

**Course Structure & Syllabus of B.A. (Hons.) Economics
Applicable for Batch: 2020-2023**

**DIT UNIVERSITY
Dehradun**



**Detailed Course Structure & Syllabus
of
B.A. (Hons.) Economics**

Course Structure & Syllabus of B.A. (Hons.) Economics

Applicable for Batch: 2020-2023

Course Structure

Year: 1st

Semester: I

Course Category	Course Code	Course Title	L	T	P	Credit
UC	ECO106	Micro Economics I	5	1	0	6
UC	ECO107	Macro Economics I	5	1	0	6
GE I	ECO146/147	General Electives I	5	1	0	6
AEC	HS103	Professional Communication	2	0	0	2
Total			20			

Year: 1st

Semester: II

Course Category	Course Code	Course Title	L	T	P	Credit
UC	ECO108	Micro Economics-II	5	1	0	6
UC	ECO109	Macro Economics-II	5	1	0	6
UC	ECO116	Mathematical Methods For Economics I	5	1	0	6
GE II	ECO148/149	General Electives II	5	1	0	6
AEC	CH201	Environmental Science	2	0	0	2
Total			26			

General Electives I

ECO146	Indian Economy I
ECO147	Energy Economics

General Electives II

ECO149	Regional Economics
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Applicable for Batch: 2020-2023

Year: 2nd

Semester: III

Course Category	Course Code	Course Title	L	T	P	Credit
UC	ECO206	Development Economics-I	5	1	0	6
UC	ECO207	Statistics For Economic Analysis-I	5	1	0	6
UC	ECO208	Mathematical Methods For Economics – II	5	1	0	6
SEC	ECO209	Application of Statistical Software in Economic Analysis	2	0	0	2
GE III	ECO 246/247/248	General Electives III	5	1	0	6
Total						26

Year: 2nd

Semester: IV

Course Category	Course Code	Course Title	L	T	P	Credit
UC	ECO216	Development Economics-II	5	1	0	6
UC	ECO217	Statistical Methods for Economics II	5	1	0	6
SEC	HS446	Industrial Psychology	2	0	0	2
GE IV	ECO249/256	General Electives IV	5	1	0	6
Total						20

General Electives III

ECO246- Behavioral Economics
ECO247- Indian Economy II
ECO248- Industrial Economics

General Electives IV

ECO256 Introduction to Research Methods

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Year: 3rd

Semester: V

Course Category	Course Code	Course Title	L	T	P	Credit
UC	ECO306	International Economics	5	1	0	6
UC	ECO307	Econometrics	5	1	0	6
DSEI	ECO346/347	Disciple Specific Electives I	5	1	0	6
DSE II	ECO348/349	Disciple Specific Electives II	5	1	0	6
Total						24

Year: 3rd

Semester: VI

Course Category	Course Code	Course Title	L	T	P	Credit
UC	ECO308	Money & Banking	5	1	0	6
UC	ECO309	Public Finance	6	1	0	6
DSE III	ECO356/357	Disciple Specific Electives III	5	1	0	6
DSE IV	ECO358/359	Disciple Specific Electives IV	5	1	0	6
	ECO366	Research Project	0	0	12	
Total						24

Disciple Specific Electives I

ECO346	Agricultural Economics
ECO347	History of Economic Thought

Disciple Specific Electives II

ECO348	Financial Economics
ECO349	Political Economy

Disciple Specific Electives III

ECO356	Environmental Economics
ECO357	Labor Economics

Disciple Specific Electives III

ECO358	Economics of Health and Education
ECO366	Research Project

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Summary of the Credit

Year	Semester	Credit
1	1	20
	2	26
2	3	26
	4	20
3	5	24
	6	24

Category wise classification of the Credit

Category	Credit
UC	84
GE	24
SEC	4
AEC	4
DSE	24
Total	140

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Applicable for Batch: 2020-2023

Detailed Syllabus

Program/Branch: B.A. (Hons.) Economics

Subject Code	ECO106	Subject Title	Micro Economics-I						
LTP	5 1 0	Credit	6	Subject Category	UC	Year	1 st	Semester	I

Course Objectives:

- To give the students a thorough understanding of the principles of economics.
- To give emphasis on the nature and functions of product markets, including factormarkets.
- To develop the understanding how decisions are made within the larger economicsystem.

UNIT 1: Introduction and Basic concepts (13 Lecture)

Definition & Meaning, Nature and scope of micro economics, Basic Economic Problem - Choice and Scarcity, Methodology of Economics -Inductive and Deductive methods, Positive vs. Normative Economics, Static and Dynamic Analysis, Partial vs. General EquilibriumAnalysis.

UNIT 2: Demand and Supply (13Lecture)

Demand Analysis: Law of Demand, demand of a firm and Market; Elasticity of Demand - Price, Cross and Income Elasticity of Demand, Measurement of price Elasticity of Demand; Consumer Behaviour: Theories of Demand. **Supply Analysis:** Law of supply, types of supply, Elascity of supply and its measurement, Theries of supply. Numerical analysis on demand and supply.

UNIT 3: ConsumerTheory (13Lecture)

Introduction of Utility, Cardinal vs ordinal Utility approach, Budget Constraint, Preferences; Indifference curve, Consumers equilibrium. MRS, Price, Income and Substitution effects (Hicks Allen & Slutsky method), Numerical analysis of abovesaid topics, Revealed Preference Theory, Consumer and Producer Surplus and its measurements.

UNIT 4:Theory of Production and Cost (13Lecture)

Production Function –The Law of Variable Proportions; Returns to Scale-Isoquant; Cobb-Douglas Production function, MRTS and its mathematical applications, Least Cost Combination and Producer's Equilibrium, Expansion path, Traditional and Modern theories of Costs, Cost-output relation.

UNIT 5: Price and Output Determination (13 Lecture)

Market Structure; Revenue function; Prefect competition: Features, Price determination in short and long run, Equilibrium of Firm and Industry; Monopolistic competition – features, equilibrium of the firm with product differentiation and selling cost; Monopoly: Price and output determination, Price discrimination, Bilateral Monopoly; Monopsony:Features.

Learning Outcomes

- Students will be able to understand the basic concept and tools of microeconomics.
- Students will be familiar with basic theories of microeconomics.
- Students would be able to apply micro economic concepts to analyse real life situations

Text book [TB]:

1. Modem Microeconomics: Theory and Aaplications, H.L. Ahuja, Sultan Chand and Co., New Delhi, 2006.
2. Modern Microeconomics, A. Koutsoyiannis, 2nd edition, Macmillan Press, London, 1979.

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3. *Economics: Principles and Applications*, N. Gregory Mankiw, India edition by South Western, a part of Cengage Learning, Cengage Learning India Private Limited.

Reference books [RB]:

1. *Microeconomics: Theory and Applications*, A. Sen, Oxford University Press, New Delhi, (1999).
2. *Principles of Economics*, Karl E. Case and Ray C. Fair, 8th edition, Pearson Education, Inc., 2007.
3. *Fundamentals of Microeconomics*, Snyder and W. Nicholson, *Cengage* (India), 2010.
4. *Microeconomics*, Robert Pindyck, Daniel Rubinfeld , 8th edition, Pearson, 2017.

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Subject Code	ECO107	Subject Title	Macro Economics-I						
LTP	5 1 0	Credit	6	Subject Category	UC	Year	1 st	Semester	I

Course Objectives:

- To introduce the nature and scope of Macroeconomics.
- To discuss the concepts associated with the determination and measurement of macroeconomic variables.
- To explain how Macroeconomics deals with the aggregate economy.

UNIT 1: Introduction of Macroeconomics (13 Lecture)

Introduction: Nature and scope of macroeconomics, Difference between micro and macroeconomics and importance of macroeconomics. **National Income:** concepts, measurement and limitations of national income statistics, Circular flow of income in two, three and four sector economy; National income and social welfare-some numerical problem on national income estimation.

UNIT 2: Income and Employment (13 Lecture)

Determination of Income and Employment: The full employment model- Classical theory of income and employment determination, Say's Law market, Keynes objections to classical theory, Keynesian theory of income and employment determination; Keynes critique of classical theory-price flexibility and unemployment.

UNIT 3: Consumption Theory (13 Lecture)

Consumption: Consumption function-average and marginal propensity to consume; Saving function-Average and marginal propensity to save; Technical attributes of consumption, Keynesian Psychological Law of Consumption and its Implications. **Income – consumption relationship:** Absolute and relative income hypothesis and permanent income hypothesis, Numerical on consumption and saving function.

UNIT 4: Investment Theory (13 Lecture)

Investment function: Types of investment-business fixed investment, Residential investment, Inventory investment (autonomous and induced investment), Role of present and future value of money in investment, determination of level of investment, Marginal efficiency of capital (MEC)-capital stock adjustment.

UNIT 5: Investment and Analysis of Business Cycles (13 Lecture)

Theories of investment: Classical and Keynesian theory of investment (marginal efficiency of investment), Saving –investment equality. **Business cycles:** Phases of business cycles-feature of business cycles- Theories of business cycles).

Learning Outcomes

- Students will be able to understand what is macro economics is and why it is important.
- Students will be able to understand, how macroeconomic variables are determined.
- Students will be able to know how macroeconomic variables are useful to analyse real economic situations.

Text book [TB]:

1. *Economics: Principles and Applications*, N. Gregory Mankiw, India edition by South Western, a part of Cengage Learning, Cengage Learning India Private Limited.
2. *Modern Microeconomics: Theory and Applications*, H.L. Ahuja, Sultan Chand and Co., New Delhi, (2006).
3. *Macroeconomics*, Andrew B. Abel and Ben S. Bernanke, 7th edition, Pearson Education, Inc., 2011.

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Reference books [RB]:

1. Macroeconomics, Olivier Blanchard, 5th edition, Pearson Education, Inc., 2009.
2. Principles of Economics, R.G. Lipsey and K.A. Christal, 9th Editon, Oxford University Press, 1999.
3. Principles of Macroeconomics, J. E. Stiglitz and Carl E. Walsh, W.W. Norton and Company, New York, 2002.

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Applicable for Batch: 2020-2023

Subject Code	ECO146	Subject Title	Indian Economy I						
LTP	5 1 0	Credit	6	Subject Category	GE I	Year	1 st	Semester	I

Course Objectives:

- To enable students to have an understanding of the various issues/components of the Indian economy.
- To explore a set of inter related issues relating to the growth and development of the Indian Economy.
- To enable students to develop a knowledge of the broad frame work of the economy of the country.

UNIT 1: Basic Overview of Indian Economy (13 Lecture)

Introduction to Indian economy – Basic characteristics and features of Indian economy. Economic Planning in India: Features, Objectives and assessment of Indian planning.

UNIT 2: Demographic Trend in Indian Economy (13 Lecture)

Demographic features of India's population, Inter-state disparities in the pattern of development. Structural Change in the distribution of Income and Workforce in India.

UNIT 3: Poverty and Unemployment (13 Lecture)

Poverty and Unemployment In India. Programmes for Eradication of Poverty and Unemployment With Special Reference to the Post – Reform Era, Role of unorganized sector and its problems in India.

UNIT 4: Indian Agriculture (13 Lecture)

Agriculture: Features of Indian Agriculture. Impact of Green Revolution on Indian Agriculture. Recent Trends in Agricultural Development, Future Challenges and possibilities of Indian agriculture, Agricultural extension services in India: Role and types.

Unit 5: Role of Industrial and Services Sector in Indian Economy (13 Lecture)

Making of Industrial policies in India, continuity and change FERA to FEMA, De-licensing, disinvestment SMEs-growth, structure, policy performance, dualism, labour absorption, service sector and its importance in India, future perspectives of industry and service sector in Indian economy

Learning Outcomes

- The students will have a good understanding of the structure, achievements, and issues of Indian economy.
- The student will be able to understand the role of all sectors in Indian economy.
- The student will be able to analyze the effects of various policies / programmes on economic condition.

Text book [TB]:

1. Indian Economy, R. Dutt, Sultan Chand and Co., New Delhi, 2006.
2. The Indian Economy – Problem and Prospects, Bimal Jalan, Viking, New Delhi, 1992.
3. The Indian Economy- Recent Developments and Future Prospects, E.B. Lucas, and G.F. Papanek, Oxford University Press, New Delhi, 1988.

Reference books [RB]:

1. The Development Process of Indian Economy, P.R. Brahmananda, and V.R Panchmukhi, (eds.): Himalaya Publishing House, Bombay, 1987.

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2. The Indian Economy: Major Debate since Independence, T J Byres, (Ed.), Oxford University Press, New Delhi, 1998.
3. Economic Survey: Government of India. Various Issues.

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Subject Code	ECO147	Subject Title	Energy Economics						
LTP	5 1 0	Credit	6	Subject Category	GE I	Year	1 st	Semester	I

Course Objectives:

- To provide a thorough grounding in the key concepts of energy economics.
- To make the student pondering over the issues related to energy access and security.
- To provide the role and contribution of energy sector in an economy.

UNIT 1: Introduction

(13 Lecture)

Energy and economics; History of energy use; Trends in energy production and consumption; Economic efficiency, growth, and modeling; Role of energy in development and growth; Economic theory of natural resource extraction; The primary (extractive) energy industries (oil and natural gas); The electric utility industry.

UNIT 2: Natural Resources and Energy Source

(13 Lecture)

Electric utility and regulation; Renewable energy sources and energy conservation; Energy and air pollution; Global effects of energy use; Energy issues in India; Energy policy instruments; Distributional incidence of energy taxes and subsidies; Technology assessment and risk analysis; Defining Sustainability; What is sustainable energy consumption? Concept of green accounting; Low carbon options.

UNIT 3: Allocation of Resources

(13 Lecture)

Depletable and renewable- energy, minerals, water, land and rivers; Classification of resources; Natural resource Cartels: An example of OPEC; Concepts of energy pricing; Average and Marginal cost pricing; Peak and off-peak pricing; Cross-Subsidization.

UNIT 4: Energy Demand

(10 Lecture)

Theoretical background: Derived energy demand; Consumer demand; Producer demand; Types of econometric demand models; Issues treated by demand models; Capital-energy substitutability; Technical change; Scale effects; Short-run versus long-run analysis; Disequilibrium and rationing; Time of day, seasonal, and block pricing.

UNIT 5: Economics of Energy Supply

(16 Lecture)

Economic theory of depletable resources; How much of a resource would be extracted? What would be the timing of extraction? What would be market price pattern over time? What timing of extraction should be best for society? How do market determined and socially optimal rates compare? How market changes- higher interest rates, changed expectations, varying market structures, taxes-change patterns of extraction? What is the nature of the supply function for depletable resources; Discussion on Peak oil; Strategies for modelling exhaustible resource; Estimation of cost functions.

Learning Outcomes

- The students would be able to understand the structure of energy markets and patterns of energy production and consumption.
- The students would get an understanding of demand and supply of energy markets.
- The students be efficient to use empirical data for economic analysis in the energy systems.

Text book [TB]:

1. Environmental and Natural Resource Economics, T. Tietenberg, and L. Lewis, (International Edition), Pearson Education, 2008.
2. Resource Economics, J. Conrad, Cambridge University Press, 1999.

Approved by the Academic Council at its 14th Meeting held on 20.04.2020

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3. International handbook on the economics of energy, Lester C. Hunt, and Joanne Evans, eds., Edward Elgar Publishing, 2011.

Reference books [RB]:

1. International Law and the Environment, P. Birnie, A. Boyle, and C. Redgwell, (3rd edition), Oxford University Press: Oxford, New York, 2009.
2. Energy Economics: A Modern Introduction, Ferdinand E. Banks, Kluwer Academic, 2000.
3. 3. Energy Economics: Concepts, Issues, Markets and Governance, [Subhes C. Bhattacharyya](#), Springer; March 7, 2011.

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Applicable for Batch: 2020-2023

Subject Code	HS103	Subject Title	Professional Communication						
LTP	2 0 2	Credit	3	Subject Category	AEC	Year	1 st	Semester	I

Course Objectives:

- To make the students to develop the LSRW skills for effective communication
- To help the student to be aware of effective Organizational Communication.
- To equip the students for business environment.

UNIT 1: Communication

(5 Lectures)

Communication: Meaning, Types of Communication: General & Technical Communication Knowledge and adoption of Non Verbal cues of communication: Kinesics, Proxemics, Chronemics, Oculistics, Haptics, Paralinguistics; Barriers to Communication, Overcoming strategies.

UNIT 2: Listening & Speaking Skills

(5 Lectures)

Listening Comprehension: identifying General & Specific information, Note taking and drawing inferences Introduction to Phonetics: Articulation of consonants and vowel sounds.

UNIT 3: Reading Skills & Technical Writing Skills

(10 Lectures)

Reading Strategies and Vocabulary Building Reading Comprehension; Paragraph development; Intra office Correspondence: Notice, Agenda, Minutes and Memorandum Technical Proposal & Report

UNIT 4: Writing Skills

(6 Lecture)

Business Letter Writing ; Job Application Letter & Resume ; Interview Skills, Impression Management Swot Analysis (Identifying Strength & Weakness); EQ and Its Dimensions

Learning Outcomes

- The students would be able to display competence in oral, written, and visual communication.
- The students would be able to demonstrate their verbal and non-verbal communication ability through presentations
- The students would be able to communicate for business environment

Text book [TB]:

1. Effective Technical Communication, A. Rizvi, , McGraw Hill, New Delhi. 2005.
2. Technical Communication: Principles and Practice, Raman, Meenakshi and Sangeeta Sharma, 2nd Edition. New Delhi: Oxford University Press. 2011.
3. Basic Technical Communication, Tyagi, Kavita & Padma Misra. PHI, New Delhi. 2011.

Reference books [RB]:

1. Introduction to English Phonetics and Phonology, M. Aslam, Cambridge, 2003.
2. Basic Communication Skills Ford A, Ruther. Pearson Education, New Delhi, 2013.
3. Basic Technical Communication, Ruby Gupta, Cambridge University Press, New Delhi, 2012.
4. Successful Career Soft Skills and Business English, Y. Kameswari, BS Publications, Hyderabad, 2010.

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Applicable for Batch: 2020-2023

Subject Code	ECO108	Subject Title	Micro Economics-II						
LTP	5 1 0	Credit	6	Subject Category	UC	Year	1 st	Semester	II

Course Objectives:

- To increase the understanding of students on different types of markets.
- To provide primary emphasis on the nature and functions of product markets and factor market.
- To provide the knowledge on game theory and social welfare.

UNIT 1: Price and Output Determination

(13 Lecture)

Oligopoly-Price and output determination – Non Collusive: Cournot, Kinked demand curve and price rigidity, Collusive: Price leadership, Cartels, basic numerical on various model of oligopoly

UNIT 2: Alternative Theories of the Firm

(13 Lecture)

Critical evaluation of marginal analysis; Baumol's sales revenue maximization model (simple static with advertisement model); Full-cost pricing rule; Bain's limit pricing theory.

UNIT 3: Theory of Factor Pricing

(13 Lectures)

Market for factor inputs: (largely with reference to Labour): A Firm's and market demand for a labour (with one and several variable inputs) and its determinations, Supply of labour to a firm and the Market. Equilibrium wage rate and employment under: Competitive factor and product market, Monopolistic buyer of labour and perfect competition in labour market, Imperfect competition in product market and Trade Union monopoly, Bilateral monopoly

UNIT 4: Game Theory

(13 Lecture)

Game Theory and Competitive Strategy – the normal form; dominant and dominated strategies; mixed strategies; Prisoner Dilemma; Nash equilibrium extensive form game with perfect information- the game tree, Applications of game theory in oligopoly market.

Unit 5: Welfare Economics

(13 Lecture)

Conditions of Pareto Optimality; Pareto efficiency versus Pareto optimality, Market failure and its causes; Markets with Imperfect competition; consumption and production externalities; public goods. Ways for correcting it.

Learning Outcomes

- The Students will be able to understand the details of competitive, monopolistic, monopolistically competitive, and oligopolistic markets.
- The students will be able to emphasize on the nature and functions of product markets, and factor markets.
- The students will be able to understand the game theory and its applications in modern business activities.

Text book [TB]:

1. Economics: Principles and Applications, N. Gregory Mankiw, India edition by South Western, a part of Cengage Learning, Cengage Learning India Private Limited.
2. Modern Microeconomics: Theory and Applications, H.L. Ahuja, Sultan Chand and Co., New Delhi, 2006.
3. Microeconomic Analysis, H. W. Varian, W. Norton, New York, 2000.

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Reference books [RB]:

1. Microeconomics: Theory and Applications, A. Sen, Oxford University Press, New Delhi, 1999.
2. Principles of Economics, Karl E. Case and Ray C. Fair, 8th edition, Pearson Education, Inc., 2007.
3. Fundamentals of Microeconomics, C. Snyder and W. Nicholson, Cengage (India), 2010.

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Subject Code	ECO109	Subject Title	Macro Economics-II						
LTP	5 1 0	Credit	6	Subject Category	UC	Year	1 st	Semester	II

Course Objectives:

- To introduce the basic concepts and theories on multipliers, general price level and interest rate.
- To enable students to understand the trade cycles and its implications in an economy.
- To provide the basic concept of various economic growth models.

UNIT 1: Keynesian Multiplier

(13Lecture)

Concepts of multiplier-Diagrammatic representation of multiplier-leakages in the multiplier process, Relation between multiplier, MPC and MPS, Comparative static and dynamic process. Working of multiplier in UDC's. Acceleration principle and concept of super multiplier

UNIT 2: Determination of General Price level

(13 Lecture)

Classical and Keynesian theory of money and prices. Quantity theory of money-Fisher cash balance approach, Cambridge cash balance approach, and inflation: Effects of inflation, Theories of inflation: cost push and demand pull inflation, Stagflation, Unemployment and Phillips curve analysis of inflation

UNIT 3: Interest Rate Theory

(13Lecture)

Rate of Interest: Keynesian and IS-LM Theories of Interest rate (two sector model with relevance numerical). Macro-Economic Policies: Monetary and Fiscal Policies

UNIT 4: Trade Cycles

(13Lecture)

Definition of Trade Cycle, Causes of Trade Cycles, Theories of Trade Cycles (Pure Monetary Theory, Monetary Over-Investment Theory, Keynes Theory, Hicks and Samuelson), Policy intervention to control trade cycle, Dynamic effects of trade cycles on business, Recent recessions in the World,

Unit 5: Economic Growth

(13Lecture)

Meaning and theories. Harrod-Domar theory and neo-classical theories, Solow Swan Model, Ramsey model, Diamond Samuelson model, Kaldor model

Learning Outcomes

- The students will be able to develop a perspective on functioning of the economy.
- The students will understand the theoretical models of the Macro economy.
- The students will be able to describe the different theories to economic growth.

Text book [TB]:

1. Economics, Paul Samuelson and Nordhaus, 18th Edition, Tata Hill Publishing Company.
2. Macroeconomics: Analysis, E. Shapiro, Galgotia Publication, New Delhi, 1996.
3. Principles of Macro Economics, N. Gregory Mankiw, University of Minnesota Libraries, 2016.

Reference books [RB]:

1. Principles of Economics, R.G. Lipsey and K.A. Christal, 9th Edition, Oxford University Press.
2. Macroeconomics: Theory and Policy, W. A. Branson, 3rd ed. Harper and Row, New York, 1989.
3. Principles of Macroeconomics, J. E. Stiglitz and Carl E. Walsh, W.W. Norton and Company, New York, 2002.

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Applicable for Batch: 2020-2023

Subject Code	ECO116	Subject Title	Mathematical Methods For Economics I						
LTP	5 1 0	Credit	6	Subject Category	UC	Year	1 st	Semester	II

Course Objectives:

- To introduce the students about basic mathematics that enables the study of economic theory.
- To help the students to illustrate the method of applying mathematical techniques in economic theories.
- To provide the use of differentiation and integration in economic theories.

UNIT 1: Basic Concepts

(13 Lecture)

Variables and Parameters, Sets, Functions and their graphs, Concepts of limits, Factors and factorial theorem, Basic trigonometry and its applications in economic theories.

UNIT 2: Introduction of Equations

(13 Lecture)

Equations – simple, quadratic and simultaneous and Identities; Equations of a straight line, concept of slope; Equation and interpretation of rectangular hyperbola, Logarithms and exponents.

UNIT 3: Arithmetic and Geometric Series

(13 Lecture)

Series – Arithmetic and Geometric, Rate of growth and its measurement, Present value and its applications. Annuities: value; Simple differentiation – concept and applications.

UNIT 4: Differentiation and Its Applications

(13 Lecture)

Partial and Total differentiation; Homogenous function and Euler's theorem; Maxima and minima of functions of one and two variables; Constrained optimization problem (with maximum three variables). Integration of a function; Methods of substitution and partial fractions; Integration by parts.

Unit 5: Applications of Mathematics in Economic Theories

(13 Lecture)

Simple and direct applications of the above concepts in economics: Concept of elasticity; Elasticity of demand; Average and marginal functions; Interrelationships among total, marginal and average cost and revenues. Optimization problems relating to revenue, cost, profit, utility and production; Consumer's surplus and producer's surplus.

Learning Outcomes

- The student be able to use mathematical methods and techniques in economic theories in general.
- The student would be able to solve simultaneous equations.
- The student would be able to use differentiation and integration in economic theories.

Text book [TB]:

1. Fundamental Methods of Mathematical Economics, A.C. Chian, and K. Wainwright, Fourth Edition. McGraw-Hill, 2005.
2. Mathematical Methods and Models for Economists, Angel de la Fuente, Cambridge University Press, 2000.

Reference books [RB]:

1. Mathematics for Economics and Business, I. Jacques, 5th Edition, Prentice Hall, 2009.
2. Mathematics for Economics, M. Wisniewski, 3rd Edition, Palgrave Macmillan, 2003.
3. Mathematics for Economic Analysis, K. Sydsaeter and P. Hammond, Pearson Educational Asia: Delhi, 2002.

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Applicable for Batch: 2020-2023

Subject Code	ECO149	Subject Title	Regional Economics						
LTP	5 1 0	Credit	6	Subject Category	GE II	Year	1 st	Semester	II

Course Objectives:

- To provide the basic idea on regional economics and its types.
- To develop a framework to discuss economic theories on land use, housing, transportation and general sub-national economic development.
- To provide the issues related to the regional economy and the regional level of economic activities.

UNIT 1: Introduction

(13 Lecture)

Concepts – What is region? Types of region; Regional growth; Techniques of regional analysis; Industrial location theory; Regional input-output economics; Identification of key sectors; Multi-stage planning.

UNIT 2: Regional and Economic Development

(13 Lecture)

Regional economic development; Fundamental issues of regional economics; Business location and economic incentives market areas; Economic structure; regional growth and development regional models; Costs and benefits of economic growth.

UNIT 3: Determinant of Regional Development

(13 Lecture)

Mobility of resources; Land use; Housing and neighbourhood development; Local government financing.

UNIT 4: Rural and Urban Development

(13 Lecture)

Introduction to urban and rural economics: Alternative approaches of geographical economics; comparative advantages and theory of external economies; Localization economies vs urbanization economies; rural and urban growth; Urban and regional economic policy analysis.

Unit 5: Regional Development and Government

(13 Lecture)

The role of the local government in regional development; Market forces in the development; Rural and urban challenges in India; Rural and urban health; Housing and public policy; Local government expenditures and taxes.

Learning Outcomes

- The students will have proven knowledge and understanding of issues related to the regional economy.
- Students would get the understanding of the concepts of convergence, divergence and regional growth.
- Students would be familiar how regional development is essential to increase national development.

Text book [TB]:

1. Regional Planning in India, M. Chand, and U.K. Puri, Allied Publishers, New Delhi, 2016.
2. Regional Economic Co-op- and Integration, S. Trivedi, 2006.
3. Regional Disparity in Economic Growth in India, R.H. Dholakia, Himalaya Publishing House, Bombay, 2006.

Reference books [RB]:

1. Regional Disparities and Development in India, CH Hanumantha Rao, Ashish Publishing House, New Delhi, 2006.
2. An Introduction to Regional Planning, Concepts, Theory and Practice, J. Glasson, Hutchison, London.
3. Regional Economics, Harry N Richardson, Weidenfield and Nicolson, Prager, New York London, 1969.

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Applicable for Batch: 2020-2023

Subject Code	CH201	Subject Title	Environmental Science						
LTP	2-0-0	Credit	2	Subject Category	AEC	Year	1 st	Semester	II

Course Objectives:

- To help the student to develop an understanding of global and regional natural environment and its relationship with human activities.
- To enable the student to develop an awareness of ecosystems in the context of coupled human-environmental interactions.
- To help the student to get the idea of formulating an action plan for sustainable alternatives that integrate science, humanist, and social perspectives.

UNIT 1: Basics of Environment and Natural Resources (5 Lecture)

Definition and Concept of Environment, Multidisciplinary nature of environmental studies; Scope and importance of environmental studies, Need for public awareness, Environmental concerns and people, Introduction and classification of natural resources; Energy Resources, Water Resources, Land Resources, Forest Resources, Food Resources, Mineral Resources, Case studies related to over exploitation of resources and their impacts; Role of an individual in conservation of natural resources, Sustainable lifestyles.

UNIT 2: Ecosystems (5 Lecture)

Definition and concept of ecology, Structure and Function of an Ecosystem, Energy Flow in Ecosystem, Biogeochemical cycles (Nitrogen, Carbon, Phosphorus, Oxygen, Hydrological), Species interactions in ecosystems, Ecological succession and ecological pyramids, Characteristic features of grassland, pond, desert and forest ecosystems., Ecosystem services and conservation.

UNIT 3: Biodiversity and Its Conservation (5 Lecture)

Introduction and types of biodiversity, Bio-geographic classification of India, Value and significance of biodiversity, Biodiversity at global, national and local levels, India: A mega-diversity nation, Biodiversity hotspots, Threats to Biodiversity: Poaching and man-wildlife conflicts, IUCN Red Data Book and endangered & endemic species of India, Biodiversity conservation strategies, Institutes and organizations.

UNIT 4: Environmental Pollution (6 Lecture)

Introduction, Definition. Causes, consequences and control measures of: Air pollution, Water pollution, Noise pollution, Nuclear pollution, Soil pollution, Thermal and Marine pollution; Solid waste management, Bio-medical waste management, Disasters and its mitigation strategies, Global warming, Climate change, Acid rain, Ozone depletion and Smog; Pollution case studies, Role of an individual in pollution prevention.

Unit 5: Social Issues and Environment (5 Lecture)

Sustainable Development: Concept and importance of Environmental Impact Assessment (EIA), GIS, Remote sensing. Water conservation and rain water harvesting, Resettlement and rehabilitation problems, Environmental audit, eco-labeling and eco-friendly business, Environmental Legislation in India Population explosion and its impact on environment and human health Family planning, Human rights, Women and Child Welfare, Value Education and environmental ethics.

Field work

- Visit to a local area to document environmental asset: river/forest/grassland/hill/mountain
- Visit to a local polluted site-Urban/Rural/Industrial/Agricultural
- Study of common flora and fauna.

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- Study of a common ecosystem-pond, river, hill slopes, etc.

Learning Outcomes

- Students who successfully complete a major in Environmental Science and Sustainability are expected to be able to articulate the interdisciplinary context of environmental issues
- The students would be able to analyze human impacts on the environment and identify the biological and physical components of varied ecosystems.
- The students would be able to Identify and justify key stakeholders in humanities and social sciences that need to be a part of sustainable solutions.

Text book [TB]:

1. Textbook for Environmental Studies, Erach Bharucha, University Grants Commission, New Delhi, 2004.
2. Perspectives in Environmental Studies, A. Kaushik & C P. Kaushik, New Age International Publishers, 2007.

Reference books [RB]:

1. Environmental Chemistry, A.K. De, Wiley Eastern Ltd.
2. Living in the Environment, T.G. Miller, Brooks/Coleman, Thomas Learning Inc., USA.
3. Ecology and Environment, P.D. Sharma, Rastogi Publication.

Course Structure & Syllabus of B.A. (Hons.) Economics

Applicable for Batch: 2020-2023

Subject Code	ECO206	Subject Title	Development Economics – I						
LTP	5 1 0	Credit	6	Subject Category	UC	Year	2 nd	Semester	III

Course Objectives:

- To provide the basic concept of economic development and its main indicators.
- To provide the crucial theories of economic development and their viability in a economy.
- To explain the role of economic planning and policies in economic development.

UNIT 1: Basic Concepts of Economic Development (13 Lecture)

Economic growth and development, Determinants and measurement indicators (PQLI and HDI) of economic development: Sustainable economic development. Modern Growth and Rise in International Inequalities, Concept of underdevelopment and basic characteristics; Vicious circle of poverty.

UNIT 2: Theories of Economic Development (13 Lecture)

Classical theory of economic development- Adam Smith, TR Malthus, Karl Marx and Schumpeter, The Big-Push Theory, Forms and Models of Technological Change, Theory of Balanced Growth.

UNIT 3: Poverty And Inequality (13 Lecture)

Definitions measures and mechanism, Inequality axioms; A comparison of commonly used inequality measures Connection between inequality and development; poverty measurement, Multidimensional poverty index.

UNIT 4: Approaches to Development (13 Lecture)

Lewis theory unlimited supply of labour, Lebenstein critical minimum effort theory, Balanced vs. unbalanced growth theories. The Harrod-Domar model, the Solow long-run growth model and its variants.

UNIT 5: Economic Planning and Policy (13 Lecture)

Development planning: rationale, Strategies and objectives of planning, Controls in a planned economy, Investment Criteris, Role of state and Capital formation in economic development. Project Evaluation and Cost-Benefit Analysis.

Learning Outcomes

- The students will be able to understand the meaning and the indicators of economic development.
- The students will be able to addresses the development issues for poor countries.
- The students will be able to understand the role of economic planning and policies in development.

Text book [TB]:

1. Economic Development, P. Michael, Todaro, and Stephen C Smith, Pearson Education, (Singapore) Pvt. Ltd., Indian Branch, Delhi, 2004.
2. Development Economics, D. Ray, Seventh impression, *Oxford University Press, New Delhi*, 2009.
3. *Development as Freedom*, Amartya Sen, Oxford University Press, 2000.
4. Economics of Development and Planning (Theory and Practice), V.K. Puri and S.K. Misra, Himalaya Publishig House Pvt. Ltd., Mumbai, 2016.

Reference books [RB]:

1. Leading Issues in Economic Development, M. Gerald, Meier, and James E. Rauch, Oxford University Press, New York, 2000.
2. Growth Economics, A K Sen, (ed.) Penguin Books, 1970
3. *Understanding Poverty*, Abhijit Banerjee, Roland Benabou and Dilip Mookerjee, Oxford Press, 2006.

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Applicable for Batch: 2020-2023

Subject Code	ECO207	Subject Title	Statistics For Economic Analysis-I						
LTP	5 1 0	Credit	6	Subject Category	UC	Year	2 nd	Semester	III

Course Objectives:

- To introduce the basic concepts and terminology that are fundamental to statistical analysis.
- To increasing the understanding of students on application of statistical tools.
- To provide the concept of correlation and regression analysis under multivariate analysis.

UNIT 1: Data Presentation & Central Tendency (13 Lecture)

Collection, Classification and Presentation of statistical data, Measures of Central Tendency: A.M., G.M., H.M. (Merits and demerits), Median, Quartiles, Deciles, Percentiles, Mode

UNIT 2: Descriptive Statistics for Univariate Data (13 Lecture)

Measures of dispersion: range, inter-quartile range, quartile deviation, mean deviation, variance, standard deviation, Lorenz curve, skewness and Kurtosis, moments

UNIT 3: Index Numbers (13 Lecture)

Problems and methods of construction of various types of indices, Laspeyres, Pasche's and Fisher's ideal index numbers, Time reversal, factor reversal and circular tests; Time series Analysis: Components and Measurements

UNIT 4: Descriptive Analysis of Bivariate Analysis (13 Lecture)

Definition of Bivariate data, scatter diagram, covariance - measure of association - Coefficient of Simple Correlation Properties and the method of calculation, Concept of rank correlation - Spearman's Rank Correlation

Unit 5: Regression Analysis (13 Lecture)

Assumptions of linear regression models, Measure of influence - Simple Linear Regression - Least Squares and Normal Equations and determination of regression coefficient, Difference between the correlation approach and the regression approach.

Learning Outcomes

- **The students would able to use statistical tool to estimate central measures of a central tendency.**
- **The students would able to apply descriptive analysis under univariate data series.**
- **Students would able to examine cause and effect relationship between the variables.**

Text book [TB]:

1. Fundamentals of Statistics, S.C. Gupta, S. Chand & Sons New Delhi, 2013.
2. Theory and Problems of Statistics, Murry R Spiegel, Schaum's outline series, McGraw Hill, 1992.
3. Applied Statistics for Economists, P.H. Karmal and M. Polasek, 4th edition, Pitman, Australia.

Reference books [RB]:

1. Mathematical Statistics, John E. Freund, Prentice Hall, 1992.
2. An Introduction to Mathematical Statistics and its Applications, Richard J. Larsen and Morris L. Marx, Prentice Hall, 2011.
3. Basic Statistics, A.M. Gun, M.K. Gupta, B. Dasgupta, World Press Private Limited Nagar.

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Applicable for Batch: 2020-2023

Subject Code	ECO208	Subject Title	Mathematical Methods For Economics – II						
LTP	5 1 0	Credit	6	Subject Category	UC	Year	2 nd	Semester	III

Course Objectives:

- To provide basic concepts and techniques on mathematical economics.
- To provide basic idea on use of matrix and determinants in economic theories.
- To apply mathematical tools in game theory.

UNIT 1: Matrices and Determinants **(13 Lecture)**

Matrices and Determinants: Types; Transpose, trace, adjoint and Inverse of matrices, Solution of a system of two and three equations by matrix inverse and Cramer's methods, Linear independence and Linear dependence of vectors; Rank of a matrix; Simple application questions. Application in input-output analysis.

UNIT 2: Differential Equations **(13 Lecture)**

Introduction; Solution: Variable separable case, Homogeneous case, Standard linear differential equation, Bernoulli's form, Exact equation; Solution of linear differential equation with constant coefficients; Simple Application questions.

UNIT 3: Functions of Several Real Variables **(13 Lecture)**

Geometric representation; graphs and level curves, Different second order derivatives; properties and application, the implicit function theorem and application to comparative statics problems.

UNIT 4: Multi Variable Optimization **(13 Lecture)**

convex sets; geometric properties of function; convex function and their characterization properties and applications; convex function and their characterization properties and application of unconstrained optimization: geometric characterization, characterizations using calculus and applications

Unit 5: Game Theory **(13 Lecture)**

Categories of games, normal form and extensive form presentation Nash equilibrium and Refinements: Dominant strategy Nash equilibrium, Rationalizable strategy, Equilibrium in Oligopoly, Sequential games, Repeated games, Introduction to Co-operative Games

Learning Outcomes

- The students would be able to apply matrix and determinants in firm's input-output.
- The students will be able to use differential equation in economic theories.
- The students would be able to develop mathematical functional form of economic theories.

Text book [TB]:

1. Fundamental Methods of Mathematical Economics, A.C. Chiang, and K. Wainwright, Fourth Edition. McGraw-Hill.
2. Business Mathematics, J.K. Sharma. Ane Book India.
3. Mathematics for Economic Analysis, K. Sydsaeter and P. Hammond, Pearson Educational Asia, Delhi, 2002.

Reference books [RB]:

1. Mathematics for Economics and Business, I. Jacques, 5th Edition, Prentice Hall.
2. Mathematics for Economics, M. Wisniewski, 3rd Edition, Palgrave Macmillan.
3. An Introduction to Mathematical Economics, D C Bose, Himalaya Publishing House, Bombay, 1996.

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Applicable for Batch: 2020-2023

Subject Code	ECO209	Subject Title	Application of Statistical Tools in Economic Analysis						
LTP	2 0 0	Credit	2	Subject Category	SEC I	Year	2 nd	Semester	III

Course Objectives:

- To introduce students to the basic concepts and application of probability theory, random variables, and distributions, sampling theory, statistical inference, correlation and regression.
- To help the students to understand the statistical inference techniques such as estimation and significance testing are important in the fitting and interpretation of econometric models.
- To make the students to understand the basic theory of the ordinary least squares, generalized least squares and panel data models.

UNIT 1: Model Specification

(6Lecture)

Model Specification: Data classification, role of data in modeling, exploratory data analysis (EDA) vs. formal statistical inference (FIS), different dimensions of data – social, time, spatial etc.

Modeling average: working with real world dataset (usefulness and shortcomings of modeling mean).

UNIT 2: Simple Model

(7Lecture)

Basic principles and discussion on theoretical background; Regression with graphics – checking the model assumption, exploratory band regression, checking of high leverage & influential points, transformation of data towards linearity, double-log transformation vs. semi-log transformation.

UNIT 3: Macro Level Data Set

(6Lecture)

Working with different macroeconomic data set, money illusion in the demand function, partial vs. multiple regressions, decomposing the sum of squares across regression, coefficient of determination.

UNIT 4: Regression on Categorical Variable

(7 Lecture)

Regression on categorical variable: Handling different data sets where dependent variable is categorical, preparation, distributional and contingency tables, test of association, Logit and Probit modeling.

Learning Outcomes

- The students will be able to understand the basic theory of ordinary least squares, generalized least squares and panel data models.
- The students will be able to estimate the estimators in statistical analysis.
- The students will be efficient to prepare theoretical foundation based on data.

Text book [TB]:

1. Research Methodology: Methods and Techniques, C.R. Kothari, 2nd edition, New Age International, 2009.
2. Research Methods: The Concise Knowledge Base, W.T. Trochim, Atomic Dog Publisher, 2004.

Reference books [RB]:

- Basic Econometrics, D.N. Gujarati, the McGraw-Hill Companies, 2005.
- Introduction to Econometrics, G.S. Maddala, 3rd Edition, Wiley, 2001.
- Introductory Econometrics: A Modern Approach, J.M. Wooldridge, South Western, 2009.

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Applicable for Batch: 2020-2023

Subject Code	ECO246	Subject Title	Behavioral Economics						
LTP	5 1 0	Credit	6	Subject Category	GE III	Year	2 nd	Semester	III

Course Objectives:

- To increase the understanding of students towards the principles of human behaviour in business context.
- To enable the students to understand how an individual economic agent can contribute in economic activities.
- To make the students understand how the standard assumptions in economics translate into predicted behavior.

UNIT1: Introduction (13Lecture)

Definition of behavioral economics? Behavioral economics and the standard economic models (The neoclassical); Evaluating economic theories; History and evolution: Neoclassical approach

UNIT 2: Decision Theory (13Lecture)

Expected utility theory; Classical anomalies; Prospect theory; Probability judgments

UNIT 3: Role of Game Theory in Behavioral Economics (13Lecture)

Game theory concepts; Player bargaining; Rationality & strategic interaction.

UNIT 4: Social Preferences and Labor Economics (13Lecture)

Evidence of social behavior; Models of fairness and reciprocity; Behavioral of labor

Unit 5: Social Activities and Behavioral Economics (13Lecture)

Social preferences: fairness, reciprocity, social signaling; Intertemporal choice, self-control. Imperfect memory; Incentives, motivation; Attitude to information. Beliefs as an argument of utility functions

Learning Outcomes

- Students would be familiar towards behavioral economics.
- Students would be in position to take economic decision at individual level.
- Students would be able to demonstrate how the standard assumptions in economics translate into predicted behavior.

Text book [TB]:

1. Misbehaving-Making of Behavioral Economics, Richard H. Thaler. WW Norton & Company, 2015.
2. Advance in Behavioral Economics, Colin F. Camerer, George Loewenstein and Mathew Rabin. Princeton University Press, 2011.

Reference books [RB]:

1. Coherent Arbitrariness: Stable Demand Curves without Stable Preferences, D. Ariely, G. Loewenstein, and D. Prelec, Quarterly Journal of Economics, 2003.
2. Self-Confidence and Personal Motivation, R. Benabou and J. Tirole, Quarterly Journal of Economics, 2002.
3. "Intrinsic and Extrinsic Motivation", Review of Economic Studies, R. Benabou and J. Tirole 2003.

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Applicable for Batch: 2020-2023

Subject Code	ECO247	Subject Title	Indian Economy-II						
LTP	5 1 0	Credit	6	Subject Category	GE III	Year	2 nd	Semester	III

Course Objectives:

- To enable students to have an understanding of the various sectors of the Indian economy.
- To enable students to understand the role of institutions in economic development.
- To enumerate the fundamentals of Indian economy, business and industry.

UNIT 1: Impact of Colonial Rule on Certain Areas in the Indian Economy (13 Lecture)

Indian Agriculture from Cornwallis to commercialization, The state of industrial development in mid-nineteenth century India, Foreign-trade-growth and composition, Economic drain from India -form, extent and consequences.

UNIT 2: Indian Agriculture, and Formal and Informal Organizations (13 Lecture)

Land reforms; Tenancy of different kinds and their effects, Marketable surplus, Green Revolution in India, Minimum agriculture prices and Public Distribution system, Role of formal and information organization in India.

UNIT 3: Indian Industries- Issues and Their Impact (13 Lecture)

Industrial licensing –justification and problems, Industrial stagnation and Crisis of Indian Economy, New industrial Policy and changing Indian state in the era of globalization, Anti-competition act in India. Current Industrial Policies: Make in India and start-up, free economic zone, Protection of intellectual property rights, IPRs and Indian industries: Indian patent act, geographical indicators, copyrights, industrial design. Anti-Competition act.

UNIT 4: International Trade (13 Lecture)

Foreign trade policy, special Economic zones foreign investment inflows since 1991-FII; FDI Recent changes in exchange rate policy, Silent feature of current International trade of India.

Unit 5: National and International Economic Institutions (13 Lecture)

RBI, Planning Commission (NITI Aayog), World Bank, Asian Development Bank, WHO, WTO, UNDP, FAO, WIPO.

Learning Outcomes

- The students will have a broad understanding of the various sectors of the Indian economy.
- The students will understand the role of institutions in economic development of India.
- The students will be able to understand the role of industrial policies in India.

Text book [TB]:

1. Indian Economy Its Development Experience, S. K. Mishra and V.K Puri, Himalaya Publishing Houses, Mumbai.
2. Indian Economy Performance and Challenges, S Acharya and R. Mohan, Oxford University Press.
3. Economic History of India- 1757 to 1966, G. Kaushal, Kalyani Publishers, New Delhi.

Reference books [RB]:

1. Indian Economy since independence. U.Manila, Academic foundation, New Delhi.
2. Economic History of India 1857-1956, V B Singh (ed.), Allied .Publications Private Limited, Bombay, 1965.
3. India the emerging Giant, A. Panagariya: Oxford University Press.

Approved by the Academic Council at its 14th Meeting held on 20.04.2020

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Applicable for Batch: 2020-2023

Subject Code	ECO248	Subject Title	Industrial Economics						
LTP	5 1 0	Credit	6	Subject Category	GE III	Year	2 nd	Semester	III

Course Objectives:

- To provide knowledge on productivity, efficiency, and capacity utilization in the industrial development in India.
- To provide knowledge to the students on the levels at which capacity, output, and prices are set, how and why firms advertise, how much firms invest in research and development (R&D).
- To make the students to predict consumer behavior under conditions of certainty and uncertainty for individual and market demand for goods.

UNIT 1: Industrial Activities (13 Lecture)

Basic concepts in Game Theory; Technology, Production Cost and Demand; Perfect Competition, Monopoly and Monopolistic Competition; Foundations of Oligopoly Theory; Markets for Homogeneous Products; Markets for Differentiated Products; Concentration.

UNIT 2: Pricing Theory (13 Lecture)

Investment in Entry Deterrence; Pricing Tactics: Discriminatory Pricing; Marketing Tactics: Bundling, Upgrading and Dealership; Quality, Durability and Warranties.

UNIT 3: Market Structure and Efficiency Measurement of Market (13 Lecture)

Advertising; Collusion and Cartels; Market Structure, Entry and Exit; Vertical Restraints; Research and Development. Efficiency measurement of market: Types and Methods.

UNIT 4: Measurement of Market Performance (13 Lecture)

Empirical Studies on Structure- Conduct-Performance Relationship; Empirical Studies on Market Performance; Management, Compensation and Regulation.

Unit 5: Globalization and Industries (13 Lecture)

Globalization and de-globalization; Bilateral Agreements, International competitiveness of Indian industry; Privatization and issues relating to disinvestment policy; Industrial policy (Role of state); New industrial policy and economic reforms; Industrial growth and pattern; Structure of industrial labour; Employment dimensions of Indian industry; Industrial legislation; Industrial relations; Wages and problems of bonus.

Learning Outcomes

- The students would be able to understand the price theory in industrial activities.
- The students would be able to analyze the market structure and efficiency measurement of market.
- The students would be able to apply the concept of market equilibrium.

Text book [TB]:

1. Industrial Economics: An Introductory Text Book, RR Barthwal. Book Age Publications, 2013.
2. Industrial Economics, Ranjana Seth. Ane Books Pvt. Ltd, 2010.

Reference books [RB]:

1. Industrial Organization- Theory & Applications, Oz Shy, MIT Press, 2016.
2. Industrial Economics and Management Principles, Rajan Mishra. Lami Publications (P) Ltd, 2008.

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Applicable for Batch: 2020-2023

Subject Code	ECO216	Subject Title	Development Economics – II						
LTP	5 1 0	Credit	6	Subject Category	UC	Year	2 nd	Semester	IV

Course Objectives:

- To provide the advance knowledge on development economics.
- To study the concepts and tools of measurement of development.
- To understand how economists use theory, empirical analysis and experiments to address issues in these areas.

UNIT 1: Dualistic Development

(13 Lecture)

Social and Technological dualism, Nurkse disguised unemployment as saving potential, Fei Ranis Theory of Dual Economy, Haris Todaro Modal of Migration.

UNIT 2: Model of Growth

(13 Lecture)

Classical model: Mill Theory, Marxian model; Keynesian model; Nelson Low level of equilibrium trap, Neo-classical model-Indigenous growth model.

UNIT 3: Inequality and Development

(13 Lecture)

Meaning, Measurement Lorenz Curve, Kuznets Inverted U Shape curve, Inequality and Development: Interconnection, Population Growth and Economic Development.

UNIT 4: Capital Formation and Economic Development

(13 Lecture)

Capital formation: Meaning and sources, Capital output ratio; Human capital: concept and utilization, Foreign aid and Economic Development, Transfer of technology.

Unit 5: Labour and Unemployment

(13 Lecture)

Disguised unemployment; Characterization and policy implications (Sen's Model); Economics of child labour: Empirical context, Basu-Van model of multiple equilibria with altruism, policy issues, Efficiency wage theory as explanation for wage rigidity and involuntary unemployment: A basic model

Learning Outcomes

- The student will be able to apply theories for a specific developing countries.
- Students will be able to examine some of the major economic issues faced by individuals and governments in poorer countries.
- The students will be able to develop skills to analyze, synthesize and evaluate information drawn from the available data and appropriate theoretical tools, and to express their ideas.

Text book [TB]:

1. Growth and Development, A. P. Thirlwall, 2003, Seventh edition, Palgrave Macmillan, New York.
2. Economic Development: Theory and Policies, B. Higgins, Central Book Depot, Allahabad, 1963.
3. Analytical Development Economics, Kaushik Basu, Oxford University Press, Chapter 10.

Reference books [RB]:

1. Leading Issues in Economic Development, Meier, M. Gerald and James E. Rauch, Oxford University Press, New York, 2000.
2. Investing in People, W. Theodore Schultz, Hindustan Publishing Corporation (India), Delhi, 1981.
3. Resources, Value and Development, A. Sen, Oxford University Press.

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Applicable for Batch: 2020-2023

Subject Code	ECO217	Subject Title	Statistical Methods for Economics II						
LTP	5 1 0	Credit	6	Subject Category	UC	Year	2 nd	Semester	IV

Course Objectives:

- To introduce the students about the basic concepts and terminology that are fundamental to statistical analysis and inference.
- To provide an understanding of the importance of sampling techniques, data collection, interpretation, and evaluation.
- To make the students to understand the basic theory of the ordinary least squares, generalized least squares and panel data models.

UNIT 1: Introduction of Population and Sample (13 Lecture)

The distinction between populations and samples; difference between population parameters and sample statistics; the use of measures of location and variation to describe and summarize data; population moments and their sample counterparts.

UNIT 2: Elementary Probability Theory (13 Lecture)

Sample spaces and events; probability axioms and properties; counting techniques; conditional probability and Bayes' rule; independence

UNIT 3: Random Variables and Probability Distributions (13 Lecture)

Defining random variables; probability distributions; expected values of random variables and of functions of random variables; properties of commonly used discrete and continuous distributions (uniform, binomial, normal, Poisson and exponential random variables)

UNIT 4: Random Sampling and Jointly Distributed Random Variables (13 Lecture)

Density and distribution functions for jointly distributed random variables; computing expected values; covariance and correlation coefficients

Unit 5: Sampling, Point and Interval Estimation (13 Lecture)

Principal steps in a sample survey; methods of sampling; the role of sampling theory; properties of random samples. Applications of correlation and regression in economic perspectives; Estimation of population parameters using methods of moments and maximum likelihood procedures; properties of estimators; confidence intervals for population parameters.

Learning Outcomes

- The students will be understand the basics of sampling techniques, data collection and interpretation.
- The students will be able to handle real data with confidence.
- The students will be able to apply statistical methods in economic and social context.

Text book [TB]:

1. Fundamentals of Statistics, S.C. Gupta, S. Chand & Sons, New Delhi, 2013.
2. *Mathematical Statistics*, John E. Freund, Prentice Hall, 1992.
3. Basic Statistics, Gun. Gupta, Dasgupta, World Press Private Limited Nagar, 1966

Reference books [RB]:

1. Theory and problems of Statistics, R Murry Spiegel, Schaum's outline series, McGraw Hill, 1992.
2. An Introduction to Mathematical Statistics and its Applications, Richard J. Larsen and Morris L. Marx, Prentice Hall, 2011.
3. *Sampling Techniques*, William G. Cochran, John Wiley, 2007.

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Applicable for Batch: 2020-2023

Subject Code	HS446	Subject Title	Industrial Psychology						
LTP	2 0 0	Credit	2	Subject Category	SEC II	Year	2 nd	Semester	IV

Course Objective:

- To make the student to learn how to reform the working conditions of labour
- To help the students to understand the humanistic approach in industry
- To help the student to demonstrate proper leadership

UNIT 1: Introduction to Industrial Psychology (3 Lecture)

Definitions, History & Scope of Industrial Psychology; Major influences on Industrial Psychology; Classical Approaches (Scientific Management); Neo-Classical Approaches (Hawthorne Experiments)

UNIT 2: Individual Behavior at Workplace (7 Lecture)

Emotional Quotient; Job related attitude: Job Satisfaction; Satisfaction with regards to pay and supervision, Measuring Job Satisfaction: Job Descriptive Index, Minnesota Satisfaction Questionnaire. Motivation & Theories: Need Theories (Maslow McClelland and Herzberg). Cognitive Theories (Goal Setting Theory, Self-Efficacy Theory).

UNIT 3: Work Environment (4 Lecture)

Organizational Culture- Meaning and Types, Influence of Organizational Culture on Employees; Leadership- Nature, Style and Approaches to Leadership; Group dynamics & Change Management

UNIT 4: Performance Management (4 Lecture)

Job Analysis and Learning; Training and Development- Objectives and Needs, Training Process; Methods of Training, Tools and Aids, Evaluation of Training Programs; Methods of Performance Appraisal

Unit 5: Stress and Conflict Management (8 Lecture)

Stress Management- Meaning, Causes, & Types. Work and Mental Health: Fatigue, Boredom, Accidents and Safety. Everyday Stress and its management- Refuting Irrational Ideas, Rational Emotive Behavioral Therapy, Goal Setting and Time Management. Conflict: Definition, Traditional Vs. Modern view of conflict. Types of Conflict – Intra personnel, Interpersonal, Organizational, Constructive and Destructive Conflict, Conflict Management.

Learning Outcome

- Students will be able to learn to create motivated workers
- Students will be able to learn to create a conducive environment at workplace
- Students will be able to exhibit ethical leadership skills in professional practice and community service.

Text book [TB]:

1. Industrial/Organizational Psychology, J.B. Miner, NY: McGraw Hill, 1992.
2. Human Resource Management, K. Aswathappa, 5th Edition, New Delhi: Tata McGraw Hill, 2008.
3. Psychology and work today, D. Schultz, and S. E. Schultz, 8th Edition, N.D.: Pearson Education, 2006.

Reference books [RB]:

1. Industrial Psychology. Its Theoretical & Social Foundations, Blum & Naylor, CBS Publication, 1982.
2. Organizational behavior, S.P. Robbins, & S. Sanghi, 11th edition, New Delhi: Pearson Education, 2009.
3. Industrial/Organizational Psychology: An Applied Approach, M.G. Aamodt, 5th Edition, Wadsworth/Thompson: Belmont, C.A., 2007.

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4. Robbins S.P. and Sanghi S. (2009). Organizational behavior (11th ed.). New Delhi: Pearson Education.

Subject Code	ECO256	Subject Title	Introduction to Research Methods						
LTP	5 1 0	Credit	6	Subject Category	GE IV	Year	2 nd	Semester	IV

Course Objectives:

- To make the students to have an exposure to analysis the various types of data and understand how primary data can be collected at household's level.
- To enable the students to have a strong idea on various techniques to analyse the primary and secondary data.
- To increase the understanding of students to undertake the research on various aspect of economic and social issues.

UNIT 1: Introduction to Research

(13 Lecture)

Meaning of research, Objectives, Motivation, Types and significance of research; Methods vs methodology, Research Process, Criteria of Good Research, Research Problems- Selecting Research problems, Meaning and Nature of Research Design, conceptualization and evaluation of research

UNIT 2: Sampling Techniques

(13 Lecture)

Sampling-probability and non-probability sampling; Measurement- construct validity and reliability; Survey research- types of surveys and interviews; Scaling- Thurston, Likert and Guttman scaling

UNIT 3: Qualitative and Quantitative Measures

(13 Lecture)

Collection of Data and Techniques; Qualitative Measures- data, approaches and validity, Design- Experimental and quasi-experimental Quantitative Measures: Correlation and regression analysis (two variables and several variables)

UNIT 4: Analysis and Interpretation of Data

(13 Lecture)

Analysis- data preparation, descriptive statistics, hypothesis testing, multivariate analysis (inferential statistics)

Unit 5: Report Writing

(13 Lectures)

Writing: research proposal; review article; scientific research article; technical report

Learning Outcomes

- The students will be able to acquire a strong research background and knowledge of research methodology.
- The students will have an exposure to analyse the various types of data and understand how primary data can be collected at household's level.
- The students will be efficient to write a scientific report and scientific research articles.

Text book [TB]:

1. Research Methodology: Methods and Techniques, C.R. Kothari, 2nd Edition, New Age International, 2009.
2. Introduction to Mathematical Statistics, R.V. Hogg, A. Craig, and McKean. 6th Edition, Prentice Hall, 2004.
3. Research Methods: The Concise Knowledge Base, W.T. Trochim, Atomic Dog Publisher, 2004.

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Applicable for Batch: 2020-2023

Reference books [RB]:

1. *Qualitative data analysis: An expanded sourcebook*, M. B. Miles, & M. Huberman, Thousand Oaks, 2nd Edition, CA: Sage Publications, 1994.
2. *Writing literature reviews: A guide for students of the social and behavioral sciences*, J.L. Galvin, 4th edition. Glendale, CA: Pyczak. 2009.
3. *A manual for writers of research papers, theses, and dissertations*, K.L. Turabian, Chicago, IL: University of Chicago Press, 2007.

Course Structure & Syllabus of B.A. (Hons.) Economics

Applicable for Batch: 2020-2023

Subject Code	ECO306	Subject Title	International Economics						
LTP	5 1 0	Credit	6	Subject Category	UC	Year	3 rd	Semester	V

Course Objectives:

- To make the students understand the importance of international theories to maintain trade relations at global level.
- To give an exposure to the students that how countries specialize in certain goods and services for comparative advantage over other countries and how this changes overtime.
- To enable the students to have knowledge of balance of payment and balance of trade, international monetary system and rationale of protection.

UNIT 1: Introduction to International Economics (13 Lecture)

Trade theories and commercial policy: Theories of absolute advantage, comparative advantage and opportunity cost: Hecksher-Ohlin theory of trade-its main features, assumptions and limitations, Term of trade.

UNIT 2: Balance of Trade and Balance of Payments and Exchange Rate (13 Lecture)

Concepts and components of balance of trade and balance of payments, Equilibrium and disequilibrium in balance of payments, Various measures to correct deficit in the balance of payment Meaning, concept of equilibrium exchange rate and determination; Fixed versus flexible exchange rates.

UNIT 3: International Monetary System and International Institutions (13 Lecture)

Bretton-wood systems and its breakdown, International liquidity Special drawing rights, IMF, World Bank, Asian Development Bank

UNIT 4: Protection and international trade (13 Lecture)

Tariff and non-tariff barriers to trade (Quota, voluntary export restraints, export subsidies, dumping and international cartel), Import Substitution.

Unit 5: Economic Co-operation, Role of WTO and FTA (13 Lectures)

Economic Co-operation: Forms of Economic Co-operation, Static and Dynamic Effects of Custom Union (Viner, Lipsey) and Free trade Area, World Trade Organization: WTO and India, Recent change in the direction and composition of India's foreign trade. Multi-National Corporations; and Recent import and export policies.

Learning Outcomes

- The students would be efficient to understand the importance of international theories to maintain trade relations at global level.
- The students will have an exposure to the students that how countries specialize in certain goods and services for comparative advantage over other countries and how this changes overtime.
- The students will have knowledge of balance of payment and balance of trade, international monetary system and rationale of protection.

Text book [TB]:

1. International Economics, Kindleberger C.P. Krugman Paul R. and Obstfeld Maurice, 8th Edition, Pearson Education, 2007.
2. Globalizing Capital: A History of the International Monetary System, Barry Eichengreen, 2nd Edition, 2008.

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Applicable for Batch: 2020-2023

Reference books [RB]:

1. Paul Krugman, Maurice Obstfeld, and Marc Melitz, International Economics: Theory and Policy, Addison-Wesley (Pearson Education Indian Edition), 9th edition, 2012.
2. Dominick Salvatore, International Economics: Trade and Finance, John Wiley International Student Edition, 10th edition, 2011.
3. Globalizing Capital: A History of the International Monetary System, Barry Eichengreen, 2nd Edition, MCGraw Hill Publication Delhi, 2008.

Course Structure & Syllabus of B.A. (Hons.) Economics

Applicable for Batch: 2020-2023

Subject Code	ECO307	Subject Title	Econometrics						
LTP	5 1 0	Credit	6	Subject Category	UC	Year	3 rd	Semester	V

Course Objective:

- To introduce the students about regression analysis so that they are able to understand its applications in different fields in economics.
- To make the studentst to specify assumptions, formulate and estimate appropriate models, interpret the results and test their statistical significance.
- To make the students to write a good quality undergraduate research paper in economics using the econometric methods taught in this class.

UNIT1:Introduction

(13Lecture)

Definition, Scope, and Methodology of econometrics; Nature and sources of data for econometric analysis- Time Series, Cross-sectional and Panel Data; Specification of an econometric model Simple Regression Models: Estimators (OLS) and their properties; Statistical inference.

UNIT 2:EconometricProblems

(13 Lecture)

Nature, consequences, detection and remedial measures of the problems of Multicollinearity, hetroscedasticity and autocorrelation

UNIT 3: Test Procedures andModelSelection

(13 Lecture)

Tests of specification and mis-specification, measurement errors, encompassing models, and criteria for modelselection

UNIT 4: DynamicModels

(13Lecture)

Lags in econometrics, Distributed and autoregressive lags, Koyck model, ARDL and ECM estimation; Dynamic Ordinary Least Sqaure (DOLS) Model

Unit 5: SimultaneousEquationModels

(13 Lectures)

Introduction, Identification problem, Simultaneous equation bias and 2SLS and 3SLS methods of estimation. Fixed effects model, Random effectsmodel

Outcomes

- The students would be able to understand the regression analysis and its application in different fields in economics.
- The studentst would be able to specify assumptions, formulate and estimate appropriate models, interpret the results and test their statistical significance
- The students would be able to conduct research in teams where they apply the techniques learnt during the course and present their results.

Text book [TB]:

1. Essentials of Econometrics, Gujarati D. N. and Porter D.C., 4th Edition, McGrawHill, 2009.
2. Introduction to Econometrics, Christopher Dougherty, 3rd Edition, Oxford UniversityPress, 2007.

Reference books[RB]:

1. Basic Econometrics, Johnston J and Nardo D, 4th Edition, McGraw Hills Co., 1997.
2. Econometric Analysis, Green William, 4th Edition, McGraw Hills Co., 2000.

Course Structure & Syllabus of B.A. (Hons.) Economics

Applicable for Batch: 2020-2023

Subject Code	ECO346	Subject Title	Agricultural Economics						
LTP	5 1 0	Credit	6	Subject Category	DSE I	Year	3rd	Semester	V

Course Objectives:

- To understand the nature and scope of agricultural economics.
- To introduce different theories related to agricultural economics.
- To introduce various policies and their impact on Indian agriculture sector.

UNIT 1: Role of Agriculture in Economic Development (13 Lecture)

Nature and scope of agriculture economics; Role of agriculture in economic development; Linkage between agriculture and industry; Theories of agriculture development: Schultz, Mellor and Boserup; Fei- Ranis model of agriculture development

UNIT 2: Economics of Agricultural Production, Cost and Price (13 Lecture)

Resource use and efficiency in agriculture- Production function analysis- Factor combination and resource substitution; Cost and supply curves; Size of farm and laws of returns; Theoretical and empirical findings; Farm budgeting approach, Agricultural Price Policy; Agricultural markets and marketing efficiency – Marketing functions and costs. Market structure and imperfections; Regulated markets; Marketed and marketable surplus

UNIT 3: Indian Government Policy on Agriculture (13 Lecture)

Role of agriculture in Indian economy; Regional variations in agriculture production and productivity in India; Agriculture credit and marketing policy in India; Crop insurance policy; Second green revolution, Issues and problems in rural industrialization and development of agro- based industries. Risk and uncertainty in agriculture – crop insurance and marketing policies – role of the state

UNIT 4: Recent Trends in Indian Agriculture (13 Lecture)

Recent trends in agricultural growth in India. Inter – regional variations in growth of output and productivity; cropping pattern shifts; supply of inputs – irrigation, power, seed and fertilizers. Bio – technological practices and growth potential.

Unit 5: Political Economy of Indian Agriculture (13 Lectures)

Political Economy of Indian Agriculture : Modes of production – Market interlocking and forced commerce – Methods of surplus extraction – State, community and household, Foreign Capital and Indian agriculture – Multinationals and international institutions. Issues relating to globalization of agricultural trade – WTO-AAO.

Learning Outcomes

- Students will get familiar with nature and scope of agricultural economics.
- Students will have understanding of economic theories in agricultural sector.
- Student will be able to analyse and explain the various policies and their impact on Indian agriculture sector.

Text book [TB]:

1. Economic Liberalization and Indian Agriculture. Institute for Studies in Industrial Development, Bhalla G. S., 3rd Edition, New Delhi, 1994.
2. Indian Agricultural Economics: Myths and Reality, Rudra A, 5th Edition, New Delhi, 2004.

Reference books [RB]:

1. The Economic Structure of Backward Agriculture, Bhaduri A., 6th Edition, Macmillan, Delhi, 2009.
2. Agricultural Economics, Bilgrami S.A.R., 3rd Edition, Himalaya Publishing House, New Delhi, 2007.

Course Structure & Syllabus of B.A. (Hons.) Economics

Applicable for Batch: 2020-2023

Subject Code	ECO347	Subject Title	History of Economic Thought						
LTP	5 1 0	Credit	6	Subject Category	DSE I	Year	2019-20	Semester	V

Course Objectives:

- To provide the knowledge on economic thought which have emerged over time.
- To introduce the critical comparison of the contributions of the various schools of economics.
- To provide the relavnce of these thought in current economic persepctives.

UNIT 1: Mercantilism to Neoclassical Orthodoxy (13 Lecture)

Mercantilism; Laissez Faire: Quesnay and the Physiocrats; Adam Smith: invisible hand – accumulation and income distribution – value – market and competition – institutions; J S Mill: Synthesis of classical economics – Ricardo – Capital – wages; Neo classical orthodoxy: Alfred Marshall

UNIT 2: Economic Theory relating to Marx (13 Lecture)

Marx: Marxian economic theory: Exploitation and value – wages – trade cycle – capitalist movement – monetary aspects of crisis

UNIT 3: Marginalist Revolution and Equilibrium and Market Forms (13 Lecture)

Marginalist revolution: Neoclassical theoretical system and general economic equilibrium. High Theory: J M Keynes: the general theory; J A Schumpeter: equilibrium and development – trade cycle and money; Market forms: Sraffa – Chamberlin – Joan Robinson: contribution to the study of market forms.

UNIT 4: Indian Economic Thinker (13 Lecture)

Mahatma Gandhi, Pandit Nehru, Dada Bhai Naroji, BR Ambedkar, Vimal Jalan, Manmohan Singh, Amartya Sen

Unit 5: Contemporary Developments (13 Lectures)

Contemporary developments: neoclassical synthesis in the age of stagflation: Samuelson – monetarist counter revolution: Milton Friedman – post Keynesian approach – New Keynesian Macroeconomics; New Welfare Economics and Economic Theories of Justice: fundamentals of welfare economics; Social Choice: Arrow; Theories of Justice and self-determination: Rawls and Kenneth Arrow.

Learning Outcomes

- The students would be able to acquire a comprehension of the evolution of economic ideas tracing to its philosophical roots.
- The students would get the knowledge of a variety of theoretical models and mechanisms and arguments about various schools of thought relating to economic ideas.
- The students would be able to understand the importance of economic thought in current economic situation.

Text book [TB]:

1. An Outline of the History of Economic Thought, Scrapanti Ernesto and Zamagni Stefano, 1st Edition, Oxford University Press, 2006.
2. History of Economic Thought, H.L. Bhatia, 4th Edition, Vikash Publishing House, 1978.

Reference books [RB]:

1. A History of Economic Doctrines, Gide Charles and Rist Charles, 3rd Edition, Surjeet Publications, 2007.
2. A History of Economic Thought, Lokanathan V., 2nd Edition, S. Chand Publication, 2007.

Course Structure & Syllabus of B.A. (Hons.) Economics

Applicable for Batch: 2020-2023

Subject Code	ECO348	Subject Title	Financial Economics						
LTP	5 1 0	Credit	6	Subject Category	DSE II	Year	3 rd	Semester	V

Course Objectives:

- To increase the understanding of students on financial activities i.e. money market, capital market, insurance market of the country.
- To help the student to understand the time value of money
- To help the student to understand the foreign exchange market that determine the allocation of resources through time in market economies.

UNIT 1: Money, Capital Market and Stock Exchange in India (13 Lecture)

Indian Money Market: Meaning, Nature: Functions and Constituents of Indian Money Market - Money Market Instruments - Call Money-Treasury Bills - Certificates Of Deposits - Commercial Bills - Commercial Paper, Recent Trends In Indian Money Market. Capital Market- Primary and Secondary Markets, Financial Sector Reforms in India. Stock Exchange Market in India.

UNIT 2: Mutual Fund and Insurance (13 Lecture)

Mutual Fund – Evolution – Types – Advantages – Goals – Mutual Fund Industry – NAV – The Future Of Mutual Funds, **Insurance** – Insurance Companies - New Product Development – Reforms – Liberalization Of Insurance; IRDA – Economic Change – Insurance Revolution – Reform Proposals – Constitution Of IRDA – Objectives, Function and Power of IRDA.

UNIT 3: Role of Time Value of Money in Finance (13 Lecture)

Time Value of Money: Net Present Value, Internal Rate Return, Simple and Compound, Uniform Series Compound Interest Formula, Present Worth Analysis, Future Worth Analysis, Future Value through Annuity, ~~Rate of Return Analysis~~, Cash flow diagrams; Depreciation: Straight Line and Declining Balance Method of Depreciation; Project Evaluation Techniques: Present Worth Method, Future Worth Method, Benefit-Cost Analysis: Conventional method.

UNIT 4: Derivatives (13 Lecture)

Meaning And Purpose Of Derivatives - Forward Contracts, Future Contracts, Options and Swaps - Type Of Traders - Trading Future Contracts - Specification of The Future Contracts - Operation of Margins - Settlement and Regulations

Unit 5: Foreign Exchange Markets (13 Lectures)

Foreign exchange markets: Nature- organization and participants. Exchange rates-determination, Types and system, Determination of exchange rates Under fixed and flexible exchange rate regimes - Role of hedging in the determination of exchange rates

Learning Outcomes

- The students would be able to understand the concept of money and capital market, their distinction, role, functions and current status in Indian context.
- The students would also be able to know mutual fund, its evolution, types and advantages.
- The students would be efficient to understand the importance of derivative and foreign exchange market finance in economic development.

Text book [TB]:

1. Financial Institutions and Markets: Structure, Growth and Innovations, Bhole LM, 7th Edition, Tata McGraw Hill Company Ltd., New Delhi, 2004.

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- 2 Indian Financial System, Bhole LM, 1st Edition, Chugh Publications, Allahabad, 1993.
- 3 Options, Futures and Other Derivatives, Hull John C, 6th Edition, Pearson Education, 2005.

Reference books [RB]:

1. Financial Institutions and Markets, Johnson H.J, 1st Edition, McGraw Hill, New York, 1993.
2. Indian Financial Systems, Machiraju MR, 2nd Edition, Vikas Publishing House, New Delhi, 2002.

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Applicable for Batch: 2020-2023

Subject Code	ECO349	Subject Title	Political Economy						
LTP	5 1 0	Credit	6	Subject Category	DSE II	Year	3 rd	Semester	V

Course Objectives:

- To make the students to mastering basic principles of economics and political science and be able to integrate them in the analysis of questions about public policy and societal institutions.
- To make them able to understand, interpret, and critically evaluate empirical evidence on economic, political, and public policy questions, including qualitative, quantitative, and formal statistical and econometric evidence.
- To make them understand the ethical and philosophical dimensions of questions about public policy and how they interact with economic and political considerations.

UNIT 1: Introduction and Historical Overview (13 Lecture)

Perspective on political economy with a historical overview: capitalist development in the pre-second world war period, the golden age and later. Analysing social change in historical perspective: The method of historical materialism; the transition from feudalism to capitalism; capitalism as a historical process – alternative perspectives

UNIT 2: Changing Dynamics of Capitalist Production (13 Lecture)

Fordist and post-fordist production; changing dynamics of organisation of production, markets and labour process; the changing nature of job security and labour rights. Capitalism as an evolving economic system: Basic features; accumulation and crisis; the modern corporation; monopoly capitalism— alternative perspectives.

UNIT 3: The State in the Era of Globalization (13 Lecture)

Globalization and the limits of the welfare state, development and state autonomy; The State in Capitalism: The state and the economy – contestation and mutual interdependence; the state as an arena of conflict; imperialism – the basic foundations

UNIT 4: The Changing Role of Finance (13 Lecture)

The changing role of finance in capital accumulation and corporate structure; finance and globalization - financialisation, financial liberalization and financial crisis

UNIT 5: The Social Dimension and New Perspectives (13 Lectures)

Globalization and uneven development – growth, inequality and exclusion. Gender in work, accumulation and globalization; issues in environment and sustainability; alternatives ahead.

Learning Outcomes

- The students would be efficient to understand the role of political economy in economic development and able to analyse the intellectual roots of economic liberalism.
- It would be helpful for students to analyse the political policy and its influence on economic development.
- The students would be able to do empirical exercise on economic, political and public policies up to greater extent.

Text book [TB]:

1. Contemporary Economic Sociology: Globalization, Production, Inequality, Fran Tonkiss, 1st Edition, Routledge, 2006.
2. The Governance of Global Value Chains, G. Gereffi J. Humphrey and T. Sturgeon, *Review of International Political Economy*, 12:78–104, 2005.

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Reference books [RB]:

1. The Recent Crisis in Global Capitalism: Towards a Marxian Understanding, Vamsi Vakulabharanam, Economic and Political Weekly, 44:144-150, 2009.
2. Indian Political System, Himanshu R and Singh MP, 4th Edition, Pearson Publication, 2018.

Course Structure & Syllabus of B.A. (Hons.) Economics

Applicable for Batch: 2020-2023

Subject Code	ECO308	Subject Title	Money & Banking						
LTP	5 1 0	Credit	6	Subject Category	UC	Year	3 rd	Semester	VI

Course Objective:

- To make the students to develop a basic understanding of the financial system: how it operates and why it plays a central role in the economy.
- To enable students to learn structure and role of financial markets and institutions.
- To enable the students to analyze in detail the aims, conduct, influence and limitations of monetary policy.

UNIT 1: Money Supply and its Function (13 Lecture)

Barter Economy, Evaluation and Functions of Money, Role of Money, Circular Flow of money, Monetary Standard, Measurement of Money – Index Numbers, Value of money, Quantity Theory of Money – Cash Transaction Approach and Cash Balance Approach.

UNIT 2: Concept of Financial Markets and Institutions (13 Lecture)

Financial Institutions, Markets, Instruments: Role of financial markets and institutions; problem of asymmetric information – adverse selection and moral hazard; financial crises. Money and capital markets: organization, structure and reforms in India.

UNIT 3: Interest Rate and Non-financial organizations in India (13 Lecture)

Interest rates in India, Non-financial organizations-Objective, aims, roles and structure; various forms of NFOs and NFIs in India, Role of NFIs in Indian economy.

UNIT 4: Structure of Banking System in India (13 Lecture)

Introduction of SCBs and central banks and their role and functions, Balance sheet and portfolio management, Credit creation and its process; Indian banking system: Changing role and structure; banking sector reforms.

UNIT 5: Central Banking and Monetary Policy (13 Lectures)

Functions, balance sheet; goals, targets, indicators and instruments of monetary control, Instrument of credit control, Inflation and its consequences and measurement, Monetary management in an open economy; current monetary policy of India.

Learning Outcomes

- The Students would be able to understand the importance of money and banking system in economic development.
- The student would be able to examine the nature of money, definitions of the money supply and different approaches to determining how the money supply is created.
- The students would be able to discuss the recent performance of financial markets and government intervention strategies in light of economic theory.

Text book [TB]:

1. Indian Financial System, Khan MY, 7th Edition, Tata McGraw Hill, 2011.
2. Financial Institutions and Markets, Bhole LM and Mahukud J, 5th Edition, Tata McGraw Hill, 2011.

Reference books [RB]:

1. Financial Markets and Institutions, Mishkin FS and Eakins SG, 6th Edition, Pearson Education, 2009.
2. Foundations of Financial Markets and Institutions, Fabozzi FJ, Modigliani F, Jones FJ and Ferri M G, 3rd Edition, Pearson Education, 2009.

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Applicable for Batch: 2020-2023

Subject Code	ECO309	Subject Title	Public Finance						
LTP	5 1 0	Credit	6	Subject Category	UC	Year	3 rd	Semester	VI

Course Objectives:

- To enable the students to analyze the key issues and challenges in implementing government policies.
- To help the students to study the specific costs and benefits of government intervention.
- To enable the students towards India's public finance.

UNIT 1: Public Finance and Public Goods (13 Lecture)

Meaning and scope of public finance, public finance vs. private finance, fiscal functions-allocation, distribution and stabilization role of government, public goods - pure and partial public goods, private goods and merit goods, characteristics of public goods, rationale of public provision of public goods, free rider problem, voluntary exchange theory and Samuelson's theory of public goods

UNIT 2: Externalities and Govt. Policies (13 Lecture)

Definition and types of externalities, Externalities and efficiency, Internalization of externalities: corrective taxes and subsidies, Coase theorem, significance of Coase theorem, application of Coase theorem and pollution rights

UNIT 3: Public Revenue (13 Lecture)

Tax and non-tax revenue, direct and indirect taxes, effects of tax on production, distribution and economic activities. Principles of taxation – Benefit theory, Ability to pay theory, Burden of taxation: Neutrality in taxation, shifting and incidence of taxation, allocative and equity aspect of taxation.

UNIT 4: Indian Public Finance-I (13 Lecture)

Features of Indian tax system, tax revenues of the central and state governments, direct and indirect taxes levied by the state and centre, changing tax structure of India, Tax reforms since 1991: Composite Tax System in India – GST

UNIT 5: Indian Public Finance-II (13 Lectures)

Budgetary trend in India, trend of receipts and expenditures of Central Govt., Types of deficits: budgetary deficit, fiscal deficit, revenue deficit and primary deficit, Public debt: problems and issues, Fiscal federalism in India: Transfer of resources from centre to state-trends and techniques-

Learning Outcomes

- The students would be able to get the significant idea on public finance and its importance.
- The students would be able to know the government taxation, expenditures pattern, public goods, market failures and externalities.
- The students would be able to acquire the knowledge about government policy and revenue structure of country.

Text book [TB]:

1. The Theory of Public Finance, Musgrave RA, 3rd Edition, McGraw Hill, 2006.
2. Economics of the Public Sector, Ghosh Ambar and Ghosh Chandana, 7th Edition, PHI, 2007.

Reference books [RB]:

1. Public Finance in Theory & Practice, Singh SK, 3rd Edition, S Chand & Company, 2010.
2. Public Finance, Bhatia HL, 9th Edition, Vikash Publishing House, 2018.

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Applicable for Batch: 2020-2023

Subject Code	ECO356	Subject Title	Environmental Economics						
LTP	5 1 0	Credit	6	Subject Category	DSE III	Year	3 rd	Semester	VI

Course Objectives:

- To make the students to learn how markets allocate goods and why they sometimes fail allocate environmental goods optimally and to design regulation which corrects market failures.
- To help the students to understand the link between economics and the environment and also to help them to learn how to regulate pollutants that travel across country boundaries and how environmental regulations affect trade flows.
- To enable the students to learn to use consumer choices to infer demand for environmental quality.

UNIT 1: Environmental Economics - its Nature and Scope (13 Lecture)

Nature and scope of environmental economics - Natural resource economics and ecological economics - Current state of the environment - Use of economics to analyse environmental issues

UNIT 2: Principles of Environmental and Resource Economics (13 Lecture)

Welfare Economics – Sustainability – Efficiency - benefit-cost analysis - Alternative approaches to evaluate environmental policies - Externalities and Property Rights - Coase theorem and theories on it

UNIT 3: Controlling Pollution (13 Lecture)

Pigouvian fees - Regulation - Government intervention - Advantages and disadvantages of a command and control approach - Efficiency and Cost-effectiveness of regulations - Marketable Permits: the theoretical basis for a marketable permit approach; practical challenges in using marketable permits

UNIT 4: Green Accounting (13 Lecture)

Green Accounting - Use of permits to reduce greenhouse gas emissions - Regulation under Uncertainty - Effectiveness of regulation under imperfect information - Monitoring and enforcement of pollution levels - Risk - incorporation of risk and uncertainty into models.

UNIT 5: Economic Valuation (13 Lectures)

Introduction - Valuation of the environment, what is value of ecosystem services, role of ecosystem services in economic development, Market and Non-Market valuation (Contingent Valuation Methods, Travel Cost Method, Willingness to Pay), Few cases on valuation of ecosystem services of water, soil, and forestry

Learning Outcomes

- Students would learn how markets allocate goods and why they sometimes fail allocate environmental goods optimally and design regulation which corrects market failures.
- Students would understand the link between economics and the environment and also learn how to regulate pollutants that travel across country boundaries and how environmental regulations affect economy flows.
- Students would learn the use consumer choices to infer demand for environmental quality.

Text book [TB]:

1. Environmental Economics, Kolstad Charles D, 3rd Edition, Oxford University Press, New York, 2000.
2. Environmental Economics, Shogren and White, 3rd Edition, MacMillan, 2007.

Reference books [RB]:

1. Taking Sides: Clashing Views on Controversial Environmental Issues, Easton Thomas A,

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12th Edition, McGrawHill, 2009.

2. Taking Sides: Clashing Views on Controversial Environmental Issues, Goldfarb Theodore D, 9th Edition, McGrawHill, 2001.
3. Green Cities: Urban Growth and the Environment, Matthew E, 5th Edition, Washington, D.C. Brookings Institution Press, 2006.
4. Calculating the Costs of Environmental Regulation, Pizer William A. and Raymond Kopp, Resources for the Future, Discussion Paper 03-06, 2003.

Course Structure & Syllabus of B.A. (Hons.) Economics

Applicable for Batch: 2020-2023

Subject Code	ECO357	Subject Title	Labor Economics						
LTP	5 1 0	Credit	6	Subject Category	DSE III	Year	3 rd	Semester	VI

Course Objectives:

- To help the students to understand the concept of wage determination, migration, and industrial relations in developing country like India.
- To introduce the students about basic mechanisms of the labour market, in particular how unemployment and wage and productivity differences can arise.
- To help the students to understand key elements of migration, industrial disputes and labour policy of India.

UNIT1: Introduction

(13Lecture)

Meaning- Concept, Significance and Peculiarities of Labour. Nature, Scope and Importance of Labour Economics. Characteristics of Indian Labour Market.

UNIT 2:WageDetermination

(13Lecture)

Marginal Productivity Theory, Theory of Collective Bargaining, Modern Theory of Wages. Minimum Wage and Fair Wage. Wage Determination in – Organised- Unorganised Sector.

UNIT 3: MigrationandAbsenteeism

(13 Lecture)

Approaches to Labour Migration trends & effects of Migration. Absenteeism to Industrial Labour in India, causes, effects and remedies. Labour turnover - Trends in Labour Turnover in India.

UNIT 4:IndustrialRelations

(13Lecture)

Labour Unions in India- Growth, Pattern, Structure and Achievements of Labour Union in India. Causes of Industrial Disputes and their settlement and preventive mechanism, Current trends in Collective Bargaining, Social Security Measures.

UNIT 5: LabourMarketreforms

(13Lectures)

Child Labour Policy in India, Problems and Policy of Female Workers in India, Labour Relations in India, Contract Labour.

Learning Outcomes

- The students would be able to acquire knowledge on different labour theories.
- The students would develop the knowledge about labour migration, labour market reform and solution for industrial disputes.
- Students would be able to get the idea of various laws and policy for labour in India.

Text book [TB]:

1. Bargaining Power, Wages and Employment: An Analysis of Agricultural, Labour: Markets in India, Datt G, 1st Edition, Sage Publications, NewDelhi, 1996.
2. Labour Restricting in India: A Critique of the New Economic Policies, Hajela PD, 2nd Edition, Common wealth Publishers, NewDelhi, 1998.

Reference books [RB]:

1. The Unorganised Sector: Work Security and Social Protection, Jhabvala R and Subrahmanya RK, 6th Edition, Sage Publications, NewDelhi, 2000.
2. Economics of Labour, Lester RA, 2nd Edition, Miacmillan, NewWork, 1964.
3. Contemporary Labour Economics, McConnell CR and Brue SL, 3rd Edition, McGraw-Hill, New York, 1986.

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Applicable for Batch: 2020-2023

Subject Code	ECO358	Subject Title	Economics of Health and Education						
LTP	5 1 0	Credit	6	Subject Category	DSE IV	Year	3rd	Semester	VI

Course Objectives:

- To understand the role of education and health in human development.
- To understand health insurance market, estimation techniques of health programmes, etc.
- To understand the role of health and education policies in India's development.

UNIT 1: Role of Health and Education in Human Development (13 Lecture)

Importance in poverty alleviation; health and education outcomes and their relationship with macroeconomic performance. Prime indicators of health and education, interaction and association of health and education related indicators, measurement of health and education at micro to macro level

UNIT 2: Microeconomic Foundations of Health Economics (13 Lecture)

Demand for health; uncertainty and health insurance market; alternative insurance mechanisms. Market failure and rationale for public intervention; equity and inequality

UNIT 3: Evaluation of Health Programs (13 Lecture)

Costing, cost effectiveness and cost-benefit analysis; burden of disease. Alternative measurement of progress of health programs at individual level, index based estimation of health programs at micro to macro level

UNIT 4: Health Sector in India: An Overview (13 Lecture)

Health outcomes; health systems; health financing, Out pocket expenditure, Central and state policies for health security in India, Determinants of health security in India.

UNIT 5: Education: Investment in Human Capital (13 Lectures)

Rate of return to education: private and social; quality of education; signaling or human capital; theories of discrimination; gender and caste discrimination in India. Education Sector in India: An overview: Literacy rates, school participation, school quality measures.

Learning Outcomes

- Students will be able to understand the role of education and health in sustainable development.
- Students will be able to analysis the problems and prospects of health insurance market.
- Students will able to examine and evaluate several policies to maintain health quality of common citizen in the country.

Text book [TB]:

1. Principles of Health Economics for Developing Countries, William Jack 3rd Edition, World 24 Bank Institute Development Studies, 1999.
2. Modern Labor Economics: Theory and Public Policy, Ronald G, Ehrenberg and Robert S and Smith, 3rd Edition, Addison Wesley, 2005.

Reference books [RB]:

1. Investing in Health, Annual World Development Report, The World Bank, 1993.
2. Health Economics, Jay Bhattacharya, Timothy Hyde, Peter Tu, 2013th Edition, Red Globe Press.