--Syllabus for B.A. (Hons.), Economics

SEMESTER-I

ECB-151, Microeconomics –I
(For Both Main & Subsidiary)

Credits: 04

Compulsory

Objectives: This is the first part of the two part course, and is designed to expose students to the basic principles of economics. This course has the objective of equipping the students in a rigorous and comprehensive manner with the various aspects of demand analysis, consumer behaviour, production theory, cost analysis and market structure.

Unit-I: Consumer theory

Nature and Scope of Economics, Methodology of Economics, Demand and supply function; Law of demand, Elasticity of demand – price, income and cross elasticities, and their measurements; Elasticity of supply; Price determination.

Theory of consumer behaviour: Cardinal and Ordinal Utility analysis and Consumer’s equilibrium. Indifference curve and its properties, the consumer— price consumption curve and income consumption curve, - price effect, income effect and substitution effect (Hicks and Slutsky methods), inferior goods and giffen goods, derivation of demand curve.

Unit-II: Production, Costs & Revenue

Production decisions; Production function; law of variable proportions; returns to scale; characteristics of Isoquants, Factor substitution; Ridge lines; least cost combination of factors, Internal and external economies and diseconomies.

Cost function: different concepts of costs, short run cost analysis and long run cost Analysis- relation between the expansion path and cost function.

Concepts of revenue: total, average and marginal revenue and their relationships, Break-even-analysis & its uses.

Unit-III: Market Structure

Perfect and imperfect markets, Pure competition, Equilibrium of the firm and industry under perfect competition, Role of time element in the determination of value, supply curve under perfect competition, Equilibrium of the firm under monopoly, Discriminating monopoly, Conditions of equilibrium under price discrimination, Degree of monopoly power.

Readings:

2. Gravelle and Rees- : Microeconomics; Pearson Education, 2nd Edition

Websites for reference

http://www.yahoo.com/social_science/economics/infoseek-economics
www.sciedirect.com ; http://Levine.ssnet.ucla.edu

Approved by BOS in its meeting held on 19.05.2015
Credits: 02  
(Compulsory)

Objectives: This course exposes students to the theory and functioning of the monetary sector of the economy. It focuses on the nature, role, significance, demand and supply of money in a modern economy. In addition to that the course also covers the relationship between money and prices. After completing this course students would have sufficient knowledge about the behavior of money and its inter-relations with the functioning of the economy.

Unit-I
Money: definition-theoretical and empirical, classification and functions; Money and near monies; Gresham’s law; Monetary standards-gold and paper; System of note issue; Brief history of Indian rupee; Value of money: concept and measurement; Quantity theory of money-cash transaction and cash balance approaches, Wicksell’s contribution; Keynes theory of money and prices

Unit-II
Demand for money: Classical, Keynes and Friedman’s approaches; Supply of money: components and determinants; H-theory of money supply; Money multiplier-concept and determinants; Measures of money supply; Reserve bank’s analysis of money supply.

Readings:

1. Geoffrey Crowther : An Outline of Money, Read Book Publisher
2. Luckett, D.G., : Money and Banking, McGraw-Hill Kogakusha, Ltd.,
3. L.V. Chandler : An Introduction to Monetary Economics, Manchester University Press.
7. Mihir Rakhshit. : Money and Finance in the India, Oxford University Press, India
10. Suraj B. Gupta : Monetary Planning, Oxford University Press, India
11. Lewis MK and Mizen PD : Monetary Economics, Oxford University Press, London

Websites for reference

Approved by BOS in its meeting held on 19.05.2015
Syllabus for B.A. (Hons.), Economics
SEMESTER-II
ECB-251, Macroeconomics –I
(For Both Main & Subsidiary)

Credits: 04
Compulsory

Objectives: This is the first part in the two part course, and is designed to provide a sound knowledge in macroeconomic theory. The goal of this course is to provide students with a thorough understanding of the fundamental principles of macroeconomics that establishes the functional relationship between large aggregates. This course looks at the determination of income and employment, consumption function, theories of investment, multiplier and accelerator

Unit-I  Introduction:
Nature and scope of Macro Economics, difference between Micro and Macro Economics and importance of Macro Economics.


Unit-II: Consumption:
The principle of effective demand; Consumption Function, Technical Attributes of Consumption, Keynes Psychological Law of Consumption and Its Implications, Empirical evidence.


Unit-III: Investment Function:


Readings:
2. Andrew B. Abel and Ben S. Bernanke (2011)
3. Besanke, D. A. : Microeconomics, John Willy & Sons, INC
5. Chauhan, S.P.S. : Microeconomics: Advanced treatise, PHI
Macmillan, London.
17. Paul Samuelson and Nordhaus: (2005)

Websites for Reference
http://en.wikipedia.org/wiki/Macroeconomics
http://www.oswego.edu/~economic/eco300.html
http://www.stanford.edu/~sargent/ljungqvist.html
http://cepa.newschool.edu

Approved by BOS in its meeting held on 19.05.2015
Credits: 02
(Compulsory)

Objectives: This course exposes students to the importance of financial intermediation in the economy. The students will be explained the nature, importance and functioning of commercial banks. After acquiring necessary knowledge about commercial banks, they will be explained the structure and progress of banking in India. They will also learn the role and functions of central bank. The structure and functioning of Indian money market will also be explained to enable the students to understand the role and working of RBI.

Unit-I Commercial Banking
Meaning and functions of commercial banks; Balance sheet; Process of credit creation— purpose and limitations, liabilities and assets of banks; Investment policy of commercial banks; Core banking; Commercial bank and economic development; Commercial Banking in India: structure, nationalization and reforms, Jan Dhan yojana; Cooperative banks: meaning, structure and Growth; Microfinance: Concept and progress in India.

Unit-II Central Banking
Meaning and functions of Central bank; Objectives and methods of credit control-quantitative and qualitative methods; Role and functions of Reserve Bank of India; Monetary Policy: Objectives, Targets and indicators, Monetary policy of RBI: An overview; Indian money market: components and limitations; Non-Banking Financial Intermediaries: meaning and role in economic development.

Readings:
1. Luckett, D.G., : Money and Banking, McGraw-Hill Kogakusha, Ltd.,
2. L.V. Chandler : An Introduction to Monetary Economics, Manchester University Press.
5. M.H. De Kock : Central Banking, Staples Press
7. Mihir Rakhshit. : Money and Finance in the India, Oxford University Press, India
10. Sethi, T.T. : Monetary Economics,; S. Chand and Co., New Delhi
12. Suraj B. Gupta : Monetary Planning, Oxford University Press, India

Websites for reference
http://mospi.nic.in http://www.indiastat.com

Approved by BOS in its meeting held on 19.05.2015
Syllabus for B.A. (Hons.), Economics
SEMESTER-III
ECB-351, Microeconomics –II
(For Both Main & Subsidiary)

Credits: 04
Compulsory

Objectives: This course is a sequel to Microeconomics-I. The emphasis will be to provide students with a thorough understanding of the fundamental principles of monopolistic competition, oligopoly factor pricing and welfare economics. The course will illustrate how microeconomic concepts can be applied to real-life situations.

Unit-I: Market Structure-II
Oligopoly: Features and types of oligopoly, Cournot’s model, Kinked demand curve hypothesis, Cartels and price leadership.

Unit-II: Factor pricing
Marginal productivity theory of distribution, Ricardian & Modern Theories of rent, Quasi-rent, Wage determination under perfect and imperfect competition, wages and collective bargaining, Theories of profit-Dynamic theory, Risk and uncertainty theory and Schumpeterian theory of profit.

Unit-III: General Equilibrium and Welfare Economics
Edgeworth box analysis of an exchange economy, Problems of measuring welfare, Marshallian and Pigovian approaches, Pareto’s welfare criteria, Concept of Social welfare function.

Readings:
1. Ahuja H.L. : Modern Micro Economics, S. Chand & Company Ltd New Delhi
8. Seth M.L. : Micro Economics, Lakshmi Narain Agrawal Publisher

Websites for reference
http://www.yahoo.com/social_science/economics/infoseek-economics
www.jbdon.com/pricing-under-monopolistic-and-oligopolistic-competiti

Approved by BOS in its meeting held on 19.05.2015
Objectives: Indian economy has already undergone many changes. This transformation is still taking place in every sector of the economy. However, many of the basic problems of the economy still exist. These include poverty, inequality, unemployment, infrastructural bottlenecks, demographic issues, and so on. A student of economics must have a clear understanding of the extent of success and failures of the economy. This course aims at giving students a reasonable introduction to Indian economy. The course will concentrate on both the achievements and the issues of the economy.

Unit-I: Structure of Indian Economy
Basic features of Indian economy; Broad demographic features of Indian population; Trend in National Income and Per capita income; Sectoral composition of output and employment; Five Year Plans: An overview; NITI Aayog: Structure, objectives and working; Regional disparities, Poverty and Inflation: meaning, extent, causes and remedial measures.

Unit-II: Agriculture and Industry
Trends in agricultural production and productivity; Factors determining productivity; Institutional and technological reforms; Capital formation; Agricultural price policy; Food security and Public Distribution System; Rural credit and role of NABARD, Rural employment schemes; Industrial growth during plans; Industrial policy of 1948, 1956 and 1991; Competition policy; Issues in Labour market reforms, Micro Small and Medium enterprises: problems and prospects.

Readings:
4. Dutt and Mahajan : India Economy, S. Chand & Company Ltd., 68th Edition
5. Government of India : Economic Survey (latest)

Websites for reference
http://dare.nic.in http://agricoop.nic.in http://planningcommission.gov.in
http://civilaviation.nic.in http://mohfw.nic.in http://www.indianrailways.gov.in
http://rural.nic.in http://morth.nic.in http://shipping.gov.in
http://ssi.gov.in http://ssi.gov.in http://commin.nic.in

Approved by BOS in its meeting held on 19.05.2015
Syllabus for B.A. (Hons.), Economics
SEMESTER-IV
ECB-451, Macroeconomics-II
(For Both Main & Subsidiary)

Credits: 04
Compulsory

Objectives: This course is a sequel to Macroeconomics-I. The goal of this paper will be to expose the students to the basic principles of macroeconomics. The emphasis will be on thinking like an economist and course will illustrate how economic concepts can be applied to analyse real-life situations. In this course, the students are introduced to money and interest, theories of inflation, rate of interest, trade cycle and growth models.

Unit-I
Theories of Rate of Interest: Classical, Loanable and Liquidity Preference.
Equilibrium in the product and money markets: IS and LM functions, changes in IS and LM functions, General equilibrium – changes in general equilibrium, Elasticity of LM Schedule and Shifts in LM curve with changes in Money Supply and Money Demand, Interest Elasticity of IS schedule and Equilibrium.

Macro Economic policies: Monetary and Fiscal Policies: Objectives, Instruments, Policy-Mix and Limitations.

Unit-II: Inflation

Unit-III
Trade cycles: Meaning, Types and Phases, Theories of Trade Cycles: Kaldor, Samuelson and Hicks.

Readings:

Websites for Reference
https://sites.google.com/site/.../trade-cyc ..., www.policonomics.com/is-l

Approved by BOS in its meeting held on 19.05.2015
Syllabus for B.A. (Hons.), Economics
SEMESTER-IV
ECB-452, Indian Economic Development & Policy-II
(For Both Main & Subsidiary)

Credits: 02
(Compulsory)

Objectives: Indian economy has already undergone many changes. This transformation is still taking place in every sector of the economy. However, many of the basic problems of the economy still exist. These include poverty, inequality, unemployment, infrastructural bottlenecks, demographic issues, and so on. A student of economics must have a clear understanding of the extent of success and failures of the economy. This course aims at giving students a reasonable introduction to Indian economy. The course will concentrate on both the achievements and the issues of the economy.

Unit-I: Foreign Trade
Foreign Trade: Trends, composition and direction; Causes and effects of persistent deficit in the balance of payments; Measures adopted by the government to correct the deficit in Balance of Payments before and after 1991; Need for and rationale of trade reforms in India; Convertibility of Rupee; Features of new trade policy, Trends of foreign exchange reserves; FEMA; Capital flows: nature, extent and composition.

Unit-II: Public Finance
India’s tax system; Ratio of direct and indirect taxes; Tax reforms since 1991; Goods and Services Tax (GST): features and progress; Public expenditure in India -classification and trends; Public debt in India-classification, trends and management; Public debt and fiscal deficit in India; Fiscal federalism in India: Issues and constitutional provision; Recommendation of the 14th Finance Commission; Parallel economy: meaning, causes and remedial measures.

Readings:
4. Dutt and Mahajan: India Economy, S. Chand & Company Ltd., 68th Edition
5. Government of India: Economic Survey (latest)

Websites for reference
http://dare.nic.in http://agricoop.nic.in http://planningcommission.gov.in
http://civilaviation.nic.in http://mohfw.nic.in http://www.indianrailways.gov.in
http://rural.nic.in http://morth.nic.in http://shipping.gov.in
http://ssi.gov.in http://ssi.gov.in http://commin.nic.in

Max. Marks :100
Sessional :10
Mid-Sem. Exam. :30
End-Sem. Exam. :60

Approved by BOS in its meeting held on 19.05.2015
Credits: 04
(Compulsory)

Objectives: This course will introduce the students to economic thought by tracing its history. It will introduce them to the various concepts & theories of Ricardo & Malthus as well as with the contribution of Marx. It will also introduce them to the essential features of marginalism, neo classical economics, Keynesian economics and welfare economics. The course will enable the students to understand the development of economics from the beginning of economic thinking.

Unit-I

Unit-II
Karl Marx: Historical Materialism, Theory of Value, Theory of Capital Accumulation Organic Composition of Capital, Theory of Crisis; Essential Features of Marginalism, Jevons theory of Value, Bohm Bawerk’s Theory of Capital.

Unit-III

Readings:

3. Eaton, John. : Political Economy, International Publisher
4. Eric Roll, : A History of Economic Thought, Faber & Faber Publisher

Websites for Reference

www.policonomics.com/lp-classical-economics-mercantilism
en.citizendium.org/wiki/History_of_pre-classical_economic_thought
https://www.marxists.org/archive/marx/works/.../theories_value
publishing.cdlib.org/ucpressebooks/view?docId=ft367nb2h4
economics.illinoisstate.edu/ntsaggs/eco372/.../alfred_marshall.htm
www.academia.edu/3836527/Walrasian_General_Equilibrium_Theory

Approved by BOS in its meeting held on 19.05.2015
Syllabus for B.A. (Hons.), Economics
SEMMER- V
ECB-552, Statistical Methods

Credits: 04
Compulsory

Objectives: In Economics, the theories have been developed or confirmed on the basis of observed data. So, a study with regard to the statistical tools becomes necessary for the students in order to have clarity in Economics. This paper tries to impart knowledge to the students in the field of statistics. The paper is an attempt to let the students know about various measures of central tendency & dispersion, techniques of simple correlation and regression, theory of index numbers and time series.

Unit-I: Central Tendency, Dispersion, Skewness and Kurtosis
Measures of central tendency: Mean, Median, Mode, Geometric mean and Harmonic mean, Simple and weighted averages, Group averages; Measures of dispersion; Range, Mean deviation, Standard deviation, Coefficient of variation, Quartile deviation, Skewness and Kurtosis.

Unit-II: Correlation and Regression
Correlation; Simple, Coefficient of correlation — Karl Pearson and Rank Correlation, Partial and Multiple correlation Analysis, Regression analysis — Estimation of regression line in a bivariate distribution— Least squares method, interpretation of regression coefficients. Association of attributes.

Unit-III: Index Numbers
Index numbers: concept and uses, Different formulae for price and quantity index numbers, tests for index numbers, chain index, and cost of living index, Problems in constructing index numbers, Splicing, Base shifting, Use of index numbers for deflating other series.

Time Series

Readings:

8. N. G. Das – : Statistical Method (Part I & II), McGraw Hill Companies

Websites for reference

Approved by BOS in its meeting held on 19.05.2015
Credits: 04
Compulsory

Objectives: The knowledge of Mathematics is now days almost essential to understand the subject matter of Economics. The students in this direction are expected to have an elementary knowledge of the concept of functions, limits and continuity, differential and integral calculus, matrices & determinants. This course has been designed keeping in mind the aforesaid need of the students. It emphasises on the application of Mathematics in Economics.

Unit-I: Functions

Function; Types of Function: Linear, quadratic, power, exponential and inverse; Economic applications of graphs and equations; Calculation of growth rates, present value and annuities; Progression: Arithmetic and Geometric.

Limits and Continuity

Introduction; Limit Theorems; Examples on Limits; Continuity of Functions ; Basic Properties Concerning Continuity.

Unit-II: Differential Calculus

Average rate of change; The Derivative as a rate of change; Rules for Simple, Partial and Total differentiations; Higher-Order Derivatives; Concavity and Convexity: A Graphical Exposition; Problems of maxima and minima in single and multivariable functions. Constrained optimization with Lagrange multiplier.

Integral Calculus

Indefinite Integral; Basic Integration Formulas; Methods of Integration; Definite Integral; Properties of Definite Integrals. Application of Integration in Economics: Finding out total functions (TR, TC, Consumption Function, Saving function) when marginal functions are given – Consumer’s Surplus – Producer’s surplus

Unit-III: Matrices and Determinants

The Concept of a Matrix; Types of Matrices; Operations on Matrices; Determinants: Characterization, Properties and Applications; Rank of a Matrix; Matrix Inversion; Solution of Simultaneous equations: Cramer’s rule and Matrix Inversion method.
Readings:

10. James, Bergin : Mathematics for economists. Routledge

Website for Reference
http://www.math.tifr.res.in/maths/all-journals.html, http://www.uccollege.edu.in
http://www.indiastudycenter.com, http://www.iisc.ernet.in
www.cis.upenn.edu, math.feld.cvut.cz/mt/txtb/5/txe3ba5b.htm
www.intmath.com/differentiation/4-derivative-instantaneous-rate-change.

Approved by BOS in its meeting held on 19.05.2015
Objectives: This course is an introduction to current theory and empirical work in Industrial economics. It starts by examining the internal structure of firms. It then moves on to the analysis of various aspects of strategic interaction between firms and the determinants of industrial structure. Finally, it discusses the role of policy in the context of competition and industrial policies and regulation. The emphasis will be throughout on understanding how the theoretical tools can be used to analyse real issues. The theory will be confronted against empirical evidence, and its implications for public policy and business strategy will be discussed.

Unit-I
Scope of Industrial economics; Concept, measurement and determinants of efficiency of firms, Productivity Movements in India, National Productivity Council; Forms of organization of industrial firms; Theory of optimum size of the firm, Factors influencing optimum size.

Unit-II
Market structure, Performance of the firms in different form of the market; Concentration: its meaning and determinants, Measurement of market concentration: Herfindahl Index and Lerner Index; Industrial Location: meaning and determinants, Theories of Industrial Location: Alfred Weber's Deductive Analysis and Sargent Flourence's Inductive Analysis.

Unit-III
Industrial Finance: Concept, need and types, Internal and external sources of industrial finance; Industrial growth in India during plans, Impact of economic reforms on India's industrial growth; India's industrial policy: 1956 & 1991; Role and performance of public sector enterprises, Privatisation of Public Sector Undertakings in India; Small scale industries and their importance in the Indian economy.

Readings:

3. Dean, Joel : Managerial Economics, Prentice Hall of Inc.,
9. SSM Desai and Nimal Bhalerao, : Industrial Economy of India, Himalaya Publishing House
11. R.K. Haza : The Structure of the Corporate Sector in India, Asia Publishing House

Websites for reference
http://economics.about.com/od/pricing www.studyfinance.com

Approved by BOS in its meeting held on 19.05.2015
**Objective:** This course will give the students the theory of finance which provides the framework for investment and financing decisions, expound several analytical methods used to come to conclusions with varied problems in financial management.

**Unit-I**
Structure of a financial system; Functions of financial sector; Financial system and economic development; Structure of financial markets: debt and equity market, primary and secondary market, exchange and over the counter market, money and capital market; Financial instruments; Four types of credit market instruments; Risk structure of interest rates; Theories of term structure of interest rates: Pure expectation theory, Market segmentation theory, Liquidity premium theory.

**Unit-II**
Time value of money; Simple interest, compound interest and annual percentage rates; Depreciation; Net present value and internal rate of return; Annuities, debt repayments, sinking funds; Risk: concept, types and measurement; concept and types of return; Risk-Return trade-off; Modern portfolio theory; The capital market line; Capital asset pricing model; Beta of an asset and of a portfolio, Security market line; Equity valuation; Bond valuation;

**Unit-III**
SEBI: objectives, functions and performance; Derivatives: meaning, types and uses, forward and futures contracts, use of futures for hedging; Options: meaning, types and uses, factors affecting option prices,

**Readings:**
1. Bodie, Robert c Merton and David Cleaton (2009), Financial Economics, Pearson
2. Elton, Gruber Brown, Goetzmann (2007), Modern Portfolio Theory and Investment Analysis

**Websites for reference**

Approved by BOS in its meeting held on 19.05.2015
Syllabus for B.A. (Hons.), Economics
SEMESTER-V
ECB-556, Indian Economy
(Open Elective Course)
(For students of other departments who have not offered Economics as a Subsidiary subject)

Credits: 02
(Compulsory)

Objectives: Indian economy has already undergone many changes. This transformation is still taking place in every sector of the economy. However, many of the basic problems of the economy still exist. This course aims at giving students a reasonable introduction to Indian economy. After completing the course, students are expected to have a good understanding of the Indian Economy.

Unit-I: Structure of Indian Economy

Unit-II: Agriculture and Industry
Causes of low productivity in Indian agriculture, Institutional and Technological reforms, Agricultural finance and marketing. Industrial growth in India, New Industrial policy, Privatisation and disinvestment debate, Micro Small and Medium enterprises: problems and prospects.

Readings:
4. Dutt and Mahajan : India Economy, S. Chand & Company Ltd., 68th Edition
5. Government of India : Economic Survey (latest)

Websites for reference
http://dare.nic.in http://agricoop.nic.in http://planningcommission.gov.in
http://civilaviation.nic.in http://mohfw.nic.in http://www.indianrailways.gov.in
http://rural.nic.in http://morth.nic.in http://shipping.gov.in
http://ssi.gov.in http://ssi.gov.in http://commin.nic.in

Approved by BOS in its meeting held on 19.05.2015
**Syllabus for B.A. (Hons.), Economics**  
**Semester-V**  
**ECB-557, Environmental Economics**

**Credits: 04**  
*(Elective Course)*

**Objectives:** The course will introduce the students to the basic concepts of environmental economics, meaning and types of environmental values. The students would also be familiarised with nature of environmental goods and problems associated with their use as well as various theories associated with the study of environmental economics. The course will also help in developing an understanding of various environmental issues, their consequences, concept of sustainable development as an alternative as well as instruments of environment policy.

**UNIT-I: Introduction**
Environmental economics- it’s importance, scope and evolution; environment and economy; common pool resources and ‘Tragedy of the Commons’; exhaustible and renewable natural resources; Meaning and types of environmental values; valuation of intangible benefits of environment; market valuation; Environmental accounting; non-market values and measurement methods; risk assessment and perception.

**UNIT-II: Theories**
Characteristics of environmental goods; environment as a public good; free rider problem; externalities; markets and market failure; social benefits, costs and welfare function.  
Pareto optimality and market failure; property rights and coasian approach; non-convexity and market bargaining theorem; social cost benefit analysis; contingent valuation method: Hedonic approach, Travel cost method.

**UNIT-III: Environmental Issues & Policy**
Environmental pollution; growth and environmental degradation; land degradation; Environmental consequences of deforestation and degradation of forests; biodiversity loss and consequences; Trans-boundary environmental problems; economics of climate change; trade and environment; Sustainable development and measurement; Need for an environment policy and its instruments; India’s environment policy; World conference on human environment (1972), World commission on environment and development (Brundtland commission) 1984, Agenda 21, Kyoto protocol.

**Readings:**

**Websites for reference**
http://www.tutor2u.net/economics/content/topics/externalities/what_are_externalities.htm  
http://pescplc1.vub.ac.be/ase/EXTERNALITI.html  
http://www.uwmc.uwc.edu/geography/Demotrans/demtran.htm  
http://www.globalchange.umnich.edu/globalchange/current/lectures/kling/ecosystem/ecosystem.html  
http://www.rpi.edu/dept/chem-eng/Biotech-Environ/ECOLOGY/project.html  
http://www.eagle.ca/~matink/themes/Environ/pollute.html  
http://www.nelincs.gov.uk/AtoZ/aqoDetail?ID=4851

Approved by BOS in its meeting held on 19.05.2015
Objectives: The main objective of this paper is to expose the students to use the techniques of mathematical analysis, which are commonly applied to understand and analyze economic problems. Therefore the emphasis is on understanding economic concepts with the help of mathematical methods rather than learning mathematics itself. This course looks at the theory of consumer behaviour as well as the behaviour of a competitive firm. It also covers input-output analysis, linear programming and game theory.

Unit –I: Consumer Theory and Production Function
Consumer Theory: Utility function; budget line; Constrained optimization; Consumer’s equilibrium; Income effect; substitution effect and price effect; Slutsky equation; Derivation of demand curve.
Properties of production function — Homogeneous and non-homogeneous; Cobb-Douglas, CES, Returns to scale; Technology progress and production function; Choice of optimal combination of factors of production; Cost and revenue functions; Derivation of cost curves; Relation between total, average and marginal cost and revenue; Producer’s surplus; Production possibility curve; Adding up theorem.

Unit-II: Market Structure and Game Theory
Concept of equilibrium; Equilibrium of the firm under perfect competition, monopoly, price discrimination, monopolistic competition; Subsidies and taxes.
Game Theory: Concept, Pay-off matrix, Static games of complete information, Normal form game and Nash equilibrium, Cournot Bertrand models of Duopoly.

Unit-III: Input-Output Analysis and Linear Programming

Readings:
7. James, Bergin. : Mathematics for economists. Routledge
Objectives: It is increasingly recognised that market forces do not result automatically in regionally balanced development of developing countries. To help develop these less developed regions it is necessary to understand the dynamics of regional development. This course deals with the concepts and aspects of spatial price theory and macro economics. Students are given a broad overview of the technique of regional analysis. It also contains a section on Indian experience in regional policy implementation.

Unit-I
Concept of Region and Regional Economics; Regional Income; Problems of estimation; Indicators of regional development.
Location of Firms: One market one input case; Locational interdependence; Hotelling phenomena.

Unit-II
Spatial Price Theory: Price equilibrium in geographically separated and interlinked markets. Models of pricing under free entry; spatial monopoly and Price discrimination; spatial monopolistic competition.
Spatial Macro Economics: Inter-Regional Income Models; Inter-Regional Factor Movements; Regional multiplier.

Unit-III
Regional Growth: Neo-classical growth models-Cumulative causation model; Center-periphery model; Convergence and divergence of disparities in per capita regional income.
Techniques of Regional Analysis: Regional and interregional input-output analysis;
Regional Policy: People prosperity versus place prosperity; Formulation of interregional objectives; Consistency between national and regional objectives; Regional Policy in India and Liberalization.

Readings:
11. Wright, Mark (1968), : Industrial Location and Regional Policy, Prentice Hall Press

Websites for Reference

Approved by BOS in its meeting held on 19.05.2015
**Syllabus for B.A. (Hons.), Economics**  
**Semester-V**  
**ECB-560, Human Resource Development**  

**Credits: 04**  
(Elective Course)

**Objectives:** The objective of this paper is to equip the students with theoretical concepts, methodology and process of reasoning involved in analysing economic behaviour of individuals, firms and markets. The role of public-private investment in context of human capital, issues of health insurance, financing and functioning of the market for human resources is discussed.

**Unit -I**  
Human Resource Development (HRD): Concept; Functions; Traditional and Modern approaches; Human Resource Development and Manpower Planning. Role of Health and Education in Human Development. Importance in poverty alleviation;

**UNIT - II**  
Human Capital: Concept; Problems of measurement; Role of public and private investment in human capital formation; Economics of education (formal, informal, on the job training and re-training). Rate of return to education: private and social. Education Sector in India: An Overview. Literacy rates, school participation, school quality measures.  
Health Economics: Demand for health; uncertainty and health insurance market; Market failure and rationale for public intervention; equity and inequality. Health Sector in India: An Overview. Health outcomes; health systems; health financing.

**UNIT - III**  
Functioning of Market for Human Resources: Internal allocation and brain drain, Asymmetric Information and Functioning of the Human Resource Market; Migration (Theories and the emerging challenges); Managing Human Resources. Demand and supply forecasting, wages, incentives - productivity relationship, economics of discrimination.

Approved by BOS in its meeting held on 19.05.2015
Readings:


Websites for Reference
www.info.com/HumanResourcePlanning
http://www.bambooweb.com/articles/h/u/Human_Resources.html

Approved by BOS in its meeting held on 19.05.2015
Objectives: This paper enables the students to understand the basics of energy economics and to solve the problems of energy and environmental issues.

UNIT-I: INTRODUCTION TO ENERGY ECONOMICS
Natural Resource: classification, importance, Role of Natural Resources in Economic Development; Energy Resources: Types and classification; Properties of Energy; Forms of Energy; Emergence of Energy Economics: Its nature and scope; Energy indicators; Energy Economics relation with other branches, Role of Energy in Economic Development.

UNIT-III: ENERGY CONSERVATION AND MANAGEMENT
Energy Crisis: causes, consequences, Remedial measures; Energy Planning and Energy Conservation: Meaning, objectives and importance; Energy Management: Meaning, Objectives and Importance; Energy Accounting; Energy Pricing and Taxes; Role of Economists in Promoting Sustainable Energy Management.

UNIT-III: INDIA’S ENERGY PROFILE

Readings:
8. Karpagam, M. - Environmental Economics (Sterling, New Delhi, 1991)
15. TERI - Teri Energy Data Directory and Year Book 2005-06 (The Energy Research Institute, 2005)