# DIT UNIVERSITY Dehradun



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

# **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	ECO146/147	General Electives I	5	1	0	6
AEC	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
GE	ECO116	Mathematical Methods For Economics I	5	1	0	6
GE II	ECO148/149	General Electives II	5	1	0	6
AEC	CH201	Environmental Science	2	0	0	2
Total					26	

# General Electives I

ECO146	Indian Economy I
ECO147	Energy Economics

# General Electives II

ECO148	Computer Applications in Economic Analysis
ECO149	Regional Economics

Year: 2<sup>nd</sup> 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 AnalysisI	5	1	0	6
UC	ECO208	Mathematical Methods For Economics II	5	1	0	6
GE III	ECO 246/247/248	General Electives III	5	1	0	6
SEC	ECO209	Application of Statistical Software in Economic Analysis	2	0	0	2
Total					26	

Year: 2<sup>nd</sup> Semester: IV

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

# General ElectivesIII

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

# **General ElectivesIV**

ECO249	Contemporary Economic Issues
ECO256	Introduction to Research Methods

Year: 3<sup>rd</sup> Semester: V

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

Year: 3<sup>rd</sup> Semester: VI

Course Category	Course Code	Course Title	L	Т	Р	Credit
UC	ECO308	Money and Banking	5	1	0	6
UC	ECO309	Public Finance	5	1	0	6
DSE III	ECO356/357	Discipline Specific Elective III	5	1	0	6
505.07	ECO358/359	Discipline Specific Elective IV	5	1	0	
DSE IV	ECO366	Research Project	0	0	12	6
Total					24	

# Disciple Specific Electives I

ECO346	AgriculturalEconomics
ECO347	History of Economic Thought

#### Disciple Specific Electives II

2 :00:0:00	
ECO348	Financial Economics
ECO349	Political Economy

# Disciple Specific ElectivesIII

ECO356	Environmental Economics
ECO357	Labor Economics

# Disciple Specific ElectivesIII

ECO358	Economics of Health and Education
ECO359	Comparative Economic Development

# **Summary of the Credit**

Year	Semester	Credit
1	1	20
1	2	26
2	3	24
2	4	22
3	5	24
3	6	24
T	140	

Subject Code	ECO106	Subject Title				Micro E	conomics-l		
LTP	510	Credit	6	Subject Category	UC	Year	1 <sup>st</sup>	Semester	I

### **Course Objective:**

- To give the students a thorough understanding of the principles of economics that applies to the decisions of individuals--both consumers and producers--within the larger economicsystem.
- To give primary emphasis on the nature and functions of product markets, and to include the study of factormarkets.

#### **UNIT 1: Introduction and Basic concepts**

(13 Lecture)

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

# **UNIT 2: Demand and Supply**

(13Lecture)

**Demand Analysis :**Law of Demand, demand of a firm and Market; Elasticity of Demand - Price, Cross and Income Elasticity of Demand, Measurement of price Elasticity of Demand; Consumer Behaviour: Theories of Demand

# UNIT 3: ConsumerTheory

(13Lecture)

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

# **UNIT 4:Theory of Production and Cost**

(13Lecture)

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, Producer Surplus, Traditional and Modern theories of Costs, Cost-output relation

#### **UNIT 5: Price and Output Determination**

(13 Lecture)

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

# **Learning Outcome**

- Students would be familiar with basic theories of microeconomics
- Students would be capable to apply economic theories to industrial problems

#### Text book [TB]:

- **1** N. Gregory Mankiw, *Economics: Principles and Applications*, India edition by South Western, a part of Cengage Learning, Cengage Learning India PrivateLimited.
- **2** Ahuja, H.L. (2006). Moden Microeconomics: Theory and Aaplications. Sultan Chand and Co., New Delhi.

- 1. Koutsoyiannis, A. (1979). Modern Microeconomics (2<sup>nd</sup> ed.). Macmillan Press,London.
- 2. Sen, A. (1999). Microeconomics: Theory and Applications. Oxford University Press, NewDelhi.
- 3. Karl E. Case and Ray C. Fair (2007). *Principles of Economics* (8<sup>th</sup> ed.). Pearson Education,Inc.
- **4.** C. Snyder and W. Nicholson (2010). *Fundamentals of Microeconomics*. Cengage(India).
- **5.** David Besanko and Breaeutigam. Micro Economics (4<sup>th</sup> ed.). John Willey & Sons, INC.
- **6.** Pindyck R. and Rubinfeld D.L. Microeconomics (8<sup>th</sup> ed.). PearsonPublication.
- 7. Hugh Gravelle and Ray Reess. Micro Economics (3<sup>rd</sup> ed.). Pearson Education,UK.

Subject Code	ECO107	Subject Title			N	/lacro Eco	onomics-I		
LTP	5 1 0	Credit	6	Subject Category	UC	Year	1 <sup>st</sup>	Semester	I

# **Course Objective:**

- This course aims to introduce the students to the basic concepts of Macroeconomics and explains how Macroeconomics deals with the aggregateeconomy.
- This course discusses the preliminary concepts associated with the determination and measurement of aggregate macroeconomic variable like savings, investment, GDP andmoney.

# **UNIT 1: IntroductionofMacroeconomics**

(13 Lecture)

**Introduction:** Nature and scope of macroeconomics, Difference between micro and macroeconomics and importance ofmacroeconomics.

**National Income:** Concepts, Measurement and limitations of national income statistics, Circular flow of income in two, three and four sector economy; National income and social welfare-some numerical problem on national income estimation

# **UNIT 2: IncomeandEmployment**

(13Lecture)

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

# **UNIT 3:ConsumptionTheory**

(13Lecture)

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

#### **UNIT 4:InvestmentTheory**

(13Lecture)

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

# UNIT 5: Investment and Analysis ofBusinessCycles

(13 Lecture)

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

#### **Learning Outcome**

- 2 Students will be able to understand the concept of Income and Employment and investment with appropriate theoretical insights and validate theory with empirical data.
- 2 Students will be able to understand the factors determining Gross Domestic Product, Employment, The General Level of Prices and InterestRates.

# Text book [TB]:

- 1. Mankiw N. Gregory. *Macroeconomics* (5<sup>th</sup> ed.). WorthPublishers.
- 2. Ahuja H.L. Macroeconomics. S. Chand and Co., NewDelhi.

- 1. Andrew B. Abel and Ben S. Bernanke (2011). *Macroeconomics* (7<sup>th</sup> ed.). Pearson Education,Inc.
- 2. Olivier Blanchard (2009). *Macroeconomics* (5<sup>th</sup> ed.). Pearson Education,Inc.
- 3. Lipsey R.G. and K.A. Christal (1999). Principles of Economics (9<sup>th</sup>ed.). Oxford UniversityPress.
- 4. Stiglitz J. E. and Carl E. Walsh (2002). Principles of Macroeconomics. W.W. Norton and Company, NewYork.

Subj		ECO146	Subject Title				Indian	Economy I		
LT	Р	510	Credit	6	Subject Category	GE I	Year	1 <sup>st</sup>	Semester	I

#### **Course Objective:**

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

#### **UNIT 1: Basic Overview ofIndian 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. (Plan-wise details to be excluded).

#### **UNIT 2: Demographic Trend inIndianEconomy**

(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 inIndia.

### **UNIT 3: PovertyandUnemployment**

(13 Lecture)

Poverty and Unemployment In India. Programmes for Eradication of Poverty and Unemployment With Special Reference To The Post – ReformEra

# **UNIT 4:IndianAgriculture**

(13Lecture)

Agriculture: Features of Indian Agriculture. Impact of Green Revolution on Indian Agriculture. Recent Trends in Agricultural Development -Causes of Deceleration and Future Challenges

#### **Unit 5: Role of Industries and Service Sector inIndian Economy**

(13 Lecture)

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

# **Learning Outcome**

- The student will be able to develop better Understanding regarding the various aspects ofIndia's Economy and develop a perspective on the different problems and approaches to economic planning and development inIndia.
- The student will understand the role of the Indian Economy in the global context, and how different factors have affected thisprocess.

#### Text book [TB]:

- 1. Lucas E.B. and Papanek G.F. The Indian Economy- Recent Developments and Future Prospects. Oxford University Press, NewDelhi.
- 2. Dutt R. (2006). Indian Economy. Sultan Chand and Co., New Delhi.

- **1.** Brahmananda P.R. and Panchmukhi (1987). The Development Process of Indian Economy. Himalaya Publishing House, Bombay.
- 2. Jalan Bimal (1992). The Indian Economy Problem and Prospects. Viking, NewDelhi.

- **3.** Byres, T J (Ed.) (1998): The Indian Economy: Major Debate Since Independence, Oxford University Press, NewDelhi.
- **4.** SK Mishra and VK Puri (2016). Indian Economy. Himalaya Publication, NewDelhi.
- 5. Gaurav Datt and Ashwani Mahajan (2016). Indian Economy. S. Chand & Company Ltd., New Delhi.
- **6.** Rudar Datt and KPM Sundharam (2016). Indian Economy. S. Chand & Company Ltd., NewDelhi.
- **7.** Economic Survey: Government of India. VariousIssues.

Subject Code	ECO147	Subject Title			1	Energy Eco	nomics		
LTP	510	Credit	6	Subject Category	GE I	Year	1 <sup>st</sup>	Semester	1

#### **CourseObjective:**

- To provide students with a thorough grounding in the key concepts of energyeconomics.
- To be able to apply this knowledge to the analysis of specific energy issues inIndia

UNIT1:Introduction (13Lecture)

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

#### **UNIT 2: Natural Resources and Energy Source**

(13 Lecture)

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

# **UNIT 3: AllocationofResources**

(13Lecture)

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:EnergyDemand (13Lecture)

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

#### **UNIT 5: Economics of Energy Supply**

(13 Lecture)

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

# **Learning Outcome**

- The course would provide an understanding of economic concepts and theories related to the supply and utilization of energy resources, and technologies at various levels- economy, firm and individual.
- In this course would be helpful to apply economic tools and frameworks and use empirical data for economic analysis in the energy systems domain tosupport.

# Text book [TB]:

- T. Tietenberg, and L. Lewis (2008). Environmental and Natural Resource Economics. Pearson Education, (ISBN9780321560469).
- Hunt, Lester C. and Joanne Evans (2011). International handbook on the economics of energy. Edward ElgarPublishing.

- 1. Birnie P., Boyle A. and C. Redgwell (2009). International Law and the Environment (3<sup>rd</sup>ed.), Oxford University Press: Oxford, NewYork.
- 2. Ferdinand E. Banks (2000). Energy Economics: A Modern Introduction. KluwerAcademic.
- **3.** Tietenberg, Thomas H. and Lynne Lewis. Environmental and natural resource economics. Reading, MA:Addison-Wesley.
- **4.** J. Conrad (1999). Resource Economics. Cambridge UniversityPress.

Subject Code	HS103	Subject Title			Profes	sional Co	mmunicatio	n	
LTP	202	Credit	3	Subject Category	AEC	Year	1 <sup>st</sup>	Semester	I

#### **Course Objective:**

- To develop the LSRW skills of students for effective communication
- To equip the students for businessenvironment.

UNIT1:Communication (5Lectures)

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 vowelsounds.

# **UNIT 3: Reading Skills & TechnicalWritingSkills**

(10 Lectures)

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

UNIT 4:WritingSkills (7Lecture)

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

#### **Learning Outcome**

At the end of this course –The student will be able to Communicate smoothly. Write formal documents.

### Text book [TB]:

- 1. Rizvi Ashraf (2005). Effective Technical Communication. McGraw Hill, NewDelhi.
- 2. Raman Meenakshi and Sangeeta Sharma (2011). Technical Communication: Principles and Practice (2<sup>nd</sup> ed.). New Delhi: Oxford UniversityPress

- 1. Aslam Mohammad (2003). Introduction to English Phonetics and PhonologyCambridge.
- 2. Ford A Ruther. (2013). Basic Communication Skills; Pearson Education, NewDelhi.
- **3.** Gupta Ruby (2012). Basic Technical Communication, Cambridge University Press, NewDelhi.
- **4.** Kameswari Y. (2010). Successful Career Soft Skills and Business English, BSPublications, Hyderabad.
- 5. Tyagi Kavita and Padma Misra (2011). Basic Technical Communication, PHI, NewDelhi

Subject Code	ECO108	Subject Title		Micro Ed	conomics	-11			
LTP	510	Credit	6	Subject Category	UC	Year	1 <sup>st</sup>	Semester	II

# **Course Objective:**

- To make students understand the competitive, monopolistic, monopolistically competitive, and oligopolistic markets, how they are organized and the outcomes of thesemarkets.
- To give primary emphasis on the nature and functions of product markets, and includes the study of factor markets and the role of government in promoting greater efficiency and equity in the economy.

#### **UNIT 1: Price and Output Determination**

(13 Lecture)

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

#### **UNIT 2: Alternative Theories of the Firm**

(13 Lecture)

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

#### **UNIT 3: Theory ofFactorPricing**

(13Lectures)

Market for factor inputs: (largely with reference to Labour): A Firms' and market demand for a labour (with one and several variable inputs) and its determinations, Supply of labour to a firm and the Market.

Equilibrium wage rate and employment under: Competitive factor and product market, Monopolistic buyer of labour and perfect competition in labour market, Imperfect competition in product market and Trade Union monopoly, Bilateral monopoly

UNIT 4:GameTheory (13Lecture)

Game Theory and Competitive Strategy – the normal form; dominant and dominated strategies mixed strategies Nash equilibrium extensive form game with perfect information- the game tree

Unit 5:WelfareEconomics (13Lecture)

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

# **Learning Outcome**

- The students will be able to emphasize on the nature and functions of product markets, and include the study of factor markets and the role of government in promoting greater efficiency and equity in the economy.
- The students will be able to enhance the skills and knowledge of advanced microeconomics necessary for a career as an academic economist and in all areas where advanced research skills in economics are required.

# Text book [TB]:

- **1.** N. Gregory Mankiw. *Economics: Principles and Applications*. Cengage Learning, Cengage Learning India PrivateLimited.
- 2. Ahuja H.L. (2006). Moden Microeconomics: Theory and Applications. Sultan Chand and Co., New Delhi.

- 1. Sen A. (1999). Microeconomics: Theory and Applications. Oxford University Press, New Delhi.
- 2. Varian H. (2000). Microeconomic Analysis, W.W. Norton, NewYork.
- 3. Karl E. and Ray C. (2007). Principles of Economics (8th ed.). Pearson Education, Inc.
- 4. C. Snyder and W. Nicholson (2010). Fundamentals of Microeconomics. Cengage, India.

Subject Code	ECO109	Subject Title		Macro E	conomic	s-II			
LTP	510	Credit	6	Subject Category	UC	Year	1 <sup>st</sup>	Semester	II

# **Course Objective:**

- The course is designed to introduce learners to the basic concepts such as Aggregate Demand, Aggregate Supply and Circular Flow of Income, macroeconomic environment and theprinciples underlying macroeconomic policies and governmentstrategies.
- In this course, the students are also introduced to the long run dynamic issues like growth and technical progress.

#### **UNIT 1: KeynesianMultiplier**

(13Lecture)

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

#### **UNIT 2: Determination of GeneralPricelevel**

(13 Lecture)

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

# **UNIT 3: InterestRateTheory**

(13Lecture)

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

UNIT 4:TradeCycles (13Lecture)

Theories of Trade Cycles (Hicks and Samuelson), Policy intervention to control trade cycle, Recent recessions in the World

Unit 5:EconomicGrowth (13Lecture)

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

#### **Learning Outcome**

- The student will develop a perspective on functioning of theeconomy.
- The Student will develop critical understanding of the policy implications and theoretical modelsof the Macroeconomy.

# Text book [TB]:

- 1. Dewett K.K. and Navalur M.H. (2010). Modern Economic Theory. S. Chand and Co Ltd, New Delhi.
- 2. Paul Samuelson and Nordhaus (2016). Economics (18th ed.) Tata Hill PublishingCompany.

- 1. Lipsey R.G. and K.A. Christal. Principles of Economics (9<sup>th</sup>ed.). Oxford UniversityPress.
- **2.** Branson W. A. (1989). Macroeconomics: Theory and Policy (3<sup>rd</sup> ed.). Harper and Harper and Row, New York.
- 3. Shapiro E (1996). Macroeconomics: Analysis. Galgotia Publication, NewDelhi.
- **4.** Stiglitz J. E. and Carl E. Walsh (2002). Principles of Macroeconomics. W.W. Norton and Company, NewYork.

Subject Code	ECO116	Subject Title		N	lathemat	ical Metl	hods For Eco	nomics I	
LTP	510	Credit	6	Subject Category	UC	Year	1 <sup>st</sup>	Semester	II

#### **Course Objective:**

- The course is developed to transmit the body of basic mathematics that enables the study of economic theory.
- To illustrate the method of applying mathematical techniques in economictheories.

UNIT 1:Basic Concepts (13Lecture)

Variables and Parameters, Sets, Functions and their graphs, Concepts of limits, Factors and factor theorem, Basic trigonometry and it applications in economic theories

# **UNIT 2: Introduction of Equations**

(13Lecture)

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

# **UNIT 3: Arithmetic and Geometric Series**

(13 Lecture)

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

# **UNIT 4: Differentiation and Its Applications**

(13 Lecture)

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

#### **Unit 5: Applications of Mathematics in Economic Theories**

(13 Lecture)

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

#### **Learning Outcome**

- The Student will understand and use the mathematical in various economicmodels.
- The student will learn to apply mathematical methods and techniques that are formulated inabstract settings to concrete economicapplications.

#### Text book [TB]:

- 1. Mike Rosser (2016). Basic Mathematics for Economists (5<sup>th</sup> ed.). Routledge Taylor and Francis Group, London and NewYork.
- **2.** K. Sydsaeter and P. Hammond (2002). *Mathematics for Economic Analysis*, Pearson Educational Asia:Delhi

- 1. Madnani BC and Mehta GM. (2007). Mathematics for Economists. Sultan Chand & Sons, NewDelhi.
- **2.** Malcolm Pemberton and Nicholas Rav (2016). Mathematics for Economists: An Introductory Textbook. Manchester UniversityPress.
- **3.** Chian A.C. and Wainwright K. (2005). Fundamental Methods of Mathematical Economics (4<sup>th</sup> ed.). McGraw-Hill
- 4. Jacques I. (2009). Mathematics for Economics and Business (5<sup>th</sup> ed.). PrenticeHall.
- 5. Wisniewski M. (2003). Mathematics for Economics (3<sup>rd</sup>ed.). PalgraveMacmillan.

Subject Code	ECO148	Subject Title		Comput	er Applic	ations in	Economic A	nalysis	
LTP	510	Credit	6	Subject Category	GE II	Year	1 <sup>st</sup>	Semester	II

#### **Course Objective:**

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

UNIT 1: MSword (13Lecture

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:ExcelBasic

(13Lecture)

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

UNIT3:MS-PowerPoint (13Lecture)

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 aslide

**UNIT4:Graphics** 

(13Lecture)

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

#### Unit 5: SPSS andE-viewsBasics

(13Lecture)

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 forseries

### **Learning Outcome**

- The student will be able to apply fundamental principles of methods of computer science to a wide range of economicapplications.
- The student will get an understanding of using computers as user levels including programming environment.

### Text book [TB]:

- 1. V. Rajaraman: Fundamentals of Computers, Prentice Hall (Ind.) NewDelhi.
- 2. Sinha: Computer Fundamentals, BPB Publications, NewYork.

- 1. Michael Miller: Absolute Beginner's Guide to ComputerBasics.
- 2. Michael Miller: Easy Computer Basics, Windows Vista Edition New Perspectives Computer Concepts by Jamrich Parsons, DanOja.
- **3.** Microsoft Office Access 2007 on demand by SteveJohnson.

Subject Code	ECO149	Subject Title		Regiona	l Econom	nics			
LTP	510	Credit	6	Subject Category	GE II	Year	1 <sup>st</sup>	Semester	II

# **Course Objective:**

- This subject will be helpful to examine how urban and regional development would focus initially on the economic forces to generate cities and economic ties within aregion.
- It will develop a framework to discuss economic theories on land use, housing, transportation and general sub-national economicdevelopment.

UNIT1:Introduction (13Lecture)

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

#### **UNIT 2: Regional and Economic Development**

(13 Lecture)

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

# **UNIT 3: Determinant of Regional Development**

(13Lecture)

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

#### **UNIT 4: Rural and Urban Development**

(13 Lecture)

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

### **Unit 5: Regional DevelopmentandGovernment**

(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 Outcome**

- Increase student's consciousness towards regional development and its majordeterminants.
- 2 Students would be familiar how regional development would be essential to increase national development.

# Text book [TB]:

- 1. Trivedi S. (2006). Regional Economic Co-op- and Integration.
- 2. Dholakia, R.H. (2006). Regional Disparity in Economic Growth in India. Himalaya Publishing House, Bombay.

- **1.** Hanumantha Rao (2006). Regional Disparities and Development in India. Ashish Publishing House, NewDelhi.
- 2. Glasson J. An Introduction to Regional Planning, Concepts, Theory and Practice. Hutchiuson, London.
- 3. Harry N Richardson (1969). Regional Economics. Weidenfield and Nicolson, Prager, New York London.
- **4.** John B. Parr (1999). Regional Economic Development: An Export Stages Framework, Land Economics, pp.94-114.
- 5. Chand M. and Puri U.K. (2016). Regional Planning in India Allied Publishers, NewDelhi.

Subject Code	CH201	Subject Title		Environ	mental So	cience			
LTP	2-0-0	Credit	2	Subject Category	AEC	Year	1 <sup>st</sup>	Semester	II

# **Course Objective:**

- To develop an understanding of global and regional natural environment and its relationship with humanactivities.
- Develop an awareness of ecosystems in the context of coupled human- environmentalinteractions.

#### **UNIT 1: Basics of Environment and Natural Resources**

(5Lecture)

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

UNIT2:Ecosystems (5Lecture)

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

# **UNIT 3: Biodiversity and Its Conservation**

(5 Lecture)

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

#### **UNIT 4:EnvironmentalPollution**

(6Lecture)

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 IssuesandEnvironment**

(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 environmentalethics.

#### Field work

- Visit to a local area to document environmental asset:river/forest/grassland/hill/mountain
- Visit to a local pollutedsite-Urban/Rural/Industrial/Agricultural
- Study of common flora andfauna.
- Study of a common ecosystem-pond, river, hill slopes, etc.

# **Learning Outcome**

- The students will be able to analyze human impacts on the environment and identify the biological and physical components of variedecosystems.
- Students will develop a sense of community responsibility by becoming aware ofscientific issues in the larger social context

# Text book [TB]:

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

- **1.** De A.K. Environmental Chemistry. Wiley EasternLtd.
- 2. Miller T.G. Living in the Environment. Brooks/Coleman, Thomas Learning Inc., USA.
- **3.** Sharma P.D. Ecology and environment. RastogiPublication.

Subject Code	ECO206	Subject Title	D	evelopment Ec	onomics	- I			
LTP	510	Credit	6	Subject Category	UC	Year	2 <sup>nd</sup>	Semester	III

# **Course Objective:**

- The study of the course Development Economics will addresses the development issues for poor countries.
- The course aims at explaining the causes and effects of poverty and deriving policyimplications.

### **UNIT 1: Basic Concepts of Economic Development**

(13 Lecture)

Economic growth and development, Determinants and measurement indicators (PQLI and HDI) of economic development: Sustainable economic development. Concept of underdevelopment and basic characteristics; Vicious circle ofpoverty

### **UNIT 2: Theories of Economic Development**

(13 Lecture)

Classical theory of economic development- Adam Smith, TR Malthus, Karl Marx and Schumpeter, The Big-PushTheory

# **UNIT 3: PovertyAnd Inequality**

(13Lecture)

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

# **UNIT 4: ApproachestoDevelopment**

(13Lecture)

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

#### **UNIT 5: Economic Planning and Policy**

(13 Lecture)

Development planning: rationale, Strategies and objectives of planning, Role of state and Capital formation in economicdevelopment.

#### **Learning Outcome**

- The students will be able to understand the magnitude of the differences in incomes between countries and peoples of theworld.
- The students will get the knowledge of a variety of theoretical models and mechanisms and arguments that are relevant for development and poverty issues.

### Text book [TB]:

- 1. Todaro Michael P. and Stephen C Smith (2004). Economic Development||, Pearson Education. Singapore Pvt. Ltd., Indian Branch, Delhi.
- 2. Ray Debraj (2009). Development Economics||, Seventh impression. Oxford University Press, NewDelhi.

- **1.** Meier Gerald M. and James E. Rauch (2000). *Leading Issues in Economic Development*. Oxford University Press, NewYork.
- 2. Sen A K (1970). Growth Economics, PenguinBooks.
- **3.** Partha Dasgupta (2007). *Economics: A Very Short Introduction,* Oxford UniversityPress.
- **4.** Abhijit Banerjee, Roland Benabou and Dilip Mookerjee (2006). *Understanding Poverty,* OxfordPress.
- **5.** Amartya Sen (2000). *Development as Freedom,* Oxford UniversityPress

Subject Code	ECO207	Subject Title	Sta	tistics For Econ	omic Ana	alysis-I			
LTP	510	Credit	6	Subject Category	UC	Year	2 <sup>nd</sup>	Semester	III

# **Course Objective:**

- The Course provides understanding of basic concepts and terminology that are fundamental to statistical analysis and inference.
- To enable the students about the application of statistical tools and to understand the assumptions underlying those statistical tools.

#### **UNIT 1: Data Presentation & Central Tendency**

(13Lecture)

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

# **UNIT 2: Descriptive Statistics for Univariate Data**

(13 Lecture)

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

UNIT 3: IndexNumbers (13Lecture)

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

#### **UNIT 4: Descriptive Analysis of Bivariate Analysis**

(13 Lecture)

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

Unit 5:Regression (13Lecture)

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

# **Learning Outcome**

- The students will develop Quantitative reasoning skills and understand how to use empirical evidence to evaluate the validity of an economic argument, use statistical methodology, interpret statistical results and conduct appropriate statistical analysis ofdata.
- Students should be able to interpret and apply basic statistical methods and understandempirical papers of an appropriate level.

# Text book [TB]:

- 1. Gupta S.C. (2013). Fundamentals of Statistics S. Chand & Sons NewDelhi.
- 2. Spiegel Murry R (1992). Theory and problems of Statistics, Schaum's outline series. McGrawHill

- 1. John E. Freund (1992). Mathematical Statistics, PrenticeHall.
- 2. Richard J. Larsen and Morris L. Marx (2011). An Introduction to Mathematical Statistics and its Applications, PrenticeHall.
- **3.** Karmal P.H. and Polasek M. Applied Statistics for Economists (4<sup>th</sup>ed.). Pitman, Australia.
- **4.** Gupta Dasgupta. Basic Statistics. World Press PrivateLimited.

Subject Code	ECO208	Subject Title		Mathen	natical M	ethods Fo	or Economic	s – II	
LTP	510	Credit	6	Subject Category	UC	Year	2 <sup>nd</sup>	Semester	III

### **Course Objective:**

- To acquire knowledge of mathematical concepts to solve economic problems in institutions and to evaluate economic policies.
- This course focuses on the mathematical methods and models that are required to understand current economics and to investigate economicmodels.

#### **UNIT 1: Matrices and Determinants**

(13 Lecture)

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

### **UNIT 2:DifferentialEquation**

(13Lecture)

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

#### **UNIT 3: Functions of SeveralRealVariables**

(13 Lecture)

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

#### **UNIT 4: MultiVariableOptimization**

(13 Lecture)

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

Unit 5:GameTheory (13Lecture)

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

#### **Learning Outcome**

- The students should be able to acquire and demonstrate analytical and critical thinking skills and to apply and interpret quantitative, qualitative and graphical information in a problem-- solving context.
- The students will develop the skills necessary to communicate effectively in writing and orally about economic and mathematicalissues.

# Text book [TB]:

- 1. Sharma J.K. Business Mathematics. Ane BookIndia.
- 2. Sydsaeter K. and Hammond P. (2002). *Mathematics for Economic Analysis*, Pearson Educational Asia:Delhi.

# Reference books [RB]:

- **1.** Chian A.C. and Wainwright K. Fundamental Methods of Mathematical Economics (4<sup>th</sup> ed.). McGraw-Hill.
- 2. Jacques I. Mathematics for Economics and Business (5<sup>th</sup> ed.). PrenticeHall.
- 3. Wisniewski M. Mathematics for Economics, (3<sup>rd</sup> ed.). PalgraveMacmillan.
- **4.** Bose D C (1996). An Introduction to Mathematical Economics. Himalaya Publishing House, Bombay.

Amended by the BoS and approved by the Academic Council at its 11th Meeting held on 29.04.2019

Subject Code	ECO246	Subject Title			Bel	navioral E	Economics		
LTP	510	Credit	6	Subject Category	GE III	Year	2 <sup>nd</sup>	Semester	III

# **Course Objective:**

- To provide students with an understanding of the principles of human behaviour in organizations with relevance to the Indian businesscontext.
- To provide that how an individual economic agent can contribute in economicactivities.

UNIT1:Introduction (13Lecture)

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

UNIT 2:Decision Theory (13Lecture)

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

### **UNIT 3: Role of Game Theory in Behavioral Economics**

(13Lecture)

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

# **UNIT 4: Social Preferences and Labor Economics**

(13Lecture)

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

#### **Unit 5: Social Activities and Behavioral Economics**

(13Lecture)

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

# **Learning Outcome**

- To increase familiarity of students towards BehavioralEconomics.
- Develop an understanding of the philosophy and the principles underlying the field of behavioral economics..

# Text book [TB]:

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

- **1.** Ariely D., Loewenstein G. and Prelec D. (2003). Coherent Arbitrariness: Stable Demand Curves without Stable Preferences. *Quarterly Journal of Economics*, 118(1).
- **2** Benabou R. and Tirole J. (2002). Self-Confidence and Personal Motivation. *Quarterly Journal of Economics*, 117(3).
- **3.** Benabou R. and Tirole J. (2003). Intrinsic and Extrinsic Motivation. *Review of Economic Studies*, 70:489-520.
- 4. Bernheim D. (1994). A Theory of Conformity. *Journal of Political Economy*, 102:842-877.

Subject Code	ECO247	Subject Title		Indian	Economy-l	II			
LTP	510	Credit	6	Subject Category	GE III	Year	2 <sup>nd</sup>	Semester	III

# **Course Objective:**

- To enable students to have an understanding of the various issues/components of the Indianeconomy.
- To enumerate the fundamentals of Indian economy, business andindustry.

#### **UNIT 1: Impact of Colonial Rule on Certain Areas in theIndian Economy**

(13Lecture)

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

# UNIT 2: Indian Agriculture- Major Issues and Their Impact

(13Lecture)

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

# **UNIT 3: Indian Industries- Issues and Their Impact**

(13 Lecture)

Industriallicensing –justificationandproblems, IndustrialstagnationandCrisisofIndianEconomy, New industrial Policy and changing Indian state in the era ofglobalization.

#### **UNIT 4:InternationalTrade**

(13Lecture)

Foreign trade policy, special Economic zones foreign investment inflows since 1991-FII; FDI Recent changes in exchange rate policy

# Unit 5: Role of National and International Institutions inIndianEconomy

(13Lecture)

RBI, Planning Commission, MOSPI, CSO, NSSO, World Bank, Asian Development Bank, WHO, WTO, UNDP, FAO, WIPO, SARC, OECD

#### **Learning Outcome**

- The students will be able to understand various issues related to economic condition ofIndia.
- To analyze the economic development of India analyze the various policies / programmes run by the government for improving the economic condition.

# Text book [TB]:

- 1. Acharya S and Mohan R. Indian Economy Performance and Challenges, Oxford University Press.
- 2. Kaushal G. Economic History of India- 1757 to 1966. Kalyani Publishers, NewDelhi

- **1.** Manila U. Indian Economy since independence. Academic foundation, NewDelhi.
- 2. Singh V B (1965). Economic History of India 1857-1956. Allied Publications Private Limited, Bombay.
- **3.** Panagariya A. India the emerging Gaint. Oxford UniversityPress.
- **4.** S. K. Mishra and V.K Puri: Indian Economy Its Development Experience. Himalaya Publishing Houses, Mumbai.

Subject Code	ECO248	Subject Title		In	ndustrial Ec	onomics			
LTP	5 1 0	Credit	6	Subject Category	GE III	Year	2 <sup>nd</sup>	Semester	III

# **Course Objective:**

• This course intends to provide knowledge to the students on the basic issues such as productivity, efficiency, capacity utilization and debates involved in the industrial development inIndia.

# **UNIT 1: Application of Game Theory inIndustrialActivities**

(13 Lecture)

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

UNIT 2:PricingTheory (13Lecture)

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

UNIT 3:MarketStructure (13Lecture)

Advertising; Collusion and Cartels; Market Structure, Entry and Exit; Vertical Restraints; Research and Development.

# **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; International competitiveness of Indian industry; Privatization and issues relating to disinvestment policy; Industrial policy (Role of state); New industrial policy and economic reforms; Industrial growth and pattern; Structure of industrial labour; Employment dimensions of Indian industry; Industrial legislation; Industrial relations; Wages and problems ofbonus

# **Learning Outcome**

- It would increase familiarity of students towards industrialeconomics.
- It would also increase the student's awareness towards industrialeconomics.

#### Text book [TB]:

- 1. Ranjana Seth (2010). Industrial Economics. Ane Books Pvt. Ltd.
- 2. Rajan Mishra (2008). Industrial Economics and Management Principles. Lami Publications (P)Ltd.

- 1. Oz Shy (2016). Industrial Organization- Theory & Applications. MITPress.
- 2. Barthwal RR (2013). Industrial Economics: An Introductory Text Book. Book AgePublications.

Subject Code	ECO209	Subject Title	App	olication of Stat	istical So	ftware in	Economic A	analysis	
LTP	200	Credit	6	Subject Category	SEC I	Year	2 <sup>nd</sup>	Semester	IV

# **Course Objective:**

- It would emphasis on the concepts and application of probability theory, random variables, and distributions, sampling theory, statistical inference, correlation andregression.
- Statistical inference techniques such as estimation and significance testing are important in the fitting and interpretation of econometric models

# **UNIT 1:ModelSpecification**

(6Lecture)

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

Modeling average: working with real world dataset (usefulness and shortcomings of modeling mean, relative efficiency of mean and median, confidence interval and its interpretation, etc.).

UNIT 2: SimpleModel (7Lecture)

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

# **UNIT 3: Macro LevelData Set**

(6Lecture)

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

# **UNIT 4: Regression on Categorical Variable**

(7 Lecture)

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

#### **Learning Outcome**

- Handle real data withconfidence
- Apply econometric methods of analysis to newcircumstances

### Text book [TB]:

- 1. Gujarati D.N. (2005). Basic Econometrics. The McGraw-HillCompanies.
- 2. Maddala G.S. (2001). Introduction to Econometrics, (3<sup>rd</sup>ed.). Wiley.
- 3. Wooldridge J.M. (2009). Introductory Econometrics: A Modern Approach. SouthWestern

- **1.** Trochim W.T. (2004). Research Methods: The Concise Knowledge Base, Atomic Dog Publisher. (ISBN:1592601464).
- 2 Kothari C.R. (2009). Research Methodology: Methods and Techniques (2<sup>nd</sup> ed.). New Age International.

Subject Code	ECO216	Subject Title		Developme	nt Econo	mics – II			
LTP	510	Credit	6	Subject Category	UC	Year	2 <sup>nd</sup>	Semester	IV

#### **Course Objective:**

- The course will examine some of the major economic issues faced by individuals and governments in poorer countries, and introduce students to the field of developmenteconomics.
- The course will study the concepts and measurement of development, poverty and growth, and how economists use theory, empirical analysis and experiments to address issues in these areas

# **UNIT 1:DualisticDevelopment**

(13Lecture)

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

UNIT 2:ModelsofGrowth (13Lecture)

Classical model: Mill Theory, Marxian model; Keynesian model; Nelson Lowlevel of equilibrium trap

# **UNIT 3: InequalityandDevelopment**

(13 Lecture)

Meaning, Measurement Lorenz Curve, Kuznets Inverted U Shape curve, Inequality and Development: Inter connection, Population Growth and EconomicDevelopment.

# **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 oftechnology.

# **Unit 5: LabourandUnemployment**

(13Lecture)

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

#### **Learning Outcome**

- The student will be able to describe the nature and meaning of economic development or underdevelopment, both in general, and as applied to people in specific developing countries.
- The student will be able to explain the major development problems, choices and opportunities currently faced by developing countries.

#### Text book [TB]:

- 1. Kaushik Basu. Analytical Development Economics (Chapter 10). Oxford UniversityPress.
- 2. Thirlwall A. P. (2003). Growth and Development (7<sup>th</sup> ed.). Palgrave Macmillan, NewYork.

# Reference books [RB]:

- 1. Meier Gerald M. and James E. Rauch (2000). Leading Issues in Economic Development. Oxford University Press, NewYork.
- 2. Schultz Theodre W. (1981). Investing in People. Hindustan Publishing Corporation (India), Delhi.
- **3.** Amartya Sen. Resources, Value and Development. Oxford UniversityPress.
- **4.** Higgins B. (1963). Economic Development: Theory and Policies. Central Book Depot, Allahabad.

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Subject Code	ECO217	Subject Title			Statist	ical Meth	nods for Eco	nomics II	
LTP	510	Credit	6	Subject Category	UC	Year	2 <sup>nd</sup>	Semester	IV

# **Course Objective:**

- Thecourseintroducebasicconceptsandterminologythatarefundamentaltostatisticalanalysisand inference.
- To provide an understanding of the importance of sampling techniques, data collection, interpretation, andevaluation.

### **UNIT 1: Introduction of PopulationandSample**

(13Lecture)

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

#### **UNIT 2: ElementaryProbabilityTheory**

(13 Lecture)

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

# **UNIT 3: Random Variables and Probability Distributions**

(13 Lecture)

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

# UNIT 4: Random Sampling and Jointly DistributedRandomVariables

(13 Lecture)

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

#### Unit 5: Sampling, Point and Interval Estimation

(13 Lecture)

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

#### **Learning Outcome**

At the end of this course the students-

- Handle real data withconfidence.
- Apply econometric methods of analysis to newcircumstances

### Text book [TB]:

- **1.** Gupta S.C. (2013). Fundamentals of Statistics. S. Chand & Sons NewDelhi.
- 2. Spiegel Murry R (1992). Theory and problems of Statistics. Schaum's outline series, McGraw Hill.

- 1. John E. Freund (1992). Mathematical Statistics, PrenticeHall.
- 2. Richard J. Larsen and Morris L. Marx (2011). An Introduction to Mathematical Statistics and its Applications, PrenticeHall.
- 3. Gupta Dasgupta: Basic Statistics, World Press Private Limited Nagar and Das: Basic Statistics, OUP
- **4.** William G. Cochran (2007). *Sampling Techniques,* JohnWiley.
- 5. Jay L. Devore. *Probability and Statistics for Engineers*. CengageLearning.

Subject Code	HS446	Subject Title			Industri	al Psycho	logy		
LTP	200	Credit	2	Subject Category	SEC II	Year	2 <sup>nd</sup>	Semester	IV

### **Course Objective:**

- Reform of WorkingConditions
- Humanistic Approach inIndustry
- Creating Proper Leadership

# **UNIT 1: Introduction toIndustrialPsychology**

(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 BehavioratWorkplace**

(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-EfficacyTheory).

# **UNIT 3: WorkEnvironment**

(4Lecture)

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

# UNIT 4:PerformanceManagement

(4Lecture)

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 andConflict 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, ConflictManagement

### **Learning Outcome**

- Creating motivatedworkers
- Creating a conducive environment atworkplace

#### Text book [TB]:

Miner J.B. (1992). Industrial/Organizational Psychology. N Y: McGraw Hill.

- 1. Blum and Naylor (1982). Industrial Psychology. Its Theoretical & Social Foundations CBS Publication.
- **2.** Aamodt M.G. (2007). Industrial/Organizational Psychology: An Applied Approach (5<sup>th</sup>ed.). Wadsworth/ Thompson: Belmont,C.A.
- 3. Aswathappa K. (2008). Human Resource Management (fifth edition) New Delhi: Tata McGraw Hill
- **4.** Robbins S.P. and Sanghi S. (2009). Organizational behavior (11<sup>th</sup> ed.). New Delhi: Pearson Education.
- 5. Schultz D. and Schultz S. E. (2006). *Psychology and work today* (8<sup>th</sup> ed.). N.D.: Pearson Education.

Subject Code	ECO249	Subject Title		Conte	mporary E	conomic	ssues		
LTP	5 1 0	Credit	6	Subject Category	GE IV	Year	2 <sup>nd</sup>	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.

#### **UNIT 1: Political Alternatives and theIndianPolity**

(13Lecture)

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; Environmental Movements in India; Mandal and the Hindutva Challenge; The Politics of Secularism and communalism.

#### **UNIT 2: Contemporary and Emerging Economic Issues inIndian Economy**

(13 Lecture) Debates

in the formative years, the Bombay Plan; Structure of the Indian economy at independence; Economic policies and the role of the state after Independence; Agrarian Policy, Land Reforms and Green Revolution; 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; Devaluation of INR in Internationalmarket

### **UNIT 3: Indian Economy in aGlobalEra**

(13Lecture)

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

#### **UNIT 4: Contemporary Indian Society and Economic Development**

(13 Lecture)

Defining the boundaries of the social and cultural realms; Status of different social groups; Folk, oral traditions and local knowledge systems; Caste, Class and Community; Social ReformMovements

### **Unit 5: Theories ofIndianSociety**

(13Lecture)

Principles of Welfare State and Society; Concept of Secularism and Composite Culture; Debates on Integration, Assimilation and Isolation; Cultural Pluralism and Cultural Nationalism; Debate on the nature of Tribal and Dalit identity in India

#### **Learning Outcome**

- To increase student's consciousness on historical perspectives of various issues and how these issues can be resolved through economic and social development inIndia.
- Enable to student to accept as a critical challenge to solve contemporary economic issues inIndia

#### Text book [TB]:

- 1. Aradhana Sharma and Akhil Gupta (2006). Anthropology of State: A Reader, WileyBlackwell.
- 2. Bob Jessop (2000). Bringing the State Back I. IPSA Conference, Quebec.

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

Subject Code	ECO256	Subject Title			Introdu	iction to R	esearch M	ethods	
LTP	510	Credit	6	Subject Category	GE IV	Year	2 <sup>nd</sup>	Semester	IV

# **Course Objective:**

- To enable the students to have a strong idea on various techniques to analysis the primary and secondarydata.
- To increase the understanding of students to undertake the research on various aspect of economic and socialissues.

### **UNIT 1: IntroductiontoResearch**

(13Lecture)

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

### **UNIT 2: SamplingTechniques**

(13Lecture)

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

# **UNIT 3: Qualitative and Quantitative Measures**

(13 Lecture)

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

#### UNIT 4: Analysis of Data

(13Lecture)

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

### Unit 5:ReportWriting

(13Lectures)

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

#### **Learning Outcome**

At the end of this course the students-

- The students will be able to acquire a strong research background and knowledge of research methodology.
- The students will be able to understand how primary data can be collected at household'slevel.

# Text book [TB]:

- 1. Kothari C.R. (2009). Research Methodology: Methods and Techniques (2<sup>nd</sup> ed.). New Age International.
- 2. Hogg R.V., Craig A. and McKean (2004). Introduction to Mathematical Statistics (6<sup>th</sup> ed.). Prentice Hall. (ISBN130085073)

#### Reference books [RB]:

1. W.T. Trochim (2004). Research Methods: The Concise Knowledge Base. Atomic Dog Publisher. (ISBN:1592601464).

Subject Code	ECO306	Subject Title			Internat	ional Eco	nomics		
LTP	510	Credit	6	Subject Category	UC	Year	3 <sup>rd</sup>	Semester	V

### **Course Objective:**

- To enable the students to have a strong business background and knowledge of international relations, with which they can expect to succeed in the international world ofbusiness.
- To give an exposure to the students that how countries specialize in certain goods and services for comparative advantage over other countries and how this changes overtime.

#### **UNIT 1: Introduction toInternationalEconomics**

(13 Lecture)

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

#### UNIT 2: Balance of Trade and Balance of Payments and Exchange Rate

(13 Lecture)

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

#### **UNIT 3: International Monetary System and International Institutions**

(13 Lecture)

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

#### **UNIT 4: Rationale of Protection**

(13Lecture)

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

#### **Unit 5: Economic Co-operation and RoleofWTO**

(13 Lectures)

Economic Co-operation: Forms of Economic Co-operation, Static and Dynamic Effects of Custom Union (Viner, Lipsey) and Free trade Area, World Trade Organization: WTO and India, Recent change in the direction and composition of India's foreign trade. Multi-National Corporation: Working and regulations of MNC's in India, Export Promotion and Import Substitution, and Recent import and exportpolicies.

#### **Learning Outcome**

- The students will be able to acquire a strong business background and knowledge of international relations, with which they can expect to succeed in the international world ofbusiness.
- The students will have an exposure to, how countries specialize in certain goods and services for comparative advantage over other countries and how this changes overtime

#### Text book [TB]:

- 1. Kulkarni Kishore G. Reading in International Economics. 338.91(MB1600-DITU).
- 2. Tisdell Clen. Globalisation and World Economic Policies. 338.9 TISG(MB1606-DITU).

- 1. Salvatore D. International Economics. MB702-DITU)
- **2.** Soderston (1991). International Economics.
- **3.** Kindleberger C.P., Krugman Paul R. and Obstfeld. Maurice. *International Economics* (8<sup>th</sup> ed.). PearsonEducation.
- **4.** Barry Eichengreen (2008). Globalizing Capital: A History of the International Monetary System (2<sup>nd</sup>ed.).

Subject Code	ECO307	Subject Title			Econom	etrics			
LTP	510	Credit	6	Subject Category	UC	Year	3 <sup>rd</sup>	Semester	V

# **Course Objective:**

- The course emphasizes the techniques for basic empirical research, interpretation of quantitative results and modelevaluations.
- To develop the critical insight to appraise econometric results obtained by otherresearchers

UNIT1:Introduction (13Lecture)

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

#### **UNIT 2:EconometricProblems**

(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, encompassing models, and criteria for modelselection

#### **UNIT 4: DynamicModels**

(13Lecture)

Lags in econometrics, Distributed and autoregressive lags, Koyck model, ARDL and ECM estimation

#### Unit 5: SimultaneousEquationModels

(13 Lectures)

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

#### **Learning Outcome**

- The students will have developed the necessary skills in developing and interpreting models as applied to a variety of economic problems and and an applied to a variety of economic problems and applied to a variety of economic problems are applied to a variety of economic problems are applied to a variety of economic problems and applied to a variety of economic problems are applied to a
- The students will develop skills to use econometric software in an effective manner.

#### Text book [TB]:

- **1.** Gujarati D. N. and Porter D.C. (2009). *Essentials of Econometrics* (4<sup>th</sup> ed.). McGrawHill.
- 2. Christopher Dougherty (2007). *Introduction to Econometrics* (3<sup>rd</sup> ed.), Oxford UniversityPress.

- 1. Johnston J and Nardo, D (1997). Basic Econometrics (4<sup>th</sup> ed.). Siganpore. McGraw Hills Co.
- 2. Maddala G S (1997). Econometric Methods (4<sup>th</sup>ed.).
- 3. Pindyck R S and Rubinfeld D L (1998). Econometric Models & EconomicForecasts
- **4.** Intriligator M J and Bodkin H (1996). Econometric Models Techniques and Application.
- 5. Green William (2000). Econometric Analysis (4<sup>th</sup>ed.)
- **6.** Goldberger A S (1998). IntroductoryEconometrics.

Subject Code	ECO346	Subject Title		А	gricultur	alEconon	nics		
LTP	510	Credit	6	Subject Category	DSE I	Year	3rd	Semester	V

#### **Course Objective:**

- To understand the knowledge of nature and scope of agricultural economics.
- To enable the students to have different theories related to agricultural economics

#### **UNIT 1: Role of Agriculture in Economic Development**

(13 Lecture) Nature

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

# **UNIT 2: Economics of Agricultural Production, CostandPrice**

(13 Lecture)

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

#### **UNIT 3: Indian Government PolicyonAgriculture**

(13Lecture)

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

#### **UNIT 4: Recent Trends inIndianAgriculture**

(13Lecture)

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

### **Unit 5: Political Economy ofIndian Agriculture**

(13 Lectures)

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

#### **LearningOutcome**

- The students will have an exposure to different theories which have connection with agricultural development.
- The students will demonstrate an awareness of production, cost and price of agricultural development.

#### Text book [TB]:

- **1.** Bhalla G. S. (1994). Economic Liberalization and Indian Agriculture. Institute for Studies in Industrial Development, NewDelhi.
- 2. Rudra A. Indian Agricultural Economics: Myths and Reality.

- 1. Bhaduri A. The Economic Structure of Backward Agriculture, Macmillan, Delhi.
- 2. Bilgrami S.A.R. Agricultural Economics, Himalaya Publishing House, NewDelhi.
- **3.** Dantwala M.L. (1991). Indian Agricultural Development since Independence (2<sup>nd</sup>ed.). Oxford & IBH PublishingCo.
- **4.** Rao Hamumantha. Agricultural growth, rural poverty and environmental degradation in India. Oxford University Press, NewDelhi.
- 5. Saini G.R. Farm size, resource use efficiency & Income distributions. Allied Publishers, New Delhi.
- **6.** Chadha G.K and A.N.Sharma. Growth, Employment and Poverty: change and continuity in Rural India. Vikas Publishing House, NewDelhi.

Subject Code	ECO347	Subject Title		Hi	istory of I	Economic	Thought		
LTP	510	Credit	6	Subject Category	DSE I	Year	2019-20	Semester	V

# **Course Objective:**

- The study of the course history of economic thoughts will create the understanding that the development of economic theory is the progress of ideas anddebates.
- The course aims at explaining historical beginnings of economic theories, doctrines and postulates

#### UNIT 1: Mercantilism to Neoclassical Orthodoxy

(13 Lecture)

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

#### **UNIT 2: Economic Theory relatingto Marx**

(13 Lecture) Marx:

Marxian economic theory: Exploitation and value – wages – trade cycle – capitalist movement – monetary aspects ofcrisis

#### **UNIT 3: Marginalist Revolution and Equilibrium andMarketForms**

(13 Lecture)

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

#### **UNIT 4: IndianEconomicThinker**

(13Lecture)

Mahatama Gandhi, Pandit Nehru, Dada Bhai Naroji, BR Amebdkar, Vimal Jalan, Manmohan Singh, Amartya Sen

# **Unit 5:ContemporaryDevelopments**

(13 Lectures)

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

#### **Learning Outcome**

- The course helps to acquire a comprehension of the evolution of economic ideas tracing to its philosophicalroots.
- The students will get the knowledge of a variety of theoretical models and mechanisms and arguments about various schools of thought relating to economicideas..

# Text book [TB]:

**1.** Screpanti, Ernesto and Zamagni, Stefano (2006). An Outline of the History of Economic Thought (1<sup>st</sup> ed.). Oxford UniversityPress.

#### Reference books [RB]:

1. Gide Charles and Rist Charles (2007). A History of Economic Doctrines. Surject Publications.

Subject Code	ECO348	Subject Title	Fina	ancial Economi	cs				
LTP	510	Credit	6	Subject Category	DSE II	Year	3 <sup>rd</sup>	Semester	V

# **Course Objective:**

- To increase the understanding of students on financial activities in era ofglobalization.
- To explore the role of finance in economic growth and development.

### **UNIT 1: Money and Capital Market**

(13 Lecture)

Indian Money Market: Meaning, Nature: Functions and Constituents of Indian Money Market - Money Market Instruments - Call Money-Treasury Bills - Certificates Of Deposits - Commercial Bills - Commercial Paper-Collateralized Borrowing and Lending Obligation (CBLO), Recent Trends In Indian Money Market. Capital Market-Primary and Secondary Markets, Financial Sector Reforms inIndia.

#### **UNIT 2: Mutual FundandInsurance**

Lecture)

**Mutual Fund** – Evolution – Types – Advantages – Goals – Mutual Fund Industry – NAV – The Future Of Mutual Funds, **Insurance** – Insurance Companies - New Product Development – Reforms – Liberalization Of Insurance; IRDA – Economic Change – Insurance Revolution – Reform Proposals – Constitution Of IRDA – Objectives Of IRDA – Duties And Powers Of IRDA – New Regulations – Policy, HoldersInterest

- The Case For Interdependence - Banc Assurance InIndia

#### **UNIT 3: Role of Time Value of MoneyinFinance**

(13 Lecture) Time

Value of Money: Simple and Compound, Uniform Series Compound Interest Formula, Present Worth Analysis, Future Worth Analysis, Future Value through Annuity, Rate of Return Analysis, Cash flow diagrams; Depreciation: Introduction, Straight Line and Declining Balance Method of Depreciation; Project Evaluation Techniques: Present Worth Method, Future Worth Method, Annual Worth Method; Benefit-Cost Analysis: Conventional and Modified B/C Ratio with PWmethod

UNIT4:Derivatives (13Lecture)

**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: ForeignExchangeMarkets**

(13Lectures)

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

# **Learning Outcome**

- Students will be able to understand the concept of money and capital market, their distinction, role, functions and current status in IndianContext.
- Students will also be able to know mutual fund, its evolution, types andadvantages.

# Text book [TB]:

- **1** Bhole L.M (2004). Financial Institutions and Markets: Structure, Growth and Innovations. Tata McGraw Hill Company Ltd., NewDelhi.
- 2 Bhole L.M (1993). Indian Financial System. Chugh Publications, Allahabad.
- **3.** Hull John C. (2005). Options, Futures and Other Derivatives (6<sup>th</sup> ed.). PearsonEducation.

- 1. Johnson H.J (1993). Financial Institutions and Markets. McGraw Hill, NewYork.
- 2. Machiraju M.R (2002). Indian Financial Systems. Vikas Publishing House, NewDelhi.
- 3. Bhatt R.S. (1996). Unit Trust of India and Mutual Funds: A Study. UTI Institute of Markets, Mumbai.
- 4. Sahadevan K.G. and M.T. Thiripalraju (1997). Mutual Funds. Prentice Hall of India, NewDelhi.
- 5. Goss B.A. and B.S. Yamey. The Economics of Futures Trading, Macmillan, London.
- **6.** Niehans J. (1994). International Monetary Economics. John Hopkins University Press, New York.

Subject Code	ECO349	Subject Title		Po	olitical Econ	omy			
LTP	510	Credit	6	Subject Category	DSE II	Year	3 <sup>rd</sup>	Semester	V

# **Course Objective:**

- To provide the knowledge of global political and economicissues.
- To provide an academic credential necessary for successful employment in era ofglobalization.
- To buildlinkages between academic learning and the applied political and economic policy communities in government, private sector and voluntary and non-governmental sectors.

#### **UNIT 1: Introduction and Historical Overview**

(13 Lecture)

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

# **UNIT 2: Changing Dynamics of Capitalist Production**

(13 Lecture)

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

#### **UNIT 3: The State in the EraofGlobalization**

(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 basicfoundations

#### **UNIT 4: The Changing RoleofFinance**

(13 Lecture)

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

#### **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; alternativesahead.

# **Learning Outcome**

- It would be helpful for students to analyses the political policy and its influence on economic development.
- Students would be able to intellectual roots of economicliberalism.
- 2 Student would be able to do empirical exercise on economic, political and public policies up to greater extent.

#### Text book [TB]:

- **1.** Fran Tonkiss (2006). Contemporary Economic Sociology: Globalization, Production, Inequality (Chapter 4).Routledge.
- **2.** G. Gereffi J. Humphrey and T. Sturgeon (2005). The Governance of Global Value Chains. *Review of International Political Economy*, 12:78–104.

# Reference books [RB]:

1. Vamsi Vakulabharanam (2009). The Recent Crisis in Global Capitalism: Towards a Marxian Understanding. Economic and Political Weekly, 44:144-150.

Subject Code	ECO308	Subject Title		Мо	ney &Ba	nking			
LTP	510	Credit	6	Subject Category	UC	Year	3 <sup>rd</sup>	Semester	VI

# **Course Objective:**

- This course exposes students to the theory and functioning of the monetary and financial sectors of the economy.
- The course enables students to learn structure and role of financial markets andinstitutions.

#### **UNIT 1: Money Supply anditsFunction**

(13 Lecture)

Money: Concept, functions, measurement; theories of money supplydetermination

### **UNIT 2: Concept of Financial MarketandInstitutions**

(13 Lecture)

Financial Institutions, Markets, Instruments and Financial Innovations:a. Role of financial markets and institutions; problem of asymmetric information – adverse selection and moral hazard; financial crises.

b. Money and capital markets: organization, structure and reforms in India; role of financial derivatives and other innovations

#### **UNIT 3: Interest Rate and Non-financial organizationsin 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 Indianeconomy

#### **UNIT 4: Structure of Banking SysteminIndia**

(13 Lecture)

IntroductionSCBsandcentralbanksandtheirroleand functions,Balancesheetandportfoliomanagement, Indian banking system: Changing role and structure; banking sectorreforms

#### **UNIT 5: Central Banking and Monetary Policy**

(13 Lectures)

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

# **Learning Outcome**

- The students will be able to discuss the recent performance of financial markets and government intervention strategies in light of economictheory.
- Examine the nature of money, definitions of the money supply and different approaches to determining how the money supply iscreated.

#### Text book [TB]:

- 1. Khan M. Y. (2011). Indian Financial System (7<sup>th</sup> ed.). Tata McGraw Hill.
- 2. Bhole L. M. and Mahukud J. (2011). Financial Institutions and Markets (5<sup>th</sup> ed.). Tata McGraw Hill.

- 1. Mishkin F. S. and Eakins S. G. (2009). *Financial Markets and Institutions* (6<sup>th</sup> ed.). Pearson Education.
- **2.** Fabozzi F. J., Modigliani F., Jones F. J. and Ferri M. G. (2009). *Foundations of Financial Markets and Institutions* (3<sup>rd</sup> ed.). PearsonEducation.
- **3.** Various latest issues of R.B.I. Bulletins, Annual Reports, Reports on Currency and Finance and Reports of the Working Group, IMF StaffPaper.

Subject Code	ECO309	Subject Title	Р	ublic Finance					
LTP	510	Credit	6	Subject Category	UC	Year	3 <sup>rd</sup>	Semester	VI

# **Course Objective:**

- The Course provides understanding of government policy from the points of view of economic efficiency andequity.
- The paper deals with the nature of government intervention and its implications for allocation, distribution and stabilization.

#### **UNIT 1: Public Finance and Public Goods**

(13 Lecture)

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

#### **UNIT 2: Externalities andGovt. Policies**

(13 Lecture)

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

UNIT 3:PublicRevenue (13Lecture)

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

#### **UNIT 4: IndianPublicFinance-I**

(13 Lecture)

Features of Indian tax system, tax revenues of the central and state governments, direct and indirect taxes levied by the state and centre, changing tax structure of India, Tax reforms since 1991: Chelliah Committee, Kelkar Committee reports, DTC,VAT andGST

#### **UNIT 5: IndianPublicFinance-II**

(13 Lectures) Budgetary

trend in India, trend of receipts and expenditures of Central Govt., Types of deficits: budgetary deficit, fiscal deficit, revenue deficit and primary deficit, Public debt: problems and issues, Fiscal federalism in India: Transfer of resources from centre to state-trends and techniques, an evaluation of finance commission awards and federal financing, suggestions to improve the federal finance relation in India.

# **Learning Outcome**

- 2 Student should be able to know the government taxation, expenditures pattern, public goods, market failures and externalities.
- 2 Students should be able to acquire the knowledge about government policy and revenue structure of country.

# Text book [TB]:

- 1. Musgrave R.A. The Theory of Public Finance, McGraw Hill.
- 2. Ghosh Ambar and Ghosh Chandana. Economics of the Public Sector.PHI

- 1. Herber B. P. Modern PublicFinance.
- 2. Due, John F and Friedlander. GovernmentFinance.
- 3. Goode R. Government Finance in Developing Countries. Tata McGrawHill.
- 4. Houghton J. M. The Public Finance: Selected Reading.Penguin
- 5. Mathew T. Economics of Public Expenditure. Vora

Subject Code	ECO356	Subject Title			En	vironmen	tal Econoi	nics	
LTP	510	Credit	6	Subject Category	DSE III	Year	3 <sup>rd</sup>	Semester	VI

### **Course Objective:**

- This course will introduce students to be aware of the meaning and nature of environmentaleconomics.
- The course also enables students to understand both the positive and normative aspects of environmentaleconomics.

#### **UNIT 1: Environmental Economics - its Natureand 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 environmentalissues

# **UNIT 2: Principles of Environmental andResourceEconomics**

(13 Lecture)

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

#### **UNIT 3:ControllingPollution**

(13Lecture)

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

UNIT 4: Green Accounting (13Lecture)

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

UNIT 5:EconomicValuation (13Lectures)

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

### **Learning Outcome**

- The students will have an idea of both the positive and normative aspects of environmental economics.
- The students will also be able to measure the different approaches and technique of controlling pollution.

#### Text book [TB]:

- 1. Kolstad Charles D. (2000). Environmental Economics. New York, New York: Oxford University Press.
- 2. Shogren and White (2007). Environmental Economics. MacMillan.

- 1. Easton Thomas A. (2007). Taking Sides: Clashing Views on Controversial Environmental Issues (12<sup>th</sup> ed.). McGrawHill.
- **2** Goldfarb Theodore D. (2001). Taking Sides: Clashing Views on Controversial Environmental Issues (9<sup>th</sup> ed.). McGrawHill/Dushkin.
- 3. Matthew E. (2006). Green Cities: Urban Growth and the Environment. Washington, D.C. Brookings InstitutionPress.
- 4 Pindyck Robert S. and Daniel L. Rubinfeld (2005). Microeconomics (6<sup>th</sup>ed.). Pearson/Prentice Hall.
- 5. Pizer William A. and Raymond Kopp (2003). Calculating the Costs of Environmental Regulation. Resources for the Future, Discussion Paper03-06.

Subject Code	ECO357	Subject Title			Labo	r Economic	es		
LTP	510	Credit	6	Subject Category	DSE III	Year	3 <sup>rd</sup>	Semester	VI

# **Course Objective:**

- To acquire knowledge about nature, Scope and Importance of Labour and LabourMarket.
- This course focuses on the wage determination, migration, and industrial relations in developing con try likeIndia.

UNIT1: Introduction (13Lecture)

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

### **UNIT 2:WageDetermination**

(13Lecture)

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

# **UNIT 3: MigrationandAbsenteeism**

(13 Lecture)

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

UNIT 4:IndustrialRelations (13Lecture)

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

#### **UNIT 5: LabourMarketreforms**

(13Lectures)

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

#### **Learning Outcome**

- The students should be able to acquire knowledge about wage determination especially organized and unorganized organizedsector.
- The students will develop the knowledge about labour migration, labour market reform and industrial relations.

### Text book [TB]:

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

- 1. Jhabvala R. and Subrahmanya R.K. (2000). The Unorganised Sector: Work Security and Social Protection. Sage Publications, NewDelhi.
- 2. Lester R.A. (1964). Economics of Labour (2<sup>nd</sup> ed.). Miacmillan, NewWork.
- 3. McConnell C.R. And Brue S.L. (1986). Contemporary Labour Economics. McGraw-Hill, New York.
- 4. Rosenberg M.R. (1988). Labour Markets in Low Income Countries inChenery.
- 5. Srinivasan T.N. The Handbook of Development Economics North Holland, NewYork

Subject Code	ECO358	Subject Title	Economics of Health and Education							
LTP	510	Credit	6	Subject Category	DSE IV	Year	3rd	Semester	VI	

# **Course Objective:**

- To provide importance of health and education and its impact on economic and social development.
- It would also give the concreate overview of health and education inIndia.

### UNIT 1: Role of Health and Education inHumanDevelopment

(13 Lecture)

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

### **UNIT 2: Microeconomic Foundations of Health Economics**

(13Lecture)

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

# **UNIT 3: Evaluation of Health Programs**

(13 Lecture)

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

#### **UNIT 4: Health Sector in India: An Overview**

(13Lecture)

Health outcomes; health systems; health financing.

### **UNIT 5: Education: Investment inHumanCapital**

(13 Lectures)

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

#### **Learning Outcome**

- 2 Students will be able to understand the role of education and health in sustainabledevelopment.
- 2 Students will be logically thinker to formulate a micro level policies to enhance the education and health level at greater extent.

# Text book [TB]:

- **1.** William Jack (1999). *Principles of Health Economics for Developing Countries*. World 24 Bank Institute DevelopmentStudies.
- 2. Ronald G., Ehrenberg and Robert S., Smith, (2005). *Modern Labor Economics: Theory and Public Policy*, AddisonWesley

#### Reference books [RB]:

Annual World Development Report (1993). Investing in Health. The World Bank.

Subject Code	ECO359	Subject Title	Comparative Economic Development						
LTP	510	Credit	6	Subject Category	DSE IV	Year	3 <sup>rd</sup>	Semester	VI

# **Course Objective:**

- To provide the knowledge to the students on comparative economicdevelopment.
- 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 TheSelectedCountries**

(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 inIndustrialSector**

(13 Lecture) The

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

# **UNIT 5: Factory System and Making of IndustrialWorkingClass**

(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

#### **Learning Outcome**

- The student will be able to know about the role of the state in economicdevelopment.
- Students will get to know about the role of the state in economicdevelopment..

# Text book [TB]:

**1.** Angus Maddison (1991). *Dynamic Forces in Capitalist Development, A Long-Run Comparative View*. Oxford University Press.

- **1.** Kenneth Pomeranz (2000). The great divergence: Europe, China, and the Making of the modern World Economy. Princeton UniversityPress.
- 2 Nakamura T. (1983). *Economic Growth in Pre-War Japan*. Yale UniversityPress.
- 3 Timothy W. Guinnane (2002). Delegated Monitors, Large and Small: Germany's banking System, 1800 1914. *Journal of Economic Literature, Volume*, 40:73-124.