

BACHELOR OF ARTS -(SPECIALIZATION IN ECONOMICS)

SEMESTER I

Subject Name: Micro Economics- I

Course Objectives: The course aims at familiarizing the students pertaining to decisions made at individual level by consumers and firms after evaluating resources, costs and tradeoffs by the consumers and firms.

Student Learning Outcomes: After completing the course successfully, the students will be able to:

1. Describe Themes of Microeconomics
2. Understand consumption decisions
3. Identify various types of costs
4. Compare one variable, two variable and all variable production functions
5. Apprise profit maximization in competitive markets
6. Explain producers' surplus in short run and long run
7. Differentiate and compare between monopoly and monopsony power
8. Understand perfect competition and monopoly markets

Syllabus

Module I Introduction to consumer Behavior	Weightage
Definitions of economics, scope and importance, Themes of Microeconomics: Tradeoffs, Markets and prices, Equilibrium, theories and models, Normative and Positive analysis Understanding Markets: Definition, competitive vs non-competitive markets, Real versus Nominal Prices Concept of utility: cardinal utility approach, Law of marginal utility, Law of DMRS, indifference curve, The consumption decisions -- budget constraints, consumption and income/price changes, demand for all other goods and price changes Description of preferences [Representing preferences with Indifference curves. Properties of Indifference curves] Consumers' optimum choice, income and substitution effects.(Hicks and Slutsky), ordinary and compensated demand curves, inferior goods and Giffen goods, price consumption and income consumption curves, Revealed preference----weak axiom and substitution effect, Consumer Surplus Demand and supply: demand and supply curves, laws of demand and supply, elasticities of demand and supply (point vs arc elasticities), market mechanism, government intervention At least 2 case studies relevant to the topics will be discussed in the class. Self-work: Categorization of consumers according to their buying propensities. Combination of products chosen buy consumers according to their budget and prevailing prices.	40%

Welfare and taxation with the help of Indifference Curves.	
Module II production and cost	
<p>Cost of Production: Types of Cost, short run and long run costs, cost curves in the short run and long run, total, average, and marginal product, cost minimization and expansion path</p> <p>Technology of Production, Production Function: One variable, two variable (Isoquants), Returns to scale, elasticity of substitution, Cobb Douglas Production Function, Linear, and CES production function.</p> <p>Theory of costs</p> <p>Envelop curve, L-shaped scale curve</p> <p>Economies of scale and scope</p> <p>At least 2 case studies relevant to the topics will be discussed in the class.</p> <p>Self-Work: Preparing reports on Profit analysis based various types of cost of revenue.</p> <p>Prevalent external economies for different industries.</p>	35%
Module III Profit Maximization and Perfect Competition	
<p>Assumptions, marginal revenue, marginal cost and profit maximization</p> <p>Short run supply curves, producers' surplus in short run, economic rent, producers' surplus in long run</p> <p>Industry's long run supply curve,</p> <p>At least 1 case study relevant to the topics</p>	10%
Module IV Monopoly	
<p>Monopoly: Assumptions, AR and MR , output decisions.</p> <p>Monopoly power, sources of monopoly power, social cost of monopoly power,</p> <p>Monopsony: Meaning of monopsony, monopsony power.</p> <p>Difference between monopsony and monopoly.</p> <p>At least 2 case studies relevant to the topics will be discussed in the class.</p> <p>Self-work; Product categorization according to market structure</p>	15%

Text Reading:

- Robert S. Pindyk and D.L. Rubinfeld, (2000), Microeconomics, 3rd edition, Prentice Hall India.
- Ferguson & Gould- Micro Economic Theory, Cambridge University Press

References:

- Koutsoyiannis, Modern Microeconomics, Macmillan.
- Karl E. Case and Ray C. Fair, Principles of Economics, Pearson Education Inc., 8th Edition, 2007.
- N. Gregory Mankiw, Economics: Principles and Applications, India edition by South Western, a part of Cengage Learning, Cengage Learning India Private Limited, 4th edition, 2007.

- Joseph E. Stiglitz and Carl E. Walsh, Economics, W.W. Norton & Company, Inc., New York, International Student Edition, 4th Edition, 2007.
- Hal R. Varian, Intermediate Microeconomics, a Modern Approach, W.W. Norton and Company/Affiliated East-West Press (India), 8th edition, 2010. The workbook by Varian and Bergstrom may be used for problems.
- C. Snyder and W. Nicholson, Fundamentals of Microeconomics, Cengage Learning (India), 2010.
- B. Douglas Bernheim and Michael D. Whinston, Microeconomics, Tata McGraw- Hill (India), 2009.
- Ahuja, H.L., Advanced Economic Theory, S. Chand 17th revised edition, 2008

Subject Name: Fundamentals of Macro Economics – I

Course Objectives: This course aims at imparting knowledge to the students about how the economy behaves at the aggregate level and how national income is measured and determined. Topics include an overview of macroeconomics including causes of its emergence, major macro-economic concerns, measuring gross domestic product, inflation etc. It will enable the students to develop a critical insight on classical and Keynesian macro-economic models.

Student Learning Outcomes: On successful completion of the course, students will be able to:

- Understand the need for Macroeconomics as a separate field of study
- Identify the analytical tools by economists for the calculation of national income and the problems/precautions attached to it.
- Demonstrate an understanding of Circular flow of income and expenditure in an economy
- Illustrate the determination of equilibrium level of output/employment under: Classical and Keynesian framework.
- Explain how the national income is calculated in India
- Understand the meaning, causes and effects of inflation
- Comprehend and interpret the measurement of inflation in India

Syllabus:

Module I Introduction to Macroeconomics	Weightage
Difference between Micro and Macro Economics and their interdependence. The roots of macroeconomics, Macroeconomic concerns, The role of government in the macro economy, The components of the macro economy and The methodology of macroeconomics	10%
Module II Introduction to National Income Accounting	

Circular flow of income in two, three and four sector economy. Various Concepts of national income, GDP and personal income, Nominal and real GDP, Various Approaches to Measurement of national income, Difficulties in the measurement of National Income, Measurement of national income in India	20%
Module III The Classical Theory of Income and Employment	
The Classical full Employment model: Say's law of market, Wage-Price flexibility and full employment, Determination of equilibrium employment and output in the short run without saving and investment: Labour market equilibrium, Determination of output. Classical full Employment model: Determination of equilibrium employment and output with saving and investment –Capital Market equilibrium and determination of rate of interest. Classical Theory of Employment and output-complete classical model. Neutrality of money and classical Dichotomy.	25%
Module IV The Simple Keynesian Model	
Keynesian Consumption Function: Concepts of APC and MPC and shape of consumption function. Determination of equilibrium level of national income in a two sector and three sector economy using Aggregate Demand-Aggregate supply approach and saving-investment approach. Fiscal policy at work-- Concept of Multiplier, Types of Multiplier, Investment Multiplier, Government Expenditure Multiplier, Tax Multiplier, Leakages of Multiplier	25%
Module V Inflation	
The meaning and causes of inflation, Demand pull and Cost Push inflation. Level of prices and the value of money- The Fisher effect, The cost of inflation: Cost of Anticipated Inflation-Shoe Leather cost and Menu Cost and other. Effects of unanticipated inflation. Measurement of Inflation in India.	20%

Text Reading:

- Dornbush, Fischer & Startz: Macroeconomics, Tata McGraw-Hill Publishing Co. Ltd
- Blanchard Olivier: Macroeconomics, Pearson Education
- W. H. Branson. Macroeconomics, Harper & Row INC USA, Indian Edition
- D.N. Dwivedi, Macro Economics: Theory & Policy, Tata Mcgraw Hill

References:

- J.E. Stiglitz, and C.E. Walsh, Principles of Economics, 3rd Edition, W.W. Norton & Company, New York.
- Ackley, G , :“Macroeconomics: Theory and Policy, Macmillan, New York
- K.K. Dewitt: Modern Economic Theory, New Delhi, Shyamlal Charitable Trust

Subject Name: Economic History of India (1857-1947)

Course Objectives:

The course aims at familiarizing the students with Economic Theories; Concepts of models so that they can apply economic theories and models in the execution of problems & functions.

Student Learning Outcomes: On successful completion of the course, students will be able to:

- Understand different historical periods and the rulers who came to invade India for different purposes.
- Assess the economic aggregates like national income, foreign trade, balance of payments money supply, prices etc of India in Pre British era and compare it with the 200 years of colonial rule.
- Clearly explain and illustrate the requirement of Economic change and infrastructural development like railways, growth of industrial sector and growth of entrepreneurship.
- Describe the problems faced by modern industrial sector during the pre-war and inter war period.

Syllabus

Module I	Weightage
An overview	10%
Module II Introduction to National Income Accounting	
Population, labour force and occupational structure; National Income; Foreign trade and Balance of Payments; Saving and Investment; Money supply and prices.	30%
Module III The Classical Theory of Income and Employment	
Railways and Economic change	20%
Module IV The Simple Keynesian Model	
Agriculture, land, labour, capital, technology, commercialization, famines and environment	20%
Module V Inflation	
The deindustrialization hypothesis, rise of the modern industrial sector during the pre-war and the interwar period, industrial labour, growth of entrepreneurship.	20%

Text:

- Tirthankar Roy (2000), The Economic History of India, 1857-1974, Oxford University Press, Ch. 3,4,7,8 & 9.
- Rajnarayan Chandavarkar (1985), "Industrialization in India before 1947: Conventional Approaches and Alternative Perspectives", Modern Asian Studies.

References:

A.K. Bagchi (1976), "Deindustrialization in India in the Nineteenth Century: Some theoretical implications", Journal of Developmental Studies.

- Morris D. Morris (1965), The Emergence of an Industrial Labour Force in India: A Study of the Bombay Cotton Mills 1854-1947, Oxford University Press.
- Rajat Ray (ed) (1992), Entrepreneurship and Industry in India, 1800-1947, Oxford University Press.

Additional Reading:

- A.K. Bagchi (1972), Private Investment in India, Orient Longman (1st ed), Ch.2.
- J.N. Bhagwati and Padma Desai (1970), India, Planning for Industrialization, Oxford University Press, Chs. 2 & 3.

Subject Name: Business Communication

Course Objectives: This course is aimed to equip students with effective oral and written communication. In this course, students will learn Essential English grammar and English writing mechanics; Some theoretical inputs in to the process of communication, its difference between written and oral communication, and presentation skills, the process of writing, its different types and the correct format of business documents, job search creating resume participation in group discussion and interview.

Syllabus:

- **Module: I**
- Essential English Grammar
- **Module: II**
- Written English communication
- **Module III**
- Concept and nature of communication
- **Module IV**
- Listening
- **Module V**
- Nonverbal communication
- **Module VI**
- Effective presentation
- **Module VII**
- Writing for the Web
- **Module VIII**
- Correspondence
- **Module IX**
- Reports
- **Module X**
- Employment communication

SEMESTER II

Subject Name: Statistical Methods in Economics- I

Course Objectives: The course aims at making students understand the applications of statistical methods for data analysis and help them in learning critical thinking.

Course Outcome: After completion of the course the Students would learn to:

- Understand the basic concepts of statistical methods.
- Classify and present the data using graphs.
- Apply statistical methods for prediction and forecasting.
- Calculate the descriptive statistics.
- Demonstrate the ability to contract the index numbers.
- Estimate the coefficients in bivariate distributions

Syllabus:

Module I Nature and Scope of Statistics, Presentation of Data	Weightage
<ul style="list-style-type: none">• Interdisciplinary Nature of Statistics• Statistics versus Other Subjects• Nature, Significance and limitations of Statistics• Collection, Classification and tabulation of data• Presentation of Data; Diagrammatic and graphic representation; Bar diagram, Pie diagrams, Histograms and• Frequency graphs• Self work on: Presentation of Data using MS Excel	10%
Module II Measures of Central tendency and dispersion	
<ul style="list-style-type: none">• Measures of Central tendency; Arithmetic Mean, Median, Mode, Harmonic Mean And Geometric Mean• Measures of dispersion; Range, Quartile Deviation, Mean Deviation, Standard deviation, Co-efficient of Variation, Percentiles and Deciles.• Skewness; Pearsonian and Bowley's measure of Skewness• Kurtosis and Moments (Numerical examples and applications).• Self Work on: solving atleast 10 numerical problems on central Tendency and Dispersion	35%
Module III Correlations and Regression	

<ul style="list-style-type: none"> • Correlation –Meaning, types, limitations of correlation • Correlation coefficient; meaning, properties Measurement of Coefficient of • Correlation – Rank Correlation Co-efficient- • Karl Pearson’s correlation coefficient in bivariate distribution; Estimation and • Interpretations- Self Work: Numerical examples • Regression – Meaning, types, properties and assumptions of Regression • Two variable linear regression; Regression lines and regression Co-efficient- Numerical examples. 	30%
Module IV Index Numbers and Time Series Analysis	
<ul style="list-style-type: none"> • Concept of an index number , type, uses & problems in the Construction of an index numbers • Construction of Index number; Unweighted & Weighted (Laspeyer’s, Paasche's and Fisher's Index Numbers) • Time Reversal, Factor reversal and circular tests • Chain base index, Wholesale price index and consumer price index • Index of industrial production and applications of index number • Introduction to time series; Meaning, Uses and assumptions of time series • Components of a time series; Secular Trend, short-term variations and random or irregular variations • Mathematical models of Time Series • Measurement of Trend; Graphic or Free-Hand Curve Fitting Method, Method of Semi Averages, Method of Curve Fitting by the Principle of Least Squares, Conversion of Trend Equation • Method of Moving Averages • Self Work: Uses of time series analysis- Numerical Examples 	25%

Text Reading:

- Allen Webster, Applied Statistics for Business and Economics, (3rd edition), McGraw Hill, International Edition 1998.
- P.H. Karmel and M. Polasek, Applied Statistics for Economists (4th edition), Pitman, Australia.
- M.R. Spiegel (2nd edition), Theory and Problems of Statistics, Schaum Series.
- D.N.Elhance – Fundamentals of Statistics
- R.G.D.Allen – Statistics for Economists – Macmillan India

Subject Name: Micro Economics- II

Course Objectives: The course aims at imparting and familiarizing the students with oligopoly and monopolistic competitions. The course also aims at imparting knowledge about factor pricing and welfare economics

Student Learning Outcomes:

After completing the course successfully, the students will be able to:

Summarize various models of oligopoly

- Describe assumptions of monopolistic market
- Summarize price output determination in monopolistic competition
- Identify determinants of factor demand and elasticity of demand
- Apprise indifference curves between leisure and income
- Explain concepts of new welfare economics

Syllabus:

	Weightage (%)
Module I Monopolistic Competition	
Features, price output determination in monopolistic market, excess capacity in monopolistic competition, price output equilibrium under monopolistic competition compared with perfect competition, economic efficiency, chamberlin's theory of Monopolistic competition and its critique Self Work: Market Power and product differentiation	25%
Module II Oligopolistic Market	
Assumptions, Features, Various models (collusive and non-collusive) Approaches to Price- Output determination: Ignoring Interdependence: Cournot rival firm output constant, Bertrand rival firm price constant; Predicting Reaction Pattern and counter moves of rivals-P M Sweezy; Cooperative Behaviour: Collusive, Price Leadership ; Game Theory Approach: prisoner's dilemma, Nash Equilibrium, Baumol's Sales Revenue Maximisation Self work: Theory of Games and competitive Strategy	30%
Module III Theory of Factor Pricing	

<p>Theory of factor distribution (Micro and macro theories) Pricing of factors in competitive markets , Derived demand for a single input and multiple inputs in competitive & imperfect competition, determinants of demand for factors, elasticity of factor demand markets, firm demand and industry demand, Nature of supply of factors (land and labour), indifference curves between leisure and income, wage determination in competitive labour market</p> <p>Self work: collective bargaining and exploitation rent & quasi rent.</p>	20%
Module IV General Equilibrium Analysis and Welfare Economics	
<p>General Equilibrium Analysis: Partial and General Equilibrium ; Welfare Economics: Three concepts of Social Welfare, Role of Value Judgements in Welfare Economics; Economic Efficiency and Pareto Optimality, Marginal Conditions of Pareto Optimality, Efficiency in Exchange, Pareto Efficiency in Production, Efficiency in Product Mix;</p> <p>New Welfare Economics: Kaldor Hicks: Compensation Principle, Scitovsky Paradox, Scitovsky Double Criterion of Welfare, Bergson Social Welfare Criterion; Bergson –Samuelson Social Welfare Function-Social Welfare Function and Value Judgements-Grand Utility Possibility Frontier and Value Judgements- Grand Utility Possibility Frontier and Point of Constrained Bliss.</p> <p>Self Work: Critique of Welfare Economics, Critique of Social Welfare</p>	25%

Text Reading:

- Robert S. Pindyk and D.L. Rubinfeld, (2000),
- Microeconomics, 3rd edition, Prentice Hall India.
- Ferguson & Gould- Micro Economic Theory, Cambridge University Press

References:

- Koutsoyiannis, Modern Microeconomics,
- Macmillan. Managerial Economics,
- Vikas Publications M.L. Trivedi,
- Managerial Economics- Theory & Applications, Tata McGraw Hill, 2002.
- W.J. Baumol, Economic Theory & Operations Analysis, Prentice Hall.

Subject Name: Fundamentals of Macro Economics - II

Course Objectives: The main objective of this course is to introduce students to Macro economic theory and to prepare them for more advanced courses. The students will be given in depth knowledge of the recent developments in the Macro economic theory.

Student Learning Outcomes: After completing the course successfully, the students will be able to:

- **Elaborate** the Keynes psychological law of consumption and other theories of consumption and investment. Under this the student should be clearly be able to understand the concept of multiplier, Accelerator, Marginal efficiency of capital, Induced and Autonomous investment.
- **Understand and replicate** the concept of IS-LM Model.
- **Comprehend** the key concepts of New classical theories and New Keynesian Theories.
- **Identify** the basic concepts underlying Balance of payments
- **Understand** how exchange rate is determined under both: Fixed and Flexible exchange rate regime.

Syllabus:

	Weightage (%)
Module I consumption function and investment function theories	25%
Short run and long run consumption functions, APC, MPC, APS, MPS. Fundamental Psychological law of consumption; Implications of Keynesian Consumption Function; Factors influencing consumption function; Measures to raise Consumption Function; Theories of Consumption Function- Absolute, relative, permanent and life cycle income hypotheses. Augmented learning on: The decisions to invest- Autonomous and Induced investment, investment multiplier, MEC and MEI schedule. Profit and Accelerator theories of investment.	
Module II IS-LM Model	20%
Goods Market Equilibrium: The derivation of the IS curve, Shift in the IS curve; Money Market Equilibrium: The derivation of the LM curve, Shift in the LM curve; Self-work on: Intersection of the IS and LM curves: The simultaneous equilibrium of the Goods market and Money market; The role and relative effectiveness of fiscal and monetary policy.	
Module III Recent Developments in Macro Economic Theory	30%
The New Classical Economics: Rational expectations hypothesis: Policy ineffectiveness; Real Business Cycle Theory. Self-work on: The New Keynesian Models: Real and nominal price rigidity: Menu cost; Imperfect competition Real and Nominal wage rigidity: insider-outsider model; efficiency wages; implicit contracts; Co-ordination problem.	
Module IV Exploring the Macro economics of an Open economy	25%

Balance of Payments- The current and capital account, Group Discussion/Industry expert lecture on Balance of Payment situation in India. Determining equilibrium output in an open economy Mundell Fleming Model; Self-work on: Open economy with Flexible and Fixed exchange rates- Markets for Foreign exchange, Factors affecting exchange rates, effects of exchange rates on the economy. Dornbusch's overshooting model.	
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Text Reading:

1. Dornbusch, Fischer and Startz, Macroeconomics, McGraw Hill, 11th edition, 2010.
2. N. Gregory Mankiw, Macroeconomics, Worth Publishers, 7th edition, 2010.
3. Richard T. Froyen, Macroeconomics, Pearson Education Asia, 2nd edition, 2005.
4. N. Mankiw and D. Romer (1991), ed., New Keynesian Economics, MIT, 2 Volumes. Selected Readings.
5. Paul R. Krugman, Maurice Obstfeld and Marc Melitz, International Economics, Pearson Education Asia, 9th edition, 2012.

References:

- O. Blanchard and S. Fischer (1989), Lectures on Macroeconomics, MIT

Subject Name : Environmental Studies

Course Objectives:

- The goal of this course is to provide students with the scientific background needed to understand how the Earth works and how we, as human beings, fit into that. At the end of the course, it is
- expected that students will be able to identify and analyze environmental problems as well as the risks associated with these problems and understand what it is to be a steward in the environment, studying how to live their lives in a more sustainable manner.

Course Contents/Syllabus:

Module I : Multidisciplinary nature of environmental studies

Introduction, definition and importance of environmental studies, need for public awareness, sensitisation and participation

Module II : Natural Resources

Types of natural resources, natural resource conservation, Role of an individual in conservation of natural resources, Equitable use of resources for sustainable lifestyles. 2. Land resources: Land as a resource, land degradation, man induced landslides, Land resources: soil erosion and desertification. 3. Natural Resources: Forest resources: Use and over-exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forests and tribal people. 4. Natural Resources: Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems. 5. Natural Resources: Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources, case studies. 6. Natural Resources: Food resources: World food

problems, changes caused by agriculture and overgrazing, Food resources effects of modern agriculture, fertilizer pesticide problems, water logging, salinity, case studies. 7. Natural Resources: Energy resources: Growing energy needs, Energy resources renewable and non-renewable energy sources, Energy resources use of alternate energy sources, case studies. 8. Role of individual in conservation of natural resources 9. Equitable use of resources for sustainable lifestyles.

Module III : Ecosystems

1. Concept of an ecosystem, 2.Types of ecosystem, 3.Structure and function of an ecosystem, Producers, consumers and decomposers. 4.Energy flow in the ecosystem, Food chains, food webs and ecological pyramids. 5.Ecological succession. 6. Introduction, types, characteristic features, structure and function of Forest ecosystem, Grassland ecosystem and Desert ecosystem, Aquatic ecosystems (ponds, streams, lakes, rivers, ocean estuaries)

Module IV : Environmental Pollution

Definition Cause, effects and control measures of :- a. Air pollution b. Water pollution c. Soil pollution d. Marine pollution e. Noise pollution f. Thermal pollution g. Nuclear hazards Solid waste Management : Causes, effects and control measures of urban and industrial wastes. Role of an individual in prevention of pollution. Pollution case studies. Disaster management : floods, earthquake, cyclone and landslides

Module V : Social Issues and the Environment

Environment From Unsustainable to Sustainable development Urban problems related to energy Water conservation, rain water harvesting, watershed management Resettlement and rehabilitation of people; its problems and concerns. Case Studies Environmental ethics : Issues and possible solutions. Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust.

Case Studies. Wasteland reclamation. Consumerism and waste products. Environment Protection Act. Air (Prevention and Control of Pollution) Act. Water (Prevention and control of Pollution) Act Wildlife Protection Act Forest Conservation Act Issues involved in enforcement of environmental legislation. Public awareness.

Module VI: Human Population and the Environment

Population growth, variation among nations. Population explosion – Family Welfare Programme. Environment and human health.

Human Rights. Value Education. HIV/AIDS. Women and Child Welfare. Role of Information Technology in Environment and human health. Case Studies.

Module VII: Field Work

Visit to a local area to document environmental assets-river/forest/grassland/ hill/mountain. - Visit to a local polluted site Urban/Rural/Industrial/Agricultural. - Study of common plants, insects, birds. - Study of simple ecosystems-pond, river, hill slopes, etc.

Module VIII: Biodiversity

Introduction - Definition: genetic, species and ecosystem diversity 2. Biogeographical classification of India 3. Value of biodiversity: consumptive use, productive use, social, ethical aesthetic and option values 4. Biodiversity at global, national and local levels, India as a mega-diversity nation 5. Hot-spots of biodiversity, 6. Threats to biodiversity: habitat loss, poaching of wildlife, man wildlife conflicts 7. Endangered and endemic species of India 8. Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity 9. Biological Diversity Act, 2002

Student Learning Outcomes:

- Student can recognize the environmental problem associated with development
- Apply the gained knowledge for the environmental conservation and its sustainability
- Demonstrate an integrative approach to deal with environmental issues with a focus on sustainable environmental management.
- Develop an ability to integrate the disciplines related to environmental concerns.
- Formulate the critical thinking skills for environmental protection

Text & References:

- Gauba Dhawan and Bisht Environmental Studies, Challenges & Solutions A quick Compendium.
- Somvanshi and Dhupper, Fundamentals of Environmental Studies.
- Kaushik and Kaushik, Fundamentals of Environmental Studies.
- Asthana and Asthana, A textbook of Environmental Studies.

SEMESTER III

Subject Name: International Economics- I

Course Objectives: This course focuses on the basic issues, concepts and theories related to the international economics. It includes different trade policy & welfare, international trading system, WTO, Balance of Payments Fixed and Flexible exchange rate systems, IMF & others

Student Learning Outcomes: Upon successful completion of the course, students will be able to:

- Outline a broad knowledge of core areas of international economics.
- Explain the various reasons why countries engage in international trade, including the direction and volume of trade between nations.
- Identify how the concepts of comparative advantage and specialization lead to gains from trade.
- Analyse how international factor mobility affects an economy.
- Define terms of trade and distinguish various terms of trade
- Describe instruments and consequences of trade policy measures -tariffs and non tariff barriers

Syllabus:

Module I International Trade Theory	Weightage
The subject matter of international economics. Theories of International Trade: Absolute and Comparative advantage theories. Specific-factor model .Heckscher-Ohlin model: Factor intensity and factor intensity reversal, Proving the HO Theorem using price and physical definitions of factor abundance, Factor Price equalization theorem.	30%
Module II New trade theory & International Resource Movements	
New trade theory: economies of scale and imperfect competition, Intra-industry trade index. Labour Migration : Motives and global output effects of international labour migration , Welfare effects on nations of emigration and immigration, Policy implications of migration. International Capital flows: Various forms of foreign capital, Motives for international capital flows, welfare effects of international capital flows on the investing and host countries. Multinational Corporations	30%
Module III Terms of Trade, Growth & Trade	
Terms of trade: Various concepts, Factors affecting terms of trade. Growth and Trade: Production and Consumption effects, Immiserising growth. The transfer problem	20%
Module IV International Trade Policy and Economic Integration	

Trade Restrictions: Tariff-Variety types, Partial Equilibrium effects of Tariff. Nontariff Trade Barriers and the New Protectionism.
International Economic Integration: Various forms, Theory of Custom Union-Trade creation and Trade diversion effects. Case studies of some Trade Blocks: SAARC, ASEAN, NAFTA, EU.

20%

Text Reading:

- Salvatore D. International Economics, John Wiley and Sons, Singapore
- Krugman Paul R. and Maurice Obstfeld, International Economics: Theory & Policy, Addison Wesley, Delhi.
- Mannur: International Economics, Vikas Publishing House
- Mithani D. M, International Economics, Himalaya Publishing House Mumbai

References:

- Södersten Bo and Reed Geoffrey, International Economics, Mcmillan, London.
- Robert Carbaugh, International Economics, Cengage Learning

Subject Name: Statistical Methods in Economics- II

Course Objectives: This subject will lead the students into the field of probability and hypothesis testing. Each one of them has a lot of application in the practical problems of economics.

Student Learning Outcomes: After completing the course successfully the students will be able to:

- Define probability of simple and conditional events, standard error & hypothesis of mean.
- Distinguish between tests of large samples and small samples.
- Separate the hypotheses of difference of means and difference in two population means.
- Justify the use of assumed distribution and parameters for a particular variable.

Syllabus:

Module I Probability Theory	Weightage
<ul style="list-style-type: none">• Elements of Probability Theory: Sample space Events, meaning of probability Classical definition of probability its limitations,• The addition rule, Multiplication Rule,• Theorems of total probability, conditional and statistical independence,• Bayes Theorem,• random variable, expectation and variance of random variable (for random sampling with or without replacement)	40%
Module II Univariate Probability Distributions	
<ul style="list-style-type: none">• Binomial, Poisson, Normal distribution,• The standard normal distribution—Mean, Variance, Skewness, Importance of Normal Distribution in Statistics.	30%
Module III Introduction to Estimation and Hypothesis Testing	
<ul style="list-style-type: none">• Methods of sampling;• Sampling distribution of a Statistic; distribution of the sample mean; Sampling Error and Standard Error of a statistic with special reference to the mean; Point and interval estimation of parameters;• Properties of an estimator; unbiasedness, relative efficiency and consistency.• Testing of Hypothesis; Type I and Type II errors, Power of a test• Large sample tests, “t” test for the mean; one tail and two tail tests for difference of means• Chi-square test for (i) goodness of fit and (ii) independence of two attributes.	30%

Text Reading:

- Allen Webster, Applied Statistics for Business and Economics, (3rd edition), McGraw Hill, International Edition 1998.
- P.H. Karmel and M. Polasek, Applied Statistics for Economists (4th edition), Pitman, Australia.
- M.R. Spiegel (2nd edition), Theory and Problems of Statistics, Schaum Series.

Subject Name: Introduction to Demography

Course Objectives: This course aims to explain various concepts of demography, theories associated with population. It will also enable student to understand the relationship between social processes and demographic transition in India.

Course Outcome: After doing this course the students will be able to:

- Summarize components of population growth and theories associated with population
- Understand structure of population and dynamics associated with the same
- Understand and Use the concepts of fertility, mortality and nuptiality in economic research
- Recall methods of population projection

Syllabus

Module I Introduction	Weightage
<ul style="list-style-type: none">• Meaning and scope of demography• components of population growth and their inter-dependence• Theories of population: Malthus, Optimum theory of population• Theory of demographic transition (Views of Medows, Enke and Simon)	30%
Module II Structure and theories of Population	
<ul style="list-style-type: none">• Structure of Population: Population trends in the twentieth century, population explosion and its dynamics• International aspects of population growth and distribution• Determinants of age and sex structure• Age pyramids projections.• Demographic effects of sex and age structure: economic and social implications• Population and development: experiences from the Asian countries	30%
Module III Concepts of fertility and Mortality and Population Projection Methods	
<ul style="list-style-type: none">• Fertility: Concept, Nuptiality and Mortality• Concept and analysis of marital status; Single mean age at marriage, synthetic cohort methods• Mortality: Death rates, crude age-specific, Mortality at birth and infant mortality rate; Sex and age pattern of mortality• Factors for decline in mortality in recent past, Levels and trends of mortality rate in advanced and less advanced countries• Methods of population projection	40%

Text Reading:

1. Amsden, A.H. (ed.) (1980): The Economics of Women and Work, Penguin,

2. Harmondsworth. 2. Baud, I.S.A. (1992): Form of Production and Women's Labour, Gender Aspects of Industrialization in India and Mexico, Sage, ND. 3. Bogue, D.J. (1971):
3. Principles of Demography, John Wiley, NY. 4. Bogue, D.J. (1971)
4. Srinivasan, K. (1998): Basic Demographic Techniques and Applications, Sage, ND.
5. Bhende, Asha, and Tara Kanitkar, 1994, Principles of Population Studies. Mumbai: Himalayan Publishing House
6. 5. Misra, B. D., 1980, An Introduction to the Study of Population. New Delhi: South Asian Publishers Pvt. Ltd.

Reference books:

7. Lewis (ed.) (1989): Strengthening the Poor: What Have We Learnt, OECD, Paris.
8. Novell, C. (1988): Methods and Models in Demography, Bellhaven Press, London.
9. Simon, J.L. (1992): Population and Development in Poor Countries, Princeton Univ. Press.
10. Styrock, H. et al. (1973): The Methods and Materials of Demography, US Dept. of Commerce, Washington.
11. Haq, Ehsanul, Sociology of Population in India. New Delhi: Macmillan,

SEMESTER IV

Subject Name: Fundamentals of Research Methodology in Economics

Course Objectives: The course aims at providing the basic framework among the undergraduate students to initiate research process in economics right from problem identification and preparing research design and learning to adhering to an appropriate methodology for improving the quality of research. The course provides guidelines specifically for improving the quality of research and learning to do empirical research.

Course Outcome: After completion of the course the Students would learn to:

- Locate and Identify research problems
- Define research methods vs methodology
- Understand and distinguish various types of research design
- Summarize Research problem and design
- Organize research done in the form of various types of research reports
- Apply methods for hypothesis testing
- Understand importance of qualitative research in economics

Syllabus:

Module I Introduction to Research	Weightage
Definition, concept, need, types of research, Research methods versus methodology, Criteria for good research, problems encountered by Researchers in India. Ethics in research, types of variables, concept and identification of parameters Introduction to Marketing Research, Definition of marketing research, A classification of marketing research, Marketing research process, The role of marketing research on MIS and DSS	20%
Module II Problem Identification and Research Design	

<p>Defining the Research Problem, Developing an Approach, Importance of defining the problem, using literature survey in research Steps in problem identification, defining Environmental context of the problem qualitative research; Research Design: Objectives and definition, types of research design Classification – (Exploratory research design, Descriptive research design, Experimental research design)</p>	30%
Module III Methods of Data Collection and Sampling	
<p>Types of Data: Primary and secondary data collection methods, sources of data their importance and limitations (Observation method, Interview method, Questionnaire method,) Constructing questionnaire: Steps in constructing a questionnaire, types of questions Attitude measurement and scaling techniques – ordinal, nominal, ratio, interval; Scales – Likert scale Sampling: Probability And Non-Probability Sampling Methods Sampling Decisions, Sample Selection Methods Methods of Sample Size Determination Field Work: Data Collection and field force, Field work procedure, Common sources of error in field work, Tabulation of collected data, Pilot Study: Concept, Importance</p>	35%
Module IV Hypothesis Testing and Report Writing	
<p>Test of Significance, Analysis techniques z, t, f, chi- square, correlation and regression Factor Analysis: Need, Importance, Application of the technique in real world Using MS- Excel for correlation and regression analysis Report Writing: Types of report, components of research report, format for formal research report to be published</p>	15%

Text Reading:

- Marketing Research – An applied orientation – by Naresh K. Malhotra
- Kothari, C.R., Research Methodology, Wiley Eastern Ltd, New Delhi
- Marketing Research – Zikmund, Babin, Cengage Learning Publication
- Marketing Research (text and cases) by Rajendra Nargundkar, Tata McGraw Hill

References:

- Amarchand, D., Research Methods in Commerce, Emerald Publishers, Chennai

Subject Name: COMPARATIVE ECONOMIC DEVELOPMENT [1850-1950]

Course Objectives: The objective of this course is to make a comparative study of the economic development among the developed countries- Britain, China and Japan. The course provides a historical overview of economic development of these countries, from origins of institutions and industries to contemporary challenges of long stagnation. The long-run trends of economic performance are examined, linking them to the structural transformation that was witnessed by these key economies. Along with the focus on the long run trends, the course also covers key topics in each economy, including banking and finance, industrial organizations, international trade, population and agriculture.

Student Learning Outcomes: On successful completion of the course, students will be able to:

- Develop the understanding of key comparative economic theories- Kuznets's, Lewis, Harris Toda ro and Gerschenkron's.
- Show a clear awareness of the historical underpinning of economic development in Britain, Japa n and China.
- Understand and evaluate the main debates over sources of economic growth in Britain, Japan a nd China
- Describe and analyze the main sectors and institutions in each of these contemporary economie s
- Elaborate the key factors of the agricultural revolution experienced by Great Britain and the rise of Industries.
- Clearly illustrate the development process of Chinese economy- high equilibrium trap, Opium w ars, Population crisis.
- Assess how development of Japanese economy was different in terms of : Role of banks, Agricul tural Development and Industrial growth.

1	Module I: PERSPECTIVES ON COMPARATIVE ECONOMIC DEVELOPMENT: KEY GROWTH THEORIES	WEIGHTAGE (%)
	Perspectives on Comparative Economic Development through key theories: <ul style="list-style-type: none">• A brief discussion of Kuznets' findings: inverted U-hypothesis• Lewis Model of growth: rural urban migration and labor productivity• Harris Todaro Model of growth: Extension of Lewis model in presence of unemployment• Gerschenkron's hypothesis of Economic Development in Historical Perspective.	30
2	Module II OVERVIEW OF ECONOMIC DEVELOPMENT	
	An overview of economic development of the countries selected for case studies: Britain, China and Japan. <ul style="list-style-type: none">• Britain: Pre requisites for Industrial revolution and the socio-economic climate in Britain that was conducive to its industrial growth.• CHINA: Ming and Qing Dynasty: An overview of the agricultural sector• JAPAN: Imperial rule paving way for Samurai governance, Rise of EDO	30

	governance- An overview of the agricultural sector.	
3	Module III: STRUCTURAL TRANSFORMATION	
	<p>Changes in the structure of agriculture and movement towards Industrial growth:</p> <ul style="list-style-type: none"> • Britain: Agricultural revolution, Two phases of industrial growth, spread of Industrial Revolution worldwide. • China: Agricultural growth in Chinese economy, Opium Wars: Impact on Trade with great Britain, High equilibrium trap, Population crisis. • Japan: Agricultural growth in Japanese economy, Movement towards Industrial growth: Silk, Manufacturing and other key industries, Closed economy model: Role of Banks in Japanese growth. 	40

Text & References:

Text:

1. E.J. Hobsbawm (1968), *Industry and Empire: An Economic History of Britain since 1750*. Weidenfeld & Nicholson, Chs.1,2,3,5,6.

References:

1. W.W. Lockwood (1966), *Economic Development of Japan*, Expanded edition, Princeton University Press, Chs.6,7 & 10
2. Peter Mathias (1983), *The First Industrial Nation, An Economic History of Britain, 1700- 1914*. 2nd edn, Methuen Chs.1,3,8 and 15.
3. Roderick Floud and D. McCloskey (ed) (1981), *Economic History of Britain Since 1700*, Cambridge University Press, (2nd ed) Ch. 12.
4. T. Nakamura (1983) *Economic Growth in Pre-War Japan*, Tr. by Robert A Feldman, Yale University Press, Chs. 1, 2, 3, 5 and 6.
6. Easterly, W. (2001). *The Elusive Quest for Growth*, Cambridge MA: MIT Press.
7. Cypher, J. M. and Dietz, J. L. (2009). *The Process of Economic Development*, London: Routledge.
8. Chang, H.J. (2014). *Economics: The User's Guide*, London: Penguin.
9. Chang, H. J. (2002). *Kicking Away the Ladder*. London: Anthem Press.

Subject Name: Economic Environment for Business

Course Objectives: To develop capacity of the students to think strategically about a company, its business position, how it can develop a sustainable competitive advantage and how its strategy can be implemented and executed successfully. To integrate the knowledge gained in earlier courses in order to achieve sound strategic options, evaluate action alternatives, assess its business risk and create action oriented plans.

Student Learning Outcomes:

On successful completion of the course, students will be able to:

- Clearly explain and illustrate the economic and social transformation in the planning periods and its implications on the Indian economy. Assess the politico-economic ideology in the post independence period of the economy.
- Describe and assess the implications of globalization on Indian economy

Syllabus:

Module I Historical and Social Roots of Indian Business Environment	Weightage
Evolution of market economy in India - Comparison between Planned economy and market economy--- Socialist system and market economy	15%
Module II Evolution of Politico-Economic Ideology in the Post-Independence period	
Determinants of economic growth: Role of Institutions and geography-India's development strategy and economic performance-Corporate social responsibility	15%
Module III Economic and social transformation in the planning period and implications for business	
Industrial climate - perspective - Industrial Policy	20%
Module IV International Business Environment	
Theories of Comparative Advantage - Foreign Exchange: The International Payments Process - Globalization in China and India - A comparison - International Business - Trading and regulatory environment - Country risk analysis	20%
Module V Change in the Indian Business Environment: Economic Reform in India	
Forces of globalization: effects on India.	15%
Module IV Implication of Globalization for Indian Business	
Agreement establishing the WTO --- India's patent policy and TRIPs	15%

Texts and References:

- Francis Cherunilam, Business Environment S. Chand Publication, New Delhi (Latest Edition)
- The Business Environment, Ian Worthington, Chris Britton, Pearson Education, (Latest Edition)
- Understanding Business Environment, Clare Capon, Pearson Education, (Latest Edition)

- Sundaram, A.K. and J.S. Black, The International Business Environment (IBE), Prentice Hall, New De
- International Business Environment: Challenges and Changes, Ian Brooks, Jamie Weatherston, Graham
- Business and its Environment United States Edition, David Baron, 7th edition 2012, Pearson Educati
- Economic Surveys of India, latest edition
- RBI bulletins, latest edition

Subject Name: Industrial Economics

Course Objectives: This course will provide each student with an exposure to crucial aspects of Industrial Economics – its developmental contribution and its challenges both in Indian and global aspect. Facts related to trend in productivity and changes related to competitiveness with the policy regimes along with the performance of the industries will be understood. The course will also focus on the policy issues and the future prospects.

Student Learning Outcomes:

- Define and describe the issues relating to the composition of Indian industry and list the problems in recent context.
- Outline the analytical tools for understanding the pricing mechanism and competitiveness in the industrial sector- public private, small- medium- large industries along with the growth and sickness of Indian industry .
- Clearly diagnose and illustrate the problems in industrial economy in India and will be able to develop an effective and comprehensive solution on– Financing, Management and other related issues.
- Justify and interpret the the problems of Indian economy specially in the context of Indian Industry and can suggest prospective measures which can be implemented as a solution to the problems.

Syllabus:

	Weightage (%)
Module I Overview of the Industrial Scene in India	25%
<ul style="list-style-type: none"> • Trends in growth and productivity; • Competitiveness and changes in Policy Regimes. • Employment growth in the industrial sector 	
Module II Issues relating to the Composition of Indian Industry	25%
<ul style="list-style-type: none"> • Small vs. Large Industry • Public vs. Private Sector, with emphasis on: • Performance of the public sector • Privatization • Dynamics of the Industrial Sector: Growth and Sickness 	

<ul style="list-style-type: none"> Pricing in the public and private sectors 	
Module III International Dimensions of Industrial Economics.	25%
<ul style="list-style-type: none"> Bases of international trade. Protection and domestic market power. Multinational Enterprises. Case studies of International industrial issues. 	
Module IV Policy Issues and Future Prospects: Empirical Analysis at national and global perspective	25%
<ul style="list-style-type: none"> Need for Government regulation in industrial policies. Legal framework of Industrial regulation in India. An evaluation of Indian Industrial policy. Theory of market structure in exogenous and endogenous sunk cost industries Technology and market structure 	

Text Reading:

- Dilip Mookherjee, ed. (1995), *Indian Industry*, Oxford University Press, New Delhi.
- RR Barthwal, *Industrial Economics*, New Age International Publisher , 2012

References:

- J. Bhagwati (1993), *India in Transition: Freeing the Economy*, Clarendon Oxford 1993
- Mrinal Datta Chaudhri (1990), *Market Failure and Government Failure: Journal of Economic Perspectives*
- NCAER *The India Infrastructure Report* (Rakesh Mohan Committee)
- Department of Disinvestment, *White Paper*, 2000

SEMESTER V

Subject Name: Regional Economics

Course Objectives: The course intends to provide a specialization with respect to planning and development and the strategies thereof. It gives a framework for concepts theories and models related to regional development. The course also aims at introducing disparities in regional development at national as well as global levels

Student Learning Outcomes: After completing the course successfully, the students will be able to

1. Understand the meaning and importance of regional economics
2. Explain various types of region
3. Appraise Regional Economic Development at national and global perspectives
4. Analyze conclusions drawn from various theories with respect to India
5. Understand basic concepts of regional economics and regional flows
6. Understand and discuss various models of regional development
7. Summarize HDI and HPI in terms of real world situations

Syllabus:

Module I Introduction	Weightage
Regional Economics: Meaning, definition, scope of study, relevance of regional economics Types and Classification of regions: formal, informal and functional regions Factors of Spatial Economic behaviour, concept of regional income and problems in estimation (with special reference to India) Regional Economic Development: Global Perspectives Concept of Divergent Regional Development At least 1 case study relevant to the topics	30%
Module II Economics of Location and Regional Flows	

<p>Webers' Theory of Industrial Location</p> <p>Thunen's theory of Agricultural Location</p> <p>Christaller's Central Place Theory</p> <p>Ideal Economic Space of Losch</p> <p>Sargent Florence's theory of Industrial Location</p> <p>Theory of unbalanced growth by Hirshchman</p> <p>Migration: Types, Interfaces, Ramifications and models</p> <p>Concept of location quotient</p> <p>Concepts related to Agglomeration, backwash effect, backward and forward linkages</p> <p>At least 1 case study relevant to the topics</p>	35%
Module III Models of Regional Growth and measures of inequality	
<p>O-ring model</p> <p>Gravity models</p> <p>cumulative Causation models</p> <p>Markov's Chain Model of Inter-Regional Savings and Capital Growth</p> <p>Growth Poles and Urbanization, relevance of smart cities</p> <p>Hausmann- Rodrik-Valeasco Growth Diagnostic Framework</p> <p>HDI and HPI</p> <p>Convergence and Divergence, concept of creative destruction,</p> <p>Measuring inequality: Lorenz curve and Gini Coefficient</p> <p>Growth and Poverty: Poverty trap, economic characteristics of poverty and policy options for the same (including concepts of microfinance and economic inclusion)</p> <p>At least 1 case study relevant to the topics</p>	35%

Text Reading:

1. An Introduction to Regional Economics by Edgar Hoover and Frank Giarattani Knopf, new york. Isbn 9780394334134
2. Harry W Richardson – Elements of Regional Economics, penguin
3. Harry W Richardson (1973), Regional Growth Theory, Macmillan.
4. Harvey Armstrong and Jim Taylor (1978), Regional Economic Policy and its Analysis, First Edition, Philip Allan Publishers
5. Regional Economics and Regional Planning: O.S. Shrivastava
6. Economic Development: M.P. Todaro and S.C. Smith

Subject Name: Basics of Health Economics

Course Objectives: The course aims to understand the economic theory of health and healthcare. The emphasis will be on key economic concepts that health economists use to analyze health and healthcare markets.

Student Learning Outcomes:

- Use economic theory of health to understand and evaluate policy proposals.
- Understand how to use empirical evidence to evaluate an economic argument.
- Understand and use the concepts of health insurance and health care market
- Appraise the health care market

Course Contents/Syllabus:

Module I : Introduction	Weightage
Demand for Health and Health Care: The Grossman Model Equity, Efficiency and Need Government's Role in Health Care	40
Module II: Health Insurance and health care market	
Brief History of Health Care Demand for Insurance: Information, Complexity, and Decision-Making Health Care Insurance, Moral Hazard, and Adverse Selection	40
Module III: Health and Economic Development	
International Comparisons of Health Care Reform Health and Economic Development	20

Text & References:

- Health Economics by Bhattacharya, Hyde and Tu (2013)
- Handbook of Health Economics, Edited by ANTHONY J. CULYER University of York and JOSEPH P. NEWHOUSE Harvard University Medical School

References:

- Manning, Willard G., et al. 1987. "Health Insurance and the Demand for Medical Care: Evidence from a Randomized Experiment," American Economic Review, 77(3), 251-277

- Urbina Ian. In the Treatment of Diabetes, Success Often Does Not Pay. New York Times, January 11th 2006.
- Health Economics by Frank A Solan and Chee-Ruey Hsieh

Subject Name: Fundamentals of Behavioural Economics

Course Objectives:

This course familiarizes students with the approach to economics and presents economic models that take into account the rich psychological structure of human decision-making. We analyze the consequences of using such a nuanced behavioral model of decision-making, and of taking into account the existence of social preferences (such as other regarding, altruistic preferences) and so forth. The course deals also with the implications human irrationality would have for economic policy-making as well as research into human subjective wellbeing (“happiness”) and its economic correlates.

Course Contents/Syllabus:

Module I CHOICE AND BEHAVIOUR	Weight (%)
Introduction/methodological considerations Rational choice (under certainty, risk and uncertainty) Deviations from rational choice Alternatives: heuristics, satisficing	40
Module II STRATEGIC INTERACTION	
Strategic interaction and altruistic preferences Game theory ,Behavioral game theory	30
Module III SUBJECTIVE WELL BEING	
What is happiness, how do we measure it? What makes us happy? Do we know this? The politics of happiness (or better not?)	30

Books:

- William J. Congdon, Jeffrey R. Kling and Sendhil Mullainathan. 2011. Policy and Choice: Public Finance through the Lens of Behavioral Economics, Brookings Institution Press.
- Richard H. Thaler and Cass R. Sunstein. 2009. Nudge: Improving Decisions about Health, Wealth, and Happiness (Updated Edition), Penguin Books.
- Danial Kahneman. 2011. Thinking Fast and Slow. Farrar, Strauss and Giroux

Suggested Readings:

- D. Kahneman and A. Tversky; *"Choices, Values, and Frames"*; (2000); Cambridge University Press: Cambridge.
- C. Camerer, G. Loewenstein and M. Rabin; *"Advances in Behavioural Economics"*; ed. Camerer, Loewenstein and Rabin; (2004).
- F. Shane, G. Loewenstein and T. O'Donoghue; *"Time Discounting and Time Preference: A Critical Review"*; Journal of Economic Literature; Jun., (2002), Vol. 40, No. 2. pp. 351-401
- Clark, E. P. Frijters and M. A. Shields *"Relative Income, Happiness, and Utility: An Explanation for the Easterlin Paradox and Other Puzzles"*; Journal of Economic Literature; (2008), 46:1, 95–144
- D. G. Blanchflower and A. J. Oswald; *"Well-Being over Time in Britain and the USA"*; Journal of Public Economics; (2004) 88(7–8): 1359–86.
- E. Proto and A. Rustichini; *"A reassessment of the Relation Between GDP and Life Satisfaction"*; PLOS ONE; November, 2013.
- Oswald, E. Proto and D. Sgroi; *"Happiness and Productivity"*; Journal of Labour Economics; (2013); Forthcoming.

Subject Name: Labour Economics

Course Objectives:

The primary goal of this course is to understand the basic concept labour markets. The course will familiarize students with economic theories of labour supply and demand decisions, wage determination, human capital, unemployment, gender and race discrimination, work incentives, unionization, and the evaluation of social programs.

Student Learning Outcomes:

1. Investigate a worker's and firm's labour supply decision with special reference to India.
2. Understand the dynamics of labour market equilibrium.
3. Summarise important policy issues like immigration and the minimum wage.
4. Analyze the wage dynamics of jobs with desirable or undesirable characteristics especially in the Indian Market.

Course Contents/Syllabus:

Module I Introduction	Weight (%)
<ul style="list-style-type: none"> • Meaning, Significance and Peculiarities of labour market • Nature and Scope of Labour Economics • Characteristic of Indian labour Market 	30
Module II WAGE DETERMINATION	
<ul style="list-style-type: none"> • 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 • Non-wage component of labour remuneration • Inflation-wage relationship at micro and macro levels 	30
Module III STATE AND LABOUR: EMPIRICAL ANALYSIS	

<ul style="list-style-type: none"> • State and social security of labour - Concept of social security and its evolution • Social assistance and social insurance • Review and appraisal of states policies :National and global scenario • Globalization and labour markets. 	40
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Text Readings:

- Datt, G (1996), Bargaining Power, Wages and Employment: An Analysis of Agricultural Labour Markets in India, Sage Publications, New Delhi.
- Hajela, P.D. (1998), Labour Restructuring in India: A Critique of the New Economic Policies, Commonwealth Publishers, New Delhi.
- Laster, R.A. (1964), Economics of Labour, (2nd Edition), Macmillan, New York.

References:

- McConnell, C.R. and S.L. Brue (1986), Contemporary Labour Economics, McGraw-Hill, New York.
- Papola, T.S., P.P. Ghosh and A.N. Sharma (Eds.) (1993), Labour, employment and Industrial Relations in India, B.R. Publishing Corporation, New Delhi.

Subject Name: Fundamentals of Environmental Economics

Course Objectives: Environmental issues at local, national and global levels are among the foremost challenges facing society today and are a result of complex interactions of natural processes with economic forces and policies. The effects of development on the environment and access to resources is one of the most challenging fields that has grown over the past four decades and is now one of the key areas of study. Since policies for preventing environmental degradation is at the heart of every nation's policy-making, this course equip the students with key environmental issues faced by any developing nation. It lays down the fundamental understanding of sustainable development, ways to measure it and how these policies can be implemented.

Student Learning Outcomes: On successful completion of the course, students will be able to:

- Develop knowledge around the emergence of Environmental economics as a separate sphere of study
- Comprehend the different ways in which economic decisions, market forces and government policies can affect the natural environment.
- Possess knowledge of the theory and techniques of non-market valuation to estimate the demand for environmental quality or the cost of environmental degradation
- Elaborate on various command based and quantity based instrument on curbing pollution
- Identify and evaluate the problems in policy making around environmental issues.
- Analyze the relevance of environmental economics to notions of sustainable development.

Syllabus:

Module I Overview		Weightage
<ul style="list-style-type: none"> How do we define 'Environment', Components of environment- Various Biotic and Abiotic components. Evolution of Environmental Economics - Its importance in today's world, meaning and growth as a separate realm of economics. Interrelationship between environment and economic development.: Pollution-Poverty-Population Circle 		30%
Module II Sustainable Development and Environmental Management		
<ul style="list-style-type: none"> Sustainable Development: Concept, Indicators and Measurement Concept of Ambient Concentration Vs Levels of emission, Carbon Credit, The Coase theorem, Pigovian fees and Marketable Permit System Market Failure: Public goods v/s private goods, Public Bads and Externalities. Measuring the Benefits of Environmental Improvements: Non-Market values and measurement methods 		40%
Module III Environmental Challenges in Global Perspective		
<ul style="list-style-type: none"> Case studies of different types of pollution: In India and globally. Principal causes of environmental crisis globally: case study of any developed economy/developing economy, Kyoto Debate. Environmental issues in global perspective- Case study of any country with special reference to green energy 		30%

Text Reading:

- Charles Kolstad, Intermediate Environmental Economics, Oxford University Press, 2nd edition, 2010. 2.
- Robert N. Stavins (ed.), Economics of the Environment
- W.W. Norton, 5th edition, 2005. 3.
- Roger Perman, Yue Ma, James McGilvray and Michael Common, Natural Resource and Environmental Economics, Pearson Education/Addison Wesley, 3rd edition, 2003. 4.
- Maureen L. Cropper and Wallace E. Oates, 1992, —Environmental Economics: A Survey, Journal of Economic Literature, Volume 30:675-740.
- Joseph, K. and R. Nagendran; Essentials of Environmental Studies, Pearson Education.
- DeshBandhu, H Singh and A.K. Mitra (1990). Environmental Education and Sustainable Development. New Delhi, Indian Environmental Society
- Hanley N., J. Shogren and B. White. (1997). Environmental Economics in Theory and Practice. 1st edition only. Basingstoke: Macmillan. A333.7 /783687.
- Perman, Ma, McGilvray, Commons (2003), Natural Resource and Environmental Economics, Third Edition, Pearson.

- Pearce D W & R K Turner. Economics of natural resources and the environment Harvester Wheatsheaf 1990.
- Tietenberg T and Lynne Lewis: Environmental and natural resource economics. 9th Edition, Pearson, 2012.

References:

- Dhaliwal, G.S., G.S Sangha and P.K. Ralhan (1998); Fundamentals of Environmental Science; New Delhi; Kalyani Publishers.
- Dixon, John A., Louise F. Scura, Richard A. Carpenter and Paul B. Sherman (1994); Economic Analysis of Environmental Impacts. London: Earthscan

SEMESTER VI

Subject Name: Economic System and Society

Course Objectives: The main objectives of this course is to introduce students to Marxist political economy; compare the Marxist approach with alternative theoretical perspectives on capitalism and its drivers and contradictions; compare different approaches to key concepts in Marxian political economy; and examine critically the Marxist contributions to the study of development and contemporary capitalism. This course will reflect the socio-economic change in Historical perspective, capitalism as an economic system, structure of capitalism and capitalism in global context.

Student Learning Outcomes:

- Identify and understand the most important concepts, debates and problems in Marxist political economy.
- Critically interpret economic issues, problems and debates in the light of Marxist methods, concepts and contributions.
- The student will be able to identify the different modes of production from primitive society to socialist form of society structure.
- Clearly differentiate between changed production relations from one mode of production to another.
- Elaborate reasons for the dissolution of a society: see the shift from feudalism toward capitalism

Syllabus:

		WEIGHTAGE (%)
1	Module I: OVERVIEW	
	<ul style="list-style-type: none">• Analyzing Socio-Economic Change in Historical Perspective: concept of productive forces, superstructure and production relations• Different modes of production- Primitive society, Slavery, feudalism, capitalism and feudalism: Antagonistic vs Non-antagonistic.• Laws of conformity: Changes in economic base vs Dissolution of superstructure• Law of dialectical Materialism: 3 major contradictions.	25
2	Module II: TRANSFORMATION OF SOCIAL SYSTEM	
	<ul style="list-style-type: none">• The transition Debate: From feudalism to capitalism, Marxian Vs Non Marxian School of thought• Pre-requisites for capitalism to emerge as a social system.	45

	<ul style="list-style-type: none"> Transformation of C-M-C circuit to M-C-M' circuit under capitalistic mode of production Crisis under Capitalism: Possibility theory And Necessity theory. 	
3	Module III: CAPITALISM IN MODERN PRESPECTIVE	
	<ul style="list-style-type: none"> Marxian theory of value: extraction of surplus value, simple scheme of reproduction under capitalism. Multinational corporations and their impact on the developing economics Managerial revolution and Technostructure. Changing Paradigms of action in third world nations: Old internationalization Vs New Internationalization. 	30

Text:

1. J. Schumpeter (1942), Capitalism, Socialism and Democracy, George Allen and Unwin (1976 edition).
2. T. Bottomore (1985), Theories of Modern Capitalism, Allen & Unwin. Chapters on Weber & Schumpeter.

References:

1. D. Foley (1983), "Commodity", in T. Bottomore et al(ed.), The Dictionary of Marxist Thought., OUP, (Indian edition, Maya Blackwell, 2000)
2. R. Blackburn (ed.) (1972), Ideology in Social Science, Chapter 8, Fontana
3. Rodney Hilton(ed.) The Transition from Feudalism to Capitalism, Introduction
4. P. Hirst and J. Zeitlin (1997), "Flexible Specialization: Theory and Evidence in the Analysis of Industrial Change", in R. Boyer et al (ed.), Contemporary Capitalism, Cambridge University Press.
5. Bottomore, T. (ed.) (1991) A Dictionary of Marxist Thought. Oxford: Basil Blackwell.
6. Fine, B. (1980) Economic Theory and Ideology. London: Edward Arnold.
7. Fine, B. and D. Milonakis (2009) From Economics Imperialism to Freakonomics: The Shifting Boundaries Between Economics and other Social Sciences. London and New York: Routledge.
8. Fine, B. and Harris, L. (1979) Rereading 'Capital', London: Macmillan.
9. Fine, B. and Saad-Filho, A. (2010) Marx's Capital, 5th ed. London: Pluto Press.
10. Fine, B. and Saad-Filho, A. (2013) The Elgar Companion to Marxist Economics. Aldershot: Edward Elgar.
11. Harvey, D. (1982) The Limits to Capital. London: Blackwell.
12. Harvey, D. (2010) A Companion to Marx's Capital. London: Verso.
13. Howard, M.C. and King, J. (1989, 1991) A History of Marxian Economics, 2 Vols. Princeton: Princeton University Press.
14. Milonakis, D. and Fine, B. (2009). From Political Economy to Economics: Method, the Social and the Historical in the Evolution of Economic Theory. London: Routledge.
15. Rubin I.I. (1972) Essays on Marx's Theory of Value. Detroit: Black and Red.

Subject Name: Fundamentals of Operation Research

Course Objectives: Operations Research provides quantitative basis for decision making or enhances a managers' ability to make long range plans and to solve the everyday problems of running a concern. Linear programming is used to find a solution for optimizing a given objective, similarity Network analyses help the manager to plan schedule monitor & control large projects. Queuing theory deals with the situation in which queue is formed.

Student Learning Outcomes: On successful completion of the course, students will be able to:

- Apply their knowledge to solve decision making problems in organizations and in various fields like economics , production ,finance, marketing, personnel management
- Use the Linear programming techniques in optimization
- Explain and solve the transportation and assignment problem by minimizing transportation cost and assignment cost
- Use Network analysis which will help the manager to plan schedule ,monitor and control large projects
- Solve the queuing problems through p d f of different models
- Justify how the optimum decisions can be taken

Syllabus:

Module I Basics of Operations Research	Weightage
Definition of Operations Research, Characteristics of operations research, necessity of operations research in industry, Scope of operations research, operations research & decision making	10%
Module II Linear Programming	
Requirement for a Linear Programming Problem, Graphical solution of two variable, Linear Programming Problems some exceptional cases, Simplex Method, Duality, Dual Simplex, Limitations of Linear programming Problem.	20%
Module III Transportation Model	
Definition of Transportation Model, Mathematical Formulation of the problem, Methods for Initial basic feasible solution, North-west Corner method, Matrix Minima, Vogel's Approximation (VAM), Optionality test.	20%
Module IV Assignment Models	
Definitions, Formulation & Solution of Assignment Models	20%
Module V Pert & CPM	
Introduction, Forward pass, backward pass computations, How CPM differs from PERT ? Critical Path- determination	15%
Module IV Queuing Models	

Introduction & application of Queuing Models, MM-I Models- Single- Channel Queuing theory	15%
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Text Reading:

- Operations Research: Theory & Applications 3rd E, Sharma J K. , : Macmillan India Limited

References:

- Methods of Operations Research by Morse Philip Mccord, Dover Publication