COURSES OF STUDIES
(Under CBCS)

For M.A. Programme in Economics
(Syllabus of Courses Effective from the Academic Year: 2015-16)

Syllabus of Courses to be Offered
(Core Courses, Department Elective Courses & Open Elective Courses)

DEPARTMENT OF ECONOMICS
SCHOOL OF SOCIAL SCIENCES
CENTRAL UNIVERSITY OF ORISSA
KORAPUT, ODISHA, INDIA
# Syllabus for M.A. Programme in Economics

## Central University of Orissa, Koraput

## COURSE STRUCTURE

### M.A. Programme in Economics

#### SEMESTER-I

<table>
<thead>
<tr>
<th>COURSE CODE</th>
<th>NATURE OF COURSE</th>
<th>COURSE TITLE</th>
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<tbody>
<tr>
<td>ECO 401</td>
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**OPEN ELECTIVE-I**

(ANY ONE FROM THE FOLLOWING COURSES OR ANY OTHER COURSE FROM OTHER DEPARTMENTS OF THE UNIVERSITY)

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#### SEMESTER-II

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**OPEN ELECTIVE-II**

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#### SEMESTER-III

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**OPEN ELECTIVE-III**

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- Elective courses to the students of Department of Economics and to the students of other departments will be offered subject to the availability of the faculty members in the department.
- Elective courses will be offered subject to minimum intake of five students per a particular course.
### SEMESTER-IV

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DEPARTMENT ELECTIVE-I

DEPARTMENT ELECTIVE-II

### LIST OF DEPARTMENTAL ELECTIVE COURSES

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**Note:** The word “Prerequisite” means, the candidate should have passed in the specified prerequisite course(s) to register in that particular course(s). For example, if a student wants to register in ECO 412 in 2nd semester, he/she must have passed ECO 403 in 1st semester.
COURSE DESCRIPTION

SEMESTER-I

COURSE NAME: MICROECONOMIC ANALYSIS
COURSE CODE: ECO 401

Nature of Course: Core
Prerequisite: None

MODULE-I: THEORY OF CONSUMPTION

MODULE-II: THEORY OF PRODUCTION, COST AND REVENUE

MODULE-III: PERFECT COMPETITION, MONOPOLY AND MONOPOLISTIC COMPETITION

MODULE-IV: ALTERNATIVE THEORIES OF THE FIRM
READING LIST
1. Layard, P.R.G. and A.W. Walters (1979), Microeconomic Theory, McGraw Hill.

COURSE NAME: MACROECONOMIC ANALYSIS
COURSE CODE: ECO 402

Nature of Course: Core Prerequisite: None

MODULE-I: NATIONAL INCOME
Circular Flow of Income in two-, three- and four-sector economy; Measurement of National Income; National income and economic welfare. Theory of income and employment-Classical theory of income and employment; Keynes theory of employment. Determination of national income in two sector basic model-Expenditure approach and investment-saving approach; Determination of national income in three sector model and four sector model

MODULE-II: CONSUMPTION FUNCTION
Keynes’ psychological law of consumption — implications of the law; short-run and long-run Consumption function; Empirical evidence on consumption function; Income-consumption Relationship — absolute income, relative income, life cycle and permanent income hypotheses

MODULE-III: INVESTMENT FUNCTION
Determinants of investment- Marginal efficiency of capital and Rate of interest ;Marginal efficiency of investment and level of investment; The accelerator and investment behavior; The investment multiplier ;Multiplier- accelerator interaction.

MODULE-IV: DEMAND FOR MONEY
Classical approach to demand for money — Quantity theory approach, Fisher’s equation, Cambridge quantity theory, Keynes’s liquidity preference approach, transaction, precautionary and speculative demand for money — aggregate demand for money, Post-Keynesian approaches to demand for money —Approaches of Baumol ,Tobin, Patinkin and Friedman.
READING LIST
10. Shapiro, E. (1996), Macroeconomic Analysis, Galgotia Publications, New Delhi

COURSE NAME: MATHEMATICS FOR ECONOMICS
COURSE CODE: ECO 403
Nature of Course: Core
Prerequisite: None

MODULE-I: INTRODUCTION AND REVIEW
Introduction and importance of mathematics for economics, Review of the number system, elementary co-ordinate geometry, theory of sets, relations and functions, solution of linear and quadratic equations, theory of graphs and limit of a function at a point

MODULE-II: MATRIX ALGEBRA AND DETERMINANT
Basic of matrix, Matrices Elementary operations, types, Rank of matrix; matrix inversion; Solution of simultaneous equations; Crammer’s rule, vectors, the evaluation and properties of determinants.
Some applications in economics (SAE) partial equilibrium market model, national income model

MODULE-III: DIFFERENTIAL CALCULUS
Principles of differentiation; rules of differentiation; differentiation of implicit functions; Partial and total differentiation; application of optimization-- maxima and minima without constraints; maxima and minima subject to constraints, Economic application of differentiation, partial differentiation.

MODULE-IV: INTEGRAL CALCULUS AND LINEAR PROGRAMMING
Dynamics and integration; Principles of integration; Indefinite and definite integrals; Application of integrals in economics, Consumer surplus and producer surplus
Linear programming, Concept and formulation of LP problems, Solutions of LP: Graphical and Simplex methods
READING LIST

COURSE NAME: STATISTICS FOR ECONOMICS
COURSE CODE: ECO 404

Nature of Course: Core
Prerequisite: None

MODULE-I: INTRODUCTION: DATA AND STATISTICS
Introduction and Importance of Statistics in Economics; Sources and limitation of Secondary Data; Need for collecting Primary data, Graphical Presentations of data, Sampling Design.

MODULE-II: DESCRIPTIVE STATISTICS
Descriptive Statistics- Measures Of Central Tendency, Dispersion; Movement, Skewness, Kurtosis, Simple Correlation and Regression.

MODULE-III: PROBABILITY AND EXPECTATION
Probability theory: Different Concepts and Approaches, Concept of Random Variable, Probability distribution: Bi-nominal, Poisson, and Normal.

MODULE-IV: THEORY OF ESTIMATION
Concept of an estimator and its sampling distribution, Proprieties of a good estimator; Formulation of statistical hypotheses --- Null and alternative ; Goodness of fit ; Confidence interval and level of significance. Statistical inference and hypothesis testing, Z test, Small Samples: T test, F test, Chi square test.

READING LIST
5. Gupta, S P (1978), Statistical Methods, Sultan Chand and Sons, Delhi.
6. Gupta C B (1957), An Introduction to Statistical Methods, Vikas Publishing House, Delhi

**COURSE NAME: ENVIRONMENTAL ECONOMICS**  
**COURSE CODE:** ECO 405

**Nature of Course:** Elective  
**Prerequisite:** None

**MODULE-I: ECONOMY AND ENVIRONMENT**
The historical development of environmental economics– Early economic paradigms and the Environment, Post war economics and the rise of environmentalism, Interaction Between Ecological and Economic Systems; Environment-Development-Poverty Nexus, Institutional economics Paradigm, The market model of environmental values;

**MODULE-II: ENVIRONMENT AND SUSTAINABLE DEVELOPMENT**
The concept of sustainable development, Measuring of sustainable development, sustainable macroeconomics accounting of national income and wealth, Green accounting, The environment Kuznets curve, theory of Krutilla-Fisher Equation for preservation or development; Environmental cost-benefit Analysis for sustainable development, Rationale of discounting future in the context of sustainability; Endogenous growth theory and sustainable development; Technological change and environment

**MODULE-III: ENVIRONMENTAL VALUATION**
Meaning of environmental valuation, the uses of economic value, costs, benefits, willingness to pay and willingness to accept, Total economic value, Option value, Existence value, Empirical measures of option and existence value, Total economic value and decision making; Description of valuation methodologies: Revealed preference versus stated preference, hedonic price approach, Household production function, Travel cost approach, Defensive and Contingent valuation method.

**MODULE-IV: THE ECONOMICS OF POLLUTION**
The optimal level of pollution, Pollution as externality, alternative definitions of pollution, The market achievement and optimal pollution, Property rights and market bargain theorems, Coase theorem. The optimal pigovian tax, Pollution charges and abatement costs, Pollution reduction subsidies, Marketable pollution permits, The theory of marketable permits, The advantages of marketable permits, Types of permit system, Permit trading in practice.
READING LIST

COURSE NAME: INSTITUTIONAL ECONOMICS
COURSE CODE: ECO 406
Nature of Course: Elective
Prerequisite: None

MODULE-I: BASIC INTRODUCTION TO INSTITUTIONAL ECONOMICS
Institutional Economics as a departure from Neo-Classical and Marxian Economics, Historic development of Institutional Economics, Old and New Institutional Economics, Core issues in New Institutional Economics

MODULE-II: PROBLEMS OF INFORMATION ASYMMETRY
Prisoner’s dilemma and Nash equilibrium, Assurance problem, Principal-Agent Problem, Problem of Adverse Selection, Problem of Moral Hazard, Market for Lemons, Market Signalling.

MODULE-III: PROPERTY RIGHTS ISSUES

MODULE-IV: TRANSACTION COSTS AND BOUNDED RATIONALITY
Issues relating to transaction costs, Social cost vis-à-vis individual costs, Identification and measurements of transaction costs, Coase Theorem, Bounded Rationality, Public Policy, Insurance Sector, Social issues, Ecological and Environmental Issues.
READING LIST

COURSE NAME: ENERGY ECONOMICS
COURSE CODE: ECO 407
Nature of Course: Elective    Prerequisite: None

MODULE-I: INTRODUCTION TO ENERGY ECONOMICS

MODULE-II: ENERGY AND DEVELOPMENT

MODULE-III: ENERGY CONSERVATION AND ENVIRONMENT

MODULE-IV: INDIA’S ENERGY PROFILE
Indian Energy Sector - Organizational Structure - Energy Supply (Coal, Lignite, Oil, Gas and Powers - Hydro, Nuclear, Thermal) - Energy Demand (Agriculture, Industry, Transport, Domestic, etc) - Renewable Energy Sources and Technology (Solar, Wind, Biogas, Biomass,
-Energy under Five Year Plans - Energy Issues and Policy Options for India.

READING LIST
1. Agarwal, M.C. and Monga , J.R. - Economic and Commercial Geography, (National
Delhi, 1990).
Holland, 1993).
5. Munasinghe,M and Meier, P - Energy Policy and Modeling (Cambridge University Press, UK,
1993).
7. Raikhy, P. S. and Parminder Singh., Energy Consumption in India - pattern and Determinants
(Deep and Deep, New Delhi, 1990).
8. Sankar U, Public Sector Pricing: Theory and Applications (IEA Trust for Research and
9. TERI - Teri Energy Data Directory and Year Book 2005-06 (The Energy Research Institute,
2005).
Perspectives (Harper and Row, New York, 1997).

SEMESTER-II

COURSE NAME: ADVANCE MICROECONOMIC ANALYSIS
COURSE CODE: ECO 408

Nature of Course: Core Prerequisite: None

MODULE-I: OLIGOPOLY AND ECONOMIC BEHAVIOUR OF FIRM
Oligopoly–Price and Output Determination; Non-collusive oligopoly; Homogeneous Product-
Cournot & Stackelberg model; Non-homogeneous Product; Chamberlin’s model & the kinked
demand curve model. Collusive Oligopoly; Cartels, mergers, and price leadership.

MODULE-II: THEORY OF DISTRIBUTION
Marginal productivity theory, Modern Theory of distribution, Wage Determination under
Collective Bargaining, Theory of Profit; Dynamic Theory, Innovation Theory, Risk and

MODULE-III: WELFARE ECONOMICS
Pigovian welfare economics; Pareto optimal conditions; Value judgement; Social welfare
function; Compensation principle; Inability to obtain optimum welfare–Imperfections, market
failure, externalities, decreasing costs, uncertainty and non-existent and incomplete markets; Theory of second best—Arrow’s impossibility theorem.

**MODULE-IV: GENERAL EQUILIBRIUM**
Partial and General Equilibrium, Input-output approaches to general equilibrium, General Equilibrium of consumption, production and exchange, Existence, Stability and uniqueness of equilibrium and general equilibrium.

**READING LIST**
3. Layard, P.R.G. and A.W. Walters (1979), Microeconomic Theory, McGraw Hill.

**COURSE NAME: ADVANCE MACROECONOMIC ANALYSIS**

**COURSE CODE- ECO 409**

Nature of Course: Core | Prerequisite: None

**MODULE-I: SUPPLY OF MONEY**
Concept of money supply; mechanistic model of money supply; behavioral model of money supply determination, RBI approach to money supply; money supply determination in an open economy; control of money supply.

**MODULE-II: NEO-CLASSICAL AND KEYNESIAN SYNTHESIS**
Neo-classical and Keynesian views on interest; The IS-LM model; Extension of IS-LM model with government sector; Relative effectiveness of monetary and fiscal policies.

**MODULE-III: MACROECONOMICS IN AN OPEN ECONOMY AND NEW CLASSICAL MACROECONOMICS**
Mundell-Fleming model — Asset markets, expectations and exchange rates; fixed v/s flexible exchange rates; monetary approach to balance of payments. The new classical critique of micro foundations, the new classical approach; Policy implications of new classical approach — empirical evidence.
MODULE-IV: THEORY OF INFLATION AND BUSINESS CYCLES
Classical, Keynesian and Monetarist approaches to inflation; Structuralist theory of inflation; Philips curve analysis. Short run and long run Philips curve; Tobin’s modified Philips curve; Policies to control inflation. Business cycle- meaning and features; Theories of Business cycle- Hawtrey, Keynes, Samuelson, Kaldor, Hicks, Goodwin’s model.

READING LIST

COURSE NAME: BASIC ECONOMETRICS
COURSE CODE: ECO 410
Nature of Course: Core Prerequisite: None

MODULE-I: INTRODUCTION AND SCOPE OF ECONOMETRICS
Scope and importance Econometrics steps, importance and limitations of econometrics applications, variables, parameter and constant, sample and population, types of data and functions

MODULE-II: SIMPLE AND MULTIPLE REGRESSION MODEL
Two variable linear regression model (2VLRM) analyses, CLRM and its assumptions, OLS method of estimation, properties of estimators and, BLUE, MVLRM

MODULE-III: MULTICOLLINEARITY
Multicollinearity: problem types, causes, consequences, detection and remedial measures, regression on dummy variables

MODULE-IV: AUTOCORRELATION AND HETEROSCEDASTICITY
Autocorrelation problem causes, AR scheme, consequences, detection and remedies, Heteroscedasticity problem patterns, consequences, detection and remedial measures. Simultaneous equations model (SEM), identification-order and rank conditions and application
Syllabus for M.A. Programme in Economics
Central University of Orissa, Koraput

READING LIST

COURSE NAME: INDIAN ECONOMIC ANALYSIS
COURSE CODE: ECO 411

Nature of Course: Core Prerequisite: None

MODULE-I: ECONOMIC DEVELOPMENT AND PLANNING IN INDIA
Determinants of economic development; Indicators of Development—PQLI, Human Development Index (HDI) and Gender Development Indices; Human resource development; Role of state, market and other institutions.
Planning in India: Objectives and strategy of planning; Failures and achievements of Plans; Recent Plan—objectives, allocation and targets

MODULE-II: DEMOGRAPHIC FEATURES, RESOURCE BASE AND INFRASTRUCTURE
Broad demographic features of Indian population; Theory of demographic transition and its applicability in Indian context; Population Policy; Rural—urban migration; Poverty and inequality Resource Base in India: Physical Infrastructure-Energy, Transport, Communication; Social Infrastructure- Education and Health; Growth of the Service Sector

MODULE-III: AGRICULTURE, INDUSTRIAL AND EXTERNAL SECTOR OF INDIA
The Agricultural sector —Need for second Green revolution; Issues in food security and PDS; policies for sustainable agriculture.
Industrial sector:-scenario since Industrial policy of 1991; Public Sector enterprises and their performance; Privatization and disinvestment debate Structure and direction of foreign trade; Latest foreign trade policy; foreign exchange management-FERA AND FEMA; Foreign capital and MNCs in India; Rationale for reforms and LPG policy; W.T.O. and its impact on Indian Economy.
MODULE-IV: ODISHA ECONOMY AND ITS GROWTH AND DEVELOPMENT
A macro glance of Odisha; Odisha Economy in relation to India and major states in recent decades: in terms of indicators on - per capita SDP, per capita consumption (rural and urban), income growth, human development; policies relating to social sector; natural resource base in Odisha; Agriculture and allied sector in Odisha and policies initiated by government, industrial development– Problems and Prospects; state of public finance in Odisha

READING LIST
1. Ahluwalia, I.J. and I.M.D. Little (Eds.) (1999), India’s Economic Reforms and Development (Essays in honour of Manmohan Singh), Oxford University Press, New Delhi
4. Economic survey (annual), planning and coordination department, directorate of economics and statistics, government of Odisha.
8. Reserve bank of India Bulletin

COURSE NAME: OPTIMIZATION TECHNIQUES
COURSE CODE: ECO 412

Nature of Course: Elective
Prerequisite: ECO 403

MODULE-I: STATIC OPTIMISATION
Review of Classical Constrained, Unconstrained optimization: necessary conditions and sufficient conditions for optimization.

MODULE-II: CONSTRAINED OPTIMIZATION
Constrained optimization: Lagrangean function and multiplier, Comparative statics: maximum theorem, implicit function and its derivative, envelope theorem.

MODULE-III: DYNAMIC OPTIMISATION AND CHOICE UNDER UNCERTAINTY
Optimal Control Theory and Hamiltonian, Dynamic Programming Risk and portfolio analysis, Linear Models, matrix algebra and vector analysis.

MODULE-IV: DIFFERENTIAL EQUATIONS AND STABILITY
READING LIST

COURSE NAME: FINANCIAL INSTITUTIONS AND MARKETS
COURSE CODE: ECO 413

Nature of Course: Elective
Prerequisite: None

MODULE-I: FINANCIAL SYSTEM

MODULE-II: BANKING INSTITUTIONS & NBFIS
Commercial Banks, Profitability and efficiency of Banks, Development Banks-Role and functions, Investment banking, Merchant banking, Definition and Types of NBFIs, Growth and impact of NBFIs, Mutual Funds: UTI and Other Mutual Funds; Insurance Companies, Provident Funds and Pension Funds. Co-operative Banks, Modern Banking in India.

MODULE-III: REGULATORY AND PROMOTIONAL INSTITUTIONS
The Reserve Bank of India; Roles and Functions, Monetary Policy of the RBI, Techniques of Monetary Control, Recent Policy Developments, Liquidity Adjustment Facility (LAF), The Securities and Exchange Board of India; Genesis, Organizations, Objectives and Functions, Performance of SEBI, IRDA and its role in financial markets, Financial Sector reforms in India.

MODULE-IV: MONEY AND CAPITAL MARKETS

READING LIST

**COURSE NAME: ECONOMICS OF LAW**

**COURSE COD: ECO 414**

**Nature of Course:** Elective

**Prerequisite:** None

**MODULE -I: LAW RELATING TO CONSUMER ACTIVITIES**

Bargaining Theory; Economic Theory of contract, Remedies as incentives, Duress; Tort Law, Tort Liability and economic models; economics of accidents; fault, victim and strict liability; consumer protection and consumer Courts.

**MODULE -II: LAW OF BUSINESS ORGANISATIONS**

Structure of firm-Kinds, Corporation, Corporate vest, Capital, shares, debentures, insiders’ trading; Anti Trust; RBI, IRDA, MRTP, SEBI, Economics of mergers, Amalgamations and takeovers.

**MODULE -III: ECONOMIC THEORY OF CRIME AND PUNISHMENT**

The traditional theory of Criminal law: Economic Theory of Crime and punishment; Reforms of Criminal Procedure and Futility Theses; Law relating to economic offences-Corruption and Human rights.

**MODULE - IV: MACRO ECONOMICS, INTERNATIONAL ASPECTS AND LAW**

Property rights, Distribution of income and Law; Economic and Social costs of poverty: Economics of Social Sector; Wealth Distribution by liability Rules, Progressive Taxation and Efficiency; National and Global Environmental problems. W.T.O-TRIPS and TRIMS, export-import Policy, MNCS and Foreign Direct investment; FEMA.

**READING LIST**


SEMESTER-III

COURSE NAME: INTERNATIONAL TRADE
COURSE CODE: ECO 501

Nature of Course: Core
Prerequisite: None

MODULE-I: THE PURE THEORY OF INTERNATIONAL TRADE
Introduction to the international economics; Trade based on absolute advantage, comparative advantage and opportunity costs; Factor endowment and Heckscher–Ohlin model, theorem of factor price equalization, Leontief paradox; Standard trade model; demand and supply, Offer curves. Trade as an engine to growth; Terms of trade and economic growth-secular deterioration of terms of trade hypothesis-a critical review

MODULE-II: NEW THEORIES OF INTERNATIONAL TRADE AND DYNAMIC FACTORS
New Theories: Economies of scale, Imperfect competition-trade based on product differentiation and intra-industry trade, dynamic technological differences-product cycle model. Economic growth and international trade: Growth of factors of production-Rybczynski theorem, Technical progress; Growth and trade-small country and large country; Immiserizing growth; changes in taste

MODULE-III: THEORY OF INTERVENTIONS AND ECONOMIC INTEGRATION
Theory of intervention- Free trade and protection; Trade restriction-Tariffs (Partial and general equilibrium analysis), Stolper-Samuelson theorem; optimum tariff; Non-tariff barriers: Quotas, Voluntary export restraints, international cartels, dumping, export subsidies. Free Trade Areas versus Customs Union, custom union-Trade Creation and Trade Diversion; Static and dynamic benefit from custom unions Trade policy and reforms in India

MODULE-IV: TRADE POLICIES IN INDIA
Trade policies and trade policies in India during the last five decades; recent changes in the direction and composition of trade and their implication; Rationale and impact of trade reforms since 1991 on balance of payments, employment and growth; Working and regulations of MNCs in India; Instruments of export promotion and recent import and export policies and agenda for future.
READING LIST

COURSE NAME: ECONOMICS OF GROWTH AND DEVELOPMENT
COURSE CODE: ECO 502

Nature of Course: Core
Prerequisite: None

MODULE-I: INTRODUCTION TO ECONOMIC GROWTH AND DEVELOPMENT
Difference between economic growth and development, Factors affecting economic growth; capital, labour and technology, Measurement of development and development gap; GDP, Per capita income, Indicators of economic development: HDI, PQLI, A critical analysis of the most recent Human Development Report, Criticism of Human Development Index (HDI) as a measure of economic development. Sustainable Development; its indicators and obstacles.

MODULE-II: THEORIES OF ECONOMIC GROWTH
Growth models; Harrod-Domar model; Neo-classical growth models- Solow model; Joan Robinson’s growth model; Growth model of Kaldor; Golden Rule of Capital Accumulation, Endogenous Growth Model.

MODULE-III: THEORIES OF ECONOMIC DEVELOPMENT
Classical theory of development-contributions of Adam Smith, Ricardo & Malthus; Karl Marx and development of capitalist economy-theory of social change, surplus value and profit; Schumpeter’s theory of development; innovation, role of credit, profit and disintegration of capitalism. Big push theory of development.

MODULE-IV: SECTORAL ASPECTS OF DEVELOPMENT AND MACROECONOMIC POLICIES
Role of agriculture in economic development; Globalization and agricultural growth; Rationale and pattern of industrialization in developing countries; Role of Industries in economic growth. The choice of technology; Infrastructure and its importance; Export-led growth; Balance of payments; Role of monetary and fiscal policies in developing countries; External resources-FDI & FII, aid vs. trade, technology inflow; MNC activity in developing countries.
READING LIST

COURSE NAME: PUBLIC ECONOMICS
COURSE CODE: ECO 503

Nature of Course: Core
Prerequisite: None

MODULE-I: INTRODUCTION AND ALLOCATION OF RESOURCES
Public finance vs. private finance, fiscal functions- allocation, distribution and stabilization role of government; public goods, - pure and partial public goods, private goods and merit goods, Market failure; imperfections, decreasing costs, externalities; fundamental principle of public finance – Maximum Social Advantage. Allocation of resources-provision of private and public goods; Voluntary exchange models; Impossibility of decentralized provision of public goods.

MODULE-II: TAXATION AND PUBLIC EXPENDITURE
Sources of public revenue, direct and indirect taxes, effects of tax on production, distribution and economic activities. Principle of taxation-Benefit theory, Ability to pay theory, Theory of optimal taxation and incidence of taxation, taxable capacity, features and trend of Indian tax system, problem of double taxation. Tax evasion and the black economy; Tax reforms in India. Wagner’s law of increasing state activity, Peacock-Wiseman Hypotheses, cannons of public expenditure, effects of public expenditure on production, distribution and economic activities, public sector pricing policy, trends and pattern of public expenditure in India.

MODULE-III: PUBLIC DEBT
Sources of public borrowing, importance of public borrowing, effects of public debt, tax vs. debt, burden of public debt- classical vs. others, shifting of debt burden, intergenerational shifting, Public Borrowings and Price Level; Crowding Out of Private Investment, methods of debt redemption, trends and pattern of public debt in India. Issues in Debt Management in India.

MODULE-IV: BUDGETARY POLICY AND FISCAL FEDERALISM
Budgetary Policy: Balanced vs. unbalanced budget, budget as an instrument of economic policy, Objectives of fiscal policy, Interdependence of fiscal and monetary policies; budgetary deficits
and its implications; Fiscal policy for stabilization-automatic vs. discretionary stabilization; Zero based budgeting; salient features of the most recent union budget of India.

Fiscal Federalism: Fiscal federalism in India; Resource transfer from Union to States-Criteria for transfer of Resources; Centre-State financial relations in India; Finance Commission of India.

READING LIST

COURSE NAME: RESEARCH METHODOLOGY
COURSE CODE: ECO 504

Nature of Course: Core Prerequisite: None

MODULE-I: RESEARCHER’S APPROACHES
Meaning and objectives of research, types of research, need and significance of research, research methods vs research methodology. Formulation of a Research problem, meaning and need of research design, features of a good design-different research designs for exploratory, descriptive, diagnostic and experimental research. Review of literature. Method of writing a research proposal.

MODULE-II: COLLECTION OF DATA
Primary and secondary data, Methods of collection of Primary Data; Pilot Survey, Personal Investigation, Indirect oral investigation, Information received through local agents and correspondents, mailed questionnaire - secondary data Sources, Limitations of Secondary Data, precautions in the use of Secondary Data. Coverage of secondary data available from Census, NSSO, CSO, NFHS, RBI, Planning Commission and other sources. Field survey methodology; questionnaire design, difference between questionnaires and schedules, sampling design-sample size and its determination, collection of sensitive information. Case study method.

MODULE-III: PROCESSING AND ANALYSIS OF DATA & TESTING OF HYPOTHESIS
Editing, coding, classification, objects, rules, tabulation, preparation of a statistical table, requisites of a good table. Types of Tables, Format of a simple one way table, three way table. Analysis of qualitative data. Multiple Regression and Correlation Analysis. Research questions and
hypothesis, definition of Hypothesis, characteristics, sources of Hypothesis, Importance of hypothesis, problems in formulating Hypothesis, statistical Hypothesis - simple and composite, Null Hypothesis, prerequisites for testing of Hypothesis, testing of Hypothesis, Goodness of fit, Types of errors in testing of Hypothesis, level of significance.

MODULE-IV: REPORT WRITING

READING LIST

COURSE NAME: INDUSTRIAL ECONOMICS
COURSE CODE: ECO 505

Nature of Course: Elective
Prerequisite: None

MODULE-I: ORGANIZATIONAL FORM AND STRUCTURE AND PRODUCTIVITY
Organisational forms-Types and choice of form of organization; Business motives-Alternatives types of motives/goals, Evaluation of goals.
Market structure: Seller’s Concentration; Product Differentiation; Profitability; Innovation Industrial Productivity- Measurement; Partial and total trends.

MODULE-II: MARKET CONDUCT AND EFFICIENCY
Market conduct- Theories of Product pricing; Investment expenditure-methods of investment expenditure; Theories and empirical evidence on Merger and Acquisition (M&As) and Diversification.
Economic efficiency- Meaning; factors determining efficiency and firm size; limits and obstacles to the size of firm-a synthesis on the size of firm, efficiency and decision making process.

MODULE -III: THEORIES OF INDUSTRIAL LOCATION AND PATTERN
General determinants of industrial location; Approaches to industrial location analysis: - Alfred Weber’s theory; Sergeant Florence’s theory of industrial location, Market area theory, Central
place theory of Losch; Industrial imbalances-causes and remedies; Need for balanced regional development of industries; Government policy and approach for the development of backward regions in India.

**MODULE-IV: INDIAN INDUSTRIAL GROWTH, LABOUR AND FINANCE**

Industrial policy in India- Role of Public and private sectors; recent trends in Indian industrial growth; policies and program for the development of small scale industries in India. 
Industrial labour- Problems, policies and reforms in India; Industrial legislation and social security measures in India. 
Sources of finance- choice of funding-external versus internal sources, Institutional finance with special reference to IFCI, ICICI, IDBI; Financial Statement-Balance Sheet; Profit and loss account; Assessment of financial soundness

**READING LIST**

7. Mishra and Puri (latest edition), Indian economy, Himalaya publisher

**COURSE NAME: MATHEMATICAL ECONOMICS**

**COURSE CODE: ECO 506**

**Nature of Course:** Elective

**Prerequisite:** ECO 403

**MODULE-I DIFFERENTIAL CALCULUS**

Principles of differentiation; rules of differentiation; differentiation of implicit functions; Partial and total differentiation; Unconstrained maxima and minima with more than one explanatory variable. Lagrange’s multiplier method, application to consumer’s equilibrium in commodity market and producer’s equilibrium in factor market

**MODULE-II: INTEGRAL CALCULUS**

Dynamics and integration; Principles of integration; Indefinite and definite integrals; Application of integrals in economics Consumer surplus and producer surplus; Domar Growth Model.
MODULE-III: DIFFERENTIAL EQUATION AND DIFFERENCE EQUATION
Concepts, Solutions of first and second order linear and non-linear differential equations-homogeneous and non-homogeneous cases; Applications of differential equations applied to market equilibrium.

MODULE-IV: INPUT-OUTPUT ANALYSIS AND GAME THEORY
Static and dynamic Input-Output Analysis, Open and closed models
Concept of game, pay-off matrix, pure and mixed strategies, Two person Zero-sum game- saddle point solution, Non-constant-sum game, Cooperative and non-cooperative games, Nash equilibrium.

READING LIST

COURSE NAME: ECONOMICS OF INFORMATION AND TECHNOLOGY
COURSE CODE: ECO 507
Nature of Course: Elective Prerequisite: None

MODULE-I
Definition of information-industry Value Chain Knowledge Economy-information of Economy-information Economy. Nature and Scope of information Technology-Various Sources of information.

MODULE-II

MODULE-III
MODULE-IV

READING LIST

SEMESTER-IV

COURSE NAME: DISSERTATION
COURSE CODE: ECO 508

Nature of Course: Core  Prerequisite: None

OBJECTIVES
Students who complete their post-graduation in Economics are mentally equipped to pursue research in the same discipline. It is generally accepted that research is nothing but extension and application of knowledge in a certain specialized field. Therefore regular students who do their post-graduation will be given an opportunity to get exposed to a few elements of social research and also they are expected to complete a research project/dissertation under the expert guidance and supervision, Elementary knowledge of research methodology shall consolidate and deepen their understanding of various branches of Economics. Preparing a dissertation is intended to train them in scientific thinking and art of systematic presentation. It is essentially a job-oriented exercise to enable them to take up the exciting field of social and economic research.

DISSERTATION: STRUCTURE AND EVALUATION
a) Students shall submit a dissertation of maximum 25,000 words in three copies to the Head of the Department on or before 15th April of the concerned academic year (4th Semester).
b) The dissertation shall be prepared under the guidance of an internal post graduate recognized faculty, and the supervisors/guides will be allotted to students by the Head of the Department with a proper procedure.

c) The supervisors shall be allotted to the students in the beginning of the concerned academic year (3rd Semester) in order to provide sufficient time for a qualitative dissertation work.

d) Evaluation of the dissertation and presentation & viva voce shall have equal weightages.

e) The dissertation (writing part) shall carry 50 marks out of which the internal and external examiners shall carry equal weightages. Assessment of each dissertation (writing part) out of 50 marks is based on the methodology, analysis, contents, report writing and quality of the research work.

f) A presentation and viva voce of each candidate shall be held where he/she will have to make a presentation of the dissertation and defend his/her research work. The viva voce shall carry 50 marks out of which the internal and external examiners shall carry equal weightages.

**COURSE NAME: HISTORY OF MODERN ECONOMIC ANALYSIS**

**COURSE CODE: ECO 509**

*Nature of Course: Core*  
*Prerequisite: None*

**MODULE-I: MARGINALIST AND NEO-CLASSICAL THOUGHT**

**MODULE-II: CLASSICAL POLITICAL ECONOMY**

**MODULE-III: KEYNESIAN’s THOUGHT**
The aggregate economy, Liquidity Preference Theory and Liquidity trap, Marginal Efficiency of Capital and Marginal Efficiency of Investment, wage rigidities, underemployment equilibrium, role of fiscal policy, deficit spending and public works, multiplier principle, cyclical behaviour of the economy, uncertainty and role of expectations.

**MODULE-IV: INDIAN ECONOMIC THOUGHT**
Main themes of Kautilya’s Arthasastra; Economic Ideas; Dada Bhai Naoroji, Ranade, Gokhale; M.K. Gandhi, Bhimrao Ambedkar, Deendayal Upadhyay and J K Mehta. A synthesis of economic thought, Comparison of Indian economic thought with western economic thought.

**READING LIST**
Hill, New Delhi.

COURSE NAME: INTERNATIONAL FINANCE
COURSE CODE: ECO 510

Nature of Course: Elective
Prerequisite: None

MODULE-I: BALANCE OF PAYMENTS
Meaning and Components of balance of payments; Measurement of Balance of Payments, Surpluses and Deficits; General Theory of Balance of Payments-the types and causes for disequilibrium; The process of adjustment under Gold Standard, Fixed exchange rates and flexible exchange rates, devaluation; Expenditure-reducing and Expenditure-switching policies and direct control for adjustment.

MODULE-II: FOREIGN EXCHANGE MARKET
Theories of exchange rate determination; Purchasing Power Parity theory, Monetary and Portfolio balance approaches; Equilibrium exchange rates; Stability in the exchange market and market intervention policy. Exchange rates volatility; reasons and consequences.

MODULE-III: INTERNATIONAL CAPITAL MOVEMENTS
International Capital movements; The transfer problem-The Euro currency market-International Development Agencies; Theory of Short term capital movements and East Asian crisis and lessons for developing countries. FDIs and FIIs roles in international capital mobility. Currency crises, Foreign exchange reserve in India.

MODULE-IV: INTERNATIONAL MONETARY SYSTEM
Rise and fall of gold standard and Bretton-Woods system; Need, adequacy and determinants of International reserves; Conditionality clause of IMF; Role of International Finance agencies (IMF, World and ADB) in solving International liquidity problem; Reforms in International Monetary System, Emerging International monetary system with special reference to post Maastricht development and developing countries.
READING LIST

COURSE NAME: ADVANCE ECONOMETRICS
COURSE CODE: ECO 511

Nature of Course: Elective
Prerequisite: ECO 410

MODULE-I: INTRODUCTION AND DUMMY VARIABLE REGRESSION MODEL
Introduction, dummy variable technique – testing structural stability of regression models comparing to regression, interaction effects, seasonal analysis, use of dummy variables

MODULE-II: AUTOREGRESSION MODEL
Autoregressive and distributed lag models –Koyak model, Partial adjustment model, Adaptive expectations, Instrumental variables

MODULE-III: TIME SERIES AND PANEL DATA ANALYSIS
Time Series – ARMA, ARIMA – Diagnostic Test – Casualty Test, Co integration Test – Correcting Mechanism, panel data analysis.

MODULE-IV: MULTIVARIATE ANALYSIS
**READING LIST**


**COURSE NAME: FINANCIAL ECONOMICS**

**COURSE CODE: ECO 512**

**Nature of Course:** Elective  
**Prerequisite:** None

**MODULE-I: EXPECTED UTILITY THEORY AND CHOICE UNDER UNCERTAINTY.**


**MODULE-II: RISK, ASSET PRICING MODELS AND TERM STRUCTURE OF INTEREST RATE**


**MODULE-III: MODELS OF SECURITIES PRICES IN FINANCIAL MARKETS**


**MODULE-IV: EFFICIENCY & VOLATILITY IN FINANCIAL MARKETS AND OPTION-FEATURES & PRICE BOUNDS**

Basic taxonomy of option analysis – Payoff structure of an option – Price Bounds for Options
Risk Neutral pricing – basic notions of Binomial – Multinomial – Black-Scholes Pricing – What
the hedge ratio (‘Delta’) – Gamma – Vega Theta – Rho means.

**READING LIST**

1. David A. Dubofsky and Thomas W. Miller (2003), Derivatives: Valuation and Risk
   Management, OUP.
   London.

**COURSE NAME:** ECONOMICS OF INSURANCE  
**COURSE CODE:** ECO 513

Nature of Course: Elective  Prerequisite: None

**MODULE-I: INTRODUCTION**

Economic Security; Human quest for economic security through time, exposure to losses; Role of
insurance; Definition of insurance. Risk pooling and risk transfer; Economic and legal perspectives;
Social Vs Private insurance; Life Vs Non-life insurance; Classification of life, Health and General Insurance policies.

**MODULE-II: RISK AND RISK MANAGEMENT**

Fundamentals of uncertainty and risk; Pure risk and speculative risk; Expected utility and decision making under uncertainty; Expected utility and the demand for insurance; Moral hazards and insurance demand; Concept of risk management; Essentials of risk management; Elements of risk management, Risk assessment; Risk control and risk financing.

**MODULE-III: INSURANCE AND ECONOMIC DEVELOPMENT**

Risk management and insurance in economic development, Insurance institutions as financial intermediaries, Insurance institutions as investment institutions, insurance institutions in Indian capital market. World Wide risk sharing - Concept of reinsurance, Fundamentals of reinsurance, Types of reinsurance; Reinsurance distribution systems; Reinsurance markets in Developing countries.
MODULE-IV: TYPES OF INSURANCE AND INSURANCE REGULATION
Fundamentals of Life; Health and General Insurance; Functions and importance of Life, Health and General Insurance; Mathematical basis of life insurance; Plans and legal aspects of life insurance; Provisions of policies, Selection and classification of risks; Types of evaluation. Theories of regulation, insurance regulation in India; Insurance Regulation and Development Authority. (IRDA).

READING LIST

COURSE NAME: AGRICULTURAL ECONOMICS
COURSE CODE: ECO 514

Nature of Course: Elective
Prerequisite: None

MODULE-I: AGRICULTURE, ECONOMIC DEVELOPMENT AND PRODUCTION
Nature and scope of agricultural economics; Role of agriculture in economic development; Interdependence between agriculture and industry; Approaches of Schultz, Mellor and Boserup Agricultural production — Resource use and efficiency; Cost and supply curves; Size of farm and productivity debate; Supply response in agriculture.

MODULE-II: AGRICULTURAL MARKETING AND PRICES
Agricultural markets and marketing efficiency — Marketing functions and costs; Market efficiency; Market structure and imperfections; Marketed and marketable Surplus; policy with respect to agricultural marketing; Regulated markets; Contract farming.
Objectives of agricultural price policy — Instruments and evaluation; Terms of trade between agricultural and non-agricultural prices; Risk and uncertainty in agriculture; Agricultural insurance scheme-National Agricultural Insurance Scheme and Weather Based Crop Insurance Scheme.
MODULE-III: INSTITUTIONAL ASPECT AND INVESTMENT IN AGRICULTURE
Land tenures and farming systems — Peasant, capitalist, collective and state farming; Tenancy and crop sharing — Forms, incidence and effects; Land reform measures and performance; Women and land reforms. Sustainable agriculture and indigenous practice. Role of Public investment and capital formation in Indian agriculture; Public and private investment complementarily debate in Indian agriculture.

MODULE-IV: AGRICULTURE GROWTH IN INDIA AND EXTERNAL SECTOR
Recent trends in agricultural growth and productivity in India; Regional disparities in Indian agriculture, cropping pattern shifts; pricing of inputs and role of subsidies; Bio-technological practices and growth potential. International trade in agricultural commodities; Nature and features of agri-business; Role of MNCs; Globalization of Indian economy and problems and prospects of Indian agriculture; Impact of World Trade Organization on Indian agriculture.

READING LIST
5. Government of India, Economic Survey (Annual), New Delhi
6. Heady, E. O and Dillon, J.L (1960), Agricultural Production Functions, Kalyani Publisher
7. Lekhi, R.K. and Singh, J (latest edition), Agricultural Economics: An Indian Perspective, Kalyani Publisher

COURSE NAME: REGIONAL ECONOMICS
COURSE CODE: ECO 515
Nature of Course: Elective Prerequisite: None

MODULE-I: REGIONAL ECONOMIC PROBLEMS
Objectives and scope of regional economic analysis; Inter-disciplinary aspects of regional economics; Concept of a region, its definition, types and description; economic behaviour related to space; Composition and structure of regional activities; The regional economic problems – Causes.

MODULE-II: THEORIES OF REGIONAL ECONOMIC DEVELOPMENT
Theories of regional economic development: Cumulative causation (Perroux, Myrdal, Hirschman) – Export base theory - Central place theory (Christaller), Sector theory (Colin- Kuznets) - Stage theory (Rostow).

MODULE-III: THEORY OF LOCATION AND REGIONAL DISPARITIES
Regional disparities – Trends in regional income disparities – Inter-state variations of poverty and unemployment – Comparative analysis of industrial development in different states – Agricultural development in different stages

**MODULE-IV: REGIONAL IMBALANCES IN INDIA**
Regional imbalances – Regional economic advantages and regional optimization and financial institution in India – Inter-state disparity and fiscal devaluation in India – Problems of developing the backward area – Regional planning in India during the plan period – Area approach - Integrated overall development – Regional planning in rural India under various plan period.

**READING LIST**
4. Losch (1970), The Economics of Location, Yale University Press, New Haven
10. Walter, I (1968), Methods of Regional Analysis, MIT Press, Cambridge

**COURSE NAME: OPERATIONAL RESEARCH**
**COURSE CODE: ECO 516**

*Nature of Course: Elective*

*Prerequisite: ECO 403*

**MODULE-I: INTRODUCTION**

**MODULE-II: LINEAR PROGRAMMING**

**MODULE-III: INTEGER PROGRAMMING**
Transportation and Assignment Problems. Integer and Goal Programming. a. Formulation of Integer Programming Problems. b. Branch and Bound Technique

**MODULE-IV: NON-LINEAR PROGRAMMING AND MARKOV CHAINS**
Stochastic processes - States, Markov Chains - Transition matrices - Types of chains - Steady-state probabilities, Kuhn-Tucker conditions, the constraint Qualification, Duality in nonlinear programming – Integer programming – Algorithms for integer programming
READING LIST

COURSE NAME: HEALTH ECONOMICS
COURSE CODE: ECO 517

Nature of Course: Elective

Prerequisite: None

MODULE-I: INTRODUCTION TO HEALTH ECONOMICS
Definition and scope of economics of health- the concept of health and health care- the role of health in economic development–health as human capital determinants of health-poverty , malnutrition; Economic dimensions of health care- Demand and supply of health care.

MODULE-II: FINANCING OF HEALTH SERVICE
Theory and practice – Review of per capita and public expenditure on health services over time and in different parts of the country – An analysis of the sources of public funds for health – The need for a general health insurance, pre-payments scheme, savings-linked insurance system etc. – Financing health services through specific (health cess) and general (direct and indirect taxes) local government revenues – The role of government financing institutions in financing health.

MODULE-III: EVALUATION OF BENEFITS AND COSTS OF HEALTH SERVICES
Private benefits and private costs of providing health services, The failure of the market to provide essential health services, The provision of health services by the government – The application of benefit cost analysis to public health and family planning projects – The role of health in economic development, Benefits and costs (both private and social) of training professional manpower such as physicians, dentists, pharmacists and nurses. A review of the Indian National Health Policy and a discussion of other feasible alternatives.

MODULE-IV: INDIAN HEALTH SECTOR ISSUES
Growth in expenditure of personal health services – Characteristics of health services – healthcare problems, public’s and economist’s views – Analysis of demand for health services and supply of it– Rising healthcare costs, Factors affecting health – Nutritional status – Changes in morbidity pattern and trends immortality rates – Development policies, health strategy and role of non-health

READING LIST

COURSE NAME: COMPUTER APPLICATION IN ECONOMIC ANALYSIS
COURSE CODE: ECO 518
Nature of Course: Elective
Prerequisite: ECO 410

MODULE-I: INTRODUCTION TO COMPUTER AND OPERATING SYSTEMS AND USE OF COMPUTER FOR OFFICE AUTOMATION
Computer Organisation; CPU; Types of Memory; Input and Output devices; Classification of computers; Programming languages; Operating System- DOS and Windows; Data Representation and the Number systems: decimal, binary, octal and hexadecimal. MS word and its features and uses. Spread sheet - Concept and use of spread sheet, Structure of a spread sheet, Spread in-built functions, Chart feature of a spread sheet, Operation and Use of MS-Excel and Lotus Smart-suite.

MODULE-II: BASIC OF DATABASE AND SLIDE FORMATION AND PRESENTATION
Introduction to Economic and Business Data Processing; The concepts of relational database; Simple programming techniques (in MS-Access); Using Queries, Forms and Report Wizward; Working from Command Window; Economic Application of MS-Access; Handling and command descriptions of MS-Power Point; Slide creation and presentation through MS-Power point.

MODULE-III: STATISTICAL DATA PROCESSING TECHNIQUES
Statistical Package handling and command description Statistical Package for Social Science (SPSS); Basic statistical and econometric functions and their analysis - Analysis of Regression, Analysis of correlation, Analysis of Variance (ANOVA), Analysis of Covariance (ANCOVA).
MODULE-IV: TIME-SERIES ANALYSIS AND METHODS OF USING EVIEWS & STATA
Package handling and command descriptions of E ViEWS and STATA; Simple time series Analysis – Trend analysis; Estimation of demand function, production function and investment function using time series data, Basics of internet; Search Engines.

READING LIST

COURSE NAME: ECONOMICS OF GENDER AND DEVELOPMENT
COURSE CODE: ECO 519
Nature of Course: Elective
Prerequisite: None

MODULE-I: INTRODUCTION TO GENDER STUDIES AND ITS DEMOGRAPHIC ASPECT
Importance and Concepts of women studies-women in patriarchal and matriarchal societies and relevance to present day society in India, Demography of female Population- Age structure, Mortality rates and sex ratio-causes of declining sex ratios and fertility rates in LDCs and particularly India, women and access to nutrition, health, education and social and commodity resources and their impact on female mortality and fertility, economic status and in work participation rate.

MODULE-II: WOMEN IN DECISION MAKING AND CONCEPT OF WOMEN’S WORK
Factors affecting decision making by women-Property Rights, Access to and control over Economic resources, Assets-Economics status of women and its effect on work participation rate; Income level, health and education in developing countries and India - Concept of women’s work- valuation of productive and unproductive work, visible and invisible work, paid and unpaid work, participation of women in pre-industrial and industrial societies.

MODULE-III: WOMEN AND LABOUR MARKET
Factors affecting female entry in labour market-Supply and demand for female labour in developed and developing countries, particularly India-Studies of female work participation in Agriculture, Non-Agricultural Rural Activities. Information Sector, Cottage and Small Scale Industries, organized industry and service sector-Wage differentials in female activates.
MODULAR-IV: SOCIAL SECURITY AND DEVELOPMENT POLICIES FOR WOMEN
Social Security of Women - Access to credit and insurance markets; role of voluntary organizations, Self Help Groups in providing social security - Effectiveness of Collective bargaining; Schemes for Safety net for women.
Review of legislation for women’s entitlements, mainstreaming gender into development policies, Women’s empowerment in India.

READING LIST

COURSE NAME: ECONOMICS OF DEMOGRAPHY
COURSE CODE: ECO 520
Nature of Course: Elective Prerequisite: None

MODULE-I: POPULATION AND DEVELOPMENT
Meaning and scope of demography; Components of population growth and their interdependence; Measures of population change; Structure, distribution and sources of population data; Theories of population — Malthus, Optimum theory of population; Theory of demographic transition — Views of Medows, Enke and Simon; Population and development

MODULE-II: STRUCTURE OF POPULATION
Population trends in the twentieth century; Population explosion — Threatened or real, distant or imminent; International aspects of population growth and distribution; Pattern of age and sex structure in more developed and less developed countries; Determinants of age and sex structure;
Demographic effects of sex and age structure, economic and social implications; Age pyramids and projections — Individual aging and population aging.

**MODULE -III: POPULATION AND DEVELOPMENT WITH REFERENCE TO INDIA**
Population, economy and environment linkages — Population, health, nutrition, productivity nexus; Population and human development issues; Culture and fertility; Education and fertility, Demography and household economic behaviour.

**MODULE -IV: POPULATION POLICY IN INDIA**
Evolution of population policy in India — The shift in policy from population control to family welfare, to women empowerment; Family planning strategies and their outcomes; Reproductive health, maternal nutrition and child health policies; Population and strategies for human development of different social groups; Social impact of new reproductive technologies and their regulation; The new population policy; Tasks before the National Population Commission.

**READING LIST**
9. Sing, V.C and Zacharia, E, Elements of Demography, Allied Publishers

**COURSE NAME: WELFARE ECONOMICS**
**COURSE CODE: ECO 521**

*Nature of Course: Elective*  
*Prerequisite: ECO 401*

**MODULE-I: PRE-PARETIAN WELFARE ECONOMICS**

**MODULE-II: PARETIAN WELFARE ECONOMICS-I**
Marshallian Welfare Economics; Consumer's Surplus: Measurement of Consumer's Surplus-difficulties involved, Criticism; Principle of Compensating variation; Hicks’s Four consumers surpluses; concept of Consumer's Surplus; Consumer's Surplus and Tax Bounty Analysis.
MODULE-III: PARETIAN WELFARE ECONOMICS-II
Pareto Optimality exchange conditions, The production optimum, the consumption optimum, Concept of Contract curve; Top level optimum; Infinite number of non-comparable optima Vs unique social optimum.

MODULE-IV: SOCIAL WELFARE FUNCTION
Compensation criteria-Contributions of Barone, Kaldor and Hicks. The Scitovsky double criterion, Concept of Commodity indifference map, Samuelson's utility possibility curve; value judgements and welfare economics-, Bergson's social welfare function Arrow's possibility theorem, Recent Developments in welfare Economics.

READING LIST

COURSE NAME: URBAN ECONOMICS
COURSE CODE: ECO 522

Nature of Course: Elective  Prerequisite: None

MODULE-I
Nature and scope of urban Economics, structure and growth of Urban economy, urban Public Services; Growth of Urban Economy.

MODULE-II
Urban Growth; Central Place Theory and its application to the study of Urban Growth-the Urban economic base and urban growth; the communication theory of Urban growth; City size and urban growth; urban spatial structure; Concentric Zone Hypothesis-The Radial Sector theory. The Multiple Nuclei Hypothesis.

MODULE-III
Urban Housing, Labour Market and Poverty; Housing market Imperfection-trends in slum Housing-tearing down the slums. Urban Labour Market: Determination of Labour incomes-wage
differentials-the culture of urban poverty –Measures of Urban poverty-The nature of urban poverty-The causes of urban poverty; Public Policies for reducing urban poverty-macro Economic policies income-Maintenance Policies-negative income taxes.

**MODULE-IV**
Urban Development Problems in India, Land Prices and land Speculation-Urban Land celling; Congestion and Urban transport pricing Policy; Cost and supply of alternative urban transport system. Urban Growth Strategies-An approach to Metropolitan Planning in Developing Countries; nationalurbanization policy with reference of India.

**READING LIST**
1. G. F. Bussars; Repid Problmes of Urbanisation in India.
4. Ashish Bose ; Studies in India’s Urbanization.
5. R.K. Bharadwaj ; Urban Development in India.
6. NCAER; Mar ket Towns and Spatial Development.
9. Harry, W. Richardson; Urban Economics.

**COURSE NAME: TRIBAL ECONOMICS**
**COURSE CODE: ECO 523**
Nature of Course: Elective
Prerequisite: None

**MODULE-I: TRIBAL DEMOGRAPHY**

**MODULE-II: EDUCATION AND HEALTH IN TRIBAL AREAS**

**MODULE-III: TRIBAL ECONOMY**

**MODULE-IV: TRIBAL PROBLEMS, POLICIES, PLANNING AND DEVELOPMENT INTERVENTIONS**


Emerging Development Initiatives – Role of NGOs, Women Empowerment through Micro Finance and SHGs – Liquor Free Movement.

**READING LIST**


**COURSE NAME: WORLD ECONOMY**

**COURSE CODE: ECO 524**

Nature of Course: Elective \hspace{1cm} Prerequisite: None

**MODULE-I: INTRODUCTION TO WORLD ECONOMY**

An overview of the world economy; Major economies of the world, Income and Income Growth of World Economy during the last two decades. Linkages in the Major Economies- Trade, Investment and Capital Flows, Major Economic Groups.
MODULE-II: WORLD ECONOMY: THE DEMOGRAPHIC DIMENSION
Recent Trends in world population, Birth Rate, Death Rate, Infant Mortality Rate, Child Mortality Rate, Total Fertility Rate, Life Expectancy at birth in US, UK, Germany, France, Japan, China, India, Sri Lanka, Australia and Bangladesh.

MODULE-III: AGRICULTURE AND INDUSTRY IN THE WORLD ECONOMY
Main food producers of the world; Trends in the production of main food crops; World food Security. Main Industrial Economies of the World; Role of industrial development in the growth of major world economies.

MODULE-IV: WORLD TRADING SYSTEM
Trends in the international trade; Main trading nations of the world; Role of international trade in the growth and development of Major World Economies. Emergence of WTO. Role of WTO in World Economy. International Monetary Fund, World Bank Global Financial Crisis and its impact on World Economy.

READING LIST

COURSE NAME: GAME THEORY AND ITS APPLICATIONS IN ECONOMICS
COURSE CODE: ECO 525
Nature of Course: Elective Prerequisite: ECO 403

MODULE-I: INTRODUCTION AND REVIEW
Introduction: concept and definition of game theory, Theory of rational choice, interacting decision makers.

MODULE-II: STRATEGIC GAMES AND NASH EQUILIBRIUM
Strategic games: examples Nash equilibrium: concept and examples, Best response functions, Dominated Actions, Symmetric games and symmetric equilibrium.
MODULE-III: ILLUSTRATIONS OF NASH EQUILIBRIUM AND MIXED STRATEGY
NASH EQUILIBRIUM
Cournot’s model of duopoly market, Bertrand’s model of duopoly market, Electoral Competition, War of Attrition, Auctions, Accident Laws. Strategic games with randomization, Mixed strategy Nash equilibrium: concept and examples, Dominated Actions, Formation of Players’ beliefs

MODULE-IV: EXTENSIVE GAMES AND NASH EQUILIBRIUM
Introduction to extensive games, Strategies and outcomes, Nash equilibrium, Subgame perfect Nash equilibrium, Backward induction, Stackelberg model of duopoly markets Ultimatum game

READING LIST

COURSE NAME: ECONOMICS OF NATURAL RESOURCES
COURSE CODE: ECO 526
Nature of Course: Elective
Prerequisite: None

MODULE-I: ECONOMICS OF RENEWAL AND EXHAUSTIBLE RESOURCES
A resource taxonomy, Resource scarcity, Renewable resources, Growth curves, The rate of exploitation, Costs and Revenues, Preservation values, Exhaustible resources, Principles of exhaustible resource use, Optimal resource use.

MODULE-II: MINERAL RESOURCES
Importance of minerals in economic development, Assessment of Indian mineral resources, International mineral trade, reserves and resources of world minerals supplies, Hazards due to mining-environmental and health, prevention of hazards due to mining; Structure and Organisation of mineral industry in India, future mineral consumption and Indian economy, Uses and Exploration of Mineral Resources; National Mineral Policy, Mineral taxation

MODULE-III: FOREST AND WATER RESOURCES
Forest Resources-Uses, Forest Type and Management, World Forest Cover, Forest Resources of India, Deforestation, Effect of Deforestation on Tribal People, Forest Degradation in India, Sustainable Forest Management; forestry policy- Joint Forest Management
Syllabus for M.A. Programme in Economics
Central University of Orissa, Koraput

Water resources- Surface Water and Ground Water, Water Resources in India, Methods for managing Water Resources; Environmental Impacts of Large Dams, Problems Associated with Rehabilitation of Displaced People/Tribal due to Major Dams, River Water Disputes, Water Pollution; Policy instruments for controlling water pollution; Water Sheds.

MODULAR-IV: LIVELIHOODS AND NATURAL RESOURCE MANAGEMENT
Concepts and scope of livelihood, livelihood framework analysis, various capitals involved, indigenous communities and traditional livelihoods, forms of natural resources and dependencies of local people. Non-Timber Forest Products (NTFP) as a source of rural livelihood.
Natural resource crisis and impacts on the livelihood of people- threats of traditional livelihood from globalization, urbanization, privatization, mining and migration; Mechanism for environment regulation in India; Environmental protection laws and their implementation, Importance of sustainable resource management.

READING LIST

COURSE NAME: ECONOMICS OF SERVICE SECTOR
COURSE CODE: ECO 527

Nature of Course: Elective Prerequisite: None

MODULE-I
Concept of service- Attributes of service, Main types of services and their classification, service-goods relationship, economic services; Rural-Urban Services-dualism. Services Economy-Concept and its role in development. Knowledge Economy- Concept and Characteristics, Innovation and R&D.

MODULE-II
Services and information Technology-The Interconnection-Promotion of Services through IT in India. Financial Services-Security Markets and their Management in India- Management and Marketing of financial services in India.
MODULE-III

MODULE-IV
Dynamics of services sector growth in India, Three-sector hypothesis and India, Role of service sector in Indian Economy, Decomposition of Services sector growth in India and its implications. Employment in Services Sector- a gender perspective. Business Services, Telecommunications, Tourism, Hotel, Real estate, IT and insurance sector in India. Public Private Partnerships in Services.

READING LIST
1. Alister Matheson & Geoffrey Walt- Tourism: economic Physical and Social Aspects

COURSE NAME: EDUCATION ECONOMICS
COURSE CODE: ECO 528
Nature of Course: Elective Prerequisite: None

MODULE-I: INTRODUCTION TO EDUCATION ECONOMICS
Definition and scope of economics of education- Human capital the concept; Historical developments in the human capital theory; components of human capital; PQLI and HDI, investment in human capital – contribution of education to economic growth.

MODULE-II: DEMAND FOR EDUCATION AND SUPPLY OF EDUCATIONAL FACILITIES
Education and productivity, private and social demand for education- investment in education, rate of return analysis, private and social rates of return, limitations of rate of return approach, rate of return and earnings distribution, equity aspects.
Components of educational supply; private and public facilities, pattern of organization & operation of education industry, organization and operation of different production limitations function analysis.

**MODULE-III: FINANCING OF EDUCATION**

**MODULE-IV: INDIAN EDUCATION SYSTEM**
Indian Education system –Rationale of government funding and regulation of education-Alternative method of financing education- Resource allocation to primary, secondary and higher education. Problems of education system in India, Efficiency, equity and distributional aspects Implications for gender and social groups- Role of private and public sectors, Union and State governments- Special programmes for education. Educational system and its problems in Odisha.

**READING LIST**
1. Mark Blaug,(2000) Economics of Education
5. Tilak( 2006), Economics of Inequality in Education
6. Sudha V.Rao (2003), Education and Rural Development

**COURSE NAME: MICRO FINANCE AND RURAL DEVELOPMENT**
**COURSE CODE: ECO 529**

**Nature of Course: Elective**

**COURSE NAME: MICRO FINANCE AND RURAL DEVELOPMENT**
**COURSE CODE: ECO 529**

**Prerequisite: None**

**MODULE- I: DEVELOPMENT OF MICROFINANCE PRODUCTS**

**MODULE-II: MICROFINANCE AN INSTRUMENT FOR WOMEN EMPOWERMENT**
Concept of empowerment of women– Components of women empowerment – Constraints faced by women for empowerment – Role of Micro Finance in economic development of women – Empowerment of women and Micro - business.

**MODULE-III: SELF HELP GROUP AND RURAL DEVELOPMENT APPROACH**
The Concept, Why Self Help Groups? – Objectives – Functions of SHGs Promotion– Formation of SHG - Constraints of Women SHGs - What are the Important Steps for Sustainable

**MODULE-IV: PROGRESS UNDER THE SHG BANK –LINKAGE PROGRAM**

SHG - Banking programme an introduction - NABARD as implementing agency in India and the strategy adopted – The demand side of Micro – finance – the supply side of micro finance – the MFI or the Non-Government Micro finance sector (NGMS) – Achievements in SHGs through SHG –banking- Impact of the formal banking set – up – Why could SHG – banking achieve such good results – Risk in SHG – Banking as implemented by the formal banking system.

**READING LIST**

5. Praveen Sharma, Indian Economic Association, Anil Kumar Thakur (2009), Micro-Credit and Rural Development

**COURSE NAME: ECONOMICS OF HUMAN DEVELOPMENT**

**COURSE CODE: ECO 530**

Nature of Course: Elective

Prerequisite: None

**MODULE-I: CONCEPTS OF HUMAN DEVELOPMENT**


**MODULE -II: HUMAN DEVELOPMENT INDEX**

Limitations of Human Development measure-Political Freedom index Human Development index and Poverty index-Human Poverty index.

**MODULE-III: STATUS OF HUMAN DEVELOPMENT IN INDIA AND IN INDIAN STATES**


**MODULE-IV: IMPACT OF HUMAN DEVELOPMENT ON ECONOMIC DEVELOPMENT**

READING LIST
4. Human Development Report for various years, UNDP.

COURSE NAME: MONETARY ECONOMICS  
COURSE CODE: ECO 531

Nature of Course: Elective  
Prerequisite: None

MODULE- I: DEMAND FOR AND SUPPLY OF MONEY

MODULE-II: MONEY AND INTEREST RATES
Understanding interest rates behavior and term structure of interest rate. Factors influencing changes in equilibrium interest rate and liquidity preference framework – Role of money and interest rates on real economic activity and inflation. Applications: Changes in income, money and prices on equilibrium interest rates.

MODULE-III: BANKING INSTITUTIONS AND NBFI’s
Development banks-role and functions; investment banking and merchant banking; financial sector in India - Proliferation of commercial banking and non-banking financial intermediaries. Regional Rural Banks and other banking institutions’. Recent reforms in banking systems. NBFI’s- Role and functions.

UNIT IV: RBI AND MONETARY POLICY IN INDIA
Monetary policy in developed; and developing countries-Instruments of monetary policy- Effectiveness of monetary policy. Reserve Bank of India and its monetary policy: Overall monetary policy framework – instruments, targets and objectives – transmission mechanism – operating procedure, liquidity management and OMOs – challenges in the conduct of monetary policy. Recent reforms in monetary policies.

READING LIST
3. Hanson, J.A. and S.Kathuria (Eds.)(1999), India : A financial Sector for the Twenty-First Century, Oxford University, Press, New Delhi.

COURSE NAME: ECONOMICS OF INFRASTRUCTURE
COURSE CODE: ECO 532

Nature of Course: Elective
Prerequisite: None

MODULE-I
Introduction: Infrastructure and economic development-infrastructure as a public good; social and physical infrastructure; special characteristics of public utilities; The peak load, off load problem; Dual principal controversy; marginal cost pricing Vs other methods of pricing of public utilities; cross subsidization-free prices, quality and efficiency.

MODULE-II
The structure of transport costs and location of economic activities, Demand for transport; Model of freight and passenger demand; model choice; cost functions in the transport sector; principle of pricing; special problems of individual modes of transport and inter-model coordination in the Indian context. Rate making in telephone utilities; principle of decreasing costs in telephone industry; criteria for fixation of postal rate; Measurement of standards of service in telephone and postal utilities; Reforms in the telecom sector.

MODULE-III
Energy Economics:Primacy of energy in the process of economic development; factors determining demand for energy; effects of energy shortages; energy conservation; renewable and non-conventional sources of energy, energy modelling; optimal energy policy.

MODULE-IV
Electricity, Gas and Water Supply: Bulk supply and pricing of electricity; the relative economics of Thermal, Hydel and Nuclear power; The case for a national power grid; Financing of water utilities; urban and rural water supply; uses of natural gas; the exploitation of natural gas, pricing problem. Social infrastructure: Social infrastructure-Concept of Social infrastructure – Organization and financing of supply of social services, private Vs Public sector financing; pricing of social services; Development of social services in the successive five year plan.
READING LIST

COURSE NAME: SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT
COURSE CODE: ECO 533
Nature of Course: Elective  Prerequisite: None

MODULE-I

MODULE-II
Return and Risk - Concepts and measurement of returns; Sources of Risk – systematic Risk vs unsystematic risk. Measurement of Risk.

MODULE-III

MODULE-IV
Portfolio construction; selection and evaluation - Markowitz Model Efficient Frontier and selection of optimal potifolic, - Single Index Model – Capital Asset, Pricing Model, risk and adjusted measures for portfolio Performance evaluations.

READING LIST
3. Pvt.Ltd.
5. Fisher & Jordan : Security Analysis & Portfolio management J.C.Francis ; investments; Analysis and Management.
COURSE NAME: ECONOMIC HISTORY OF ASIAN COUNTRIES: CHINA, SOUTH KOREA & JAPAN
COURSE CODE: ECO 534

Nature of Course: Elective
Prerequisite: None

MODULE-I
Problems of Economic History of ASEAN: China, Japan and South Korea, Different Approaches of Study and Their Limitations, Sources for the study of Modern Economic History of ASIAN: China, Japan and South Korea.

MODULE-II

MODULE-III

MODULE-IV
Economic Reforms and Their impact on: Agriculture Industry and Service Sector in ASEAN, China, South Korea and Japan. Trade Development Strategies: Export Promotion Versus Import Substitution in ASEAN, China, South Korea and Japan; Lessons for India. Trade Reforms and Their impact on Balance of Payment; Employment and National Income; Foreign Direct Investment, Exchange Rate Developments; and Issues related with East Asian Financial Crises.

READING LIST
1. ‘Reshaping the Asia Pacific Economic Order”, by Hadi Soesastro, Christopher Charles Findley, 2006.
6. “Economic Growth and Democratization in North East Asia, Part I & II.
9. “China, Japan and South Korea to consider Free trade Pact” Oct. 11, 2009 MYT.
COURSE NAME: COST BENEFIT ANALYSIS  
COURSE CODE: ECO 535

Nature of Course: Elective  
Prerequisite: None

MODULE-I

MODULE-II
Externalities - Pecuniary and Technological- externalities the source or external effects-externalities, alternative technologies and cost benefit analysis-Collective goods. The Social Rate of Discount-Social Time Preference Rate-The opportunity Cost rate of Discount Equilibrium, Social Time preference Rate and Social Opportunity Cost.

MODULE-III
Decision formulae for project choice - Net present value and input constraints - Optimal time phasing-Internal Rate of Return-Present value versus Internal rate of return - other criteria.Risk and Uncertainty -Relevance of risk and Uncertainty - Uncertainty and Decision Criteria-Some rules of Thumb.

MODULE-IV
Plans, Projects, choice and Project design, The selection of projects and the investment programme , Project design and decentralized evaluation.Private sector projects-The need for public evaluation of private projects-The method of evaluation of private projects:.Some applications - Demodar valley flood control scheme-Socio economic survey of Nagarjuna Sagar Project.

READING LIST
COURSE NAME: RURAL ECONOMICS
COURSE CODE: ECO 536

Nature of Course: Elective
Prerequisite: None

MODULE-I: RURAL ECONOMY OF INDIA
Features of rural economy; Place of agriculture in rural economy; Diversification of rural economic activities- Livestock, Fishery, poultry, Forestry, horticulture and floriculture ;Public utilities in rural economy-irrigation facilities, transport and communication and rural electrification.

MODULE-II: RURAL CREDIT SYSTEM
Role of rural credit; Characteristics and sources of rural credit-Institutional and non-institutional; Re-organisation of rural credit-Cooperatives, commercial banks, Regional rural banks; Role of NABARD, Rural indebtedness and farmer suicide.

MODULE-III: RURAL LABOUR MARKET AND UNEMPLOYEMENT
Rural labor supply; Mobility of labor and segmentation in labor markets; marginalization of rural labor; Nature, extent and trends in rural unemployment; Agricultural wages in India-Minimum Wages Act; Male-female wage differences; Non-agricultural rural employment —Trends and determinants.

MODULE-IV: ISSUES IN RURAL ECONOMY
Problems of marginal and small farmers, rural industrialization-importance, Issues and problems, development of agro-based industries; rural poverty—extent and causes; strategies for rural development.

READING LIST
7. Lekhi R.K. and Singh, J (latest edition), Agricultural Economics: An Indian Perspective, Kalyani Publisher
COURSE NAME: INDIAN PUBLIC FINANCE
COURSE CODE: ECO 537

Nature of Course: Elective
Prerequisite: None

MODULE-I: THE INDIAN TAX SYSTEM
Constitutional Assignment of Expenditures-Union, States and Concurrent: 73rd and 74th Amendments, Role of Local Governments; Assignment of Taxes to Various levels of Governments; The Indian Tax System: Centre-Personal Income and Corporate Profit Taxes, Wealth Tax, CENVAT, Import Duties (Customs), Service Tax; States: Sales Tax, State Excise, Motor Vehicle Tax, Stamps and Registration, Land Revenue, Agricultural Income Tax

MODULE-II: GOVERNMENT EXPENDITURE, DEFICIT AND PUBLIC DEBT
Growth of Expenditure: Changing Composition, functional, Capital and Revenue heads; Evaluation of Structure of Government Expenditure: Centre and States. Deficit: Fiscal Deficit, Primary Deficit, Revenue Deficit-States and Centre and Combined States and Centre; Public Enterprises and the Budget; Public Debt: Internal and External Debts, Debt Dynamics in India

MODULE-III: INTER-GOVERNMENTAL TRANSFERS

MODULE-IV: TAX REFORMS
Reforms in Personal Income Tax, Corporate Profit Tax, CENVAT, Sales Tax, Stamps and Registration Fees; Tax Reform-Assessment of Progress, fiscal crisis and fiscal sector reforms in India. Good and Service Tax (GST): Good or Bad.

READING LIST
2. Chelliah, R.J.(1990) et al - Primer on Value Added Tax, NIPFP.
4. Government of India, Budget Documents (Various years).
COURSE NAME: BUDGETARY THEORY AND PRACTICE
COURSE CODE: ECO 538

Nature of Course: Elective
Prerequisite: None

MODULE-I: GOVERNMENT AND THE MARKET

MODULE-II: GOVERNMENT SPENDING

MODULE-III: FUNDING GOVERNMENT: TAXES, FEES AND GRANTS

MODULE-IV: INTERGOVERNMENTAL GRANTS IN THEORY AND PRACTICE
Growth and Decline of Federal Grants: Purposes of Grants, Correcting Spatial Externalities, Redirecting Priorities; Types of Grants: General Purpose or Categorial?; Formula or Project?; Lumpsum or Matching?; Open ended or Closed Ended?, Matching Grants; Efficiency and Equity Effects of Grants: Indifference Analysis of Grants, Lump sum Grants, Fungibility and Maintenance of Effort Flypaper Effect.

READING LIST

COURSE NAME: FINANCIAL ECONOMETRICS
COURSE CODE: ECO 539

Nature of Course: Elective
Prerequisite: ECO 410

MODULE-I: PREDICTING FINANCIAL RETURN
Financial time series, asset returns, distributional properties of financial returns, Market efficiency, Principle component analysis, factor analysis.

MODULE-II: MODELS OF VOLATILITY
Modelling volatility, ARCH, GARCH and various versions of GARCH. Long-memory and stochastic volatility models, Recently developments in volatility estimation using high frequency data.

MODULE-III: RISK AND RETURN MODELS FOR MULTIPLE ASSETS
Multivariate time series analysis, Weak stationarity and cross correlations, Vector auto regressive models- VAR, Vector moving average models-VMA, ARMA and Model evaluation Vector models for mean, Time varying variance-covariance matrix and the dynamic conditional correlation models.

MODULE-IV: RANDOM WALKS, COINTEGRATION AND VALUE AT RISK (VAR) MODELS
Pitfalls-Spurious regression, Co-integration and error correction models, Threshold co- integration and arbitrage models. Value at risk-VaR, An econometric approach to VaR calculations, Quantile estimation, Extreme value theory, An extreme value approach to VaR

READING LIST
COURSE NAME: LABOUR ECONOMICS  
COURSE CODE: ECO 540  
Nature of Course: Elective  
Prerequisite: None

MODULE-I: LABOUR MARKETS  
Nature and characteristics of Labour Markets in developing countries like India, Demand for labour in relations to size and pattern of investment, Supply of Labour in relation to growth of Labour Force. Labour Market policies, Mobility of labour, methods of recruitment and placement; employment service organization in India.

MODULE -II: WAGE DETERMINATION  
Classical, Neo-classical and bargaining Theories of Wage Determination, Concepts of Minimum Wage, Living Wage and Fair Wage in theory and practice Discrimination in Labour Markets; Wage Determination in various sectors-Rural, Urban, Productivity and wage relationship; National Wage Policy; Wages and Wage Boards in India; Bonus System and Profit Sharing.

MODULE-III: INDUSTRIAL RELATIONS  
Growth, Pattern and Structure of Labour Unions in India, Achievement so Labour Unions; Causes of industrial disputes and their settlement and prevention mechanism. Role of tripartism; Current trends in collective bargaining; Labour Legislation in India.

MODULE-IV: STATE AND LABOUR  
State and Social Security of Labour –Concept of Social Security and its evolution; Social Assistance and Social Insurance- Labour Welfare in India;Special Problems of Labour; Child Labour; Female Labour; Second National Commission on Labour, ILO, Establishment of ILO, Aims and objectives of ILO, Impact of ILO on India.

READING LIST  
COURSE NAME: APPLIED ECONOMETRICS  
COURSE CODE: ECO 541

Nature of Course: Elective  
Prerequisite: ECO 410

MODULE-I: INTRODUCTION  
Overview of the Course and Review of Understanding Econometrics  

MODULE-II: APPLICATIONS IN MICROECONOMICS -  

MODULE-III: APPLICATIONS IN MICROECONOMICS-II  

MODULE-IV: APPLICATIONS IN MACROECONOMICS  

READING LIST  
COURSE NAME: TIME SERIES ECONOMETRICS  
COURSE CODE: ECO 542 

Nature of Course: Elective  
Prerequisite: ECO 410

MODULE-I: LINEAR REGRESSION MODELS USING TIME SERIES DATA
Regression models with strictly exogenous regressors, Regression models with predetermined regressors, Regression models with endogenous regressors

MODULE-II: TIME SERIES MODELS FOR STATIONARY PROCESSES
Difference equations, Univariate ARMA models, Estimation of ARMA models, Vector autoregressions (VARs), Autoregressive Conditional Heteroskedasticity (ARCH) models

MODULE-III: NON-STATIONARITY, UNIT-ROOTS AND COINTEGRATION
Non-stationarity in univariate models, unit-roots in vector models, Spurious regressions, Co-integration and error correction models

MODULE-IV: OTHER ECONOMETRIC MODELS
Forecasting with regression models, ARIMA models, Vector autoregressive models, Vector error correction models, Granger causality, Nonlinear models, Discrete-valued time series models. Practice of econometric models through SPSS/E-VIEWS/STATA package.

READING LIST