



NETAJI SUBHAS UNIVERSITY

Estd. Under Jharkhand State Private University Act, 2018

Department of Economics

B.A. Economics (Hons.) Course Curriculum (with CO, PO Structure)

w.e.f. 2019

Head
Department of Economics
Netaji Subhas University



Dean Academics
Netaji Subhas University
Jamshedpur, Jharkhand

SYLLABUS
OF
BACHELORS OF ARTS
DEPARTMENT OF ECONOMICS

WITH PROGRAM COURSE OBJECTIVE: CO-PO : CAMS

Session 2019-2022

Program Objective

The purpose of the Economics Honours Program is to provide the students a firm foundation in the discipline of Economics. This program has a structured curricula which consists of core courses that encompass concepts, fundamental theories and general principles and provide a well-resourced learning environment for this dynamic subject. This program aims at enhancing students' ability to ask pertinent questions and to obtain solutions to these by using quantitative and qualitative reasoning, relate social reality with economics and use this knowledge for the material, social and cultural benefit of the individual self as well of the society.

Program Outcomes On completion of [the under-graduate Economics Honours Program](#), students will have acquired much knowledge and many skills.

PO1: An in-depth knowledge of the fundamental theoretical aspects which form the foundation of the discipline of Economics – microeconomics and macroeconomics; their applications in and extensions to sub-fields such as International Economics, Public Finance, Managerial Economics, Financial Economics, Environmental Economics, Development Economics and Indian Economics.

PO2: learnt the synthesis of Mathematics and Economics: Application of mathematics for understanding the different concepts of economics.

PO3: Acquired Research Orientation: an understanding about research methodology for identifying, formulating and analysing complex economic problems to substantiate and conclude by applying the knowledge of statistics., crucial learning skills in data collection, analysis and interpretation with appropriate statistical and econometric tools.

PO4: Learnt the usage of tools: Applying appropriate techniques for economic models with an understanding of the limitations. require prior knowledge about what to expect when dealing with the real-world data and be able to use the analytical skills acquired to explain real economic situations and phenomena critically, check the validity and accuracy of data and analyse data with effective statistical tools using statistical software and sharpen their acumen for undertaking serious and effective research.

PO5:Environment and Sustainability: Understanding the impact of economic dynamics on environment and to determine the need for sustainable development, to evaluate the sustainable performance level of an economy.

PO6: Effective Communication: To communicate effectively with the society at large with better comprehension and to make effective presentations Individual and Team work: To function efficiently as an individual and as a team to share and shoulder responsibilities.

PO7: Critical Thinking: To analyse the economic situations critically and provide suggestions, checking the validity and accuracy using effective tools Self-directed and Life-long Learning: Recognise the need for and engage in independent and life-long learning Project Management and Finance.

PO8: To demonstrate knowledge and to understand the economic and management principles, manage projects in multidisciplinary environment. the ability to look into the contemporary economic issues of India and the rest of the world, interrelate them and propose suggestions for policy-making.

Programme Specific Outcomes

PSO1:Programme specific outcomes of Economics honours Students shall acquire a basic, comprehensive and in-depth understanding of all branches of the discipline of Economics.

PSO2:The course work will help them in acquiring desirable outcomes in graduate examinations, pursue higher academic degrees, enhance their preparedness for appearing in competitive examinations, get them ready as future teachers and equip them as professionals in accounting, insurance, finance, marketing and management and such others, both in the national as well as in the international arena.

PSO3: Students shall acquire skills needed to conduct research studies relevant and beneficial in the contemporary world. In fact

PSO4: The way the course work is structured, will certainly go a long way to impart sufficient skills and information which will enhance students' employability, make them environmentally conscious and responsible citizens and help them to become important contributors to national wealth and prestige.

FIRST SEMESTER

SEMESTER	I
PAPER CODE	ECC101
TITLE	Micro Economics 1

COURSE OBJECTIVE: is to provide the students a firm foundation in the discipline of Economics. This program has a structured curricula which consists of core courses that encompass concepts, fundamental theories and general principles and provide a well-

resourced learning environment for this dynamic subject. This program aims at enhancing students' ability to ask pertinent questions and to obtain solutions to these by using quantitative and qualitative reasoning, relate social reality with economics and use this knowledge for the material, social and cultural benefit of the individual self as well of the society

UNIT 1: Introduction

Introduction to microeconomics, Scope and method of economics; the economic problem - scarcity and choice; the concept of opportunity cost; the question of what to produce, how to produce and how much to produce; science of economics; institutions for allocating resources; the basic competitive model; prices, property rights and profits; incentives and information; rationing; positive versus normative analysis The scientific method; the role of assumptions; models and mathematics; why economists sometimes disagree Interdependence and gains from trade; specialization and trade; absolute advantage; comparative advantage and trade

UNIT 2: Supply and demand

How markets work, markets and welfare Markets and competition; determinants of individual demand/supply; demand/supply schedule and demand/supply curve; market versus individual demand/supply; shifts in the demand/supply curve, demand and supply together; how prices allocate resources; elasticity and its application; controls on prices; taxes and the costs of taxation; consumer surplus; producer surplus and the efficiency of the markets Application to international trade; comparison of equilibria with and without trade, the winners and losers from trade; effects of tariffs and quotas; benefits of international trade; some arguments for restricting trade

UNIT 3: Households

The consumption decision - budget constraint, consumption and income/price changes, demand for all other goods and price changes; description of preferences (representing preferences with indifference curves); properties of indifference curves; consumer's optimum choice; income and substitution effects; labour supply and savings decision; choice between leisure and consumption

UNIT 4: The firm and perfect market structure

Behaviour of profit maximizing firms and the production process; short-run costs and output decisions; costs and output in the long-run

UNIT 5: Imperfect Market Structure

Monopoly and anti-trust policy; government policies towards competition; imperfect competition

UNIT 6: Input Markets

Labour and land markets: Basic concepts (derived demand, productivity of an input, marginal productivity of labour, marginal revenue product); demand for labour; input demand curves; shifts in input demand curves; competitive labour markets; labour markets and public policy

References:

1. Principles of Microeconomics by H.I. Ahuja
2. Bernheim, B., Whinston, M. (2009). Microeconomics. Tata McGraw-Hill.
3. 2. Mankiw, N. (2007). Economics: Principles and applications, 4th ed. Cengage Learning

COURSE OUTCOMES

CO1. The students learn basic concepts of microeconomics which help them understand every other paper in economics.

CO2. To understand basic principles of micro economic theory and illustrates how micro economic concepts can be applied to analyze real life situations.

CO3. To explain the Elasticity of demand and supply.

CO4. To understand how factors of production can be used optimally to produce goods and services as they are the building blocks of the economy.

CO5. The paper helps students in understanding different market structures that exist in an economy.

COURSE ARTICULATION MATRIX

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	2	2	2	2	2	2	1
CO2	3	3	2	3	2	3	3	2
CO3	2	2	2	2	2	2	2	2
CO4	3	3	2	3	3	2	2	3
CO5	2	2	2	1	1	2	2	3
AVERAGE	2.6	2.4	2	2.2	2	2.2	2.2	2.2

(1-Weakly related 2-Moderately related 3- Strongly related)

COURSE :MACRO	CODE ECC102
ECONOMICS	

COURSE OBJECTIVE: is to provide the students a firm foundation in the discipline of Economics. This program has a structured curricula which consists of core courses that encompass concepts, fundamental theories and general principles and provide a well-resourced learning environment for this dynamic subject. This program aims at enhancing students' ability to ask pertinent questions and to obtain solutions to these by using quantitative and qualitative reasoning, relate social reality with economics and use this knowledge for the material, social and cultural benefit of the individual self as well of the society

UNIT 1 - NATIONAL INCOME AND RELATED AGGREGATES

Basic concepts in macroeconomics: consumption goods, capital goods, final goods, intermediate goods; stocks and flows; gross investment and depreciation.

Circular flow of income; Methods of calculating National Income - Value Added or Product method, Expenditure method, Income method.

Aggregates related to National Income: Gross National Product (GNP), Net

National Product (NNP), Gross and Net Domestic Product (GDP and NDP)

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UNIT 2 - MONEY AND BANKING

Money - meaning and supply of money - Functions of Money, Kinds of Money, Interest Rates and Return. Money creation by the commercial banking system.

Commercial Banks- Functions and Importance, Process of Credit Creation; The Reserve Banking of India: Functions and Instruments of credit control, Recent Monetary Policy of RBI.

UNIT 3 - FINANCIAL SECTOR

Money and Capital Markets in India: Structure, Functions and Significance; SEBI: Powers and Functions; Non-Bank Financial Intermediaries- Role and Significance; Recent Financial Sector Reforms in India.

UNIT 4 - BALANCE OF PAYMENTS

Balance of payments account - meaning and components; balance of payments deficit- meaning.Foreign exchange rate - meaning of fixed and flexible rates and managed floating.Determination of exchange rate in a free market.

References:

1. Bailey Roy (2005) The Economics of Financial Markets
2. D.M. Mithani: Money, Banking and Public Finance
3. A.D. Bain (1992) Economics of the Financial System 11
4. Suraj.B.Gupta: Monetary Economics - Institutions, Theory &Policy;S Chand publications
5. Suraj.B.Gupta:Monetary Planning for India
6. Khan,MY: Indian Financial System;Tata-McGrawhill
7. M.K. Lewis (2000), Monetary Economics, OUP
8. M.R. Baye, D.W. Jansen (1996), Money Banking and Financial Markets, AITBS, (Indian Edition)
9. Maurice Levi (1999), International Finance, Tata McGraw Hill

10. L.M. Bhole (1999), Financial Institutions and Markets, Tata
Mcgraw Hill

11. R.R.Paul “Monetary Economics”

12. R.B.I. Bulletin, Annual Report; Report on Currency and
Finance

COURSE OUTCOMES

- CO1• The course introduces the students to the basic concepts of macroeconomics.
- CO2• To understand nature of macroeconomics and various sectors interrelationship.
- CO3• To Gain knowledge on classical and Keynesian theory of employment their relevance.
- CO4• Preparing to understand various factors of consumption function.
- CO5• To accumulate knowledge on saving and investment function in an economy.
- CO6• To understand the various theories of interest and applications

COURSE ARTICULATION MATRIX

CO	PO1	PO2	PO3	PO4	PO5	PO6
CO1	2	3	2	3	2	2
CO2	3	2	3	2	3	3
CO3	2	3	2	2	3	3
CO4	3	1	1	2	2	2
CO5	2	2	3	3	3	1
CO6	3	1	2	2	1	2
AVG	2.6	2	2.2	2.5	2.5	2.2

(1-Weakly related 2-Moderately related 3- Strongly related)

PAPER CODE	AECC-1
TITLE	English Communication

COURSE OBJECTIVE: is to provide the students a firm foundation in the discipline of Economics. This program has a structured curricula which consists of core courses that encompass concepts, fundamental theories and general principles and provide a well-resourced learning environment for this dynamic subject. This program aims at enhancing students’ ability to ask pertinent questions and to obtain solutions to these by using quantitative and qualitative reasoning, relate social reality with economics and use this knowledge for the material, social and cultural benefit of the individual self as well of the society

UNIT 1: WRITING SKILLS

Essay/Paragraph Writing: Narrative, Descriptive & Expository, Journalistic Report Writing/Feature Writing/Writing Reviews/Columns, Expansion of an Idea, Dialogue Writing/Writing based on a Situation, Formal/Business Letters, Job Applications, Biodata/Resume/Curriculum Vitae

UNIT 2: ORAL SKILLS

(Public Speaking, , Interview, Group Discussion& Presentation)

Oral Communication: Definition, Types, Advantages & Limitations, Effective Public Speaking,

Viva ; Definition, Scope and Purpose, Interview Types of Interview, Effective Interviewing;

Group Discussion: Definition, Rules, Scope and Objective; Presentation Skills,

Types of Presentation Skill, Techniques of Presentation, Effective Presentation.

References:

1. Terry O'Brien. Modern Writing Skills,
2. Rupa Publications PushpLata&
3. Sanjay Kumar, Communicate or Collapse: A Handbook of Effective Public
4. Group Discussion and Interviews, Prentice Hall.
- 5.

COURSE OUTCOME

CO1: It enables the students to learn better

CO2: It enables to develop communication skills

COURSE ARTICULATION MATRIX

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	2	2	2	2
CO2	3	3	2	3	2

(1-Weakly related 2-Moderately related 3- Strongly related)

SEMESTER	I
PAPER CODE	GE-I
TITLE	History of India-I

COURSE OBJECTIVE: is to provide the students a firm foundation in the discipline of Economics. This program has a structured curricula which consists of core courses that encompass concepts, fundamental theories and general principles and provide a well-resourced learning environment for this dynamic subject. This program aims at enhancing students' ability to ask pertinent questions and to obtain solutions to these by using quantitative and qualitative reasoning, relate social reality with economics and use this knowledge for the material, social and cultural benefit of the individual self as well of the society

UNIT I

Survey of sources: Archaeological

Sources, Literary Sources, Travellers

Accounts; Epigraphical Sources.

Prehistory: Paleolithic, Mesolithic and

Neolithic Cultures in India.

UNIT II

Harappan Civilization: Origin, Extent, Urban Planning, Nature of Political and Economic Organization, Religion and Decline.

UNIT III

Vedic Cultures: Society, Polity, Economy and Religion.

UNIT IV

Rise of Religious Movements in India: Material Background; Teachings of Buddhism and Jainism.

UNIT V

Factors leading to the rise of Mahajanapadas; the Rise of Magadha. Maurya Empire: Ashoka's Dhamma, Administration, Economy, Art and Architecture, Decline.

References:

1. B. Allchin, and F.R Allchin, Rise of civilization in India and Pakistan
2. B. Allchin, and F.R Allchin R, Origin of a Civilization
3. Romila Thapar, A history of India Vol. I
4. Romila Thapar, From lineage to state
5. Irfan Habib, Pre History
6. Satish Chandra, Medieval India, Vol.
7. Kulke, H, and D. Rothermund , History of India
8. Burton Stein, Peasant State and Society in Medieval south India
9. A.L.Basham, The Wonder That Was India
10. B.K. Thapar, Recent Archaeological Discoveries in India
11. R.S.Sharma, Aspects of political Ideas and Institutions in Ancient India
12. P.N.Chopra & Co., A comprehensive History of Ancient India.

Course outcome

CO1: Interdisciplinary studies are enabled

CO2:History helps to look back and learn from the past

COURSE ARTICULATION MATRIX

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	2	2	2	2
CO2	3	3	2	3	2

(1-Weakly related 2-Moderately related 3- Strongly related)

SEMESTER-II

SEMESTER	II
PAPER CODE	ECC201
TITLE	Introductory Macroeconomics

COURSE OBJECTIVE: To provide the students a firm foundation in the discipline of Economics. This program has a structured curricula which consists of core courses that encompass concepts, fundamental theories and general principles and provide a well-resourced learning environment for this dynamic subject. This program aims at enhancing students' ability to ask pertinent questions and to obtain solutions to these by using quantitative and qualitative reasoning, relate social reality with economics and use this knowledge for the material, social and cultural benefit of the individual self as well of the society

UNIT 1: Introduction

Macroeconomics and national income accounting

Basic issues studied in macroeconomics: Measurement of gross domestic product; income, expenditure and the circular flow; real versus nominal GDP; price indices; national income accounting for an open economy; balance of payments: current and capital accounts

UNIT 2: Money

Functions of money; quantity theory of money; determination of money supply and demand; credit creation; tools of monetary policy

UNIT 3: Inflation

Inflation and its social costs; hyperinflation

UNIT 4: The closed economy in the short run

Classical and Keynesian systems; simple Keynesian model of income determination; IS-LM model; fiscal and monetary multipliers

References:

1. Macroeconomics – Theory and Policy by H.I Ahuja
2. Abel, A., Bernanke, B. (2016). Macroeconomics, 9th ed. Pearson Education.
3. Blanchard, O. (2018). Macroeconomics, 7th ed. Pearson Education.
4. Dornbusch, R., Fischer, S., Startz, R. (2018). Macroeconomics, 12th ed. McGraw-Hill.
5. Jones, C. (2016). Macroeconomics, 4th ed. W. W. Norton.

6. Mankiw, N. (2016). Macroeconomics, 9th ed. worth Publishers.

7.

Course outcome

- CO1• The course introduces the students to the basic concepts of macroeconomics.
- CO2• To understand nature of macroeconomics and various sectors interrelationship.
- CO3• To Gain knowledge on classical and Keynesian theory of employment their relevance.
- CO4• Preparing to understand various factors of consumption function.
- CO5• To accumulate knowledge on saving and investment function in an economy.
- CO6• To understand the various theories of interest and applications.

COURSE ARTICULATION MATRIX

CO	PO1	PO2	PO3	PO4	PO5	PO6
CO1	2	3	2	3	2	2
CO2	3	2	3	2	3	3
CO3	2	3	2	2	3	3
CO4	3	1	1	2	2	2
CO5	2	2	3	3	3	1
CO6	3	1	2	2	1	2
AVG	2.6	2	2.2	2.5	2.5	2.2

(1-Weakly related 2-Moderately related 3- Strongly related)

SEMESTER	II
PAPER CODE	ECC202
TITLE	Elementary Mathematical Methods in Economics

COURSE OBJECTIVE: To provide the students a firm foundation in the discipline of Economics. This program has a structured curricula which consists of core courses that encompass concepts, fundamental theories and general principles and provide a well-resourced learning environment for this dynamic subject. This program aims at enhancing students' ability to ask pertinent questions and to obtain solutions to these by using quantitative and qualitative reasoning, relate social reality with economics and use this knowledge for the material, social and cultural benefit of the individual self as well of

UNIT 1: Preliminaries

Sets and set operations; relation; functions and their properties; number systems.

UNIT 2:

Functions of one real variable Graphs; elementary types of function: quadratic, polynomial, power, exponential, logarithmic; sequences and series; continuous functions: properties with respect to various operations and applications; differentiable functions: characterizations, properties with respect to various operation and applications; second order derivatives: properties and applications. Concept of MR, MC, relationship between Total, Average, Marginal (Rev. & Cost).

UNIT 3:

Single – variable optimization Geometric properties of function: local and global optima: geometric characterizations, characterizations using calculus and applications Profit maximization models.

UNIT 4:

Exponential and Logarithmic functions and Logarithmic Derivation Exponential functions, Logarithmic functions, compound interest, Present values and capital values, derivatives of exponential and Logarithmic functions, Problem of capital and interest, Elasticity of a function, Elasticity of demand, Cost elasticity and Normal cost conditions.

UNIT 5:

Integration Definite integrals, Indefinite integrals and inverse differentiation, technique of integration, Relation between average and marginal concepts, application in consumer's surplus.

References:

Mathematics for Economists by Mehta-Madnani

K. Sydsaeter and P. Hammond, Mathematics for Economic Analysis, Pearson Edu. Asia: Delhi, 2002

Chiang, Alpha C and Wainright Kevin Fundamental Methods of Mathematical Economics, Mc Graw

Yamane, Taro (1975) mathematics Prentice Hall of India, New Delhi

Koutsoyianis, A (1977) Theory of Econometrics (2nd Ed.) The Macmillan Press Ltd., London

COURSE OUTCOME

To develop analytical skills.

- To use and explain the underlying principles, terminology, methods, techniques and conventions used in the subject.
- To develop an understanding of differential and difference equations techniques used in economic theory.
- To encourage students to think about applying these mathematical tools in their own research, if necessary, with suitable modifications.
- To solve economic problems using the mathematical methods described in the course.

To successfully use mathematics in economics and business applications.

COURSE ARTICULATION MATRIX

CO	PO1	PO2	PO3	PO4	PO5	PO6
CO1	2	3	2	3	2	2
CO2	3	2	2	2	3	3
CO3	2	3	2	2	2	2
CO4	2	2	2	3	3	3
CO5	2	2	2	2	2	2
AVG	2.2	2.4	2	2.4	2.4	2.4

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SEMESTER	II
PAPER CODE	AECC – II
TITLE	ENVIRONMENTAL SCIENCE

COURSE OBJECTIVE: To provide the students a firm foundation in the discipline of Economics. This program has a structured curricula which consists of core courses that encompass concepts, fundamental theories and general principles and provide a well-resourced learning environment for this dynamic subject. This program aims at enhancing students' ability to ask pertinent questions and to obtain solutions to these by using quantitative and qualitative reasoning, relate social reality with economics and use this knowledge for the material, social and cultural benefit of the individual self as well .

UNIT1:

Ecosystems and how they work Structure and function of an ecosystem, Types of Eco-Systems, Producers, Consumers and Decomposers, Food chains, food webs and ecological pyramids, Energy flow in the ecosystem. Introduction, Types, Characteristic features, Structure and Function of Forest ecosystem, Desert ecosystem, Aquatic ecosystems Lithosphere, Biosphere and Hydrosphere, Major issues of Biodiversity, Biosphere reserves, National Parks and sanctuaries.

UNIT 2:

Concept of sustainability and international efforts for environmental protection: Concept of Sustainable Development, Emergence of Environmental Issues, International Agreement on Environmental Management. Human Population Growth and its effects on the environment: Problem of Population growth, poverty and environment, Population Explosion, Family Welfare Programme

UNIT 3:

Renewable and non-renewable resources .Defining resources, classification of resources, soil and land degradation, economic development and resources use, natural resources accounting.

Energy needs, renewable and non renewable energy resources, Solar energy and its availability, wind power and its potential, hydropower as a clean source of energy, coal, oil, natural gas etc., bio fuel.

UNIT 4:

Pollution and public policy Water Pollution: Water resources of India, Hydrological Cycle, methods of water conservation and management, ground and surface water pollution. Recycling and management of water and wastewater (domestic and industrial). Water borne diseases and health related issues.

Air Pollution: Air pollution and air pollutants, sources of air pollution, its effect on human health and vegetations. Green house effect, global warming and climate change. Ambient air quality standards, steps taken by Government to control air pollution. Noise pollution and its impacts on human health. Solid Waste: Municipal Solid Waste Management, segregation, disposal methods, composting, land fill sites etc. Hazardous waste management, biomedical

waste management.

UNIT 5:

Environmental impact assessment (EIA) and environmental management system (EMS)
Introduction to EIA, its impact and case study, environmental informationsystem(EIS)
role of information technology in environment.

UNIT 6: Indian environmental laws:

Legal framework: Constitutional provisions, the Indian Penal Code, Role of Judiciary in Environmental Protection, Wild Life (Protection) Act, 1972, Water (Prevention and Control of Pollution) Act, 1974, Environment (Protection) Act, 1986, Air (Prevention & Control of Pollution) Act, 1981, Forest Conservation Act.

COURSE OUTCOMES

CO1:To comprehend the environmental aspect of economics

CO2:To be able to grasp the basics of resource economics

CO3: To develop an inter disciplinary approach to the course

CO4: To understand the concept of sustainable development.

COURSE ARTICULATION MATRIX

CO	PO1	PO2	PO3	PO4	PO5	PO6
CO1	2	3	2	3	2	2
CO2	3	2	2	2	3	3
CO3	2	3	2	2	2	2
CO4	2	2	2	3	3	3
CO5	2	2	2	2	2	2
AVG	2.2	2.4	2	2.4	2.4	2.4

1

-Weakly related 2-Moderately related 3- Strongly related)

SEMESTER	II
PAPER CODE	GE-II
TITLE	History of India-II

COURSE OBJECTIVE: is to provide the students a firm foundation in the discipline of Economics. This program has a structured curricula which consists of core courses that encompass concepts, fundamental theories and general principles and provide a well-resourced learning environment for this dynamic subject. This program aims at enhancing students' ability to ask pertinent questions and to obtain solutions to these by using quantitative and qualitative reasoning, relate social reality with economics and use this knowledge for the material, social and cultural benefit of the individual self as well .

UNIT I

Development in the post Mauryas times

with special reference to the Kushans, Satavahanas and Harsha.

UNIT II

The Gupta Empire: Administrations, Economy, Society, Literature, Development in Science, Art and Architecture.

UNIT III

Sangam Literature; Chola Empire: Local Self-Government and Cultural Life; the Pallavas; Tripartite Struggle.

UNIT IV

Bhakti and Sufi movements:
Origin, Doctrines, Spread, Impact on Indian Society

UNIT V

Delhi sultanate:
Administrative and Economic Reforms of the Khaljis and Tughlaqs Decline

References:

1. Romila Thapar, A History of India Vol. I
2. Romila Thapar, From Lineage to State
3. Satish Chandra, Medieval India, Vol.
4. Kulke, H, and D .Rothermund, History of India
5. Burton Stein, Peasant State and Society in Medieval South India
6. A.L. Basham, The Wonder That Was India
7. K.A. Nikanta Sastri, History of South India from Pre-historic times to the fall of
8. Vijayanagar R.S. Sharma, Aspects of political Ideas and Institutions in Ancient India
9. P.N. Chopra & Co., A comprehensive History of Ancient India.
10. A.B. Pandey ,Early Medieval India.
11. J.L. Mehta, Advanced Study in the History of Medieval India Vol.II (1000-1526)
12. S.C. Raychoudhury, Social, Cultural and Economic History of India.
13. R.P. Tripathi, Some aspects of Muslim Administration

Course outcome

CO1: Interdisciplinary studies are enabled

CO2:History helps to look back and learn from the past

COURSE ARTICULATION MATRIX

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	2	2	2	2
CO2	3	3	2	3	2

((1-Weakly related 2-Moderately related 3- Strongly related)

SEMESTER III

SEMESTER	III
PAPER CODE	ECC301
TITLE	Intermediate Microeconomics – I

COURSE OBJECTIVE: is to provide the students a firm foundation in the discipline of Economics. This program has a structured curricula which consists of core courses that encompass concepts, fundamental theories and general principles and provide a well-resourced learning environment for this dynamic subject. This program aims at enhancing students' ability to ask pertinent questions and to obtain solutions to these by using quantitative and qualitative reasoning, relate social reality with economics and use this knowledge for the material, social and cultural benefit of the individual self as well .

UNIT 1: Consumer's Equilibrium

Utility (Marshall and Hicks approach); Substitution effects (Hicks and Slutsky): Consumer's surplus (Marshall and Hicks approach).

UNIT 2: Theory of Production and Costs

Production function; Isoquants; law of variable proportion; returns to scale; Different concepts of costs and cost curves under traditional theory; Equilibrium of the firm; Expansion path.

UNIT 3: Market Structure

Market firms – perfect and imperfect markets; Equilibrium of a firm – perfect competition; monopoly and price discrimination; Measure of monopoly power; Monopolistic competition; Duopoly; oligopoly.

UNIT 4: Factor Pricing

Marginal productivity theory of distribution; Adding up problem; Rent – concepts, Ricardian and Modern theory of rent; Interest – Classical and Keynesian theories; Profits – innovation, risk and uncertainty theories.

Text: H.L. Abuja; Advanced Economic Theory

References:

1. Hal R. Varian, Intermediate Microeconomics, a Modern Approach, W.W. Norton and company / Affiliated
2. East-West Press (India), 8th edition, 2010. The workbook by Varian and Bergstrom may be used for problems. C. Snyder and W. Nicholson, Fundamentals of Microeconomics, engage Learning (India), 2010.
3. B. Douglas Bernheim and Michael D. Whinston, Microeconomics, Tata McGraw-Hill

(India),2009.

COURSE OUTCOMES

CO1• The students learn basic concepts of microeconomics which help them understand every other paper in economics.

CO2• To understand basic principles of micro economic theory and illustrates how micro economic concepts can be applied to analyze real life situations.

CO3• To explain the Elasticity of demand and supply.

CO4• To understand how factors of production can be used optimally to produce goods and services as they are the building blocks of the economy.

CO5• The paper helps students in understanding different market structures that exist in an economy.

COURSE ARTICULATION MATRIX

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	2	2	2	2	2	2	1
CO2	3	3	2	3	2	3	3	2
CO3	2	2	2	2	2	2	2	2
CO4	3	3	2	3	3	2	2	3
CO5	2	2	2	1	1	2	2	3
AVERAGE	2.6	2.4	2	2.2	2	2.2	2.2	2.2

(1-Weakly related 2-Moderately related 3- Strongly related)

SEMESTER	III
PAPER CODE	ECC302
TITLE	Intermediate Macroeconomics – I

COURSE OBJECTIVE: is to provide the students a firm foundation in the discipline of Economics. This program has a structured curricula which consists of core courses that encompass concepts, fundamental theories and general principles and provide a well-resourced learning environment for this dynamic subject. This program aims at enhancing students' ability to ask pertinent questions and to obtain solutions to these by using quantitative and qualitative reasoning, relate social reality with economics and use this knowledge for the material, social and cultural benefit of the individual self as well

UNIT 1: Theories Output and Employment

Say's Law' of markets and the classical theory of employment; Keynes objection to the classical theory; aggregate demand and aggregate supply function, the principle of effective demand.

UNIT 2: Consumption function

Average and marginal propensity to consume; factors influencing consumption spending

UNIT 3: Investment function

Autonomous and induced Investment; marginal efficiency of capital and marginal efficiency of investment, determining factors

UNIT 4: Simple income determination models:

In a closed economy, Keynesian and classical models, ISLM income and interest determination

UNIT 5: Unemployment

Types and causes, inflation and unemployment

Textbook

1. Macroeconomics – Theory and Policy by H.l Ahuja

Reference

2. Dornbusch, Fischer and Startz, macroeconomics, McGraw Hill, 11th edition, 2010.
- N. Gregory Mankiw, macroeconomics, Worth publishers, 7th edition, 2010.
3. Olivier Blanchard, macroeconomics, Pearson Education, Inc., 5th edition, 2009.
4. Steven M. Sheffrin, Rational expectations, Cambridge University Press, 2nd edition, 1996.
5. Andrew B. Abel and Ben S. Bernanke, Macroeconomics, Pearson Education, Inc., 7th edition, 2011
6. Errol D'Souza, Macroeconomics, Pearson Education 2009.
7. Paul R. Krugman, Maurice Obstfeld and Marc Melitz, International Economics, Pearson Education Asia, 9th edition, 2012.

Course outcome

- CO1• The course introduces the students to the basic concepts of macroeconomics.
- CO2• To understand nature of macroeconomics and various sectors interrelationship.
- CO3• To Gain knowledge on classical and Keynesian theory of employment their relevance.
- CO4• Preparing to understand various factors of consumption function.
- CO5• To accumulate knowledge on saving and investment function in an economy.
- CO6• To understand the various theories of interest and applications.

COURSE ARTICULATION MATRIX

CO	PO1	PO2	PO3	PO4	PO5	PO6
CO1	2	3	2	3	2	2
CO2	3	2	3	2	3	3
CO3	2	3	2	2	3	3
CO4	3	1	1	2	2	2
CO5	2	2	3	3	3	1
CO6	3	1	2	2	1	2
AVG	2.6	2	2.2	2.5	2.5	2.2

(1-Weakly related 2-Moderately related 3- Strongly related)

SEMESTER	III
PAPER CODE	ECC303
TITLE	Public Finance

COURSE OBJECTIVE: is to provide the students a firm foundation in the discipline of Economics. This program has a structured curricula which consists of core courses that encompass concepts, fundamental theories and general principles and provide a well-resourced learning environment for this dynamic subject. This program aims at enhancing students' ability to ask pertinent questions and to obtain solutions to these by using quantitative and qualitative reasoning, relate social reality with economics and use this knowledge for the material, social and cultural benefit of the individual self as well

UNIT 1: Nature and Scope of Public finance Meaning and Scope of public finance; Distinction between private and public finance; Public good vs. private goods; The principle of Maximum Social advantage; market failure; Role of the government.

UNIT 2: Public Expenditure Meaning, classification and principle of public expenditure; Canons and effects of public expenditure; Trends in public expenditure and causes of growth of public expenditure in India.

UNIT 3: Taxation Sources of public revenue; Taxation – Meaning, canon and classification of taxes; Division of tax burden – the Benefit and ability-to-Pay approaches; Impact and incidence of taxes; Taxable capacity; Effects of taxation; Characteristics of a good tax system; major trends in tax revenue of the central and state governments in India. GST and VAT

UNIT 4: Public Debt and Financial Administration Sources of public borrowing; Effects of public debt; methods of debt redemption; the public budget – kinds of budget; Economic and functional classification of the budget.

UNIT 5. Financial decentralization in India Centre State Financial Relationship, Role of Finance Commission, and baic Features of 14th Finance Communication

Textbook: H.L.Bhatia

Reference

1. J. Hindriks , G. Myles: Intermediate Public Economics, MIT Press, 2006
2. H. Rosen, T. Gayer: Public Finance, 9th ed., Mcgraw Hill/ Irwin, 2009
3. Joseph E. stiglitz, Economics of the Public Sector, W.W. Norton & Company, 3rd edition, 2000.
4. R.A. Musgrave and P.B. Musgrave, public Finance in theory• & Practice, McGraw Hill Publications, 5th edition, 1989.
5. Harvey Rosen, Public Finance McGraw Hill Publications, 7th edition, 2005
6. Mahesh Purohit, Value Added Tax : Experiences f India and Other countries 2007.

COURSE OUTCOMES

1. CO1:To provide an overview of government finances withspecial reference to India.

2. CO2:To demonstrate the role of government in the subject.
3. CO3:To understand the needs of public borrowing from all possible sources to meet the public expenditure.
4. CO4:o understand the needs of public borrowing to meet the financial deficit.
5. CO5:To understand the concept of fiscal policy.

COURSE ARTICULATION MATRIX

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	2	2	2	2	2	2	1
CO2	3	3	2	3	2	3	3	2
CO3	2	2	2	2	2	2	2	2
CO4	3	3	2	3	3	2	2	3
CO5	2	2	2	1	1	2	2	3
AVERAGE	2.6	2.4	2	2.2	2	2.2	2.2	2.2

(1-Weakly related 2-Moderately related 3- Strongly related)

SEMESTER	III
PAPER CODE	SEC I
TITLE	Computer Application

COURSE

OBJECTIVE: is to provide the students a firm foundation in the discipline of Economics. This program has a structured curricula which consists of core courses that encompass concepts, fundamental theories and general principles and provide a well-resourced learning environment for this dynamic subject. This program aims at enhancing students' ability to ask pertinent questions and to obtain solutions to these by using quantitative and qualitative reasoning, relate social reality with economics and use this knowledge for the material, social and cultural benefit of the individual self as well

UNIT 1:

Introduction to computer system

UNIT 2:

Microsoft office 2007 and latest versions

UNIT 3:

Ms-word lab assignment

1. Write down the following Paragraph OR any one provided by your teacher; Without a doubt, the Internet is one of the most important inventions of modern times. The Internet is a global interconnected computer networks which allow each connected computer to share and exchange information with each other. The origins of the Internet can be traced to the creation of Advanced Research Projects Agency Network

(ARPANET) as a network of computers under the auspices of the U.S. Department of Defense in 1969.

Apply following effects on the paragraph:

- i. Paragraph font-size and font-type must be 12 Verdana.
- ii. Paragraph alignment must be justified and double line spacing.
- iii. Highlight the “(ARPANET)” with green color.
- iv. Make the “Internet” keywords Bold and Italic.
- v. Insert any “WordArt” and a symbol to your document.
- vi. Insert a clipart to your document.
- vii. Add following lines to your document: Internet, Intranet, Extranet, URL, WWW, Networking, Protocols, HTTP, TCP/IP

2. Create a Table of following fields:

Name, Surname, Age, Gender, Job and apply the following effects

- i. Insert 10 records
- ii. Font size should be 12
- iii. Title size should be 14
- iv. Font type should be Times new Roman
- v. Title color should be blue
- vi. Text color should be black
- vii. Table border should be 2 3. Write a letter on ‘Road Safety’ and send to ‘Multiple Recipients’ using mail merge.

UNIT 4: Microsoft Excel Lab Assignment Basic Formatting and Spreadsheet Manipulation

1. Add rows and columns to an existing spreadsheet
2. Reformat data (center, comma and currency styles, bold, text color)
3. Work with a simple formula (product) and function (sum)

COURSE OUTCOMES

CO1: To enable the students to be computer literate

CO2: To make the students technologically advanced

CO3: To enable the students to apply computer knowledge in the program

COURSE ARTICULATION MATRIX

CO	PO1	PO2	PO3	PO4	PO5	PO6
CO1	3	3	3	3	2	1
CO2	2	3	2	2	3	2
CO3	3	2	1	3	1	3
AVG	2.33	2.33	2	2.33	2	2

(1-Weakly related 2-Moderately related 3- Strongly related)

SEMESTER	III
PAPER CODE	GE – III

TITLE	History of India-III

COURSE OBJECTIVE: is to provide the students a firm foundation in the discipline of Economics. This program has a structured curricula which consists of core courses that encompass concepts, fundamental theories and general principles and provide a well-resourced learning environment for this dynamic subject. This program aims at enhancing students' ability to ask pertinent questions and to obtain solutions to these by using quantitative and qualitative reasoning, relate social reality with economics and use this knowledge for the material, social and cultural benefit of the individual self as well

Unit I:

Advent of the Mughals:
Growth of Mughal Empire AD 1526-1556

Expansion and Consolidation AD1556-1707
Decline of the Mughal Empire

Unit II:

Mughal polity, economy and society:
Mansabdari and Jagirdari system;
Sher Shah's Administration; Economy,
Religion and Architecture.

Unit III:

Advent of European powers:
Portuguese, Dutch, French and English
British Expansion and Consolidations
under Clive; Warren Hastings; Cornwallis;
Wellesley; Dalhousie.

Unit IV:

Colonial Economy:
Commercial Policies; Land Revenue
Systems and its Impact; De- industrialization; Drain of Wealth and
Growth of Modern Industries; Foreign
Trade.

Unit V:

Social and cultural changes:
Spread of Western Education
Growth of Intelligentsia and Press
Socio-Religious Movements: Rammohan
Roy; Ramakrishna and Vivekananda;
Swamy Dayanand and the Arya Samaj; Sir
Syed Ahmad Khan and the Aligarh
Movement.
References:

1. H. Kulke and D. Rothermund, History of India

2. Satish Chandra, Medieval India
3. R.P. Tripathi, Rise and fall of the Mughal Empire
4. Bipan Chandra, India's struggle for independence, 1857-1947
5. Bipan Chandra, History of Modern India
6. **Bipan Chandra, Nationalism and Colonialism in Modern India.**

Course outcome

CO1: Interdisciplinary studies are enabled

CO2: History helps to look back and learn from the past

COURSE ARTICULATION MATRIX

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	2	2	2	2
CO2	3	3	2	3	2

(1-Weakly related 2-Moderately related 3- Strongly related)

SEMESTER IV

SEMESTER	IV
PAPER CODE	ECC401
TITLE	Intermediate Microeconomics - II

COURSE OBJECTIVE: is to provide the students a firm foundation in the discipline of Economics. This program has a structured curricula which consists of core courses that encompass concepts, fundamental theories and general principles and provide a well-resourced learning environment for this dynamic subject. This program aims at enhancing students' ability to ask pertinent questions and to obtain solutions to these by using quantitative and qualitative reasoning, relate social reality with economics and use this knowledge for the material, social and cultural benefit of the individual self as well

UNIT 1: Equilibrium, Efficiency and Welfare Equilibrium and efficiency under pure exchange and production; Pareto efficiency & limitations, Pigou, Pareto & Social welfare function

UNIT 2: Market failure Externalities; public goods; Pigovian welfare economics

UNIT 3: Imperfect Market Structure Monopoly power, price discrimination, monopolistic competition, classical approach, oligopoly; meaning, types, models,

classical & kinked demand curves, price leadership models

References:

1. Hal R. Varian, Intermediate Microeconomics, a Modern 8th edition, W.W. Norton and Company/Affiliated East-West Press (India), 2010. The Workbook by Varian and Bergstrom could be used for problems.
2. C. Snyder and W. Nicholson, Fundamentals of Microeconomics, Cengage Learning (India). 2010

COURSE OUTCOMES.

CO1• The students learn basic concepts of microeconomics which help them understand every other paper in economics.

CO2• To understand basic principles of micro economic theory and illustrates how micro economic concepts can be applied to analyze real life situations.

CO3• To explain the Elasticity of demand and supply.

CO4• To understand how factors of production can be used optimally to produce goods and services as they are the building blocks of the economy.

CO5: To comprehend the pricing theory of economics

COURSE ARTICULATION MATRIX

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	2	2	2	2	2	2	1
CO2	3	3	2	3	2	3	3	2
CO3	2	2	2	2	2	2	2	2
CO4	3	3	2	3	3	2	2	3
CO5	2	2	2	1	1	2	2	3
AVERAGE	2.6	2.4	2	2.2	2	2.2	2.2	2.2

(1-Weakly related 2-Moderately related 3- Strongly related)

SEMESTER	IV
PAPER CODE	ECC402
TITLE	Intermediate Macroeconomics - II

COURSE OBJECTIVE: is to provide the students a firm foundation in the discipline of Economics. This program has a structured curricula which consists of core courses that encompass concepts, fundamental theories and general principles and provide a well-resourced learning environment for this dynamic subject. This program aims at enhancing students' ability to ask pertinent questions and to obtain solutions to these by using quantitative and qualitative reasoning, relate social reality with economics and use this knowledge for the material, social and cultural benefit of the individual self as well

UNIT 1: Quantity theory of money

Fisher, Cambridge & Keynesian theory of Price and Friedman's Restatement of the quantity theory

UNIT 2: Fiscal and Monetary Policy

Fiscal Policy target & instruments; monetary policy objectives, targets & instruments; the government budget constraint; government debt.

UNIT 3: Some recent Schools of Macroeconomics Thoughts

New-Classical and New-Keynesians.

COURSE OUTCOMES

- CO1• The course introduces the students to the basic concepts of macroeconomics.
- CO2• To understand nature of macroeconomics and various sectors interrelationship.
- CO3• To Gain knowledge on classical and Keynesian theory of employment their relevance.
- CO4• Preparing to understand various factors of consumption function.
- CO5• To accumulate knowledge on saving and investment function in an economy.
- CO6• To understand the various theories of interest and applications.

COURSE ARTICULATION MATRIX

CO	PO1	PO2	PO3	PO4	PO5	PO6
CO1	2	3	2	3	2	2
CO2	3	2	3	2	3	3
CO3	2	3	2	2	3	3
CO4	3	1	1	2	2	2
CO5	2	2	3	3	3	1
CO6	3	1	2	2	1	2
AVG	2.6	2	2.2	2.5	2.5	2.2

(1-Weakly related 2-Moderately related 3- Strongly related)

References:

1. Dornbusch, Fischer and Startz, Macroeconomics, McGraw Hill, 11th edition, 2010.
2. N. Gregory Mankiw. Macroeconomics, Worth Publishers, 7th edition, 2010.
3. Olivier Blanchard, Macroeconomics, Pearson Education, Inc., 5th edition, 2009
4. Charles I. Jones, Introduction to Economic Growth, W.W. north & Company, 2nd edition, 2002
5. Andrew B. Abel and Ben S. Bernanke, Macroeconomics, Pearson Education, Inc., 7th edition, 2011
6. Errol D'Souza, Macroeconomics, Pearson Education 2009.
7. Robert J. Gordon, Macroeconomics, Prentice-Hall India Limited, 2011.

SEMESTER	IV
PAPER CODE	ECC403
TITLE	International Trade

COURSE OBJECTIVE: is to provide the students a firm foundation in the discipline of Economics. This program has a structured curricula which consists of core courses that encompass concepts, fundamental theories and general principles and provide a well-resourced learning environment for this dynamic subject. This program aims at enhancing students' ability to ask pertinent questions and to obtain solutions to these by using quantitative and qualitative reasoning, relate social reality with economics and use this knowledge for the material, social and cultural benefit

UNIT 1: Importance of Trade and Trade theories. Importance of the study of international economics; Inter-regional and international trade; Theories of absolute advantage, comparative and opportunity cost; Heckscher – Ohlin Theory of trade – its main features, assumptions and limitations

UNIT 2: Gains from Trade

Gain from Trade – their measurement and distribution: Trade as an engine of economic growth; Concept of terms of trade and their importance in the theory of trade;

UNIT 3: Tariffs and Quotas

Types of tariffs and quotas; their impact in partial equilibrium analysis; Free trade and policy of tariffs in relation to economic growth with special reference to India; Concept of optimum tariff.

UNIT 4: Balance of trade and Balance Payments and multilateral agencies Concepts and components of balance of trade and Balance of Payments; Equilibrium and disequilibrium in Balance of Payments; Consequences of disequilibrium in Balance of Payments; Various measures to correct deficit in the Balance of Payments; Relative merits, demerits and limitations of devaluation; Concept and implication of foreign trade multiplier, Functions of IMF, World Bank and GATT/WTO

References:

1. Baghwati.J.N.(ed); International Trade, Selected Readings ,Cambridge University Press.
2. Kirdleberger; International Business
3. Paul R krugman, Maurice Obsfeld: International Economics ,Theory& Practice ,(Peason)

COURSE OUTCOMES

CO1:Identify the basic difference between inter-regional and international trade, understand how international trade has helped countries to acquire goods at cheaper cost and explain it through the various international trade theories.

CO2 Explain how restrictions to international trade would limit anation in the services and

goods produced within its territories and at the same time explain that a rise in international trade is essential for the growth of globalization.

CO3 To Know the foreign exchange control, BOP and BOT

COURSE ARTICULATION MATRIX

CO	PO1	PO2	PO3	PO4	PO5	PO6
CO1	3	3	3	3	2	1
CO2	2	3	2	2	3	2
CO3	3	2	1	3	1	3
AVG	2.33	2.33	2	2.33	2	2

(1-Weakly related 2-Moderately related 3- Strongly related)

SEMESTER	IV
PAPER CODE	SEC-II
TITLE	Research Methodology

COURSE OBJECTIVE: is to provide the students a firm foundation in the discipline of Economics. This program has a structured curricula which consists of core courses that encompass concepts, fundamental theories and general principles and provide a well-resourced learning environment for this dynamic subject. This program aims at enhancing students' ability to ask pertinent questions and to obtain solutions to these by using quantitative and qualitative reasoning, relate social reality with economics and use this knowledge for the material, social and cultural benefit

UNIT 1: Introduction to Research

The concept of research, characteristics of good research, Application of Research, Meaning and sources of Research problem, characteristics of good Research problem, Research process, outcomes, application of Research, Meaning and types of Research hypothesis, Importance of Review of Literature, Organizing the Review of Literature.

UNIT 2: Types of Research

Types of research, pure (basic, fundamental) and applied research, qualitative and quantitative. Research Design : Meaning, need, types of research design – Exploratory, Descriptive, Casual research Design, Components of research design, and Features of good Research design. Experiments, surveys and case study Research design.

UNIT 3: Sampling, Data Collection and analysis

Types and sources of data – Primary and secondary, Methods of collecting data, Concept of sampling and sampling methods – sampling frame, sample, characteristics of good sample, simple random sampling, purposive sampling, convenience sampling, snowball sampling, classification and tabulation of data, graphical representation of data, graphs and charts – Histograms, frequency polygon and frequency curves, bell shaped curve and its properties. Statistical Methods for Data Analysis : Applications of Statistics in Research, measures of central tendency and dispersion.

UNIT 4: Research Report

Research report and its structure, journal articles – Components of journal article. Explanation of various components. Structure of an abstract and keywords. Thesis and dissertations . components of thesis and dissertations. Referencing styles and bibliography.

UNIT 5: Ethics in Research

Plagiarism - Definition, different forms, consequences, unintentional plagiarism, copyright infringement, collaborative work. Qualities of good Researcher.

UNIT 6: ICT Tools for Research

Role of computers in research, maintenance of data using software such as Mendeley, Endnote, Tabulation and graphical presentation of research data and software tools. Web search : Introduction to Internet, use of Internet and WWW, using search engines and advanced search tools.

References:

1. Donald Cooper and PS Schindler (2009) Business Research Methods, 9th edition, Tata McGraw Hill.
2. Kothari C. R Research Methodology
3. Uma Sekaran (2010) Research Methods for Business, 4th edition, Wiley.
4. Ranjit Kumar (2009) Research Methodology, 2nd edition, Pearson Education
5. Naresh Malhotra and S Dash (2009) Marketing Research, 5th edition, Pearson Prentice Hall.
6. Michael V. P Research Methodology.
7. Fred N. Kerlinger : Foundations of Behavioral Research.

COURSE OUTCOMES

CO1:To enable students to develop a knack for research

CO2:To help students know the basics of reearch.

CO3::To enlighten the students regarding the methodology of research.

COURSE ARTICULATION MATRIX

CO1	3	3	3	3	2	1
CO2	2	3	2	2	3	2
CO3	3	2	1	3	1	3
AVG	2.33	2.33	2	2.33	2	2

(1-Weakly related 2-Moderately related 3- Strongly related)

SEMESTER	IV
PAPER CODE	GE-IV
TITLE	History of India-IV

COURSE OBJECTIVE: is to provide the students a firm foundation in the discipline of Economics. This program has a structured curricula which consists of core courses that encompass concepts, fundamental theories and general principles and provide a well-resourced learning environment for this dynamic subject. This program aims at enhancing students' ability to ask pertinent questions and to obtain solutions to these by using quantitative and qualitative reasoning, relate social reality with economics and use this knowledge for the material, social and cultural benefit

Unit I:

Popular resistance to colonial rule:
Peasant and Tribal Movements-Indigo
Workers; Santhal ; Revolt of 1857

Unit II:

Rise of Nationalism: Emergence of Nationalism;
Origin of Indian National Congress (INC);
Moderates; Extremist; Partition of Bengal;
Swadeshi Movement; Home Rule League.

Unit III:

Constitutional development:
Government of India Acts-1909, 1919,1935.

Unit IV:

National movement:
Rise of Gandhi; Non-cooperation
Movement; Civil Disobedience Movement;
Quit India; Indian National Army (INA).

Unit V:

Towards Independence:
Communalism; Partition; Transfer of
Power; Integration of the Indian States;
Making of the Indian Constitution.

Reference:

1. Bipan Chandra, India struggle for independence, 1851-1947
2. Bipan Chandra, History of modern India
3. Bipan Chandra, Nationalism and colonialism in modern India.
4. Sekhat Bandopandhya, Plassey to Partition.
5. Yogendra Singh, Modernisation of Indian Tradition.
6. C.A Bayly, Indian Society and the Making of the British Empire.
7. A.R. Desai, Social Background of Indian Nationalism
8. Dhama Kumar & Tapan Raychaudhuri ,ed., Cambridge Economic History of India, Vol. I

COURSE OUTCOME

CO1:To enable the students to be wellversed in the events of the past

CO2:To facilitate the self corrective mechanim for students

CO3:To develop an interdisciplinary approach

COURSE ARTICULATION MATRI

CO	PO1	PO2	PO3	PO4	PO5	PO6	
CO1	3	3	3	3	2	1	
CO2	2	3	2	2	3	2	
CO3	3	2	1	3	1	3	
AVG	2.3 3	2.3 3	2	2.3 3	2	2	

(1-Weakly related 2-Moderately related 3- Strongly related)

SEMESTER V

SEMESTER	V
PAPER CODE	ECC501
TITLE	Indian Economy

COURSE OBJECTIVE: is to provide the students a firm foundation in the discipline of Economics. This program has a structured curricula which consists of core courses that encompass concepts, fundamental theories and general principles and provide a well-resourced learning environment for this dynamic subject. This program aims at enhancing students' ability to ask pertinent questions and to obtain solutions to these by using quantitative and qualitative reasoning, relate social reality with economics and use this knowledge for the material, social and cultural benefit

UNIT 1: Economic Development since Independence

Major feature of the economy at independence; growth and development under different policy regimes – goals, constraints, institution and policy framework; an assessment of performance – sustainability and regional contrasts; structural change, savings and investment.

UNIT 2: Population and Human Development

Demographic trends and issues; health and malnutrition.

UNIT 3: Growth and Distribution

Trends and policies in poverty, inequality and unemployment.

UNIT 4: India's foreign trade

Composition, direction trends, balance of payment situation

UNIT 5: Policies and Performance in Agriculture

Growth; productivity; agrarian structure and technology; capital formation; trade, pricing and procurement.

UNIT 6: Policies and Performance in Industry

Growth; productivity diversification; small scale industries; public sector; competition policy; foreign investment.

UNIT 7: Some recent initiative for inclusive development

Make in India, Skill India Mission, Jan Dhan Yojana, National Rural Livelihood Mission, and MNREGA etc.

UNIT 8: Introduction to Jharkhand Economy

Structure, trends, Demography

References:

1. Jean Dreze and Amartya Sen 2013. An Uncertain Glory: India and its Contradictions, Princeton University Press.
2. Pulapre Bankrishnan, 2007, the Recovery of India: Economic Growth in the Nehru Era, Economic and Political Weekly, November.

COURSE OUTCOMES

CO1• The course highlights the achievements and issues of the economy.

CO2• To explain sector specific policies and their impact in shaping trends in key economic indicators in India.

CO3• To understand the basic concept of economic growth and the features of Indian Economy.

CO4• To narrate effectively about role of Industrialization, New industrial programs and policies concerning Industrial Development in India.

COURSE ARTICULATION MATRIX

CO	PO1	PO2	PO3	PO4	PO5	PO6
CO1	3	2	3	3	2	2
CO2	3	3	2	1	3	3
CO3	2	2	3	2	2	3
CO4	3	3	2	2	1	2
AVG	2.75	2.5	2.5	2	2	2.5

(1-Weakly related 2-Moderately related 3- Strongly related)

SEMESTER	V
PAPER CODE	ECC502
TITLE	Development Economics

COURSE OBJECTIVE: is to provide the students a firm foundation in the discipline of Economics. This program has a structured curricula which consists of core courses that encompass concepts, fundamental theories and general principles and provide a well-resourced learning environment for this dynamic subject. This program aims at enhancing students' ability to ask pertinent questions and to obtain solutions to these by using quantitative and qualitative reasoning, relate social reality with economics and use this knowledge for the material, social and cultural benefit

UNIT 1: Conceptions of development

Alternative measures of development, HDI, GDI, GEM international comparisons

UNIT 2: Growth models and Empirics

The Harrod-Domar model, the Solow and its variants, endogenous models and evidence on the determinations of growth

UNIT 3: Poverty and Inequality

Definitions, Measures and Mechanisms Inequality axioms; a comparison of commonly used inequality measure; connections between inequality and development; poverty measurement; characteristics of the poor; mechanisms that generate poverty traps and path dependence of growth processes.

UNIT 4: Role of Planning Commission, NITI Aayog and future of Planning**COURSE OUTCOME**

CO1: The student will be able to understand the theories of growth and development and the problems and challenges of the developing world.

CO2• To equip students with the ability to understand the factors affecting the long run economic growth, both from a positive and negative sense.

CO3• To develop and understanding of the interrelations between man and nature, economic activities and limited resources, economic growth and development.

COURSE ARTICULATION MATRIX

CO	PO1	PO2	PO3	PO4	PO5	PO6
CO1	3	3	3	3	2	1
CO2	2	3	2	2	3	2
CO3	3	2	1	3	1	3
AVG	2.33	2.33	2	2.33	2	2

(1-Weakly related 2-Moderately related 3- Strongly related)

References:

1. Debraj Raj, Development Economics, Oxford University Press, 2009.
2. Partha Dasgupta, Economics, A Very Short Introduction, Oxford University Press, 2007.
3. Abhijit Banerjee, Roland Benabou and Dilip Mookerjee, Understanding Poverty, Oxford University Press 2006.
4. Kaushik Basu, The Oxford Companion to Economics in India, OUP, 2007.
5. Amartya Sen, Development as Freedom, OUP, 2000.
6. Daron Acemoglu and James Robinson, Economic Origins of Dictatorship and Democracy, Cambridge University Press, 2006
7. Robert Putnam, Making Democracy Work; Civic Traditions in Modern Italy Princeton University Press, 1994

SEMESTER	V
PAPER CODE	ECCDSE1501A
TITLE	Advanced Mathematical Economics

COURSE OBJECTIVE: is to provide the students a firm foundation in the discipline of Economics. This program has a structured curricula which consists of core courses that encompass concepts, fundamental theories and general principles and provide a well-resourced learning environment for this dynamic subject. This program aims at enhancing students' ability to ask pertinent questions and to obtain solutions to these by using quantitative and qualitative reasoning, relate social reality with economics and use this knowledge for the material, social and cultural benefit

UNIT 1: Functions of two and more than two variables

Diagrammatic representation of plane sections of surfaces; Functions of several variable in economic theory; Production function and iso product curves; Utility function and indifference curves.

UNIT 2: Constrained Maximum and Minimum Values

Consumer's equilibrium, Producer's equilibrium, Expansion path

UNIT 3: Partial Derivatives and Total Differentials

Technique of Partial differentiation; Economic applications of partial derivatives – homogeneous functions , Euler's theory and other properties of homogeneous production function; Linear and homogeneous production function – Cobb-Douglas production function; Concept and technique of total differentiation; Economic application of total differentiation – marginal rate of substitution and elasticity of substitution.

UNIT 4: Integral calculus and Differential Equations

Definite integrals, Indefinite integrals and inverse differentiation, Relation between average and marginal concepts, Linear differential equation and their integration, Simultaneous linear differential equations, Orthogonal curves and surface systems; Other differential equations; Dynamic forms of demand supply function.

UNIT 5: Market Structure/Pricing

Concept of equilibrium of the firm under perfect competition; Monopoly; Price discrimination; Monopolistic Competition; subsidies and taxes; economies of scale; market equilibrium.

UNIT 6: Matrix Algebra

Types of Matrices; Determinants – Inverse, rank, Cremer's rule; Simultaneous equations – homogeneous, non – homogeneous;

UNIT 7: Input –output Analysis, Linear Programming

Input- output analysis; the simple closed and open model; Simon-Hawkins condition; Linear Programming – basic concepts, primal and dual, basic theorems of Linear Programming; graphical method.

UNIT 8: Game Theory

Introduction and concepts – simple and mixed strategy; saddle point solution; prisoners dilemma; pay-off matrix of a game – two-person-two commodity and zero-sum game.

References:

1. A.C.Chiang- Fundamentals of Mathematical Economics, Mc Graw Hill. New York
2. R.G.D Allen- Mathematics for Economics, Mc Milan Press.
3. Taro Yamane- Mathematics for Economics- An Elementary Survey Prentice Hall of India, Pvt.Ltd.New Delhi

COURSE OUTCOMES

CO1. To develop analytical skills.

CO2.To use and explain the underlying principles, terminology, methods, techniques and conventions used in the subject.

CO3. To develop an understanding of differential and difference equations techniques used in economic theory.

CO4. To encourage students to think about applying these mathematical tools in their own research, if necessary, with suitable modifications.

CO5. To solve economic problems using the mathematical methods described in the course

COURSE ARTICULATION MATRIX

CO	PO1	PO2	PO3	PO4	PO5	PO6
CO1	2	3	2	3	2	2
CO2	3	2	2	2	3	3
CO3	2	3	2	2	2	2
CO4	2	2	2	3	3	3
CO5	2	2	2	2	2	2
AVG	2.2	2.4	2	2.4	2.4	2.4

(1-Weakly related 2-Moderately related 3- Strongly related)

SEMESTER	V
PAPER CODE	ECCDSE1501B
TITLE	Economics of Agriculture

COURSE OBJECTIVE: is to provide the students a firm foundation in the discipline of Economics. This program has a structured curricula which consists of core courses that encompass concepts, fundamental theories and general principles and provide a well-resourced learning environment for this dynamic subject. This program aims at enhancing students' ability to ask pertinent questions and to obtain solutions to these by using quantitative and qualitative reasoning, relate social reality with economics and use this knowledge for the material, social and cultural benefit

UNIT 1: Rural Economy of India

Structure of Indian economy; place of agriculture in rural economy; composition of the Indian rural economy; Farm sector and non-farm sector; diversification of agriculture; agriculture and allied activities (Fisheries, horticulture, floriculture); in India; its growth, problems and state policies, cattle wealth of India and dairying; rural industrialization : food processing and agro based industries; development of rural infrastructure.

UNIT 2: Development of Agriculture

Role and important of agriculture in economic development: linkages between the agriculture sector and the non agriculture sector, changing nature of linkages; agricultural recourses in India: land utilization cropping pattern; irrigation in India, command area development and flood control; trends in agriculture growth and agriculture productivity; pattern of agricultural development: regional variation Agrarian relations, Land reforms and Agricultural Labor in India Agrarian relations, historical evolution. Land reforms program during post independence in India; Agricultural labor, characteristics and problems.

UNIT 3: Technological Changes in Agriculture

Technological in agriculture; traditional techniques and practices; HYV seeds – fertilizer, water technology (green revolution); sustainable agriculture; emerging trends in agricultural technology; dry land farming; use of bio-technology techniques.

UNIT 4: State and Agriculture

Agriculture finance in India; importance; types of requirements; sources; non-institutional and institutional; existing rural credit delivery system (multiagency approach); agricultural marketing in India; markets and marketing functions, channels of distribution of various commodities, regulated market and warehousing; role of cooperatives in agriculture. Agriculture planning in India: decentralized planning and indicative planning; incentives in agriculture; price and non-price incentives; input subsidies; agriculture Price policies (APP), Nature of demand and supply of agricultural products, need for state intervention; objectives of APP instruments and evaluation; food security in India and public distribution system.

References:

1. Dutt, R. KPM Sundharam: Indian Economy
2. Mishra, S.K.& V.K. Puri: Indian Economy
3. Govt. of India: Economic Survey
4. Mishra & Puri: Bhartiya Arthashastra

COURSE OUTCOME

CO1•The course highlights the achievements and issues of the economy.

CO2•To explain sector specific policies and their impact in shaping trends in key economic indicators in India.

CO3•To understand the basic concept of economic growth and the features of Indian Economy.

CO4•To narrate effectively about role of Industrialization, New industrial programs and policies concerning Industrial Development in India

COURSE ARTICULATION MATRIX

CO	PO1	PO2	PO3	PO4	PO5	PO6
CO1	3	2	3	3	2	2
CO2	3	3	2	1	3	3
CO3	2	2	3	2	2	3
CO4	3	3	2	2	1	2
AVG	2.75	2.5	2.5	2	2	2.5

(1-Weakly related 2-Moderately related 3- Strongly related)

SEMESTER	V
PAPER CODE	ECCDSE2502A
TITLE	Economics of Health & Education

COURSE OBJECTIVE: is to provide the students a firm foundation in the discipline of Economics. This program has a structured curricula which consists of core courses that encompass concepts, fundamental theories and general principles and provide a well-resourced learning environment for this dynamic subject. This program aims at enhancing students' ability to ask pertinent questions and to obtain solutions to these by using quantitative and qualitative reasoning, relate social reality with economics and use this knowledge for the material, social and cultural benefit

UNIT 1: Role of Health and Education in Human Development

Importance in poverty alleviation; health and education outcomes and their relationship with macroeconomic performance.

UNIT 2: Microeconomic Foundations of Health Economics

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

Costing, cost effectiveness and cost-benefit analysis; burden of disease.

UNIT 4: Health Sector in India

An Overview Health outcomes; Health systems; health financing.

UNIT 5: Education

Investment in Human Capital Rate of return to education: private and social; quality of education; significance of human capital; theories of discrimination; gender and caste discrimination in India.

UNIT 6: Education Sector in India

An Overview Literacy rates, school participation, school quality measures.

References:

1. William, Jack Principles of Health Economics for Developing Countries, World Bank Institute Development Studies, 1999.
2. World Development Report, Investing in Health, The World Bank, 1993.●

3. Ronald G., Ehrenberg and Robert S., Smith, Modern Labor Economics: Theory and Public Policy, Addison Wesley, 2005.

COURSE OUTCOME

CO1•The student will be able to understand the theories of growth and development and the problems and challenges of the developing world.

CO2•To equip students with the ability to understand the factors affecting the long run economic growth, both from a positive and negative sense.

CO3•To develop and understanding of the interrelations between man and nature, economic activities and limited resources, economic growth and development.

COURSE ARTICULATION MATRIX

CO	PO1	PO2	PO3	PO4	PO5	PO6
CO1	3	3	3	3	2	1
CO2	2	3	2	2	3	2
CO3	3	2	1	3	1	3
AVG	2.33	2.33	2	2.33	2	2

(1-Weakly related 2-Moderately related 3- Strongly related)

SEMESTER	V
PAPER CODE	ECCDSE2502B
TITLE	Demography

COURSE OBJECTIVE: is to provide the students a firm foundation in the discipline of Economics. This program has a structured curricula which consists of core courses that encompass concepts, fundamental theories and general principles and provide a well-resourced learning environment for this dynamic subject. This program aims at enhancing students' ability to ask pertinent questions and to obtain solutions to these by using quantitative and qualitative reasoning, relate social reality with economics and use this knowledge for the material, social and cultural benefit

UNIT 1: Introduction

Population study and demography; its relation with other disciplines; Theories of population— Malthus, Optimum Theory of population and Theory of demographic transition; Historical Evidence of population growth in developed and developing countries, Demographic Characteristics of Developed and Under Developed countries.

UNIT 2: Sources of Demographic Data in India

Sources of Demographic data in India; Census - civil registration system and demographic surveys, National Family Health Survey I and II — their relative merits and demerits.

UNIT 3: Health Survey Techniques of Analysis

Crude birth and death rates, age Specific birth and death rates; standardized birth and death

rates - study of fertility; total fertility rate, gross reproduction rate and net reproduction rate; study of marital status — life table; meaning of its columns and its uses; reproductive and child health in India — temporal and spatial variation in sex ratios.

UNIT 4: Population Projection

Techniques of population projection — concept of stationary, stable and quasi- stationary population; ageing of population in India — changes in family structure and old age security.

UNIT 5: Population Policy

Salient feature of population census of 1971,1981,1991,2001 and 2011; evolution of population policy in India; shift in policy focus from population control to family welfare and to women empowerment; demographic status and household behavior — education, women's autonomy and fertility - Population, health, poverty and environment linkage in India; the new population policy.

References:

1. I Agrawal U.D. (1999), Population Projections and Their Accuracy, B.R. Publishing Corporation, New Delhi
2. Bhende, A.A. and T.R. Kanitkar: Principles of Population Studies, Himalaya Publishing House Bombay.
3. Bogue, D.G.: Principles of Demography

COURSE OUTCOME

- To examine the difference between demography and population studies
- To explain the various concepts of Demography
- To analyze the relationship between Population growth and Economic development
- To describe the Theories of Population
- To evaluate the Population Policies
- To compare population data across different countries.

COURSE ARTICULATION MATRIX

CO	PO1	PO2	PO3	PO4	PO5	PO6
CO1	2	3	2	3	2	2
CO2	3	2	3	2	3	3
CO3	2	3	2	2	3	3
CO4	3	1	1	2	2	2
CO5	2	2	3	3	3	1
CO6	3	1	2	2	1	2
AVG	2.6	2	2.2	2.5	2.5	2.2

(1-Weakly related 2-Moderately related 3- Strongly related)

SEMESTER VI

SEMESTER	VI
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PAPER CODE	ECC601
TITLE	History of Economic Thought

COURSE OBJECTIVE: is to provide the students a firm foundation in the discipline of Economics. This program has a structured curricula which consists of core courses that encompass concepts, fundamental theories and general principles and provide a well-resourced learning environment for this dynamic subject. This program aims at enhancing students' ability to ask pertinent questions and to obtain solutions to these by using quantitative and qualitative reasoning, relate social reality with economics and use this knowledge for the material, social and cultural benefit

UNIT 1: Early period

Mercantilism – Main Characteristics, Thomas Munn – Physiocracy, Natural order, Primacy of Agriculture, Social classes, Tableau Economique, Taxation, Turgot – Economic ideas of Petty, Locke and Hume.

UNIT 2: Classical period

Adam Smith – Division of labour, Theory of value, Capital accumulation, Distribution, Views on Trade Economic Progress; David Ricardo – Value, Theory of Rent, Distribution, Ideas on Economic Development and International Trade; Thomas R. Malthus – Theory of Population, Sismondi, Karl Marx – Dynamic ideas of J.B. Say, J. S. Mill, Historical School – Senior, List.

UNIT 3: Marginalists

The precursors of marginalism – Cournot, Thunen, Gossen; The Marginalist revolution, Jevons, Wlaras and Manger; Bohm-Bawark, Wicksell and Fisher; the rate fo interest Wickstead and Weiser; Distribution-Marshall as a great synthesizer, role of time in price determination, economics methods, ideas on consumer's surplus, elasticities, prime and supplementary costs, representative firm, external and internal economics, quasi-rent, organisation as a factors of production, nature of profits; Pigou; Walfare Economics; Schumpeter; Role of entrepreneur and innovations.

UNIT 4: Indian economic thought

Modern Economic ideas; Naoraoji, Ranade; Economic ideas of Gandhi; Village, Swadeshi, place of machine and labour, cottage industriestrusteeship.

References:

1. Bhatia H.L. History of Economic Thought, VikasPublishingHouse.
2. Blaug, M. (1997), Economic Theory in Retrospect: A History of Economics
3. Gide, C and G. Rist(1956), A History of Economic Doctrine (2 nd Ed.), George Harrod and Co. London.
4. 4. Gide, A. and A.E. Thomson (1980), The Development of Economic Doctrine (2 nd Ed.), Longman Group, London.

COURSE OUTCOME

- CO1• The study of Economic Thought will help us to understand the origin of economics.
- .CO2• Analyze the different schools of economic thought.
- CO3• Compare and contrast different schools of economic thought.
- CO4• Compare and contrast different property arrangements.
- CO5• Comprehend the impact of the nature of man on property arrangements.
- CO6• Analyse the role of the government in the economy.

COURSE ARTICULATION MATRIX

CO	PO1	PO2	PO3	PO4	PO5	PO6	
CO1	2	3	2	3	2	2	
CO2	3	2	3	2	3	3	
CO3	2	3	2	2	3	3	
CO4	3	1	1	2	2	2	
CO5	2	2	3	3	3	1	
CO6	3	1	2	2	1	2	
AVG	2.6	2	2.2	2.5	2.5	2.2	

(1-Weakly related 2-Moderately related 3- Strongly related)

SEMESTER	VI
PAPER CODE	ECC602
TITLE	Money Banking & Financial Market

COURSE OBJECTIVE: is to provide the students a firm foundation in the discipline of Economics. This program has a structured curricula which consists of core courses that encompass concepts, fundamental theories and general principles and provide a well-resourced learning environment for this dynamic subject. This program aims at enhancing students' ability to ask pertinent questions and to obtain solutions to these by using quantitative and qualitative reasoning, relate social reality with economics and use this knowledge for the material, social and cultural benefit

UNIT 1: Money

Concept, functions, measurement; theories of money supply determination.

UNIT 2: 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: Banking System

(a) Balance sheet and portfolio management.

(b) Indian banking system: Changing role and structure; banking sector reforms.

UNIT 4: Central Banking and Monetary Policy

Functions, balance sheet; goals, indicators and instruments of monetary control; monetary management in an open economy; current monetary policy of India.

References:

1. F.S. Mishkin and S. G. Eakins, Financial Markets and institution, Pearson Education, 6 the edition, 2009.
2. F. J. Fabozzi, f Modigliani, F. J. Jones, M. G. Ferri, Foundations of Financial markets and Institutions, Pearson Education, 3rd editin. 2009.
3. L.M. Bhole and J. mahukud, financial Institutions and Markets, Tata McGraw Hill, 5th edition, 2011.
4. M.Y khan, Indian Financial System, Tata McGraw Hill, 7th edition, 2011

COURSE OUTCOME

CO1• It attempts to impart an understanding of monetary economics.

CO2• It describes carefully the basics of monetary economics like money, value of money, theories of money, banking and international financial institutions.

CO3• To understand the concepts and functions of money, supply of money.

CO4• To know the working of money market, banking and financial system.

COURSE ARTICULATION MATRIX

CO	PO1	PO2	PO3	PO4	PO5	PO6
CO1	3	2	3	3	2	2
CO2	3	3	2	1	3	3
CO3	2	2	3	2	2	3
CO4	3	3	2	2	1	2
AVG	2.75	2.5	2.5	2	2	2.5

(1-Weakly related 2-Moderately related 3- Strongly related)

SEMESTER	VI
PAPER CODE	ECCDSE3601C
TITLE	Elementary Econometrics

COURSE OBJECTIVE: is to provide the students a firm foundation in the discipline of Economics. This program has a structured curricula which consists of core courses that encompass concepts, fundamental theories and general principles and provide a well-resourced learning environment for this dynamic subject. This program aims at enhancing students' ability to ask pertinent questions and to obtain solutions to these by using quantitative and qualitative reasoning, relate social reality with economics and use this knowledge for the material, social and cultural benefit

UNIT 1: Nature and Scope of Econometrics

UNIT 2: Statistical Concepts

Normal Distribution; (χ^2) chi-sq, t- and F – distribution; estimation of parameters; properties of estimators; testing of hypotheses: defining statistical hypotheses; distributions of test statistics; testing hypotheses related to population parameters; type I and II errors; power of a test; tests for comparing parameters from two samples.

UNIT 3: Simple Linear Regression Model

Two Variable Case Estimation of model by method of ordinary least squares; properties of estimators; goodness of fit; tests of hypotheses; scaling and units and units of measurement; confidence intervals; Gaussmarkov theorem; forecasting.

UNIT 4: Multiple Linear Regression Model

Estimation of parameters; properties of OLS estimators; goodness of fit and adjusted partial regression coefficients; testing hypotheses-individual and joint; functional form of regression models; qualitative (dummy) independent variables

UNIT 5: Violation of Classical Assumptions; Consequences, Detection and Remedies
Multicollinearity; heteroscedasticity; serial correlation.

UNIT 6: Specification Analysis

Omission of a relevant variable; inclusion of irrelevant variable; tests of specification errors.

References:

1. Jay L. Devore, probability and Statistics for Engineers. Cengage Learning, 2010.
2. John. E freund, Mathematical Statistics, Prentice Hall, 1992
3. Richard J. Larsen and Morris L. Marx, an Introduction to Mathematical Statistics and its Applications, Prentice Hall, 2011.
4. D.N. Gujarati and D.C. Porter, Essentials of Econometrics, McGraw Hill 4th edition, International Edition, 2009.
5. Christopher Dougherty, Introduction to Econometrics, Oxford University Press, 3rd edition, Indian edition, 2007

COURSE OUTCOME

CO1. To develop analytical skills.

CO2. To use and explain the underlying principles, terminology, methods, techniques and conventions used in the subject.

CO3. To develop an understanding of differential and difference equations techniques used

in economic theory.

CO4. To encourage students to think about applying these mathematical tools in their own research, if necessary, with suitable modifications.

CO5. To solve economic problems using the mathematical methods described in the course.

COURSE ARTICULATION MATRIX

CO	PO1	PO2	PO3	PO4	PO5	PO6
CO1	2	3	3	2	2	2
CO2	3	2	2	3	2	2
CO3	3	2	3	3	3	2
CO4	2	3	3	2	2	3
CO5	3	2	2	1	1	2
AVG	2.6	2.4	2.6	2.2	2	2.2

(1-Weakly related 2-Moderately related 3- Strongly related)

SEMESTER	VI
PAPER CODE	ECCDSE3601D
TITLE	Agricultural Problems in India

COURSE OBJECTIVE: is to provide the students a firm foundation in the discipline of Economics. This program has a structured curricula which consists of core courses that encompass concepts, fundamental theories and general principles and provide a well-resourced learning environment for this dynamic subject. This program aims at enhancing students' ability to ask pertinent questions and to obtain solutions to these by using quantitative and qualitative reasoning, relate social reality with economics and use this knowledge for the material, social and cultural benefit

UNIT 1: Rural Economy of India

Structure of Indian economy; place of agriculture in rural economy; composition of the Indian rural economy; Farm sector and non-farm sector; diversification of agriculture; agriculture and allied activities (Fisheries, horticulture, floriculture); in India; its growth, problems and state policies, cattle wealth of India and dairying; rural industrialization : food processing and agro based industries; development of rural infrastructure.

UNIT 2: Development of Agriculture

Role and important of agriculture in economic development: linkages between the agriculture sector and the non agriculture sector, changing nature of linkages; agricultural recourses in India: land utilization cropping pattern; irrigation in India, command area development and flood control; trends in agriculture growth and agriculture productivity; pattern of agricultural development: regional variation Agrarian relations, Land reforms and Agricultural Labor in India Agrarian relations, historical evolution. Land reforms program during post independence in India; Agricultural labor, characteristics and problems.

UNIT 3: Technological Changes in Agriculture

Technological in agriculture; traditional techniques and practices; HYV seeds – fertilizer,

water technology (green revolution); sustainable agriculture; emerging trends in agricultural technology; dry land farming; use of bio-technology techniques.

UNIT 4: State and Agriculture

Agriculture finance in India; importance; types of requirements; sources; non-institutional and institutional; existing rural credit delivery system (multiagency approach); agricultural marketing in India; markets and marketing functions, channels of distribution of various commodities, regulated market and warehousing; role of cooperatives in agriculture. Agriculture planning in India: decentralized planning and indicative planning; incentives in agriculture; price and non-price incentives; input subsidies; agriculture Price policies (APP), Nature of demand and supply of agricultural products, need for state intervention; objectives of APP instruments and evaluation; food security in India and public distribution system.

References:

1. Dutt, R. KPM Sundharam: Indian Economy
2. Mishra, S.K.& V.K. Puri: Indian Economy
3. Govt. of India: Economic Survey
4. Mishra & Puri: Bhartiya Arthashastra

COURSE OUTCOME

CO1. To sensitize the overall development and engine of growth in agriculture. Draw distinctive features of rural and urban economy or agricultural and non-agricultural which can influence the whole economy.

CO2. To understand limited resources available in the economy. Realize the need to exploit and utilize through development and improvement of production techniques.

CO3. To gain knowledge of the causes of regional variations in productivity and production, social and economic inequality, size of land holdings and lack of quality inputs etc. and suggest appropriate measures for the whole economy

COURSE ARTICULATION MATRIX

CO	PO1	PO2	PO3	PO4	PO5	PO6
CO1	3	3	3	3	2	1
CO2	2	3	2	2	3	2
CO3	3	2	1	3	1	3
AVG	2.33	2.33	2	2.33	2	2

(1-Weakly related 2-Moderately related 3- Strongly related)

SEMESTER	VI	
PAPER CODE	ECCDSE4602D	
TITLE	Environmental Economics	

COURSE OBJECTIVE: is to provide the students a firm foundation in the discipline of Economics. This program has a structured curricula which consists of core courses that encompass concepts, fundamental theories and general principles and provide a well-resourced learning environment for this dynamic subject. This program aims at enhancing students' ability to ask pertinent questions and to obtain solutions to these by using quantitative and qualitative reasoning, relate social reality with economics and use this knowledge for the material, social and cultural benefit

UNIT 1: Introduction

Key environmental issues and problems, economic way of thinking about these problems, basic concepts from economics; Pareto optimality and market failure in the presence of externalities; property rights and other approaches.

UNIT 2: The Design and Implementation of Environmental Policy

Overview, Pigouvian taxes and effluent fees, tradable permits, implementation of environmental policies in India and international experience; transboundary environmental problems; economics of climate change.

UNIT 3: Environmental Valuation Methods and Applications

Valuation of non-market goods and services-theory and practice; measurement methods; costbenefit analysis of environmental policies and regulations.

UNIT 4: Sustainable Development

Concepts; measurement; perspectives from Indian experience

References:

1. Roger Perman, Yue Ma, Michael Common, David Maddison and James McGilvaray "Natural Resource and Environmental Economics", Pearson Education/Addison Wesley, 4th edition, 2011
2. Charles Kolstad, "Intermediate Environmental Economics", Oxford University Press, 2nd edition, 2010.
3. Robert N. Stavins (ed.), "Economics of the Environment : Selected reading", W.W. Norton, 6th edition, 2012
4. Robert Solow, "An Almost Practical Step toward Sustainability," Resources for the Future 40th anniversary lecture, 1992.
5. Kenneth Arrow et al., "Are We Consuming Too Much?" Journal of Economic Perspectives, 18(3): 147-172, 2004.
6. IPCC (Intergovernmental Panel on Climate Change), Fifth Assessment Report (forthcoming 2014)

COURSE OUTCOME

- CO1: The students are enabled to comprehend the real aspect of resource economics
 CO2: The environmental aspect of optimal utilization keeping in mind the constraints.
 CO3: It's a constant endeavor to help the students connect to the natural resources.
 CO4: This course is specially designed to facilitate the idea of interdisciplinary studies

COURSE ARTICULATION MATRIX

<u>CO</u>	<u>PO1</u>	<u>PO2</u>	<u>PO3</u>	<u>PO4</u>	<u>PO5</u>	<u>PO6</u>
<u>CO1</u>	<u>2</u>	<u>3</u>	<u>2</u>	<u>3</u>	<u>3</u>	<u>3</u>
<u>CO2</u>	<u>2</u>	<u>3</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>3</u>
<u>CO3</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>1</u>	<u>3</u>
<u>CO4</u>	<u>3</u>	<u>3</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>1</u>
<u>AVG</u>	<u>2.25</u>	<u>2.75</u>	<u>2</u>	<u>2.25</u>	<u>2</u>	<u>2.5</u>

(1-Weakly related 2-Moderately related 3- Strongly related)