DIT UNIVERSITY DEHRADUN



DETAILED COURSE STRUCTURE & SYLLABUS

OF

B.A. (HONS.) ECONOMICS
APPLICABLE FROM 2022-2025

COURSE STRUCTURE

Year: 1st Semester: I

| Course Category | Course Code | Course Title | L | Т | Р | Credit |
|--------------------|--------------------|----------------------------|---|----|---|--------|
| UC | ECO106 | Micro Economics I | 5 | 1 | 0 | 6 |
| UC | ECO107 | Macro Economics I | 5 | 1 | 0 | 6 |
| GE I | ECO146/14 7/156 | General Electives I | 5 | 1 | 0 | 6 |
| AEC I | HS103 | Professional Communication | 2 | 0 | 2 | 3 |
| Total | | | | 21 | | |

Year: 1st Semester: II

| Course Category | Course Code | Course Title | L | Т | Р | Credit |
|--------------------|----------------|--------------------------------------|----|---|---|--------|
| UC | ECO108 | Micro Economics II | 5 | 1 | 0 | 6 |
| UC | ECO109 | Macro Economics 1I | 5 | 1 | 0 | 6 |
| UC | ECO116 | Mathematical Methods For Economics I | 5 | 1 | 0 | 6 |
| GE II | ECO148/14 9 | General Electives II | 5 | 1 | 0 | 6 |
| AEC II | CH201 | Environmental Science | 2 | 0 | 0 | 2 |
| Total | | | 26 | | | |

General Electives I

| ECO146 | Indian Economy I |
|--------|--------------------|
| ECO147 | Energy Economics |
| ECO156 | Population Studies |

General Electives II

| | Computer Applications in Economic Analysis |
|--------|--------------------------------------------|
| ECO149 | Regional Economics |

Year: 2nd Semester: III

| Course Category | Course Code | Course Title | L | Т | Р | 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 I | ECO209/21 8 | Skill Enhancement Course I | 2 | 0 | 0 | 2 |
| GE III | ECO 246/247/248 | General Electives III | 5 | 1 | 0 | 6 |
| Tota I | | | | | 26 | |

Year: 2nd Semester: IV

| Course Category | Course Code | Course Title | L | Т | Р | Credit |
|--------------------|-------------|-------------------------------------|---|---|---|--------|
| UC | ECO216 | Development Economics II | 5 | 1 | 0 | 6 |
| UC | ECO217 | Statistics For Economic Analysis II | 5 | 1 | 0 | 6 |
| SEC II | HS446 | Industrial Psychology | 2 | 0 | 0 | 2 |
| GE IV | ECO249/256 | General Electives IV | 5 | 1 | 0 | 6 |
| Total | | | | | | 20 |

Skill Enhancement Course I

| ECO209 | Application of Statistical Software in |
|--------|----------------------------------------|
| | Economic Analysis |
| ECO218 | Entrepreneurship Development |

General Electives III

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

General Electives IV

| ECO249 | Contemporary Economic Issues |
|--------|----------------------------------|
| ECO256 | Introduction to Research Methods |

Year: 3rd Semester: V

| Course Category | Course Code | Course Title | L | Т | Р | Credit |
|--------------------|----------------|---------------------------------|---|---|----|--------|
| UC | ECO306 | International Economics | 5 | 1 | 0 | 6 |
| UC | ECO307 | Basic Econometrics | 5 | 1 | 0 | 6 |
| DSE I | ECO346/347 | Discipline Specific Electives I | 5 | 1 | 0 | 6 |
| DSE II | ECO348/349 | Disciplne Specific Electives II | 5 | 1 | 0 | 6 |
| Total | | | | | 24 | |

Year: 3rd Semester: VI

| Course Category | Course Code | Course Title | L | Т | Р | Credit |
|--------------------|----------------|-----------------------------------|---|---|---|--------|
| UC | ECO308 | Money & Banking | 5 | 1 | 0 | 6 |
| UC | ECO309 | Public Finance | 6 | 1 | 0 | 6 |
| DSE III | ECO356/357 | Discipline Specific Electives III | 5 | 1 | 0 | 6 |
| DSE IV | ECO358/359/366 | Discipline Specific Electives IV | 4 | 1 | 0 | 5 |
| Total | | | | | | 23 |

Discipline Specific Electives I

| | • |
|--------|-----------------------------|
| ECO346 | Agricultural Economics |
| ECO347 | History of Economic Thought |

Discipline Specific Electives II

| ECO348 | Financial Economics |
|--------|---------------------|
| ECO349 | Political Economy |

Discipline Specific Electives III

| ECO356 | Environmental Economics |
|--------|-------------------------|
| ECO357 | Labor Economics |

Discipline Specific Electives IV

| ECO358 | Economics of Health and Education |
|--------|-----------------------------------|
| ECO359 | Comparative Economic Development |
| ECO366 | Research Project |

SUMMARY OF THE CREDIT

| Year | Semester | Credit |
|------|----------|--------|
| 1 | 1 | 21 |
| ı | 2 | 26 |
| 2 | 3 | 26 |
| 2 | 4 | 20 |
| 3 | 5 | 24 |
| 3 | 6 | 23 |

CATEGORY WISE CLASSIFICATION OF THE CREDIT

| Category | Credit |
|----------|--------|
| UC | 84 |
| GE | 24 |
| SEC | 4 |
| AEC | 5 |
| DSE | 23 |
| Total | 140 |

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 factor markets.
- To develop the understanding how decisions are made within the larger economic system.

Unit 1: Introduction and Basic concepts

(10 Lecture)

Why study economics? Definition & Meaning, Nature and scope of micro economics, Basic Economic Problem - Choice and Scarcity, Inductive and Deductive methods, Positive vs. Normative Economics, Static and Dynamic Analysis.

Unit 2: Demand and Supply

(16 Lecture)

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; Law of supply, types of supply, Elasticity of supply and its measurement.

Unit 3: Consumer Theory

(13 Lecture)

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), Revealed Preference Theory, Consumer and Producer Surplus.

Unit 4:Theory of Production and Cost

(11 Lecture)

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

Unit 5: Market Structure

(15 Lecture)

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; Monopsony: Features.

Learning Outcomes

- Students will be able to understand the basic conecpt and tools of microeconomis.
- 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 Applications, H.L. Ahuja, Sultan Chand and Co., New Delhi, 2006.
- 2. Modern Microeconomics, A. Koutsoyiannis, 2nd edition, Macmillan Press, London, 1979.
- **3.** Economics: Principles and Applications, N. Gregory Mankiw, India edition by South Western, a part of Cengage Learning, Cengage Learning India Private Limited.

- **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.

| • | Subject Code | ECO107 | Subject Title | | MACRO ECONOMICS I | | | | | |
|---|-----------------|--------|------------------|---|---------------------|----|------|-----------------|----------|---|
| | LTP | 510 | 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)

Nature and scope of macroeconomics, Difference between micro and macroeconomics and importance of macroeconomics. Concepts, measurement and limitations of national income statistics, Circular flow of income in two, three and four sector economy.

Unit 2: Income and Employment

(13 Lecture)

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 function-APC and MPC; Saving function- APS and MPS; Keynesian Psychological Law of Consumption and its Implications. Income – consumption relationship: Absolute and relative income hypothesis and permanent income hypothesis.

Unit 4: Investment Theory

(13 Lecture)

Investment function and its types, Inventory investment (autonomous and induced investment), present and future value of money in investment, determination of level of investment, MEC. Classical and Keynesian theory of investment (marginal efficiency of investment), Saving – investment equality.

Unit 5: Business Cycles and Policy Perscriptions

(13 Lecture)

Business cycles: Phases of business cycles-feature of business cycles- Theories of business cycles), policy perscriptions to reduce the occurance 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 understant, 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.** Moden Macroeconomics: Theory and Aaplications, 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.
- 4. Dornbush, Fisher and Startz, Macroeconomics, McGraw Hill, 11th edition, 2010.

- 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.

| Subject Code | ECO146 | Subject Title | INDIAN ECONOMY I | | | | | | |
|-----------------|--------|------------------|------------------|---------------------|------|------|-----------------|----------|---|
| LTP | 5 1 0 | Credit | 6 | Subject Category | GE I | Year | 1 St | Semester | Ι |

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: 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 Trends 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: Industrial and Services Sector

(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.

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

| Subject Code | ECO147 | Subject Title | ENERGY ECONOMICS | | | | | | |
|-----------------|--------|------------------|------------------|---------------------|------|------|-----------------|----------|---|
| LTP | 5 1 0 | Credit | 6 | Subject Category | GE I | Year | 1 st | Semester | ı |

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; Role of energy in development and growth; Economic theory of natural resource extraction; The primary (extractive) energy industries (oil and natural gas).

Unit 2: Natural Resources and Energy Source

(13 Lecture)

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.

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.

Unit 5: Economics of Energy Supply

(16 Lecture)

Economic theory of depletable resources; timing of extraction; market price pattern over time; socially optimal rates compare; higher interest rates, changed expectations, varying market structures, taxes-change patterns of extraction; nature of the supply function for depletable resources. Changing paterns in energy supply: Solar energy and other unconventional sources.

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

- **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, <u>Subhes C. Bhattacharyya</u>, Springer; March 7, 2011.

| Subject Code | ECO156 | Subject Title | POPULATION STUDIES | | | | | | |
|-----------------|--------|------------------|--------------------|---------------------|------|------|-----------------|----------|---|
| LTP | 5 1 0 | Credit | 6 | Subject Category | GE I | Year | 1 st | Semester | I |

Course Objectives:

- To increae learning on fundamentals issues on components of demography: fertility, mortality and migration and their societal implications.
- To increase the understanding of stduents on the mechanisms underlying the demographic transition theory.
- To identify and manipulate key demographic components that range from the local to the global spatial scales and for different population segments.

Unit 1: Introduction and Sources of Population Data

History, definition, nature and scope of Population Studies, relationship of other social sciences with population studies, Social structure, Social and Racial Groups, Society and Culture and its role in Population studies, Social Institutions (family, marriage, kinship, and religion) and their role in influencing population studies, Social change in India, Tribes in India and their culture.

Unit 2: Linkages of Population to Development and Prominant Theories of Population

Effect of development on demographic variables: Demographic transition theory, age structure transition, demographic dividends and population ageing; effects of fertility and mortality declines, health improvements and migration on economic growth, prominant Theories of Population.

Unit 3: Population and Resources

Natural resources: classification of natural resources, renewable and non-renewable resources, resources scarcity and resource depletion. Capital resources: effect of demographic factors on savings and investments, technology and development; importance of technology to improve the productivity of physical assets. Human resources - quantitative aspects: concepts labour force, economically active population, unemployment, types of unemployment, disguised, seasonal frictional and chronic.

Unit 4: Population and Environment

Various forms of environmental degradation and their implications; population growth, development and the greenhouse effect – global warming; pressure of population growth on water resources; pressure of population growth on land use; soil erosion, desertification, deforestation, and soil salinity. Pressure of population growth on energy resources; environmental degradation and it's implications for health; guidelines for environmental protection.

Unit 5: Demand and Supply of Labour

Factors affecting demand and supply of labour, effect of population growth and development

on structure of employment. Human resources – qualitative aspects: factors influencing productivity of human beings need for investment in human capital, implications of population growth on food, sanitation, housing, employment, education and health and social security to improve the quality of human resources, Changing occupation pattern of labour.

Learning Outcomes

- The students will get an opportunity to learn how these demographic trends of growth and transition affect their life in small and large ways.
- The students will be aware on population growth and change.
- The students will be familiar with negative consequences of populaion growth in global economies.

TEXT BOOK [TB]:

- Ray, Debraj (1998): Development Economics. Delhi: Oxford University Press. Chapters 1
 & 2.
- Chary, S.N and Vinod Vyasulu (eds). (2000):Environmental Management An Indian Perspective, New Delhi: Macmillan India.
- United Nations Development Programme (2006): Human Development Report 2006, New Delhi: Palgrave Macmillan Technical Note 1. pp. 393-99.
- Kapila, Ray and Uma Kapila (2001): India's Economy in the Twenty First Century. 2nd Revised Edition. New Delhi: Academic Foundation. Chapters 1 to 5, 15, 16 & 21.

- Kawadia, G. and K. Ahuja, (2006): Environmental Issues of Development. Sections A and E, Ambala: Associated Publishers. Chapters 1, 3 & 13.
- Chenery Hollis and T.N. Srinivasan (eds), (2002): Handbook of Development Economics, Vol 1, Amsterdam: Elsevier. Chapters 10, 11, 13 & 15.
- Sen, Amartya, (2002): The concept of development in Chenery Hollis and T.N. Srinivasan (eds), Handbook of Development Economics Vol. 1. Amsterdam: Elsevier. Chapter 1.
- Jamison D. et al. (eds) (2006): Disease Control Priorities in Developing Countries, New York: Oxford University Press and World Bank. Chapter 1.

| Subject Code | HS103 | Subject Title | PROFESSIONAL COMMUNICATION | | | | | | |
|-----------------|-------|------------------|----------------------------|---------------------|-----|------|-----------------|----------|---|
| LTP | 202 | 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, Oculesics, 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 troduction 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.

- 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.

| Subject Code | ECO108 | Subject Title | | | MICR | O ECONO | OMICS 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.

Unit 2: Alternative Theories of the Firm

(13 Lecture)

Baumal'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 Lecture)

Factors of production, Functional Vs. personal distribution, Functional theory of income distribution, Concepts of factor productivity, Marginal productivity theories, competative firm's equilibrium conditions regarding factor employment, Demand curve for a factor- single & with all facors variable, Competitive Industry's demand curve for a factor. Supply of factors, Determination of factor prices under perfect competition, Pricing of factors in imperfectly competitive markets-Monopsony.

Unit 4: Game Theory

(13 Lecture)

Game Theory and Competitive Strategy – the normal form; dominant and dominated strategies; mixed strategies; Prisoner Dillema; Nash equilibrium extensive form game with perfect information, game theory in oligoply 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.

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. Moden Microeconomics: Theory and Aaplications, H.L. Ahuja, Sultan Chand and Co., New Delhi, 2006.
- 3. Microeconomic Analysis, H. W. Varian, W. Norton, New York, 2000.

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.

| Subject Code | ECO109 | Subject Title | | N | IACRO | ECON | OMICS II | | |
|-----------------|--------|------------------|---|---------------------|-------|------|-----------------|----------|---|
| LTP | 5 1 0 | Credit | 6 | Subject Category | UC | Year | 1 St | Semester | П |

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

(13 Lecture)

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

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.

UNIT 3: Interest Rate Theory

(13 Lecture)

Rate of Interest: Keynesian and IS-LM Theories of Interest rate (two sector model with relevance numerical), latest advancment in theories of interest.

UNIT 4: Trade Cycles

(13 Lecture)

Definition of Trade Cycle, Casues 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.

Unit 5: Balance of Payments and Exchange Rate

(13 Lecture)

Balance of trade and payments – BOP on current account and capital account, distinction between current and capital account, determination of BOP, disequilibrium in BOP, determination of exchange rate and its affecting factors.

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.

- **1.** Principles of Economics, R.G. Lipsey and K.A. Christal, 9th Edition, Oxford University Presss.
- 2. Macroeconomics: Theory and Policy, W. A. Branson, 3rd ed. Harper and 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.

| Subject Code | ECO116 | Subject Title | | MATHEMA | TICAL I | METHOD | S FOR E | CONOMICS | I |
|-----------------|--------|------------------|---|---------------------|---------|--------|-----------------|----------|----|
| LTP | 510 | 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 economies theories.

Unit 1: Basic Concepts

(13 Lecture)

Variables and Parameters, Sets, Functions and their graphs, Concepts of limits, Factorisation and factorial theorem, Basic trigonometry.

Unit 2: Introduction of Equations

(13 Lecture)

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

Unit 3: Arithmetic and Geometric Series

(13 Lecture)

Series, rate of growth, Present and future value, Annuities: value; Simple differentiation – concept and applications.

Unit 4: Differentiation and Its Applications

(13 Lecture)

Partial and total differentiation; Homogenous function; Maxima and minima of functions of one and two variables; constrained optimization problem (with maximum three variables). Integration of a function.

Unit 5: Applications of Mathematics in Economic Theories

(13 Lecture)

Elasticity of demand; average and marginal functions; Interrelationships among total, marginal and average cost and revenues. 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 differentation 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.

- 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.

| Subject Code | ECO148 | Subject Title | C | OMPUTER | APPLICATIO | NS IN E | CON | OMIC ANALYS | SIS |
|-----------------|--------|------------------|---|---------------------|------------|---------|-----------------|-------------|-----|
| LTP | 3-0-2 | Credit | 4 | Subject Category | GE II | Year | 1 st | Semester | Ш |

Course Objective:

- To enable students to have an understanding of how computers work and make academic work more efficient.
- Learn basic word processing skills.
- To learn principles of using Excel and SPSS and how to work on it.

Unit 1: MS word (10 Lectures)

Introduction to Word Processing: Editing, viewing documents in different layouts, page margins, indent, bulleting and numbering, bold face, italics, underline, fonts and fonts size, borders and shading, find and replace, page breaks and page numbers, headers and footers, Printing: What to Do Before Printing? Introduction to 'Page Setup', 'Print Preview' And 'Print, Dialog Box'

Unit 2: MS-Excel: Excel basic

(8 Lectures)

Introduction about Microsoft Excel at the basic level: overview, tools, creates a spreadsheet, format, spreadsheet, calculations, create charts and printing; Solve problems with Excel: Solve some economics problem on spreadsheet: Introduction about the modelling process on spreadsheet and using Excel tools to solve the problems

Unit 3: MS-Power Point

(8 Lectures)

Presentation with PowerPoint: PowerPoint components, What's Slide Master? What's Title Master? Creating a presentation with full components: text, picture, drawing, WordArt, equation, organization chart, chart, table, sound, video clips, Customizing and applying effects for a slide: template design, background color, animation, effects, built-in animation effects, navigation buttons, etc. Printing and exporting a slide

Unit 4: Graphics (3 Lectures)

Uses of computer graphics, classification of applications, software f or computer graphics: Harvard and Stanford Graphics, MS-Excel graphics

Unit 5: SPSS and E-views Basics

(10 Lectures)

Basic components, Start and exit, Window manipulation, Create and save a new work file, open an existing work file, select a subset (sample) of observations in the work file, create new series, delete a series, create groups of objects and edit data, Rename, copy and delete objects, create a new object out of current view (freeze), Printing objects, import data from Excel file, create different types of graph of series, Display summary statistics for series

Learning Outcome

• The student will be able to apply mathematical and scientific reasoning to a variety of computational problem of economic analysis.

DIT UNIVERSITY, DEHRADUN

- The student will be able to demonstrate a basic understanding of computer software, how to assess hardware, solve problems using computer software, doing business online, and the inner workings of the Internet.
- The student will be able to describe the features and functions of the major categories of applications software (word processing, database, spreadsheet, presentation).
- The student will be able to create and format text in various communication forms, to create presentation, application of excels in business and how to work with databases.

TEXT BOOK [TB]:

- 1. Fundamentals of Computers, V. Rajaraman, 3rd Edition, Prentice Hall (Ind.) New Delhi. 2005
- 2. Computer Fundamentals, Sinha V, BPB Publications, New York. 2003
- 3. Fundamentals of Computers, Rajaraman PHI Publication, New Delhi, 2003.

- 1. Absolute Beginner's Guide to Computer Basics, Michael Miller.
- 2. Easy Computer Basics, Michael Miller. 5th Edition, 2007
- 3. Computer Course Kit by Vikas Gupta.
- 4. Microsoft Office Access 2007 on demand by Steve Johnson.

| Subject Code | ECO149 | Subject Title | | | REGIO | NAL ECC | ONOMIC | S | |
|-----------------|--------|------------------|---|---------------------|-------|---------|-----------------|----------|----|
| 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)

Region and its types; 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; regional growth and development regional models.

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)

Urban and rural economics: Alternative approaches of geographical economics; comparative advantages and theory of external economies; Localization vs urbanization economies; 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.

- **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, Hutchiuson, London.
- **3.** Regional Economics, Harry N Richardson, Weidenfield and Nicolson, Prager, New York London, 1969.

| Subject Code | CH201 | Subject Title | | | En | vironm | ental Scie | ence | |
|-----------------|-------|------------------|---|---------------------|-----|--------|-----------------|----------|----|
| 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 megadiversity 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.
- 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.

- 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.

| Subject Code | ECO206 | Subject Title | | DEV | /ELOPME | ENT EC | ONOMIC | CSI | |
|-----------------|--------|------------------|---|---------------------|---------|--------|-----------------|----------|---|
| LTP | 5 1 0 | Credit | 6 | Subject Category | UC | Year | 2 nd | Semester | Ш |

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, Sustainable economic development, underdevelopment and its 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, Theory of balanced growth. Latest advancement in thoeries of economic growth and development.

Unit 3: Poverty and Inequality

(13 Lecture)

Measurment of poverty and inequality, Connection between inequality and development, Multidimnensional 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-Swan long-run growth model.

Unit 5: Economic Planning and Policy

(13 Lecture)

Strategies and objectives of planning; Controls in a planned economy, Types of plannings, Role of state and capital formation in economic development, Cost-Benefit Analysis, Investment criteria: Traditional and discounted cash flow methods.

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 Publishing House Pvt. Ltd., Mumbai, 2016.

- **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.

| Subject Code | ECO207 | Subject Title | | STATIST | ICS FO | R ECON | IOMIC AI | NALYSIS I | |
|-----------------|--------|------------------|---|---------------------|--------|--------|-----------------|-----------|---|
| LTP | 510 | Credit | 6 | Subject Category | UC | Year | 2 nd | Semester | Ш |

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 and Sampling Techniques (13 Lecture) Collection, Classification and Presentation of statistical data, Measures of Central Tendency: A.M., G.M., H.M., Median, Quartiles, Deciles, Percentiles, Mode, Probability and non-probability sampling techniques.

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.

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, rank correlation -Spearman's Rank Correlation.

Unit 5: Regression Analysis

(13 Lecture)

Simple Linear Regression -Least Squares and Normal Equations and determination of regression coefficient, Difference between correlation and 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 casue 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.

- 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.

| Subject Code | ECO208 | Subject Title | N | MATHEMATICAL METHODS FOR ECONOMICS II | | | | | |
|-----------------|--------|------------------|---|---------------------------------------|----|------|-----------------|----------|---|
| LTP | 5 1 0 | Credit | 6 | Subject Category | UC | Year | 2 nd | Semester | Ш |

Course Objectives:

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

Unit 1: Matrics and Determinants

(13 Lecture)

Transpose, adjoint and inverse of matrices; solution of a system equations by matrix inverse and Cramer's methods; Linear independence and dependence of vectors; input-output analysis.

Unit 2: Differential Equations

(13 Lecture)

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

Unit 3: Functions of Several Real Variables

(13 Lecture)

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

Unit 4: Multi Variable Optimization

(13 Lecture)

Properties of function; convex function; unconstrained optimization: geometric characterization, characterizations using calculus and applications

Unit 5: Game Theory

(13 Lecture)

Normal and extensive form of game, Nash equilibrium, Dominant strategy, Rationalizable strategy, Equilibrium in Oligopoly, Sequential games, Repeated games, Co-operative Games.

Learning Outcomes

- The students would be able to apply matrix and determinants in firm's input-output.
- The students will 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.** Mathematics for Economic Analysis, K. Sydsaeter and P. Hammond, Pearson Educational Asia, Delhi, 2002.

- 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.

| Subject Code | ECO209 | Subject Title | APPLI | CATION OF | | TICAL TO ALYSIS | OLS F | OR ECONO | MIC |
|-----------------|--------|------------------|-------|---------------------|-------|--------------------|-----------------|----------|-----|
| LTP | 200 | Credit | 2 | Subject Category | SEC I | Year | 2 nd | Semester | Ш |

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

(6 Lecture)

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.

Unit 2: Simple Model

(6 Lecture)

Regression with graphics, 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

(6 Lecture)

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

Unit 4: Regression on Categorical Variable

(6 Lecture)

Regression on categorical variable: Handling different data sets where dependent variable is categorical, preparation, distributional and contingency tables.

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.

- 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.

| Subject Code | ECO218 | Subject Title | | ENTRE | PRENE | JRSHIP [| DEVELO | PMENT | |
|-----------------|--------|------------------|---|---------------------|-------|----------|-----------------|----------|---|
| LTP | 200 | Credit | 6 | Subject Category | SEC I | Year | 2 nd | Semester | Ш |

Course Objectives:

- To provide basic understning to the stduents on entrepreneurship.
- To crete entrepreneurial skiils among the students.
- To increase the understanding of students towards IPRs regime its implications in entrepreneurship ecosystem.

Unit 1: Introduction of Entrepreneurship

(6 Lecture)

Meaning and concept of entrepreneurship, the history of entrepreneurship development, role of entrepreneurship in economic development, Myths about entrepreneurs, agencies in entrepreneurship management and future of entrepreneurship types of entrepreneurs. Role of IPRs, S&T and technology transfer and commercialization in entrepreneurship.

Unit 2: The Entrepreneur

(6 Lecture)

Why to become entrepreneur, the skills/ traits required to be an entrepreneur, Creative and Design Thinking, the entrepreneurial decision process, skill gap analysis, and role models, mentors and support system, entrepreneurial success stories.

Unit 3: Entrepreneurship Ecosystem and Social-economic Development (6 Lecture)

Entrepreneurship ecosystem, Indicators of entrepreneurship ecosystem, Mesurement of Entrepreneuship ecosystem, Entrepreneurship ecosystem in emerging economies including India, social-economic development.

Unit 4: Entrepreneurship Ecosystem and Business Model

(6 Lecture)

Meaning and significance of a business plan, components of a business plan, and feasibility study, Iterating the MVP, Digital Presence for Ventures, The importance and diversity of business model, how business model emerge, potential fatal flaws of business models, components of an effective business model, core strategy, strategic resources, partnership network, customer interface.

Learning Outcomes

- The students will be able to understand the role of IPRs and S&T in entrepreneurship.
- The students will be able to understand the role of technology transfer in entrepreneurship.
- The students will learn on entrepreneurship and its impact on India and other economies.

TEXT BOOK [TB]:

- 1. Fostering Local Entrepreneurship in a Multinational Enterprise, Joe J. Amberg, Sara L. McGaughey, 2017.
- 2. Entrepreneurship and Multinationals, Geoffrey Jones, Edward Elgar Publishing, 2013.

- 1. Entrepreneurship Development, Ramachandran, Mc Graw Hill, 2018.
- 2. Entrepreneurship Small Business, Katz, Mc Graw Hill, 2018.
- 3. Entrepreneurship Development, Abha Mathur, Taxmann Publications, 1st Edition, 2021.
- **4.** Enterprise: Entrepreneurship & Innovation, Lowe R. and Mariott S., Burlington, Butterworth Heinemann, 2006.
- **5.** The Multinational Enterprise: Theory and History, Mark Casson, Edward Elgar Publishing, 2019.
- 6. Multinatinal Enterprises in India, Nagesh Kumar, Edward Elgar Publishing Ltd., 2008.

| | ibject ode | ECO246 | Subject Title | | ВІ | EHAVIOR | RAL ECO | NOMICS | 3 | |
|---|---------------|--------|------------------|---|---------------------|---------|---------|-----------------|----------|-----|
| ı | 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.

Unit 1: Introduction (13 Lecture)

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

(13 Lecture)

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

Unit 3: Role of Game Theory in Behavioral Economics

(13 Lecture)

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

Unit 4: Social Preferences and Labor Economics

(13 Lecture)

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

Unit 5: Social Activities and Behavioral Economics

(13 Lecture)

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 Bahavioral Economics, Colin F. Camerer, George Loewenstein and Mathew Rabin. Princeton University Press, 2011.

- **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.

| 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: Indian Economy in the pre-independence era

(13 Lecture)

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

(13 Lecture)

Land reforms; new trends in farming; Tenancy of different kinds and their effects, agricultural marketing, recent trends in Green revolution in India, agriculture price policies, PDS in India.

Unit 3: Indian Industries- Some Issues

(13 Lecture)

Industrial licensing, Industrial stagnation and Crisis of Indian Economy, New industrial Policy, Anti-compettion act in India, MSMEs: Growth potential and issues.

Unit 4: International Trade

(13 Lecture)

Foreign trade policy, special Economic zones foreign investment inflows (FII and FDI), recent changes in exchange rate policy, recent trends in India's International trade.

Unit 5: National and International Economic Institutions

(13 Lecture)

Planning Commission/NITI Aayog, World Bank, IMF, ADB, WTO, Development Banks.

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.

- 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.

| Subject Code | ECO248 | Subject Title | INDUSTRIAL ECONOMICS | | | | | | |
|-----------------|--------|------------------|----------------------|---------------------|--------|------|-----------------|----------|---|
| LTP | 5 1 0 | Credit | 6 | Subject Category | GE III | Year | 2 nd | Semester | Ш |

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)

Production Cost and Demand; Perfect Competition, Monopoly and Monopolistic Competition; Foundations of Oligopoly Theory; Markets for Homogeneous and differentiated Products.

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 Measuremnt of Market

(13 Lecture)

Advertising; Collusion and Cartels; Market Structure, Entry and Exit; Vertical Restraints; Research and Development. Efficiency measuremnt of market: Types and Methods, Productivity and efficieny issues in Indian firms.

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 disinvestment policy; industrial policy and economic reforms; Industrial growth and pattern.

- 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.

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

| Subject Code | ECO216 | Subject Title | e 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: Models of Growth

(13 Lecture)

Mill Theory; Keynesian model; Nelson Low level of equilibrium trap, limits to growth theory, Neo-classical models, new classical growth models, endogenous growth models.

Unit 3: Inequality and Development

(13 Lecture)

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, Imports substitution and export orientation approaches to development.

Unit 5: Labour and Unemployment

(13 Lecture)

Sen's Model; Basu-Van model of multiple equilibria; Efficiency wage theory and involuntary unemployment; economics of child labour, gender issues in lablur market.

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.

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

| Subject Code | ECO217 | Subject Title | | STATIST | ICS FOR | ECONO | OMIC AN | NALYSIS II | |
|-----------------|--------|------------------|---|---------------------|---------|-------|-----------------|------------|----|
| LTP | 5 1 0 | Credit | 6 | Subject Category | GE IV | 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; variation to describe and summarize data; population moments.

Unit 2: Elementary Probability Theory

(13 Lecture)

Sample spaces and events; probability and properties; counting techniques; permutation and combination, conditional probability and Bayes' rule; independence.

Unit 3: Probability Distributions

(13 Lecture)

Probability distributions; expected values of random variables and of functions of random variables; binomial, normal and poisson distributions.

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: Parametric and Non- parametric Estimations

(13 Lecture)

Estimation of population parameters using methods of moments and maximum likelihood procedures; properties of estimators; confidence intervals for population parameters. Parametric and Non- parametric Estimations: One sample Z-test, One sample Two-way ANOVA t-test, One-way ANOVA Independent samples t-test Sample Wilcoxon Signed Rank test, Kruskal-Wallis test, Friedman test, Mann-Whitney test.

- 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

- **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.

| Subject Code | HS446 | Subject Title | e INDUSTRIAL PSYCHOLOGY | | | | | | |
|-----------------|-------|------------------|-------------------------|---------------------|--------|------|-----------------|----------|----|
| LTP | 200 | 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.

- 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.

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

| Subject Code | ECO249 | Subject Title | e CONTEMPORARY ECONOMIC ISSUES | | | | | | |
|-----------------|--------|------------------|--------------------------------|---------------------|-------|------|-----------------|----------|----|
| LTP | 5 1 0 | Credit | 6 | Subject Category | GE IV | Year | 2 nd | Semester | IV |

Course Objective:

This course considers an array of leading contemporary economic problems, with specific topics chosen from current and recent policy debates in India.

- Students will be able to discuss the major economic issues.
- To analyze the economic implications of alternative policies.

Unit 1: Political Alternatives and the Indian Polity

(13 Lecture)

The Communist Challenges: Maoists and the Left Front; The Socialist Challenges: J.P. Movement and Total Revolution; The Feminist Challenges: Discourses and Ideologies of Women's Movement.

Unit 2: Emerging Economic Issues in India

(13 Lecture)

Industrial and Social Sector Policies, Inflation and price instability; Burden of Public Debt; Burden of Non-Performing Assets (NPA) in Banking Sector; Volatility of Crude Oil Prices in International Market; Depreciation of INR in International market

Unit 3: Indian Economy in a Global Era

(13 Lecture)

Rise of financial and service sectors; Global multilateral agencies and domestic economic policies; Shrinking of social welfare policies of the state; Agrarian distress and its impact, R&D ecosystem, R&D expenditure, innovation, science & technological development.

Unit 4: Indian Society and Economic Development

(13 Lecture)

Defining the boundaries of the social and cultural realms; Status of different social groups; Castes, Class and Community; Social Reform Movements.

Unit 5: Theories of Indian Society

(13 Lecture)

Principles of Welfare State and Society; Concept and critiques of Secularism and Composite Culture; Debates on Integration, Cultural Pluralism and Cultural Nationalism; issues in tribal and marginalized sections' identity.

Learning Outcome

On successful completion of this subject, students should be able to

- Discuss the basic aspects and problems relating to contemporary issues related India
- Enable to student to accept as a critical challenge to solve contemporary economic issues in India
- To increase student's consciousness on historical perspectives of various issues and how these issues can be resolved through economic and social development in India.
- Gain awareness in contemporary social, political and cultural issues faced at local, regional, national and global levels.

TEXT BOOK [TB]:

- 1. Anthropology of State: A Reader, A. Sharma and A. Gupta (ed) Wiley Blackwell, 2006.
- 2. Contemporary Economic Issues, Wolf, H. (Ed.), Palgrave Mac million.

- 1. Contemporary Economics: An applications Approach, Robert Carbaugh. Routledge, 2013.
- 2. Contemporary Economics, William A. McEachern. South Western Educational Publishing, 2004.

| Subject Code | ECO256 | Subject Title | INTRODUCTION TO RESEARCH METHODOLOGY | | | | | | ΞY |
|-----------------|--------|------------------|--------------------------------------|---------------------|-------|------|-----------------|----------|----|
| 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.

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 Techniques

(13 Lecture)

Collection of Data and Techniques; Qualitative Measures- data, approaches and validity, Design- Experimental and quasi-experimental Quantitative Measures: Correlation and regression analysis.

Unit 4: Analysis and Interpretation of Data

(13 Lecture)

Analysis- data preparation, descriptive statistics, hypothesis testing, multivariate analysis (inferential statistics), interpretation of results.

Unit 5: Report Writing

(13 Lectures)

Writing: review article; scientific research article; technical reports.

- 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.

- **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: Pyrczak. 2009.
- **3.** A manual for writers of research papers, theses, and dissertations, K.L. Turabian, Chicago, IL: University of Chicago Press, 2007.

| Subject Code | ECO306 | Subject Title | | INT | ERNATI | ONAL EC | CONOM | ICS | |
|-----------------|--------|------------------|---|---------------------|--------|---------|-----------------|----------|---|
| 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.
- 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 over time.
- 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)

Concept of international trade, Theories of absolute advantage, comparative advantage and opportunity cost: Hecksher-Ohlin theory of trade-its main features, assumptions and limitations, Terms of trade. Porters' diamond theory, International Product Life Cycle Theory, discussion on some real-world cases.

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

Concepts of balance of trade and payments, Equilibrium and disequilibrium in balance of payments, Various measures to correct deficit in the balance of payment, concept of equilibrium exchange, international flow of investment.

Unit 3: International Monetary System and International Economic Institutions (13 Lecture) Bretton-wood systems and its breakdown, International liquidity Special drawing rights, IMF, World Bank, Asian Development Bank, Washington consensus and post Washington consensus.

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- WTO and FTAs

(13 Lectures)

Forms of Economic Co-operation, Static and Dynamic Effects of Custom Union, Free Trade Agreements, WTO and Agreements, recent trends in import and export policies.

- **1.** The students would be efficient to understand the importance of international theories to maintain trade relations at global level.
- 2. 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 over time.
- **3.** 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.

- 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, MecGrill Publication Delhi, 2008.

| Subject Code | ECO307 | Subject Title | | | BASIC | ECONOI | METRICS | 3 | |
|-----------------|--------|------------------|---|---------------------|-------|--------|-----------------|----------|---|
| LTP | 510 | Credit | 6 | Subject Category | UC | Year | 3 rd | Semester | ٧ |

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.

Unit 1: Introduction (13 Lecture)

Definition, Scope, and Methodology of econometrics; Nature, sources and types of data for econometric analysis; Specification of an econometric model; Simple Regression Models; Statistical inference.

Unit 2: Econometric Problems

(13 Lecture)

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

Unit 3: Test Procedures and Model Selection

(13 Lecture)

Tests of specification and mis-specification, measurement errors, and criteria for model selection.

Unit 4: Dynamic Models

(13 Lecture)

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

Unit 5: Simultaneous Equation Models

(13 Lectures)

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

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, McGraw Hill, 2009.
- **2.** Introduction to Econometrics, Christopher Dougherty, 3rd Edition, Oxford University Press, 2007.

- 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.

| Subject Code | ECO346 | Subject Title | | AG | RICULTU | IRAL EC | CONOM | ICS | |
|-----------------|--------|------------------|---|---------------------|---------|---------|-------|----------|---|
| 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: Agriculture and 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: Ranis-Fai theory.

Unit 2: Agricultural Production, Cost and Prices

(13 Lecture)

Production function analysis- Factor combination and resource substitution; Size of farm and laws of returns; Agricultural Price Policy, issues in agricultre marketing in India.

Unit 3: Indian Government Policy on Agriculture

(13 Lecture)

Regional variations in agriculture production and productivity in India; Agriculture credit; Crop insurance policy; Second green revolution, development of agro- based industries. Risk and uncertainty.

Unit 4: Recent Trends in Indian Agriculture

(13 Lecture)

Recent trends in agricultural growth in India; cropping pattern shifts; Organic farming, resource use efficiency, Bio – technological practices and growth potential, water managment in agriculture in India.

Unit 5: Political Economy of Indian Agriculture

(13 Lectures)

Political Economy of Indian Agriculture, Market interlocking and forced commerce – Methods of surplus extraction – State, community and household, Foreign Capital and Indian agriculture.

Learning Outcomes

- Students will get familier 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.

- **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.

| Subject | ECO347 | Subject | | F | listory of | Econom | ic Though | nt | | | | | |
|---------|--------|---------|---|----------|------------|--------|-----------|----------|---|--|--|--|--|
| Code | | Title | | | | | | | | | | | |
| LTP | 510 | Credit | 6 | Subject | DSE I | Year | 2019-20 | Semester | V | | | | |
| | | | | Category | | | | | | | | | |

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; Physiocrats; invisible hand – accumulation and income distribution –value – market and competition; J S Mill: Synthesis of classical economics; Ricardo – Capital – wages.

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 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; Chamberlin; Joan Robinson.

Unit 4: Indian Economic Thinkers

(13 Lecture)

Mahatama Gandhi, Pandit Nehru, Dada Bhai Naroji, BR Amebdkar, Amartya Sen, Abhijit Benerjee.

Unit 5: Contemporary Developments

(13 Lectures)

Neoclassical synthesis in the age of stagflation: Samuelson – monetarist counter revolution: Milton Friedman – post Keynesian approach – New Keynesian Macroeconomics; Welfare Economics.

- The students would 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, Screpanti Ernesto and Zamagni Stefano, 1st Edition, Oxford University Press, 2006.
- 2. History of Economic Thorught, H.L. Bhatia, 4th Edition, Vikash Publishng House, 1978.

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

| 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 exchane market that determine the allocation of resources through time in market economies.

Unit 1: Money, Capital Market and its Components, and Stock Exchanges in India (13 Lecture) Indian Money Market: Functions and Constituents; Money Market Instruments - Call Money-Treasury Bills - Certificates of Deposits - Commercial Bills - Commercial Paper, Recent Trends; Capital Market, Stock exchanges in India with reference to BSE and NSE.

Unit 2: Mutual Fund and Insurance

(13 Lecture)

Mutual Fund – Types – Advantages – Goals – Mutual Fund Industry – NAV – The Future Of Mutual Funds; Insurance – Insurance Companies - New Product Development – Reforms – Liberalization Of Insurance; Objectives, Function and Power of IRDA.

Unit 3: Time Value of Money

(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, Cash flow diagrams; Depreciation Methods; Project Evaluation Techniques: Present Worth Method, Future Worth 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; Determination of exchange rates under fixed and flexible exchange rate regimes - Role of hedging in the determination of exchange rates.

- 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.
- 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.

- **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.

| Subject Code | ECO349 | Subject Title | | POLITICAL ECONOMY | | | | | |
|-----------------|--------|------------------|---|---------------------|--------|------|-----------------|----------|---|
| LTP | 510 | 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 presecond 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.

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.

- 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.

- **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.

| Subject | ECO308 | Subject | | Money & Banking | | | | | | | |
|---------|--------|---------|---|-----------------|----|------|-----------------|----------|----|--|--|
| Code | | Title | | | | | | | | | |
| LTP | 510 | Credit | 6 | Subject | UC | Year | ₃ rd | Semester | VI | | |
| | | | | Category | | | | | | | |

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 enables 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 Monehy, Circular Flow of money, Monetary Standard, Measurment of Money, Value of money, Quantity Theory of Money –Cash Transaction and Cash Balance Approach.

Unit 2: Concept of Financial Market 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

(12 Lecture)

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

Unit 5: Central Banking and Monetary Policy

(8 Lectures)

Functions, balance sheet; goals, targets, indicators and instruments of monetary control, Intrument of credit control, Monetary policy of India.

Unit 6: Inflation (4 Lectures)

Inflation: causes, types, consequences, measurement and policies to control inflation.

- The Students would be able to understand the importance of money and banking system in economic development.
- The studuent 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.

- **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.

| 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 scope and subject matter of public finance, Principle of maximum social advantage, Public vs. private finance, Fiscal functions-allocation, distribution and stabilization, Public goods - pure and partial, private goods and merit goods, Free rider problem.

Unit 2: Externalities and Government Policies

(13 Lecture)

Definition and types of externalities, Externalities and efficiency, Internalization of externalities: corrective taxes and subsidies, Lindahl's equilibrium model and the Coase Theorem.

Unit 3: Public Revenue and Expendidure Lecture)

(13

Tax and non-tax revenue, direct and indirect taxes, effects of tax on production, distribution and economic activities. Benefit theory, Ability to pay theory, Burden of taxation: Neutrality in taxation, shifting and incidence of taxation. Classification of public expenditure, Wagner's Law and Wiesman-Peacock Hypothesis, Priciples of public expenditure, Effect of public expenditure.

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, Changing tax structure of India, Tax reforms since 1991: Composite Tax System in India – GST.

Unit 5: Indian Public Finance-II

(13

Lectures) Budget, receipts and expenditures, 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.

- 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.

- 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.

| 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 boundries 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 analyses 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.

Unit 4: Green Accounting

(13 Lecture)

Green Accounting - Use of permits to reduce GHGs emissions - Regulation under Uncertainty - Effectiveness of regulation under imperfect information - Monitoring and enforcement of pollution levels.

Unit 5: Economic Valuation

(13 Lectures)

Valuation of the environment, role of ecosystem services in economic development, Market and Non-Market valuation, 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 allocates 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 boundries and how environmental regulations affect economy flows.
- Students would learn the use consumer choices to infer demand for environmental quality.

DIT UNIVERSITY, DEHRADUN

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, Mac Millan, 2007.

- **1.** Taking Sides: Clashing Views on Controversial Environmental Issues, Easton Thomas A, 12th Edition, McGraw Hill, 2009.
- 2 Taking Sides: Clashing Views on Controversial Environmental Issues, Goldfarb Theodore D, 9th Edition, McGraw Hill, 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.

| Subject Code | ECO357 | Subject Title | | LABOUR 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.

Unit 1: Introduction (13 Lecture)

Meaning- Concept, Significance and Pecularities of Labour. Nature, Scope and Importance of Labour Economics. Characteristics of Indian Labour Market, Changing occupational pattern in India.

Unit 2: Wage Determination

(13 Lecture)

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

Unit 3: Migration and Absenteeism

(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: Industrial Relations

(13 Lecture)

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

Unit 5: Labour Market reforms

(13 Lectures)

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

- 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, New Delhi, 1996.
- **2.** Labour Restricting in India: A Critique of the New Economic Policies, Hajela PD, 2nd Edition, Common wealth Publishers, New Delhi, 1998.

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

| Subject Code | ECO358 | Subject Title | ECONOMICS OF HEALTH AND EDUCATION | | | | | | |
|-----------------|--------|------------------|-----------------------------------|---------------------|--------|------|-----|----------|----|
| LTP | 4 1 0 | Credit | 5 | 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

Health and education outcomes, 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)

(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 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 helath security in India.

Unit 5: Education: Investment in Human Capital

(13 Lectures)

Rate of return to education: private and social; quality of education; human capital; theories of discrimination; gender and caste discrimination, literacy rates, school participation and 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.

- 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.

| Subject Code | ECO359 | Subject Title | COMPARATIVE ECONOMIC DEVELOPMENT | | | | | | |
|-----------------|--------|------------------|----------------------------------|---------------------|--------|------|-----------------|----------|----|
| LTP | 410 | Credit | 5 | Subject Category | DSE IV | Year | 3 rd | Semester | VI |

Course Objective:

- To provide the knowledge to the students on comparative economic development.
- The objective of this course is to make a comparative study of the economic development among the developed countries

Unit 1: Introduction and Perspectives on Economic Development (13 Lecture)

Perspectives of comparative economic development, Features of and trend in modern economic growth in India and other developed and developing economies, A brief discussion on Kuznet's curve and its findings, Implications of Kuznets' curve in developed and developing economies; Criticism of Kuznet's curve; Gerschenkron's hypothesis of economic development in historical perspective.

Unit 2: An Overview of Economic Development of The Selected Countries (13 Lecture)

An overview of economic development of the selected economies: India, Britain, USA, China, South Korea and Japan, Structural Transformation: Change in the structure of agriculture and economic development, agricultural revolution in Britain, Phase of Industrial growth in Britain, Marshal Plan and Industrial Growth in USA and India.

Unit 3: Development of Agriculture Sector

(13 Lecture)

Role of agriculture in Brazil, China, South Korea, USA and India; Future possibilities in agriculture for China, USA and India, Foreign Trade and Economic Development: Brazil, Japan, South Korea, USA and India; Role of state in economic development (regulatory and development role): China, Brazil, South Korea, USA and India.

Unit 4: Development in Industrial Sector

(13 Lecture)

The industrial revolution in Britain; Industrialization in late industrializers; Role of the state in industrial and development transition; Industrial development in India.

Unit 5: Factory System and Making of Industrial Working Class (13 Lectures)

Division of labour, structure of industrial authority, organisation of work and industrial production, relationship between workers and managers, Industrial working condition in China, Japan, South Korea, USA and India.

- The student will be able to know about the role of the state in economic development.
- Students will get to know about the role of the state in economic development.
- Students can be efficient to make international comparison of India with it's counter parts economies.
- Students can apply economic theories to maintain India's position across global economies.

TEXT BOOK [TB]:

- **1.** Dynamic Forces in Capitalist Development, A Long-Run Comparative View, Angus Maddison, 1st Edition, Oxford University Press, 1991.
- **2.** Economic Growth in Pre-War Japan, Nakamura T, 1st Edition, Yale University Press, 1983.

- **1.** The Great Divergence: Europe, China, and the Making of the Modern World Economy, Kenneth Pomeranz, 4th Edition, Princeton University Press, 2000.
- 2 Delegated Monitors, Large and Small: Germany's banking System, 1800 –1914, Timothy W and Guinnane, Journal of Economic Literature, Volume, 40:73-124, 2002.