

Concept of Sampling Distribution and Standard Error of a Statistic – Methods of Estimation – Principles of Moments, Least Square and Maximum Likelihood (Concepts only)

Unit – 5: Statistical Inference

Testing of Hypothesis: Type I and Type II Errors, One-tailed and Two-tailed Tests – Test based on Standard Normal, t and Chi-Square Distributions.

Recommended Readings:

1. A.C. Chiang, “Fundamental Methods of Mathematical Economics”, McGraw Hill.
2. S. Baruah, “Basic Mathematics and its Economics Applications”, MacMillan.
3. J. M. Henderson and R. E. Quandt, “Micro-economic Theory – A Mathematical Treatment.”
4. R.G.D. Allen, “Mathematical Analysis for Economists.”
5. Mouhammed, “Introduction to Mathematical Economics”, Prentice Hall of India
6. M. Metwally, “Mathematical Treatment of Micro-Economics.”
7. Hoy. M. and others: Mathematical Economics
8. Yamane, Taro, “Statistics – An Introductory Analysis”.
9. Hooda, P.R., “Statistics for Business and Economics”, Macmillan.
10. Gupta, S.C. and Kapoor, U.K., “Fundamentals of Mathematical Statistics”
11. Nagar, A.L. and Das, R.K., “Basic Statistics”, Oxford.
12. Salvatore, Dominick and Reagle, Darrick, “Statistics and Econometrics”, TMH

ECO 2046

Development Economics: Theory and Practice

Unit – 1: Financing of Development

Domestic Sources: Private Savings, Taxation, Financing by Money Creation and its Effects, The Dual Gap Analysis: Saving-Investment Gap and the Foreign Exchange Gap, Foreign Borrowing and the Debt Servicing Problem, Private Foreign Investment: Portfolio and Direct Investment, Effects on Host and Investing Countries – Direct Investment and Exploitation

Unit – 2: Trade and Development

Trade as an Engine of Growth, Trade and Aid, Gains from Trade, Terms of Trade and LDCs: Prebisch, Singer and Myrdal's Views.

Unit – 4: Environment and Development

Environment and Economy Interdependence, Poverty and Environmental Degradation, The Concept of Sustainable Development, Micro Planning for Environmental and Eco- Preservation, Watersheds and Joint Forest Management, Role of State in Environmental Preservation

Unit – 5: Economics of Education

Education and Economic Development, Cost –Benefit Analysis of Education, Measurement of Costs, Measurement of Benefits, The Rate of Return of Investment in Education, Social Rate of Return to Investment in Education, Public and Private, Financing of Education: Criteria for Adequacy of Education Finance, Traditional as well as Modern Concept of Adequacy, Financing of Education and Equity

Unit - 6: Health and Economic Development

Health Care and Human Resource Development, Cost-Benefit Analysis of Health Care facilities, Cost-effectiveness Analysis of Health care Facilities

Unit – 7: Role of Institutions in Development

Overview of growth models, Introducing institutions, Institutions as a determinant of growth, Institutional characteristics, Pitfalls of institutional reform

Recommended Readings:

1. Acemoglu, D and J Robinson, "The Role of Institutions in Growth and Development", Working Paper No.10, Commission on Growth and Development, World Bank.
2. Aghion, P and Steven N Durlauf (ed), "Handbook of Economic Growth", Volume 1A, Elsevier
3. Basu, K., "The Less Developed Economy:", OUP.
4. G. Psacharopoulos (ed), "Economics of Education", Pergamon Press.
5. Ian Beardwell and Len Holden (ed), "Human Resource Management – Contemporary Perspective", MacMillan.
6. Meier, G.M., "Leading Issues in Economic Development", OUP.
7. Thirlwall, A. P. "Growth and Development", Palgrave
8. Todaro, M.P., "Development Economics", Pearson.
9. World Bank, "World Development Reports", OUP.

ECO 2054
QUANTITATIVE APTITUDE AND TEST OF REASONING
(Value Added)

Unit 1: Mathematical Reasoning

Number series – Time and Calendar – Clock related – Number related

Unit 2: Numerical Ability

Arithmetic – Profit and Loss – Ratio and Proportion – Simple and Compound Interest - Discount

Unit 3: Data Interpretation

Tabulation – Bar graphs – Pie charts – Line graphs

Unit 4: Logical Reasoning

Alphabet series – Analogies – Classification - Coding and Decoding – Arranging in Order – Letter Digit term

Recommended Readings:

Aggarwal, R.S, “Quantitative Aptitude for Competitive Exams”, S.Chand

Aggarwal, R.S, “A Modern Approach to Logical Reasoning”, S.Chand

Trueman’s Specific Series “UGC NET/SET”

ECO-3016

Elements of Econometrics

Unit 1: Classical Linear Regression

The General Linear Regression Model – Quantitative and Qualitative Explanatory Factors – Least Square Assumptions – OLS Estimators and their Properties – The Coefficient of Determination – Some Results of Two and Three Variable Regression Models - Test of Hypothesis about Regression Coefficients – Prediction with the Linear Regression Equation

Unit2: Further Topics in Linear Regression

Consequences of Omission of Relevant Regressors and Inclusion of Irrelevant Regressors; Multicollinearity: Effects, Detection and Remedies, Dummy Variable Trap; Heteroscedasticity: Consequences, Tests and Remedy, Auto-correlated Disturbances: Consequences, Detection and Remedy

Unit 4: Introduction to Time Series Econometrics

The Idea of a Stochastic Time Series - Stationary and Non-stationary –Simple Random Walk and Random Walk with a Drift–Unit Root: Dickey Fuller Tests –Spurious Regression–Integrated Series and Simple Cointegration

Unit 5: Introduction to Simultaneous Equation Model

Structural and Reduced Forms – Simultaneity Bias – Informal Introduction to Identification Problem, Indirect Least Squares and Two Stage least Squares

Recommended Readings:

1. Christopher Daugherty, Introduction to Econometrics, OUP
2. DamodarGujarathi, Basic Econometrics, McGraw Hill.
3. Jeffery M Wooldridge, Introductory Econometrics: a Modern Approach
4. Johnston and Dinardo, Econometric Methods, McGraw Hill

ECO 3026

Public Finance

Unit-1 Role of the State in the Economy

The role of the government in the economy -allocation, distribution, and stabilization functions. Criteria for policy evaluation – equity, economic efficiency, paternalism and individual freedom and their tradeoff. The welfare cost of inefficient output.

Unit-2: The Provision of Public Goods

The nature of Public goods. Public Goods and market failure. The efficient provision of public goods. The Theory of Clubs, Inter-local competition and Tiebout Hypothesis. Inefficiency from externalities and its correction. Internalizing externalities: The Coase Theorem. Viability of government intervention.

Unit-3: The Theory of Public Choice

Preferred political outcome of a voter and Downs' Rational Voter Hypothesis. Majority Rule and the Median Voter Model. Cyclical Majority Phenomenon and Arrows Impossibility Theorem. Political Positioning and the Median Voter. Voting on multiple issues: Logrolling.

Unit-4: Public Expenditure

Public Expenditures on non-marketed goods, fixed-quantity subsidy for marketed goods, and excise subsidy-their impact on allocation and distribution. Program Budgeting and Cost-effectiveness Analysis. Public Project Appraisal: Cost-Benefit Analysis. Public expenditure on Health Care, Education and Retirement Security: Rationale and Emerging Issues.

Unit-5: Public Revenue

Concepts of Tax Ratio, Buoyancy, and Elasticity of taxation, Tax Credit, Exemption and Deduction, and Taxable Capacity.

Excess burden- Lumpsum Tax versus Price Distorting Tax, Efficiency Loss Ratio of a tax. Partial versus General Equilibrium Analysis: Incidence of Excise Taxes and General Sales Tax. The welfare cost of taxation. Goods and Services Tax (GST) and the Indian experience.

Unit-6 The Public Budget and Deficit Financing

Structure of a public budget. Concepts of Budget Deficits Burden of Deficit Finance- Ricardian Equivalence Theorem. Deficit financing and the Capital market: *The Crowding Out Effect*. The Welfare Cost of Deficit Finance. Rationale and methods of reducing deficits.

Unit-7. Fiscal Federalism

Principles of division of financial resources. Instruments of inter-government resource transfer. Horizontal and Vertical fiscal balance. Problems of Centre-State Financial Relations in India.

Recommended Readings:

1. Browning E K & Browning J M, Public Finance and the Price System, Pearson Education. Singapore.

2. Hyman D N, Public Finance: A Contemporary application of Theory to Policy, Thomson South Western.
3. Ulbrich H, Public Finance in Theory and Practice, Thompson South Western.
4. Mukherjee S, Ghose A & Nag N N, Analytical Public Finance. Public Economics-Public Choice-Public Policies, New Central Book Agency (P), Kolkata.
5. Ghosh A & Ghosh C, Public Finance, PHI Learning Private Limited, Delhi.
6. Musgrave & Musgrave., Public Finance in Theory and Practice, McGraw Hill, Singapore.
7. Cullis, John & Jones, Philip, Public Finance and Public Choice, McGraw Hill.

ECO 3036

INTERNATIONAL ECONOMICS

Unit 1: International Trade Theories

Factor Endowments and Trade: Heckscher-Ohlin Theory, Factor –Price Equalization Theorem and Income distribution- Stolper-Samuelson Theorem, The Specific-Factors Model.

Unit 2: Economic Growth and Changes in Trade

Shifts in Demand: Engel Effects and Engel's Law; Factor Growth-Rybczynski Theorem; Technical progress and Trade; Technological Change and Trade: Technology as Factors of Production; New Products and the Product Cycle.

Unit 3: Economies of Scale, Imperfect Competition, and International Trade

Monopolistic Competition and Trade-Economies of Scale and Comparative Advantage, Significance of Intra-industry Trade, Economies of Reciprocal Dumping

Unit 4: International Trade Policy

Tariff Analysis in General Equilibrium; Theory of Customs Unions; Export Barriers; Export Subsidies and Countervailing Duties, Dumping. Retaliation against Dumping; International Cartels.

Unit 5: International Monetary Order

International Monetary System --Gold Standard, Inter War Period, Bretton Woods System; Managed Flexibility, Floating Exchange Rate, Monetary Union, Optimum Currency Area,

Unit - 6: International Debt Crisis

Dimensions of Debt Crisis, International capital Movement, Capital Transfer Process, Recycling of Petro-Dollars, Causes of Debt Crisis, Secondary Market for Debt of Developing Countries, Alternative Policy Options.

Recommended Readings:

1. Chacholiades, M., "International Trade: Theory and Policy", McGraw Hill.
2. Kindleberger, Ridge, "International Economics", Irwin.
3. Soderston, B., "International Economics", Tata McGraw Hill.
4. Lipsey, R. G., "The Theory of Customs Union", Windfield.
5. Caves, R. E., J. A. Frankel and R. W. Jones, "World Trade and Payments", Pearson.
6. Krugman, P. R. and M. Obstfeld, "International Economics", Pearson.
7. Meade, J. F., "Theory of International Economic Policy", OUP.
8. Roy, P. N., "International Trade: Theory and Policy".

ECO 3046
Financial System
(Elective)

Unit-1: The Financial System

The nature of credit, Financial system and its Components: *Instruments, Markets, Institutions and Services*, The Functional Perspective of the Financial System, Financial System in Economic Growth and Global Integration.

Unit-2: Intertemporal Value of Money

Time Value of Money, Future Value: Single Cash Flow, Multiple Cash Flows, Annuity, Present Value: Single Cash Flow, Multiple Cash Flows, Annuity, Present Value, Net Present Value, Rate of Return, Internal Rate of Return

Unit-3: The Money Market

Structure and functions, Instruments in the money market, Call Money Market and its participants, Volatility in Call Rates, Money Market Intermediaries: *The Discount and Finance House of India and Money Market Mutual Funds*, Liquidity Management Instruments in the Money Market

Unit-4: The Capital Market

The Capital market: Its nature and functions, Primary Capital Market: Instruments of resource mobilization- *Public Issues: IPO & FPO, Right Issues, and Private Placement*, Resource mobilization from International Capital Market, Pricing of new issues: the Book Building process, Reverse Book Building and Green Shoe Option, Secondary Capital Market: Organization, Management and Membership, Trading & Settlement, *The Over the Counter Exchange of India*, The Depository System and its operation, Stock Market Index- Method of calculating the index, Mutual Fund and its functional classification, Net Asset Value

Unit 5: The Derivative Market

Nature of the Derivative Market, Traders and Instruments in a derivative market, Trading Strategies: Hedging with Index futures, Speculation Strategies and Strategies for Arbitrage

Unit-6: Valuation of Financial Assets

Concept of Value, The valuation of debt instruments: bonds with maturity-Yield to Maturity, Current yield, Yield to Call, Deep Discount Bonds, Perpetual Bonds, Interest Rates and Bond Values, Valuing stock: Value of a Preference Share, Ordinary Shares: Single Period and Multi-Period Valuation, Linkage between Share Price, Earnings and Dividends, The significance of Price-Earnings Ratio (P/E)

Unit-7: Banking Sector Operations and Management

Overview of bank operations: Banks as financial intermediaries, Sources of Funds of banks, Uses of Funds by banks, Off-balance sheet activities of banks, Regulation of banks: Capital Regulation, Operations Regulation, Bank Monitoring Measures undertaken by Regulators, Issues relating to government bailout, Reforms in Banking Sector in India.

Recommended Readings:

1. Pathak B. V. *Indian Financial System*, Pearson Education, Singapore.
2. Alexander G J, Sharpe W F & Bailey J V. *Fundamentals of Investments* Pearson Education, Singapore.
3. Madura J. *Financial Institutions and Markets*, Thomson South Western.
4. Gupta, S. B. *Monetary Economics: Institutions, Theory and Policy*, S Chand & Co, New Delhi.
5. Bodie Z, Merton R. C. & Cleeton D. L. *Financial Economics*. Pearson/ Prentice Hall.
6. Panday I.M. *Financial Management* . Vikas.
7. Bhole L. M. *Financial Institutions and Markets: Structure, Growth & Innovation*, Tata McGraw Hill, New Delhi

ECO 3056
INDUSTRIAL ECONOMICS
(Elective)

Unit 1: Introduction to Industrial Economics

Meaning, scope, need and significance of the study on Industrial Economics

Unit 2: Alternative Theories of the Firm

Profit Maximization – Sales Maximization – Managerial Theory – Behavioural Theory – Transaction Costs Theory.

Unit 3: Industrial Organization

Market Structure, Market Conduct and Market Performance – Meaning and their interrelation under different markets –Market Concentration and Monopoly Power – Definition and Measurement.

Unit 4: Diversification, Vertical Integration and Merger

Diversification, Vertical Integration and Merger – Meaning - Types - Motives - Measures of diversification, vertical integration and merger.

Unit 5: Pricing and Investment Decision

Theoretical considerations- Cost –plus pricing -Variable cost pricing - Target rate of return pricing –Pricing in Public Enterprises – Nature and Type of Investment Decisions – Methods of Project Evaluation – Risk and Uncertainty in Project Appraisal.

Unit 6: Industrial Finance

Financial Statements - Ratio Analysis and Interpretation – Industrial Finance: Types of Finance – Money and Capital Markets Commercial and Development Bank – Objectives and functioning – Impact of these Institutions on the Supply of Long and Medium Term Finance for the Industrial Sector and on the Financial Structure of the Corporate Sector, Its Implications.

Unit 7: Industrial Location Analysis

Determinants of Industrial Location – Economic theories of Industrial Location –Industrial locational trends in India.

Unit 8: India's Industrial Economy

Structure of India's industrial sector – MSME sector – India's corporate sector –Policy framework for India's industrial sector since independence.

Recommended Readings:

Barthwal, R. "Industrial Economics", Wiley Eastern.

Bain, J., "Industrial Organization", John Wiley.

Panagariya, A., "India – The Emerging Giant"

Koutsoyiannis, A., "Modern Microeconomics", Macmillan.

Sen, A., "Industrial Organisation", Oxford.

ECO 3066
Environmental Economics
(ELECTIVE/OPEN)

The primary objective of this paper is to introduce the students to environmental issues with an interdisciplinary focus. The paper will be especially appropriate for students with major in Economics, Political Science, Environmental Science and Biological Sciences

Unit –1: Environmental Economics as a sub discipline in Economics

Environmental Economics –Scope and Nature- Environmental Economics , Ecological Economics and Resource Economics.

Basic Concepts : Natural Resources-Renewable and Non-Renewable, Market Failure, Externality, Property Rights , Transaction costs, Pigouvian Tax – Environment as Public Goods- Open Access – The Tragedy of Commons.

Global Environmental Issues- Climate Change, Loss of Biodiversity, Ozone Depletion, Pollution Havens-

Unit –2: Environment and the Economy- the neoclassical perspective

Environment and the Economy : the neoclassical perspective- Role of natural environment on the economy-market as a provider of information on resource scarcity-price as an indicator of absolute, relative and emerging resource scarcity; Factor substitution possibilities , technical change-implications on resource scarcity and resource conservation. Economy and the environment-Neoclassical worldview.

Unit –3: Environment and the Economy-An ecological perspective

Environment and the Economy : An ecological perspective – Ecosystem structure,Ecosystem function-materials recycling-energy and thermodynamics, Ecological Succession, Ecology and its implications for the economy.

Unit – 4: Economics of Natural Resources Economic

Issues relating to use of Non-renewable Resources, Optimal Depletion – Issues relating to Renewable resources, Sustainable exploitation, Common Property Resources – Case studies (e.g Sacred groves)

Unit –5: Valuation of Environmental Goods and Services

Demand for environmental goods –ordinary goods vs. environmental goods- Willingness to pay and willingness to accept- Use and Nonuse Values; measuring demand-revealed preference and stated preference. Methods for measuring benefits of environmental improvement –the market pricing approach, the replacement cost approach. Hedonic Pricing approach-valuation of health risks; Household Production Function Approach-Aversive expenditure, Travel Cost method; Contingent Valuation Method

Unit –6: Pollution Control

Pollution Prevention, Control and Abatement – Command and Control and Market Based Instruments – Taxes Vs Tradable Permits ; International Conventions and Protocols ; Environmental Policy in India-Environmental Impact Assessment.

Unit –7: Environment and Development

Environment Development Trade off : Population, development and environmental degradation in the developing world -Poverty and Environment – Affluence and its contribution to environmental degradation Sustainable Development-Hartwick-Solow Approach, ecological economics approach-safe minimum standard approach; Sustainable National Income Accounting .

Recommended Readings:

1. Kolstad, Charles D., *Environmental Economics*, Oxford University Press.
2. Kolstad, Charles D.,(2011) *Intermediate Environmental Economics*, Oxford University Press.
3. Hanley, Shogren and White, *Environmental Economics*, Macmillan.
4. Shanker, U, *Environmental Economics*, Oxford University Press.
5. Bhattacharjya, R., *Environmental Economics*”, Oxford University Press.
6. Hussen, Ahmed, (2004)*Principles of Environmental Economics*,Routledge

ECO 3074
Project Formulation and Execution
[Value Added]

Unit 1: Preparing Research Proposal for Ph.D/ M.Phil Programmes

Meaning and Purpose, Structure of the format, Report Outline, Body of the report-Introduction, Review of literature, Methodology, description of study area.

Presentation Techniques: *Results and Discussion, Findings, Conclusion and Recommendation, References/ Bibliography*

Unit 2: Preparing Research Proposal for Academic Sponsorship

Meaning and Purpose, Structure of the format, Report Outline, Body of the report- Introduction, Statement of research problem, Review of literature and recent development, Inter-disciplinary/ Interdepartmental/Inter Institutional Relevance, Methodology, description of study area, Presentation Techniques: *Results and Discussion, Policy Implication, References, Budget, Duration.*

Unit 3: Preparing Research Proposal for Consultancy Services

Meaning and Purpose, Structure of the format, Report Outline, Body of the report- Introduction, Review of literature, Methodology, description of study area.

Dimensions of Study: Project Appraisal (*Cost-Benefit Analysis, Cost-Efficiency Analysis, Environmental Impact Assessment*).

Presentation Techniques: *Results and discussion, References*

Unit 4: Execution of different types of reports

Technical Report, Popular Report, Interim Report, Executive / Summary Report, Research Abstract

Unit 5: Preparation of budget

Meaning and Purpose, Content of budget, Guidelines of a budget

Unit 6: Preparation of Work Plan

Meaning and Purpose, content of a work plan

Readings:

Krishnaswami, O.R. (2003): Methodology of Research in Social Sciences, Himalaya Publishing House, Delhi

Kothari, C.R (2004): Research Methodology: Methods and Techniques, New Age International Publishers, Delhi

Baker, R.P and Howell, A.C (2003): The Preparation of Reports, Ronald Press, New York

ECO 4016

Indian Economy in the Global Context

CORE

Unit – 1: Global Economy: Concept and Evolution

Global Economy- Nature of Global Economy; Emergence and evolution of the Global Economy-Pre-Industrial Revolution to the Present Times.

Unit – 2: Global Economy: Key Issues

International Trade, Transnational Production,, Global Financial System, Global Division of Labour, Gender, Economic Development, Global Environmental change, Ideas, Security, Governance.

Unit – 3: Economic History of India in the Global Context-An Overview

Transition to colonialism-Colonial Times-Post Colonial –Post Independence-Post reforms.

Unit – 4: India’s Economic Reforms

Rationale for Economic Reforms – India’s Economic Reforms in the Global Context – Foreign Trade Policy – Convertibility of Rupee – Impact of WTO on Indian Economy – Foreign Investment and Multinational Corporations.-Privatisation and Competition – Financial Sector Reforms

Unit – 5: India: the Emerging Giant

Macroeconomic Indicators-GDP-Real Economy-Prices-Saving-Investment-Government Finance, Money and Finance, External Sector, Infrastructural Indicators; Human Development Indicators; Institutional Development in the Financial Sector; Competitiveness Indicators-India and the Global Financial Crisis

Recommended Readings:

1. Bardhan, P., “The Political Economy of Development of India”, OUP.
2. Brahmananda, P.R. and Panchamukhi, V.R., “The Development Process of Indian Economy”, Himalaya.
3. Jalan, Bimal (Ed), “The Indian Economy – Problems and Prospects”, Viking.
4. Kapila, Uma (Ed), “India’s Economic Reforms”, Academic Foundation.
5. Hazari, R.K., “Industrial Planning and Licensing Policy”, Final Report.
6. Sen, A. and Dreeze, J., “Economic Development and Social Opportunities”, OUP.
7. Wadhwa, C. (Ed), “Some Problems of India’s Economic Policy”, Tata McGraw Hill.
8. Rao, V.K.R.V., “India’s National Income, 1950-1980”, Sage.
9. Byres, T.J. (Ed), “The State, Development Planning and Liberalisation in India”.
10. O’Brien, Robert and [Marc Williams](#) Global Political Economy: Evolution

and Dynamics, Palgrave Macmillan

11. Roy Tirthankar, The Economic History of India, 1857-1947 Oxford

ECO 4026
Demography
[Elective]

Unit-1: Theories of population

The Malthusian Theory of population. Theory of Optimum Population, Theory of Demographic Transition, Theory of Becker and Easterlin, Henry Leibenstein's Selective Rationality Theory. Concept of Stable Population and Stationary Population. The Stable Population model, its vital rates and other characteristics.

Unit-2 : Vital Rates and the Life Table

Measures of Reproductively - Total Fertility Rate, Gross Reproduction Rate, and Net Reproduction Rate, Standardised Fertility and Mortality Rates, Different Approaches to Measuring Infant Mortality Rate. Concept of a Life Table. Relationship among the different life table functions.

Unit-3 : Nuptiality

Basic measures of nuptiality, Estimation of the singulate mean age at marriage

Unit-4 : Population Projection

Component method of projection of population at the national level. Projection of the economically active population

Unit-5 : Migration

Internal migration – concepts, determinants and consequences. Measures of internal migration . International migration – types, determinants and consequences. Migration models - Lebeinstein's law of migration, Everette Lee's theory of migration, Todaro's model of rural-urban migration, L-F-R model of migration

Unit-6 : Economically Active Population

Basic concepts and definitions. Female participation in the workforce.

Unit-7: Population Policy

Population policies affecting fertility in developed and less developed countries. Population policies and programmes in India.

Recommended Readings:

1. Shryock, H. and J.S. Seigal, "The Methods and Materials of Demography".
2. Thompson and Lewis, "Population Problems".
3. Bogue, D.J., "Principles of Demography".
4. Bhende, A. and T. Kantikar, "Principles of Population Studies".
5. Agarwala, S.N., "India's Population Problems".
6. Gupta, S.P. and V.K. Kapoor, "Fundamentals of Applied Statistics".

7. Ramkumar, R., "Technical Demography".
8. Barclay, "Techniques of Population Analysis". UNO, "the Determinants and Consequences of Population Trends

ECO 4036
Operations Research
[Elective]

Unit I:

Definition, features of Operations Research, scientific method in Operations Research, opportunities and shortcomings.

Unit II:

An overview of linear programming, formulation of some special problems, solution methods for the ill-behaved problems, solutions via dual, sensitivity analysis in linear programming and its various techniques, integer programming with special reference to the zero-one programming.

Unit III:

Non-linear Programming, formulation of problems, graphical solution method, Kuhn-Tucker conditions and solution by Kuhn-Tucker conditions.

Unit IV:

Transportation Problem, an overview of the transportation problem, balanced and unbalanced transportation problem, method of finding out initial solution by North-West Corner Method, Least Cost Method, and Vogel's Approximation Method, loop in transportation table, dual of transportation model, method of finding out optimal solution.

Unit V:

Queuing Theory, introduction, essential features of a queuing system, estimation of inter-arrival time distribution, Transient- State and Steady- State- distribution of Service Time, Pure Birth Process and Pure Death Process.

Unit VI:

Project Management, introduction, CPM and PERT technique, basic difference between the two, significance of using PERT/CPM, Phases of Project Management, PERT/ CPM Network Components and Precedence Relationships, Activity-on-Node(AON) and Activity-on-Arrow(AOA) network, errors and dummies in Network, Critical Path Analysis, Forward Pass Method and Backward Pass Method, Float of an activity and event.

Recommended Readings:

J K Sharma, *Operations Research Theory and Applications*, Macmilan

H A Taha, *Operations Research*, Pearson

A.M. Natarajan P. Balasubramani A. Tamilarasi, *Operations Research*, Pearson.

Martin J. Osborne, *An Introduction to Game Theory*, Oxford University Press.

ECO-4046
Econometric Methods
(Elective)

Unit 1: Generalised Least Squares and Maximum Likelihood Estimation

Non-spherical Disturbance and GLS – Feasible GLS and its Properties Seemingly Unrelated Regression Estimation; Maximum Likelihood Methods, Estimation and Properties – Likelihood Ratio, Wald and Scope Tests

Unit – 2: Non-Linear Estimation

Non-Linear Least Squares and Iteration process – Models with Binary Dependents Variables – Logit and Probit Models

Unit – 3: Distributed Lag Models

Lag Structure and Parameters – Koyck Model – Partial Adjustment and Adaptive Expectation Models – Estimation of Models with a Lagged Dependent Variable

Unit – 4: Simultaneous Equation Models

Formalization of Identification Problem - Order and Rank Conditions of Identification – Recursive Models – Methods of Estimation: IV, 2SLS, 3SLS and FIML–Simulation and Forecasting

Unit 5: Time Series Modeling

Univariate Time Series Modeling, -Autocorrelation Function and Correlelogram – Basic Features of AR, MA, ARMA and ARIMA models –Trend versus Difference Stationary - Co-integration, Error Correction Mechanism and ARDL Granger Causality and VAR

Unit 6: Introduction to Panel Data

Nature and Advantages of Panel Data – Modeling Issues: Fixed Effect versus Random Effects – Housman Test – Estimation methods

Recommended Readings:

1. Johnston and Dinardo, Econometric Methods, McGraw Hill
2. Pindyck and Rubinfeld, Econometric Models and Econometric Forecasts, McGraw Hill.
3. Greene, William, Econometric Analysis, Macmillan
4. Christopher Daugherty, Introduction to Econometrics, OUP
5. DamodarGujarathi, Basic Econometrics, McGraw Hill.
6. Jeffery M Wooldridge, Introductory Econometrics: a Modern Approach

ECO 4056
Model Building and Simulation in Economics
[Elective]

Unit 1: Introduction to Model Building

Basic principles of model building in economics - issues relating to specification, identification and estimation of models

Unit 2: Taxonomy of Models

Introduction to various types of models: mathematical models, econometric models and time-series models; models with micro-orientation, optimizing models and macro-econometrics; systematic outline of AGE models – demonstration using the Shoven-Walley model, macro-econometrics models – estimation demonstration using Klein's Model I, structure of Klein-Goldberger model, static and dynamic models, sectoral models; simulation models, simultaneous and recursive models.

Unit 3: Estimation and Evaluation of Models

Various methods of estimating macro, policy-oriented and programming models; testing the validity of models - principles and criteria.

Unit 4: Empirical and Policy Models built for India

Discussion of specific models – IEG-DSE, NCAER, RBI and other macro-econometric models

Unit 5: Simulations of Models: Static and Dynamic

Basic concepts in simulations, development and implementation of simulation modelling, design of simulation models, simulation of sectoral and macro models; examples of simulation modelling - queuing systems, simulation of inventory systems etc., optimization of simulation parameters, base results and subsequent scenarios, verification and validation of simulation results, ex-ante and ex-post simulations.

Recommended Readings:

1. Fair, R.C., Specification, Estimation and Analysis of Macro-econometric Models, Harvard University Press, Cambridge, 1984.
2. Kendall, M.G., 'Introduction to Model Building and its Problems' in Mathematical Model Building in Economics and Industry, 1968, London, Charles Griffin and Co., Ltd.
3. Tabor, M., Chaos and Integrability in Non-linear Dynamics: An Introduction, 1989, New York, John Wiley.
4. Granger, C.W.J., (ed.), Modelling Economic Series: Readings in Econometric Methodology, Clarendon Press, Oxford, 1990.
5. Granger, C.W.J. and Timo, T., Modelling Non-linear Economic Relationships, 1996, Oxford University Press.
6. Rubinstein, R., Simulation and the Monte Carlo Method. 1981, New York.
7. Hoover, S.V. and Ronald, F.P., Simulation: A Problem-Solving Approach, 1989, Massachusetts, Addison Wesley.
8. Woods, R.L. and Kent, L.L., Modelling and Simulation of Dynamic Systems, 1997, Prentice Hall, New Jersey.

ECO 4066
Agricultural Economics and Farm Management
[Elective]

Unit – 1: Introduction to Agricultural Economics

Nature and Scope of Agricultural Economics – Agricultural Economics and Resource Economics, Agricultural Economics and Environmental Economics; Primary Sector vs. Secondary Sector - Role of Agriculture in Economic Development -Interdependence between Agriculture and the Rest of the Economy.

Unit – 2: Farming Systems

Farming Systems-Subsistence farming, Peasant Farming-Chhayanovian Farm Household Model, Shifting Cultivation, Cooperative Farming, Commercial Farming.

Unit – 3: Farm Management

General management and Farm Management, Position and the role of a Farm Manager, Farming objectives, Farm Management Tasks-Planning, Organisation, Implementation, Control, the Decision Making Process in Farm Management-Steps in Decision Making, Farm Size and Productivity, Uncertainty and Risk, Rotation of Crops , Location of Crops. Farm Budgeting-Types.

Unit – 4: The Economics of Agricultural Production

Production Functions – Factor-Factor Relationships , Product-Product Relationships ; Discrete Production Functions – Continuous Production Functions -. Inverse Production Functions-Duality of Cost and Production

Unit-5: Agricultural Production Functions: Forms of Production Functions, Original Cobb Douglas Function-Early Generalizations, Cobb Douglas Type of Function - Profit Maximization with the Cobb Douglas Function-Duality and the Cobb Douglas Function; Spillman Production Function, Transcendental Production Function, Cobb Douglas Function with Variable Elasticities, Generalized Power Production Function.

Unit – 6: Agricultural Factor Markets

Land Market: Land Use and Land Prices, Lease Market – Land Tenure System ; Labour Market: Mobility of Labour – Segregation of Labour; Credit Market: Role of Capital in Agricultural Development ; Interlinked markets.

Unit – 7: Demand and Supply of Agricultural Products

Demand for Farm Products: Factors affecting Demand for Food, Engel law and Engel Elasticities – Supply of Agricultural Products – Supply of Individual Crops and Aggregate Supply – Marketed Surplus and Marketable Surplus – Cobweb Market Model, Nerlove's PAAE Model – Supply Response of Perennials Crops.

Unit – 8: Behavior of Agricultural Prices

Features of Agricultural Prices – Intra and Inter Seasonal and Inter-Year Price Behaviour —
Agricultural Price Indices – Agricultural Price Policy: Its Role and Functions – Sectoral
Terms of Trade and Economic Growth.

Recommended Readings:

1. Heady, E.O. “Economics of Agricultural Production and Resource Use”, Prentice Hall.
2. Heady, E.O. and Dhillon, J., “Agricultural Production Functions”, Kalyani.
3. Schultz, T.W., "The Economic Organisation of Agriculture", McGraw Hill.
4. Cohen, R., “The Economics of Agriculture”, Cambridge University Press.
5. Soni, R.N., “Leading Issues in Agricultural Economics”.
6. Fei, Ranis, “ Economic Growth: An Evolutionary Perspective”.
7. Ray, Debraj, “Development Economics”, OUP.
8. Debertin, David L. “Agricultural Production Economics “ Pearson Education
9. Kay, Ronald D. ,William M. Edwards, and Patricia A. Duffy. “ Farm Management” McGraw
10. Snodgrass M.M. and L.T.Wallace “Agriculture Economics and Resource Management”PrenticeHall of India Pvt. Ltd. New Delhi.
11. Reenen, M.J. Van J.A.H. Davel Farm Management -A Business approach University of South Africa Pretoria

Paper- 4076
Financial Operations & Management*
[Elective]

Unit-1. The Investment Setting

Securities, Risk & Return, Markets, and Financial Intermediaries.
Process of Investing: *investment policy, security analysis, portfolio construction, portfolio revision and portfolio evaluation.* Financial Goals: *Profit Maximization versus Wealth Maximization.* Trading in Securities: *types of orders, margin purchases, and short sales.*

Unit-2: Principles of Market Valuation

The law of One Price and Arbitrage. The valuation of debt instruments: Pure Discount Bonds. Coupon Bonds, Current Yield and Yield to Maturity. Interest Rates and Bond Values. Bond duration and Interest Rate Sensitivity.

Valuing stock: Value of a Common Stock and the Dividend Discount Model: Zero Growth, Constant Growth and Multiple Growth Models.

Linkage between Share Price, Earnings and Dividends. The significance of Price-Earnings Ratio

Unit-3: Measuring Risk and Return

Risk of a stock. Measures of risk: Volatility of a stock and a stock portfolio. Beta of a stock and a stock portfolio.

Portfolio Risk -Return Analysis: Two Asset Case. Efficient Portfolio and Mean-Variance Criterion.

The Capital Asset Pricing Model and its implications. The Arbitrage Pricing Theory. Determinants of Beta.

Unit-4: Principles of Risk Management

The Risk Management Process. Dimensions of risk transfer: Hedging, Insurance and its basic features. *Financial Guarantees, Caps & Floors on Interest Rates, Options as Insurance.* The Diversification Principle.

The Derivative Market. Traders in a Derivative Market; Hedgers, Speculators and Arbitrageurs. Instruments in the derivative market.

Unit-5: Mechanics of Futures Market

Forward and Futures Contracts. Convergence of Futures Price and Spot Price. Margin Operation. Traders and their Orders. Short and Long Hedges. Basis Risk. Cross Hedging Hedging Strategies with Interest Rate Futures and Stock Index Futures. Speculating with Interest Rate Futures and Stock Index futures. Arbitrage with Stock Index Futures. Risk of Trading Futures Contracts.

Unit-6: Options and Swaps

Call Option and Put Option. Combining Put, Call and Share: *Straddle, Strangle and Spread*.

Spread combining Long and Short Options.

Factors determining Option prices. The Binomial Option Pricing Model and the Black-Scholes Model for Call Options.

Nature of Swaps: *Currency Swaps and Interest Rate Swaps*

Unit-7: Bank Management and Performance Evaluation.

Interest Rate Risk and its Assessment. Methods to reduce Interest Rate Risk.

Credit Risk and its management through diversification. Measuring Market Risk and its management.

Valuation of Commercial Bank. Evaluating Bank Performance: Return on Assets and Return on Equity. Bank Failures.

- **Only students completing course ECO-3046 are eligible to opt for this course**

Recommended Readings:

1. Alexander G. J, Sharpe W. F. & Bailey J. V. (2001) *Fundamentals of Investments*. Pearson Education.
2. Madura J. (2006) *Financial Institutions and Markets*. Thomson.
3. Bodie Z, Merton R. C. & Cleeton D. L. (2009) *Financial Economics*. Pearson/ Prentice Hall.
4. Panday I.M.(2005) *Financial Management* . Vikas.
5. Hull J. C. & Basu S. (2010) *Options, Futures and Other Derivatives*. Pearson.

ECO 4086

Indian Economy: Post Independence Evolution and Present Perspective (Open Course)

(This paper has been designed to give a perspective on the Indian Economy to students of other disciplines. It is expected to be helpful for students who are preparing for competitive examinations. Moreover it is envisaged that it would give a general understanding of the basic issues of the Indian economy to the others)

1. Basic Concepts for Understanding an Economy:

Ideas of National and Domestic Income, Gross and Net Domestic Product, at Current and Constant Prices, the Rate of Growth of an Economy; Growth and Development, Per Capita Income as a Measure of Economic Development; the Notion of Purchasing Power Parity; Human Development and its Measurement, Inequality and its Measurement; Income Poverty and Poverty Head Count Ratio, Multi-Dimensional Poverty; Unemployment and Unemployment Rate; Inflation and Inflation Rate

2. Development Strategy in Post Independent India

Basic features of the Indian Economy at the time of Independence, The Strategy of Rapid industrialization through Planning and Expansion of the Public Sector, the trickle down effect theory, Performance of the Economy during 1951-80, Need for strategy change – Limited liberalization and special programmes targeting Rural Unemployment and Poverty, The Basic Idea of State versus Market Debate, Economic Liberalization and Opening up of the Economy, Growth and Developmental experience in the Post-liberalization period

3. Sectoral Policies and Experiences

Agrarian reforms, Green Revolution, the Agrarian Crisis: Composition of the service sector – The telecommunication revolution and the IT sector; The Tax System and Fiscal Reforms; The Capital Market, SEBI and the Stock Exchanges; the Banking and Insurance Sectors and Reforms

4. India and the Rest of the World

The Ideas of the balance of Payment, Current and capital Accounts, WTO and India, Trends in FDI and FII flows, The Present Exchange Rate System, The Post 2008 Global Economic Environment and India

Recommended Readings:

1. NCERT, *Evolution of the Indian Economy*, NCERT, New Delhi
2. ArvindPanaghariya, *India: the Emerging Giant*, Oxford University Press
3. UNDP, *Human Development Report 2010* (Technical Notes)[accessible from www.undp.org]
4. *Economic and Political Weekly*(relevant Issues)[topic-wise search in the achieve can be activated from www.epw.in. The full articles, if needed, can then be downloaded from www.jstor.org]
5. Ministry of Finance, Government of India, *Economic Survey* (Relevant volumes) [can be accessed from <http://indiabudget.nic.in>]

ECO 4094
Research Methodology for Social Science
[Value Added]

This paper is expected to provide an understanding of the basic principles and methods of research in Social Sciences. Students of Anthropology, Economics, History, Political Science, Sociology, Women's Studies may find it useful to develop a strong research foundation.

Unit – 1: Meaning of Research, Research Foundations and Research Motivations

Meaning of Research-Different definitions of Research; Research Foundations-Debating points- Abstract and Concrete Knowledge-Epistemological foundations-Quantitative and Qualitative Research-, Etic and Emic approaches; Research Motivations, Features, Norms and Assumptions

Unit – 2: Objectives and Significance of Research

Objectives of research, Research methods versus methodology, Research approaches - Types of research- Descriptive vs. Analytical, Applied vs. Fundamental, Quantitative vs. Qualitative ,Conceptual vs. Empirical ,Other types of research, Qualities of a researcher, Significance of research.

Unit – 3: Research Process

Formulating the research problem: Sources of Ideas-Literature Review, Library and Web-sources, Constructing Frameworks, Role of Theory-Choosing a Research Topic-Developing Research Questions/Hypothesis- preparing the research design; determining sample design; collecting data; execution of the project; analysis of data; hypothesis testing; generalization and interpretation, preparation of the report or presentation of the results

Unit – 4: Research Design

Features of research design , Concepts relating to research design ,Types of research design - exploratory research design- descriptive and diagnostic research design hypothesis-testing research design; Characteristics of a good research design .Case study research, Hypothesis and its testing, Sample survey and sampling methods

Unit-5: Data collection

Sources of data: Primary Data -Methods of collecting primary data; Sources of secondary data- Published sources , Unpublished sources.

Questionnaire and Sampling :Meaning of questionnaire. Drafting of questionnaire. Size of questions Clarity of questions Logical sequence of questions Simple meaning questions Other requirements of a good questionnaire , Meaning and essentials of sampling. Statistical Laws :the Law of Statistical Regularity , Law of Inertia of Large Numbers

Unit – 6: Data Processing

Statistical Analysis- Probability -Probability distribution -Binomial distribution -Poisson distribution -Normal distribution Testing of Hypothesis -Small sample Large sample test ,Chi-square test ; Statistical Applications

Unit – 7: Report Writing and Presentation

Structure and Components of Research Reports -Characteristics of a good report -Framework of a Report -Parts of a Research Report; Format and Presentation of a Report -Importance of Presentation of a Report -Common Components of a Format –Precautions-Presentation of Reports

Recommended Readings

1. Bhandarkar , P.L. and T.S. Wilkinson, *Methodology And Techniques Of Social Research*. Himalaya Publishing
2. Kothari, C.R., *Research Methodology: Methods and Techniques*, New Age International
3. Druckman , Daniel, *Doing Research*, Sage