

SEMESTER-I, ECONOMICS (H) - CC-I
: INTRODUCTORY MICROECONOMICS
Time – 3hrs F.M.: 100 [80 (End sem) +20 (Int)] Credit- 6

Course Description

This course is designed to expose the students to the basic principles of microeconomic theory. The emphasis will be on thinking like an economist and the course will illustrate how microeconomic concepts can be applied to analyze real-life situations.

Module I: Exploring the subject matter of Economics

Why study economics? Scope and method of economics; the economic problem: scarcity and choice; the question of what to produce, how to produce and how to distribute output; science of economics; the basic competitive model; prices, property rights and profits; incentives and information; rationing; opportunity sets; economic systems; Graphs in Economics.

Module II: Supply and Demand: How Markets Work, Markets and Welfare

Markets and competition; determinants of individual demand/supply; demand/supply schedule and demand/supply curve; market versus individual demand/supply; shifts in the demand/supply curve, demand and supply together; Equilibrium between supply and demand; elasticity of demand and determinants; computing price elasticity of demand; income and cross elasticity of demand; consumer surplus; producer surplus; market efficiency and market failure.

Module III: The Households

The consumption decision - budget constraint, consumption and income/price changes, properties of indifference curves; Equilibrium, income effect, substitution effect and price effect; Derivation of demand curve; Three applicants – Demand for Giffen goods, wages and labour supply, interest rate and household saving, Superiority of indifference curve analysis over traditional utility analysis.

Module IV: The Firm and Market Structures

Short run costs and output decisions; costs and output in the long run; Cost curves and their shapes in the short-run and in the long-run; Economics and diseconomies of scale; Perfect competition and pure competition; Equilibrium of farm and industry under perfect competition both in the short-run and in the long-run; pricing under monopoly; monopoly power; monopoly control.

Module V: Equilibrium in the labour market; The supply of labour- the trade-off between work & leisure. Land as a factor of production; Ricardian theory of rent; modern theory of rent, Linkages among factors of production.

Readings

1. N. Gregory Mankiw (2012): *Principles of Economics*, 6th edition, Cengage Learning India Private Limited, New Delhi
2. William A McEachern and SimritKaur (2012): *Micro Econ: A South-Asian Perspective*, Cengage Learning India Private Limited, New Delhi.
3. Karl E. Case and Ray C. Fair (2007): *Principles of Economics*, 8th Edition, Pearson Education Inc.
4. Joseph E. Stiglitz and Carl E. Walsh (2007): *Economics*, 4th Edition, W.W. Norton & Company, Inc., New York.

SEMESTER-I, ECONOMICS(H)-CC-II
: MATHEMATICAL METHODS FOR ECONOMICS I
Time - 3hrs F.M.: 100 [80 (End sem) +20 (Int)] Credit- 6

Course Description

This is the first of a compulsory two-course sequence. The objective of this sequence is to transmit the body of basic mathematics that enables the study of economic theory at the undergraduate level, specifically the courses on microeconomic theory, macroeconomic theory, statistics and econometrics set out in this syllabus. In this course, particular economic models are not the ends, but the means for illustrating the method of applying mathematical techniques to economic theory in general. The level of sophistication at which the material is to be taught is indicated by the contents of the prescribed textbook.

Module I: Preliminaries

Sets and Set Operations, relations; functions and their properties. Number systems.

Module II: Functions of real variable

Types of functions- constant, polynomial, rational, exponential, logarithmic; Graphs and graphs of functions; Limit and continuity of functions; Limit theorems

Module III: Derivative of a function

Rate of change and derivative; Derivative and slope of a curve; Continuity and differentiability of a function; Rules of differentiation for a function of one variable; Application- Relationship between total, average and marginal functions

Module IV: differentiation and Integration:

Partial differentiation techniques; Geometric interpretation of partial derivatives; Partial derivatives in Economics; Elasticity of a function – demand and cost elasticity, cross and partial elasticity. Integration: indefinite integrals, rules, integration by substitution by parts and partial functions. Economic application of integrals, producer surplus and consumer surplus.

Module V: Matrices and Determinants

Matrices: concept, types, matrix algebra, transpose, inverse, rank; Determinants: concept, properties, solving problems using properties of determinants, solution to a system of equations - Cramer's rule and matrix inversion method.

Readings:

1. K. Sydsaeter and P. J. Hammond (2002): *Mathematics for Economic Analysis*. Pearson Educational Asia
2. A. C. Chiang and K. Wainwright (2005): *Fundamental Methods of Mathematical Economics*, McGraw Hill International Edition.
3. T. Yamane (2012): *Mathematics for Economists*, Prentice-Hall of India

**SEMESTER-I/III, ECONOMICS-GE-I
: Money Banking**

Time – 3hrs F.M.: 100 [80 (End sem) +20 (Int)] Credit- 6

Unit- I: Concept and function of money, Alternative measures of money supply-their different components (M_1, M_2, M_3, M_4), Value of money-Quantity theory-Cash transaction, Cash balance, Keynesian Theory and Friedman's approaches

Unit-II:Inflation, types of inflation, Theories of Inflation Effects of Inflation, Deflation and Stagflation. Phillips Curve, Measures to control inflation, Inflation and unemployment

Unit-III: Financial Intermediaries: Concept & functions of banking and non-banking financial Institutions, Role and functions of Commercial bank, Credit Creation, Balance Sheet, Investment Policy of Commercial Banks, Money market-developed and underdeveloped: Indian Money Market

Unit-IV : Role and Functions of Central Bank, Credit Control Instruments, Objectives of monetary Policy, Limitations of monetary policy, Monetary policy of Reserve Bank of India.

References:

- 1.L.V.Chandler and S.M.Goldfed- The Economics of Money and Banking,7th Edition,1977
- 2.G. Crowther- An Outline of money
3. R.G.Sayers- Modern Banking, 1967 Oxford
4. Reserve Bank of India: Functions and Working,1970
5. S.B.Gupta- Monetary Economics, Chand Publication
6. S.K.Basu-a review of Current Banking Theory and Practices(Revised Macmillan)-1994
- 7.M. L. Seth- Money Banking & International Trade
8. R.R. Paul- Money Banking & International Trade, Kalyani Publishers, 2008
9. G. Krishnan Kutty- Money Banking, Concept Publishing Company, New Delhi, 1979

SEM.-I,ECO.-DSC-I IS SAME AS SEM-I, ECO.-CC-I

SEMESTER-II, ECONOMICS(H)-CC-III

: INTRODUCTORY MACROECONOMICS

Time – 3hrs F.M.: 100 [80 (End sem) +20 (Int)] Credit- 6

Course Description

This course aims to introduce the students to the basic concepts of Macroeconomics. Macroeconomics deals with the aggregate economy. This course discusses the preliminary concepts associated with the determination and measurement of aggregate macroeconomic variable like savings, investment, GDP, money and inflation.

Module I: Basic Concepts

Macro vs. Micro Economics; Why Study Macroeconomics? Limitations of Macroeconomics ; Stock and Flow variables, Equilibrium and Disequilibrium, Partial and General Equilibrium Statics – Comparative Statics and Dynamics ; National Income Concepts – GDP, GNP, NDP and NNP at market price and factor cost; Personal Income and Disposable personal Income; Real and Nominal GDP

Module II: Measurement of Macroeconomic Variables

Output, Income and Expenditure Approaches ; Difficulties of Estimating National Income; National Income Identities in a simple 2- sector economy and with government and foreign trade sectors; Circular Flows of Income in 2, 3 and 4-sector; economies; National Income and Economic Welfare ; Green Accounting.

Module III: Money

Evolution and Functions of Money, Quantity Theory of Money – Cash Transactions, Cash Balances and Keynesian Approaches, Value of Money and Index Number of Prices

Module IV: Inflation, Deflation, Depression and Stagflation

Inflation – Meaning, Causes, Costs and Anti-Inflationary Measures; Classical, Keynesian, Monetarist and Modern Theories of Inflation, Deflation- Meaning, Causes, Costs and Anti-Deflationary Measures, Depression and Stagflation; Inflation vs. Deflation

Module V: Determination of National Income

The Classical Approach - Say's Law, Theory of Determination of Income and Employment with and without saving and Investment; Basics of Aggregate Demand and Aggregate Supply and Consumption- Saving – Investment Functions, The Keynesian Approach – Basics of Aggregate Demand and Aggregate Supply and Consumption, Saving, Investment Functions; The Principle of Effective Demand; Income Determination in a Simple 2-Sector Model; Changes in Aggregate Demand and Income.

Readings:

1. N. Gregory Mankiw (2010): *Macroeconomics*, 7th edition, Cengage Learning India Private Limited, New Delhi
2. Richard T. Froyen (2005): *Macroeconomics*, 2nd Edition, Pearson Education Asia, New Delhi.
3. Errol D'Souza (2009): *Macroeconomics*, Pearson Education Asia, New Delhi.
4. Shapiro
5. D N Dwivedi

SEMESTER-II, ECONOMICS(H)-CC-IV

: MATHEMATICAL METHODS FOR ECONOMICS II

Time – 3hrs F.M.: 100 [80 (End sem) +20 (Int)] Credit- 6

Course Description

This course is the second part of a compulsory two-course sequence. This part is to be taught in Semester II following the first part in Semester I. The objective of this sequence is to transmit the body of basic mathematics that enables the study of economic theory at the undergraduate level, specifically the courses on microeconomic theory, macroeconomic theory, statistics and econometrics set out in this Syllabus. In this course, particular economic models are not the ends, but the means for illustrating the method of applying mathematical techniques to economic theory in general. The level of sophistication at which the material is to be taught is indicated by the contents of the prescribed textbook.

Module I: Linear models:

Input- Output Model: Basic concepts and structure of Leontief's open and static Input-Output model; solution for equilibrium output in a three industry model; The closed model. Linear programming problem; Graphic solution of Linear programming problem. Game theory-the Payoff matrix of a game; Saddle solution; mixed strategies.

Module II :Second and higher order derivatives:

Technique of higher order differentiation; Interpretation of second derivative; Second order derivative and curvature of a function; Concavity and convexity of functions; Points of inflection

Module III: Differentials and total derivatives:

Differentials and derivatives; Total differentials; Rules of differentials; Total derivatives; Derivatives of implicit functions

Module IV: Single and multivariable optimisation:

Optimum values and extreme values; Relative maximum and minimum; Necessary versus sufficient conditions - First and Second derivative tests; Economic applications thereof, First and second order condition for extremum of multivariable functions; Convex functions and convex sets

Module V: Optimisation with Equality Constraints:

Effects of a constraint; Finding stationary value – Lagrange-Multiplier method(Two variable single constraint case only): First and second order condition;The Bordered Hessian determinant.

Readings:

1. K. Sydsaeter and P. J. Hammond (2002): *Mathematics for Economic Analysis*. Pearson Educational Asia
2. A. C. Chiang and K. Wainwright (2005): *Fundamental Methods of Mathematical Economics*, McGraw Hill International Edition.
3. T. Yamane (2012): *Mathematics for Economists*, Prentice-Hall of India

SEMESTER-II/IV, ECONOMICS-GE-II
: Indian Economy

Time – 3hrs F.M.: 100 [80 (End sem) +20 (Int)] Credit- 6

Course Description

Using appropriate analytical frameworks, this course reviews major trends in economic indicators and policy debates in India in the post-Independence period, with particular emphasis on paradigm shifts and turning points. Given the rapid changes taking place in India, the reading list will have to be updated annually.

Module I: Introduction to Indian Economy

British Rule: exploitation and under development in India; features of Indian economy – natural resources, infrastructure, population;

Module II: Population and Human Development

Demographic trends and issues; education; health and malnutrition

Module III: National Income in India

National income: trends, sectoral composition and Sectoral Contribution to national income.

Module IV: Economic Planning in India

Economic planning: Planning Commission and its functions, Planning exercises in India, Objectives, Strategies and achievements and failure. NitiAyoga.

Module V: Current Challenges

Poverty: definition and estimate, poverty line, poverty alleviation programs; Inequality: income and regional inequality – causes and corrective measures; Unemployment: concepts, measurement, types, causes and remedies; Environmental challenges: Land, water and air.

Readings:

1. U. Kapila (2010): *Indian economy since Independence*. Academic Foundation, New Delhi
2. S. K. Misra and V. K. Puri (Latest Year): *Indian Economy — Its Development Experience*, Himalaya Publishing House, Mumbai
3. S. Chakraborty (): *Development Planning: The Indian Experience*. Clarendon Press.
4. R. Dutt and K. P. M, Sundharam(Latest Year): *Indian Economy*, S. Chand & Company Ltd., New Delhi.
5. A. Panagariya (2008): *India: the Emerging Giant*, Oxford University Press, New York
6. S. Acharya and R. Mohan (Eds.) (2010): *India's Economy: Performance and Challenges*, Oxford University Press, New Delhi.
7. I. J. Ahluwalia and I. M. D. Little(Eds.) (1998): *India's Economic Reforms and Development: Essays for Manmohan Singh*, Oxford University Press, New Delhi.

SEMESTER-II, ECONOMICS-DSC-II

: MICROECONOMICS I

Time – 3hrs F.M.: 100 [80 (End sem) +20 (Int)] Credit- 6

Course Description

The course is designed to provide a sound training in microeconomic theory to formally analyze the behaviour of individual agents. Since students are already familiar with the quantitative techniques in the previous semesters, mathematical tools are used to facilitate understanding of the basic concepts; this course looks at the behaviour of the consumer and the producer and also covers the behaviour of a competitive firm.

Course Outline

Module I: Consumer Theory I

Economic Models: Theoretical Model, Verification of Economic Model, General Feature of Economic Model, Development of Economic Theory of Value, Modern Developments; Consumer Preferences-indifference curves, case of perfect substitutes, complements, neutrals. The marginal rate of substitution, marginal utility and MRR, Estimating utility functions; The Many-Good case; Utility Maximization and Choice: The Two-Good Case (Graphical Analysis), The n-Good Case, Indirect Utility Function; Optimal choice and consumer demand; implications of MRS condition; Income offer curve and Engel curve; ordinary goods and Giffen goods; the offer curve and the demand curve.

Module II: Consumer Theory II

Slutsky Equation-Income and Substitution Effects: Demand Functions, Changes in Income, Changes in a Good's Price, The Individual's Demand Curve, Compensated (Hicksian) Demand Curves and Functions, Demand Elasticities, Consumer Surplus; Demand Relationships among Goods: The Two-Good Case, Substitutes and Complements, Net (Hicksian) Substitutes and Complements, Substitutability with Many Goods, Composite Commodities; Interpretations of consumer's surplus and producer's surplus; Calculation of consumer's surplus and producer's surplus; Calculating gains and losses.

Module III: Production Theory

Marginal Productivity, Isoquant Maps and the Rate of Technical Substitution, Production with One Variable Input (labour) and with Two-Variable Inputs, Returns to Scale, Four Simple Production Functions (Linear, Fixed Proportions, Cobb-Douglas, CES).

Module IV: Cost Functions

Definition of Costs, Cost Functions and its Properties, Shift in Cost Curves, Cost in the Short-Run and Long-Run, Long-Run versus Short-Run Cost Curves, Production with Two Outputs – Economies of Scope

Module V: Profit Maximization

The Nature and Behaviour of Firms, Profit Maximization, Marginal Revenue, Short-Run Supply by Price-Taking Firm, Profit Functions and its Properties, Profit Maximization and Input Demand – Single-Input Case and Two-Input Case.

Readings:

1. C. Snyder and W. Nicholson (2012): Microeconomic Theory: Basic Principles and Extensions, 11th Edition, Cengage Learning, Delhi, India.
2. R. S. Pindyck, D. N. Rubinfeld and P. L. Meheta (2009): Microeconomics, 7th Edition, Pearson, New Delhi.
3. H. R. Varian (2010): Intermediate Microeconomics: A Modern Approach, 8th Edition, W.W. Norton and Company/Affiliated East-West Press (India). The workbook by Varian and Bergstrom may be used for problems.

**SEMESTER-III ECONOMICS-CC-V
: MICROECONOMICS I**

Time- 3 hrs

F.M.-80+20

Credit- 6

Course Description

The course is designed to provide a sound training in microeconomic theory to formally analyze the behaviour of individual agents. Since students are already familiar with the quantitative techniques in the previous semesters, mathematical tools are used to facilitate understanding of the basic concepts; this course looks at the behaviour of the consumer and the producer and also covers the behaviour of a competitive firm.

Course Outline

Module I: Consumer Theory I

Economic Models: Theoretical Model, Verification of Economic Model, General Feature of Economic Model, Development of Economic Theory of Value, Modern Developments; Consumer Preferences-indifference curves, case of perfect substitutes, complements, neutrals. The marginal rate of substitution, marginal utility and MRR, Estimating utility functions; The Many-Good case; Utility Maximization and Choice: The Two-Good Case (Graphical Analysis), The n-Good Case, Indirect Utility Function; Optimal choice and consumer demand; implications of MRS condition; Income offer curve and Engel curve; ordinary goods and Giffen goods; the offer curve and the demand curve.

Module II: Consumer Theory II

Slutsky Equation-Income and Substitution Effects: Demand Functions, Changes in Income, Changes in a Good's Price, The Individual's Demand Curve, Compensated (Hicksian) Demand Curves and Functions, Demand Elasticities, Consumer Surplus; Demand Relationships among Goods: The Two-Good Case, Substitutes and Complements, Net (Hicksian) Substitutes and Complements, Substitutability with Many Goods, Composite Commodities; Interpretations of consumer's surplus and producer's surplus; Calculation of consumers surplus and producer's surplus; Calculating gains and losses.

Module III: Production Theory

Marginal Productivity, Isoquant Maps and the Rate of Technical Substitution, Production with One Variable Input (labour) and with Two-Variable Inputs, Returns to Scale, Four Simple Production Functions (Linear, Fixed Proportions, Cobb-Douglas, CES).

Module IV: Cost Functions

Definition of Costs, Cost Functions and its Properties, Shift in Cost Curves, Cost in the Short-Run and Long-Run, Long-Run versus Short-Run Cost Curves, Production with Two Outputs – Economies of Scope

Module V: Profit Maximization

The Nature and Behaviour of Firms, Profit Maximization, Marginal Revenue, Short-Run Supply by Price-Taking Firm, Profit Functions and its Properties, Profit Maximization and Input Demand – Single-Input Case and Two-Input Case.

Readings:

1. C. Snyder and W. Nicholson (2012): Microeconomic Theory: Basic Principles and Extensions, 11th Edition, Cengage Learning, Delhi, India.
2. R. S. Pindyck, D. N. Rubinfeld and P. L. Meheta (2009): Microeconomics, 7th Edition, Pearson, New Delhi.

3. H. R. Varian (2010): Intermediate Microeconomics: A Modern Approach, 8th Edition, W.W. Norton and Company/Affiliated East-West Press (India). The workbook by Varian and Bergstrom may be used for problems.

SEMESTER-III ECONOMICS-CC-VI

Core Economics Course 6: MACROECONOMICS I

Time- 3 hrs

F.M.-80+20

Credit- 6

Course Description

This course introduces the students to formal modelling of a macro-economy in terms of analytical tools. It discusses various alternative theories of output and employment determination in a closed economy in the short run as well as medium run, and the role of policy in this context. It also introduces the students to various theoretical issues related to an open economy.

Module I: Consumption Function

Consumption – Income Relationship, Propensities to Consume and the Fundamental Psychological Law of Consumption; Implications of Keynesian Consumption Function; Factors Influencing Consumption Function; Measures to Raise Consumption Function; Absolute, Relative, Permanent and Life – Cycle Hypotheses

Module II: Investment Function

Autonomous and Induced Investment, Residential Investment and Inventory Investment, Determinants of Business Fixed Investment, Decision to Invest and MEC, Accelerator and MEI Theories of Investment, Multiplier analysis.

Module III: Demand for and Supply of Money

Demand for Money – Classical, Neoclassical and Keynesian Approaches, The Keynesian Liquidity Trap and its Implications, Supply of Money – Classical and Keynesian Approaches, The Theory of Money Supply Determination and Money Multiplier, Measures of Money Supply in India

Module IV: Aggregate Demand and Aggregate Supply

Derivation of Aggregate Demand and Aggregate Supply Curves in the IS-LM Framework; Nature and Shape of IS and LM curves; Interaction of IS and LM curves and Determination of Employment, Output, Prices and Investment; Changes in IS and LM curves and their Implications for Equilibrium.

Module V: Inflation, Unemployment and Expectations, and Trade Cycles

Inflation – Unemployment Trade off and the Phillips Curve – Short run and Long run Analysis; Adaptive and Rational Expectations; The Policy Ineffectiveness Debate; Meaning and Characteristics of Trade Cycles; Hawtrey's Monetary Theory, Hayek's Over-investment Theory and Keynes' views on Trade Cycles

Readings:

1. N. Gregory Mankiw (2010): *Macroeconomics*, 7th edition, Cengage Learning India Private Limited, New Delhi
2. Richard T. Froyen (2005): *Macroeconomics*, 2nd Edition, Pearson Education Asia, New Delhi.
3. Errol D'Souza (2009): *Macroeconomics*, Pearson Education Asia, New Delhi.

SEMESTER-III ECONOMICS-CC-VII

Core Economics Course 7: STATISTICAL METHODS FOR ECONOMICS
Time- 3 hrs **F.M.-80+20** **Credit- 6**

Course Description

This is a course on statistical methods for economics. It begins with some basic concepts and terminology that are fundamental to statistical analysis and inference. It then develops the notion of probability, followed by probability distributions of discrete and continuous random variables and of joint distributions. This is followed by a discussion on sampling techniques used to collect survey data. The course introduces the notion of sampling distributions that act as a bridge between probability theory and statistical inference. The semester concludes with some topics in statistical inference that include point and interval estimation.

Module I: Data Collection and measures of central tendency and dispersion

Basic concepts: population and sample, parameter and statistic; Data Collection: primary and secondary data, methods of collection of primary data; Presentation of Data: frequency distribution; cumulative frequency; graphic and diagrammatic representation of data; Measures of Central Tendency: mean, median, mode, geometric mean, harmonic mean, their relative merits and demerits; Measures of Dispersion: absolute and relative - range, mean deviation, standard deviation, coefficient of variation, quartile deviation, their merits and demerits; Measures of skewness and kurtosis.

Module II: Correlation Analysis

Correlation: scatter diagram, sample correlation coefficient - Karl Pearson's correlation coefficient and its properties, probable error of correlation coefficient, Spearman's rank correlation coefficient, partial and multiple correlation.

Module III: Regression Analysis

Two variable linear regression analysis - estimation of regression lines (Least square method) and regression coefficients - their interpretation and properties, standard error of estimate

Module IV: Time Series and Index Number

Time Series: definition and components, measurement of trend- free hand method, methods of semi-average, moving average and method of least squares (equations of first and second degree only), measurement of seasonal component; Index Numbers: Concept, price relative, quantity relative and value relative; Laspey's and Fisher's index, family budget method, problems in construction and limitations of index numbers, test for ideal index number.

Module V: Probability theory

Probability: Basic concepts, addition and multiplication rules, conditional probability; Random variables and their probability distribution; Mathematical

expectations; Theoretical Distribution: normal distribution - Properties and uses, problems using area under standard normal curve

Recommended books:

1. Jay L. Devore (): *Probability and Statistics for Engineering and the Sciences*, Cengage learning, 2010.
2. S. C. Gupta (): *Fundamentals of Statistics*, Himalaya Publishing House, Delhi
3. Murray R. Spiegel (): *Theory & Problems of Statistics*, Schaum's publishing Series.

SEMESTER-IV ECONOMICS-CC-VIII

Core Economics Course 8: MICROECONOMICS II

Time- 3 hrs

F.M.-80+20

Credit- 6

Course Description

This course is a sequel to Microeconomics I. The emphasis will be on giving conceptual clarity to the student coupled with the use of mathematical tools and reasoning. It covers Market, general equilibrium and welfare, imperfect markets and topics under information economics.

Module I: The Partial Equilibrium Competitive Model

Market Demand, Timing of the Supply Response, Pricing in the Very Short-Run, Short-Run Price Determination, Shifts in Supply and Demand Curves – a Graphical Analysis, Mathematical Model of Market Equilibrium, Long-Run Analysis: Long-Run Equilibrium-Constant Cost Case, Shape of the Long-Run Supply Curve, Long-Run Elasticity of Supply, Comparative Statics An analysis of Long-Run Equilibrium, Producer Surplus in the Long-Run, Economic Efficiency and Welfare Analysis, Meaning of zero profits; Economic rent.

Module II: General Equilibrium and Welfare

Perfectly Competitive Price System, A Graphical Model of General Equilibrium with Two Goods, Comparative Statics Analysis, The Edgeworth Box: Pareto Efficient Allocations; Existence of equilibrium and efficiency; The welfare theorems and their implications.

Module III: Monopoly

Barriers to Entry, Profit Maximization and Output Choice, Monopoly and resource Allocation, Monopoly, Product Quality and Durability, Price Discrimination, Second Degree Price Discrimination through Price Schedules, Regulation of Monopoly, Dynamic Views of Monopoly.

Module IV: Imperfect Competition

Short-Run Decisions: Pricing and Output, Bertrand Model, Cournot Model, Capacity Constraints, Product Differentiation, Tacit Collusion, Longer-Run Decisions: Investment, Entry and Exit, Strategic Entry Deterrence, Signalling, How many firms Enter? Innovation. Kinked-Demand curve analysis of oligopoly.

Module V: Labour Markets

Allocation of Time, A mathematical Analysis of Labour Supply, Market Supply Curve for Labour, Labour Market equilibrium, Wage variation, Monopsony in the Labour Market, Labour Union

Readings:

1. C. Snyder and W. Nicholson (2012): Microeconomic Theory: Basic Principles and Extensions, 11th Edition, Cengage Learning, Delhi, India.
2. R. S. Pindyck, D. N. Rubinfeld and P. L. Meheta (2009): Microeconomics, 7th Edition, Pearson, New Delhi.
3. H. R. Varian (2010): Intermediate Microeconomics: A Modern Approach, 8th Edition, W.W. Norton and Company/Affiliated East-West Press (India). The workbook by Varian and Bergstrom may be used for problems.

SEMESTER-IV ECONOMICS-CC-IX

Core Economics Course 9: MACROECONOMICS II

Time- 3 hrs

F.M.-80+20

Credit- 6

Course Description

This course is a sequel to Macroeconomics I. In this course, the students are introduced to the long run dynamic issues like growth and technical progress. It also provides the micro-foundations to the various aggregative concepts used in the previous course.

Module I: Financial Markets and Reforms

Features of Financial Markets, Functions of Financial Markets, Banks and Financial Markets, Adverse Selection and Moral Hazard, Risk and Supply of Credit, The Determination of Banks Asset Portfolio, Financial Repression and Major Financial Sector Reforms in India, Lessons from the Global Financial Crisis and the Policy Response in India

Module II: Open Economy Macroeconomics

Balance of payments- Concept, Equilibrium and Disequilibrium, Measures to Correct Disequilibrium, Determination of Foreign Exchange Rate- the PPP Theory and its Implications, Fixed vs. Flexible Exchange Rates, The Short-run open economy Model, the basic Mundell-Fleming Model. International Financial Markets

Module III: Modelling Economic Growth

The Basic Harrod- Domar Model, Joan Robinson and the Golden Rule of Capital Accumulation, The Basic Solow Model, Theory of Endogenous Growth – the Rudimentary A-K Model

Module IV: Macroeconomic Policy

The Goals of Macroeconomic Policy and of Policy Makers, The Budget and Automatic Fiscal Stabilisers, The Doctrine of Balanced Budget and Keynesian Objections; Concepts of Budget, Revenue and Fiscal Deficits, Fiscal Policy: Objectives and Limits to Discretionary Policy, The Crowding –Out Hypothesis and the Crowding – in Controversy Meaning, Scope and Objectives of Monetary Policy, Instruments of Monetary Policy, the Transmission Mechanism of Monetary Policy, Rules vs. Discretion in Monetary Policy, Implications of Targeting the Interest Rate, Limits to Monetary Policy

Module V: Schools of Macroeconomic Thought and the Fundamentals of Macroeconomic Theory and Policy

Classics, Keynes, Monetarists, New Classicals and New Keynesians: (i) Keynes vs. the Classics – Aggregate Demand and Aggregate Supply, Underemployment Equilibrium and Wage Price Flexibility, (ii) Monetarists and Friedman’s Reformulation of Quantity Theory, Fiscal and Monetary Policy: Monetarists vs. Keynesians, (iii) The New Classical View of Macroeconomics and the Keynesian Countercritique, (iv) The New Keynesian Economics with reference to the Basic Features of Real Business Cycle Models, the Sticky Price Model.

Readings:

1. N. Gregory Mankiw (2010): *Macroeconomics*, 7th edition, Cengage Learning India Private Limited, New Delhi
2. Richard T. Froyen (2005): *Macroeconomics*, 2nd Edition, Pearson Education Asia, New Delhi.
3. Errol D’Souza (2009): *Macroeconomics*, Pearson Education Asia, New Delhi.

SEMESTER-IV ECONOMICS-CC-X

Core Economics Course 10: Public Economics

Time- 3 hrs

F.M.-80+20

Credit- 6

Course Description

Public economics is the study of government policy from the points of view of economic efficiency and equity. The paper deals with the nature of government intervention and its implications for allocation, distribution and stabilization. Inherently, this study involves a formal analysis of government taxation and expenditures. The subject encompasses a host of topics including public goods, market failures and externalities. The paper is divided into two sections, one dealing with the theory of public economics and the other with the Indian public finances.

Module I: Introduction to public finance

Public Finance: meaning and scope, distinction between public and private finance; public good versus private good; Principle of maximum social advantage; Market failure and role of government;

Module II: Public Expenditure

Meaning, classification, principles, cannons and effects, causes of growth of public expenditure, Wagner's law of increasing state activities, Peacock-Wiseman hypotheses

Module III: Public Revenue

Sources of Public Revenue; Taxation - meaning, cannons and classification of taxes, impact and incidence of taxes, division of tax burden, the benefit and ability to pay approaches, taxable capacity, effects of taxation, characteristics of a good tax system, major trends in tax revenue of central and state governments in India

Module IV: Public Budget

Public Budget: kinds of budget, economic and functional classification of the budget; Balanced and unbalanced budget; Balanced budget multiplier; Budget as an instrument of economic policy. Fiscal policy and economic stability.

Module V: Public Debt

Sources, effects, debt burden – Classical, Ricardian and other views, shifting - intergenerational equity, methods of debt redemption, debt management, tax verses debt;

Readings:

1. J. Hindriks and G. Myles (2006): *Intermediate Public Economics*, MIT Press.
 2. R. A. Musgrave and P. B. Musgrave (1989): *Public Finance in Theory and Practices*. McGraw Hill
 3. B. P. Herber (1975): *Modern Public Finance*.
- B. Mishra (1978): *Public Finance*, Macmillan India limited.

SEMESTER-IV ECONOMICS-SEC-II **SKILL ENHANCEMENT COURSE – II**

COMPUTER APPLICATIONS FOR DATA ANALYSIS IN ECONOMICS		
Time- 2 hrs	F.M.-40+10	Credit- 2

Module-1: Data Management:

Creating a data file, Defining the variable, Entry of data, Opening an existing file, Inserting variables, Inserting cases, Sorting cases, Spitting file, Selecting cases, Listing cases. Data Transformation: Computing new variables, Recording variables, Ranking cases.

Module-2: Charts:

Bar charts, Linecharts, Pie charts, Descriptive statistics: Computing summary measures, Cross tabulations.

Module-3: Correlation Analysis:

Bivariate and Partial Correlations. Rank correlation.

Module-4: Regression Analysis:

Regression equations, Significance of regression coefficients.

Reading:

1. Enjoy Statistics with SPSS – by Kiran Pandya and Smruti Bulsari, New Popular Prakashan, Surat.

SEM-III DSC-III IS SAME AS CC-III
SEM-IV DSC-IV IS SAME AS CC-VI
