



**S. S. Jain Subodh P.G. College (Autonomous)
Jaipur**

FACULTY OF ARTS

**Programme Name: TWO YEAR POST GRADUATE
PROGRAMME IN ARTS**

Subject/Discipline: Economics

**(Syllabus as per NEP-2020 and Choice Based Credit
System)**

Medium of Instruction: Hindi/English

w.e.f. Academic Session 2023-24

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Eligibility

M.A. 10+2+3 with 55% from any recognized University in the concerned discipline/ CGPA of 3.5 in the UGC Seven Point scale.

Scheme of Examinations

SEMESTER-I

Paper No.	Name of the Paper	Internal	External	Total	Minimum Marks	Time (End sem. exam)
Paper I	Micro Economic Theory- I	30	70	100	40	3 Hrs.
Paper II	Macro Economic Theory -I	30	70	100	40	3 Hrs.
Paper III	Mathematical Methods for Economics	30	70	100	40	3 Hrs.
Paper IV(A)	Demography-I	30	70	100	40	3 Hrs.
Paper IV (B)	Mathematical Economics - I	30	70	100	40	3 Hrs.

SEMESTER-II

Paper No.	Name of the Paper	Internal	External	Total	Minimum Marks	Time (End Sem .exam)
Paper V	Micro Economic Theory-II	30	70	100	40	3 Hrs.
Paper VI	Macro Economic Theory- II	30	70	100	40	3 Hrs.
Paper VII	Statistical Methods	30	70	100	40	3 Hrs.
Paper VIII(A)	Demography-II	30	70	100	40	3 Hrs.
Paper VIII(B)	Mathematical Economics- II	30	70	100	40	3 Hrs.

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SEMESTER-III

Paper No.	Name of the Paper	Internal	External	Total	Minimum Marks	Time (End Sem .exam)
Paper IX	Public Economics- I	30	70	100	40	3 Hrs.
Paper X	International Trade Theory	30	70	100	40	3 Hrs.
Paper XI	Economics of Development and Growth -I	30	70	100	40	3 Hrs.
Paper XII	Indian Economy- I	30	70	100	40	3Hrs.
Paper XIII(A)	History of Economic Thought-I	30	70	100	40	3 Hrs.
Paper XIII(B)	Econometrics - I	30	70	100	40	3 Hrs.
Paper XIII(C)	Survey Method	30	70	100	40	3 Hrs.

SEMESTER IV

Paper No.	Name of the Paper	Internal	External	Total	Minimum Marks	Time (endsem.exam)
Paper XIV	Public Economics- II	30	70	100	40	3 Hrs.
Paper XV	Trade Policy and International Monetary System	30	70	100	40	3 Hrs.
Paper XVI	Economics of Development and Growth -II	30	70	100	40	3 Hrs.
Paper XVII	Indian Economy- II				40	
Paper XVIII(A)	History of Economic Thought-II	30	70	100	40	3 Hrs.
Paper XVIII(B)	Econometrics - II	30	70	100	40	3 Hrs.
Paper XVIII(C)	Dissertations	40	60	100	40	-

Examination Scheme

Particular	Marks of each question		
			TOTAL END SEM. EXAM
I	10 Questions(very short answer questions) of mark 1 each	10*1=10	10
II	3 Questions (1 question from each unit with internal choice)	3*20	60
TOTAL			70

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Semester Structure

Course Details Semester I

Paper Code	Name of the Paper (DSC/DSE)	Credits
ECO 101	DSC-I Micro Economic Theory — I	06
ECO 102	DSC-II Macro Economic Theory — I	06
ECO 103	DSC-III Mathematical Methods for Economics	06
ECO A01 ECO A02	Choose One From Pool Of Course: DSE-IV Demography-I DSE-V Mathematical Economics – I	06
	Total	24

Semester II

Paper Code	Name of the Paper (DSC/DSE)	Credits
ECO 201	DSC-I Micro Economic Theory — II	06
ECO 202	DSC-II Macro Economic Theory — II	06
ECO 203	DSC-III Statistical Methods	06
ECO B01 ECO B02	Choose One From Pool Of Course: DSE-IV Demography-II DSE-V Mathematical Economics – II	06
	Total	24

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Semester III

Paper Code	Name of the Paper (DSC/DSE)	Credits
ECO 301	DSC-I Public Economics- I	06
ECO 302	DSC-II International Trade Theory	06
ECO 303	DSC-III Economics of Development and Growth -I	06
ECO 304	DSC-IV Indian Economy- I	06
	Choose One From Pool Of Course:	06
ECO C01	DSE-V History of Economic Thought-I	
ECO C02	DSE-VI Econometrics - I	
ECO C03	DSE-VII Survey Method	
	Total	30

Semester IV

Paper Code	Name of the Paper (DSC/DSE)	Credits
ECO 401	DSC-I Public Economics- II	06
ECO 402	DSC-II Trade Policy and International Monetary System	06
ECO 403	DSC-III Economics of Development and Growth -II	06
ECO 404	DSC-IV Indian Economy- II	06
	Choose One From Pool Of Course:	06
ECO D01	DSE-V History of Economic Thought-II	
ECO D02	DSE-VI Econometrics - II	
ECO D03	DSE-VII Dissertations	
	Total	30

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Programme Outcomes

- The Master of Arts programme in Economics has been designed with the objective to develop in-depth knowledge of students in frontier areas of economic theory and methods, so that they are able to use the knowledge to study real world economic problems.
- The course has a strong focus on theoretical and quantitative skills and train students in the collection and analysis of the data using their software skills. The programme offers specialised optional courses, which allow student to pursue their studies in their area of interest. Besides, to hone the student's writing and analytical skills they are required to submit a term paper on current economic problem. Thus, the Masters in Economics programme seek to:
 1. Prepare students to develop critical thinking to carry out investigation about various socio-economic issues objectively while bridging the gap between theory and practice.
 2. Equip the student with skills to analyse problems, formulate an hypothesis, evaluate and validate results and draw reasonable conclusions thereof.
 3. Prepare students for pursuing research or careers that provide employment through entrepreneurship and innovative methods. Because today's unemployment problem can also be solved by developing the micro and small entrepreneurship
 4. Prepare students to develop own thinking /opinion regarding current national or international policies and issues
 5. Create awareness to become a rational and an enlightened citizen so that they can take the responsibility to spread the governments' initiatives/schemes to the rural areas for the upliftment of the poor or vulnerable section of the society for inclusive growth

At the end of the programme, the students will have adequate competency in the frontier areas of economic theory and methods. The students will acquire additional specialisation through optional courses. They will be able to use common software for analysis of economic data. Besides, students will be able to execute in-depth analysis of economic issues based on their understanding of economic theory, which will not only widen their opportunities for employment, but also help them to pursue their doctoral studies.

COURSE DETAILS SEMESTER-I

S.NO	Subject Code	Course Title	Course Category	Credit	Contact Hours Per Week			ESE Duration (Hrs.)	
					L	T	P	THEORY	PRACTICAL
1.	ECO 101	Micro Economic Theory — I	DSC	6	6			3	
2.	ECO 102	Macro Economic Theory — I	DSC	6	6			3	
3.	ECO 103	Mathematical Methods for Economics	DSC	6	6			3	
4.		Choose One From Pool Of Course:	DSE	6	6			3	
	ECO A01	Demography-I							
	ECO A02	Mathematical Economics –I							

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SEMESTER-II

S.NO.	Subject Code	Course Title	Course Category	Credit	Contact Hours Per Week			ESE Duration (Hrs.)	
					L	T	P	THEORY	PRACTICAL
1.	ECO 201	Micro Economic Theory — II	DSC	6	6			3	
2.	ECO 202	Macro Economic Theory — II	DSC	6	6			3	
3.	ECO 203	Statistical Methods	DSC	6	6			3	
4.		Choose One From Pool Of Course:	DSE	6	6			3	
	ECO B01	Demography- II							
	ECO B02	Mathematical Economics – II							

SEMESTER-III

S.NO.	Subject Code	Course Title	Course Category	Credit	Contact Hours Per Week			ESE Duration (Hrs.)	
					L	T	P	THEORY	PRACTICAL
1.	ECO 301	Public Economics- I	DSC	6	6			3	
2.	ECO 302	International Trade Theory	DSC	6	6			3	
3.	ECO 303	Economics of Development and Growth -I	DSC	6	6			3	
4.	ECO 304	Indian Economy- I	DSC	6	6			3	
5.		Choose One From Pool Of Course:	DSE	6	6			3	
	ECO C01	History of Economic Thought-I							
	ECO C02	Econometrics-I							
	ECO C03	Survey Method							

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SEMESTER-IV

S.NO	Subject Code	Course Title	Course Category	Credit	Contact Hours Per Week			ESE Duration (Hrs.)	
					L	T	P	THEOR Y	PRACTICAL
1.	ECO 401	Public Economics- II	DSC	6	6			3	
2.	ECO402	Trade Policy and International Monetary System	DSC	6	6			3	
3.	ECO 403	Economics of Development and Growth -II	DSC	6	6			3	
4.	ECO 404	Indian Economy- II	DSC	6	6			3	
5.		Choose One From Pool Of Course:	DSE	6	6			3	
	ECO D01	History of Economic Thought-II							
	ECO D02	Econometrics-II							
	ECO D03	Dissertations							

Course Category

DSC: Discipline Specific Core
DSCP: Discipline Specific Core Practical
DSE: Discipline Specific Elective
DSEP: Discipline Specific Elective Practical
GE : General Elective
AEC: Ability Enhancement Course
AECC: Ability Enhancement Compulsory Course
SEC: Skill Enhancement Course
SEM: Seminar
PRJ: Project Work
RP: Research Publication

Contact Hours

L: Lecture
T: Tutorial
P: Practical
 Or
Other S: Self Study

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Semester- I

Paper I —Microeconomic Theory — I(6Credit)

Note: There will be two parts in end semester paper.

Part A of the paper consists 10 short answer questions carrying 1 mark each.

Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each.

Objective:

The objective of this paper is to rigorously and comprehensively equip the students with theoretical concepts, methodology and process of reasoning involved in analysing economic behaviour of individuals, firms in perfect and monopoly competition and markets using, in general, a static and partial equilibrium framework.

Course Learning Outcomes

Three main learning outcomes are envisaged. First, the student should develop a sound understanding of the core concepts that economists use to understand the world of business, trade and public policy. Second, the course will familiarize students with the mathematical techniques that economists routinely use in their analysis. Finally, we will try to illustrate the usefulness of the abstract ideas and concepts introduced in the course with the aid of suitable applications to real world problems.

Unit— I(20 hrs)

Consumer Choice: Utility function and Indifference Curve Analysis- Bad, Neutral, Optimal Choice, Corner Solutions. Price, Income and Substitution Effects. Engel Curves. Slutsky Theorem and Derivation of Demand Curve. Consumer Surplus. Elasticity of Demand- Laffer Curve. Network Externalities- Bandwagon Effect, Snob Effect, Veblen Effect, Revealed Preference Theory. Choice under Risk and Uncertainty.

Unit—II(15hrs)

Production Function in short run and long run- Law of variable proportion and Returns to Scale. Ridge lines, Expansion Path. Forms of Production Function: Cobb-Douglas, Fixed Coefficient and CES. Elasticity of Technical Substitution, Capital and labor Deepening Technical Progress through Isoquants.

Unit— III(25 hrs)

Concept of Cost: Short and long Run Cost Curves. Dynamic Changes in Costs— Learning Curve. Modern Theory of Cost Curves. Pricing Under Different Market Structures: Perfect Competition, The Efficiency of a Competitive Market. Price Supports. Monopoly, Social Cost of Monopoly Power. Intertemporal Price Discrimination and Peak-load Pricing, Monopolistic Competition. Bilateral monopoly.

Books Recommended:

1. A.Koutsoyiannis: *Modern Microeconomics*, Macmillan, London.
2. Robert S. Pindyck and Daniel L. Rubinfeld: *Microeconomics*, Pearson Education Inc., New Delhi.
3. D. Salvatore: *Microeconomic Theory*, Oxford University Press, New Delhi.
4. Hal R. Varian: *Microeconomic Analysis*, W.W. Norton & Company Inc., New York.

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Paper II — Macroeconomic Theory — I(6 credit)

Note: There will be two parts in end semester paper.

Part A of the paper consists 10 short answer questions carrying 1 mark each.

Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each.

Course Objectives

Macroeconomics or aggregative economics analysis establishes the functional relationship between the large aggregates. The aggregate analysis has assumed such a great significance in recent times that a prior understanding of macroeconomic theoretical structure is considered essential for the proper comprehension of the different issues and policies. Macroeconomics now is not only a scientific method of analysis; but

also a body of empirical economic knowledge. The paper entitled "Macro-Economics-I" equips the students at the postgraduate level to understand systemic facts and latest theoretical developments for empirical analysis.

Course Learning Outcomes

Two central questions that motivate Macroeconomics are: (i) What causes aggregate output and employment levels in an economy to fluctuate /change over time? (ii) how effective are government policies in stabilizing the economy and/or generating steady growth? This course will provide the students with a deeper understanding of both these issues in the context of the real economy and will enable them to evaluate various macroeconomic policies and their implications on the basis of coherent theoretical frameworks.

Unit-I (20 Hrs)

The Origin and Development of Macroeconomics - Classical, Keynes, New Classical and Modern Views; Macroeconomic Variables; National Income- Concepts, Components, Measurement, Inter-relationship between three Measures of National Income; Measurement of Economic Welfare. Circular flow of Income in Two, Three and Four Sector Economy.

Unit-II (20 Hrs)

Consumption Function- Determinants, Consumption Function Hypotheses: Absolute, Relative, Permanent Income and Life Cycle Hypothesis; Investment Function- Neo-Classical Theory of Investment, Stock Market and Tobin's Q ratio and Neo-Keynesian Theory of Investment; Theories of Accelerator.

Unit-III (20Hrs)

Classical, Keynesian, and Post Keynesian Theories of Demand for Money - Inventory Theory of Baumol and Portfolio Balance Theory of Tobin; Restatement of Quantity Theory of Money by Milton Friedman and Patinkin's Theory of Demand for Money; Supply of Money—Measurement, Components, Determinants, High-Powered Money A Money Multiplier and Theories of Money Supply.

Books Recommended:

1. Errol D'Souza, *Macroeconomics*, Pearson Education.
2. Richard, T. Froyen, *Macroeconomics: Theories and Policies*, Pearson Education.
3. P. Edgmond, *Macroeconomics*, PHI, New Delhi.
4. Gregory Mankiw, *Macroeconomics*, CBS Publishers, New Delhi. S. Robert J. Gordon, *Macroeconomics*, Harper Collins.

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Paper III -Mathematical Methods for Economics (6credits)

Note: There will be two parts in end semester paper.

Part A of the paper consists 10 short answer questions carrying 1 mark each.

Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each.

Course Objectives

The objective is to rigorously introduce and teach several areas of mathematics that are widely-used in Microeconomics, Macroeconomics and Econometrics.

Course Learning Outcomes

The approach of the course will be analytical, so that we expect as a learning outcome that students can go beyond cook book procedures when modelling and analyzing economic problems. A second learning outcome will be the acquisition of some mathematical sophistication, in understanding and writing proofs. These will be complemented by a basic learning outcome, which is to understand the main optimization and other tools used in a variety of economic applications.

Unit-I (25 Hrs)

Concept of Function; Limit, Continuity and Differentiability of Real Valued Function; Concave and Convex Functions. Derivatives—Simple Differentiation; Maxima, Minima, Point of Inflexion and Applications of Simple Differentiation in Economics, Partial Differentiation and Unconstrained and Constrained Optimization (Two Independent Variable Case), Simple Applications in Economics.

Unit-II (15 Hrs)

Integration; Indefinite and Definite; Applications, First order Difference and Differential Equations and their Application in Economics.

Unit-III (20 Hrs)

Matrices and Determinants and their Applications in Economics, Basic Input-Output Model (determination of gross output), Linear Programming (graphical and simplex methods), Game Theory—Two Person Constant and Zero Sum Game(only Saddle Point solution).

Books Recommended:

1. R. G. D. Allen: *Mathematical Analysis for Economics*, MacMillan, London.
2. Edward T. Dowling: *Mathematics for Economics*, Schaum's Outline series, McGraw-Hill Book Co., New Delhi.
3. Laxmi Narain Nathuramka : *Arthashastra Me Ganit Ke Prayog* (Hindi), RBD Publication, Jaipur.
4. B.C. Mehta and G.M.K. Madnani: *Mathematics for Economics* Sultan Chand & sons, New Delhi.
5. Alpha C. Chiang: *Fundamental Methods of Mathematical Economics*, McGraw-Hill, Tokyo.
6. Balvant Kandoi : *Mathematics for Business and Economics with application, Volume—I&II*, Himalaya Publishing House.

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Elective Core Courses

Paper IV (A) DEMOGRAPHY-I(6 Credits)

Note: There will be two parts in end semester paper.

Part A of the paper consists 10 short answer questions carrying 1 mark each.

Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each.

Course Objectives

The objective of this course is to familiarize the students with the concepts of Economic Demography, to acquaint the students with quantitative and the qualitative aspects and characteristics of the population through various demographic models and theories.

Course Learning Outcomes

To understand meaning, nature, scope and importance of demography. Relationship between development and population growth, Understand various theories of population and their implications for India.

Unit - I (20Hrs)

Population and Development: Meaning and scope of demography, components of population growth and their interdependence; Sources of population data; Theories of population –Malthus, Optimum theory of population; Theories of demographic transition; Models of Meadows, Enke, Becker and Easterlin; Population and Development.

Unit-II (20Hrs)

Structure of Population: Population trends since the twentieth century; International aspects of population growth and distribution; Age and Sex structure in more developed and less developed countries; determinants of age and sex structure; Population pyramids- individual aging and population aging; Population projection

Unit - III (20Hrs)

Fertility: Importance of the study of fertility-Total fertility rate, Gross reproduction rate and Net production rate. Levels and trends in developed and developing countries; Factors affecting fertility.

Mortality: Levels and trends in mortality in developed and developing countries; Mortality differences by age & sex, occupation etc.; Infant mortality; Factors leading to decline in mortality in recent past; Life Tables:- construction and uses.

Books Recommended:

1. Agarwal S.N. (1972), *India's Population Problem*, Tata McGraw- Hill Co., Bombay.
2. Bose, A. (1996), *India's Basic Demographic Statistics*, B.R. Publishing Corporation, New Delhi.
3. Bogue, D.J. (1971), *Principle of Demography*, John Wiley, New York.
4. Chenery H. and T.N. Srinivasan (Eds.) (1989), *Hand Book of Development Economics, Vol. 1 & 2* Elsevier, Amsterdam.
5. Choubey, P.K. (2000), *Population Policy in India*, Kanishka Publications, New Delhi. Coals, A. J. and E.M. Hoover (1958), *Population Growth and Economic Development in Low income Countries: A Case Study of India's Prospectus*, Princeton University Press, Princeton.
6. Gulati, S.C (1988), *Fertility in India: An Econometric Study of a Metropolis*, Sage, New Delhi

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Paper IV (B) Mathematical Economics- I (6 CREDITS)

Note: There will be two parts in end semester paper.

Part A of the paper consists 10 short answer questions carrying 1 mark each.

Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each.

Course Objectives

This course is designed for students who plan to do further graduate level work in economic theory, especially those with a keen interest in creating, as opposed to consuming, pure theory.

Course Learning Outcomes

The course aims for students to learn a rigorous exposure to a selection of basic mathematical tools that are used by economic theorists, and applications of these methods to some areas of economic theory including duality theory, game theory, the Arrow-Debreu model and comparative statics.

Unit-I(20 Hrs)

Theory of Consumer Behavior- Nature of a Utility Function; Properties of an Indifference Curve; Maximization of Utility; Demand Functions: Ordinary and Compensated, Price and income Elasticity, Elasticity Relations in Demand Analysis and Restrictions on Demand Functions; Slutsky Equation – n^{th} - Commodity Case, Elasticity Form and Important Results; Income and Leisure - Derivation of Labor Supply Function and its Properties; Linear Expenditure System- Properties and Derivation of Linear Demand Functions; Homogeneous and Homothetic Utility Functions; Indirect Utility Functions- Properties, Derivation, Roy's Identity and Derivation of Direct and Inverse Demand Functions; Consumer's Surplus.

Unit-II(20Hrs)

Theory of Firm- Production Function, Properties of a Well Behaved and Homogeneous Production Function : Cobb-Douglas and CES Production Functions, Product Curves, Output Elasticity of Factor Input, Isoquant, Elasticity of Substitution of a Homogeneous Production Function- linearly Homogeneous, Cobb-Douglas , CES Production Function and Special Cases of CES Production Function, Expansion Path; Optimization Behavior of a Firm- Constrained Cost Minimization, Constrained Output Maximization and Profit Maximization.

Unit-III(20Hrs)

Input Demand Functions- Properties and Derivation of Producer's Input Demand Functions (through profit maximization); Cost Functions- Properties and Derivation of short run and long run cost function (through profit maximization); Determination of optimum plant size; Perfect Competition- Market demand, Producer's demand, Supply function (Short run and long run), External Economies and Diseconomies, Commodity market equilibrium under perfect competition.

Note: Use of non-programmable calculator is permitted.

Books Recommended:

1. J.M. Henderson and R.L. Quandt: *Micro Economic Theory A Mathematical Approach*, McGraw-Hill. London.
2. RGD Allen, *Mathematical Economics*, Macmill
3. B.C. Mehta: *Mathematical Economics: Micro Economic Models*, Sultan Chand & Sons, New Delhi.
4. Alpha C Chiang: *Fundamental Methods of Mathematical Economics*, McGraw- Hill, Kagakusha, Tokyo.

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Semester — II

Compulsory Core Courses

Paper-V: Microeconomic Theory—II 6(Credits)

Note: There will be two parts in end semester paper.

Part A of the paper consists 10 short answer questions carrying 1 mark each.

Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each.

Course Objectives

The objective of this paper is to rigorously and comprehensively equip the students with theoretical concepts, methodology and process of reasoning involved in analyzing economic behaviour of individuals, firms and different markets using, in general, a static and partial equilibrium framework. also explain the welfare Economics

Course Learning Outcomes

Three main learning outcomes are envisaged. the student should develop a sound understanding of the core concepts that economists use to understand the world of business, trade and public policy. The course will familiarize students with the mathematical techniques that economists routinely use in their analysis.

Unit-I(20 Hrs)

Oligopoly Market: Non-Collusive models of Cournot, Bertrand, Edgeworth, Chamberlin and Stackelberg. Cartels and Price Leadership. Baumol's model, Marris's and Williamson's Managerial Theory. Full Cost Pricing, Bain's limit Pricing Theory and Recent Developments Including Sylos- Labini's Model. Behavioral Model of the Firm. Game Theory.

Unit-II (20 Hrs)

Theory of distribution: Neo Classical Approach, Marginal Productivity Theory, Euler's Theorem. Technical Progress and factor share. Factor pricing under perfect and imperfect competition. Determination of rent, wages, interest and profit.

Unit-III (20 Hrs)

Welfare Economics: Pigouvian Welfare Economics, Pareto Optimality. Kaldor — Hicks Compensation Principle. Social Welfare Function and Theory of Social Choice — Rawl, Bergson — Samuelson and Arrow's Theorem. Externalities, Public Goods and Market Failure. Asymmetric Information — Market Signaling, Moral Hazard, The Principal- Agent Problem.

Books Recommended:

1. A. Koutsoyannis: *Modern Microeconomics*, Macmillan, London.
2. Robert S. Pindyck and Daniel L. Rubinfeld: *Microeconomics*, Pearson Education Inc., New Delhi.
3. D. Salvatore: *Microeconomic Theory*, Oxford University Press, New Delhi.
4. Hal R. Varian: *Microeconomic Analysis*, W.W. Norton & Company Inc., New York.

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Paper- VI Macroeconomic Theory —II(6 CREDITS)

Note: There will be two parts in end semester paper.

Part A of the paper consists 10 short answer questions carrying 1 mark each.

Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each.

Course Objectives

Dynamic models and approaches to policy making are integral to modern macroeconomics. This course emphasizes the use of recursive methods to analyze macroeconomic models. Applications involve building on the models introduced in compulsory macro, such as deterministic and stochastic growth.

Course Learning Outcomes

This course will enable students to understand and apply dynamic programming methods to analyze macroeconomic problems and policy.

Unit-I (20 Hrs)

Determination of Output and Employment- The Classical and Keynesian models; Multiplier- Concept, Working, Static and Dynamic Multiplier; IS-LM Model- The Interaction of Real and Monetary Sectors of the Economy , Keynesian Version of the IS-LM Model, Neo-Classical Version of the IS-LM Model, Fiscal Policy and Crowding out Effect and Role and Relative Effectiveness of Fiscal and Monetary Policies; Aggregate Supply and Aggregate Demand Model- Neo-Classical Three Sector Model (Pigou Effect) and Keynesian Three Sector Model(Keynes Effect).

Unit-II (20 Hrs)

Open Economy Macroeconomics- trade Balance, Exchange Rates and International Monetary System; Mundell-Fleming model: Analysis of Fiscal, Monetary and Trade Policies under Imperfect Capital Mobility and Perfect capital mobility with Fixed and Flexible Exchange Rate Systems; Classical, Keynesian and Monetarist Approaches of Inflation and Policies to Control Inflation; Phillips Curve Analysis; Expectation Augmented Phillips Curve Analysis; Natural Rate of Unemployment Hypothesis; Role of RBI in Inflation Control, Credit Control and Economic Stability.

Unit-III (20 Hrs)

New Classical Macroeconomics- The New Classical Critique of Keynesian Micro Foundations. The Real Business Cycle Theory. Rational Expectations- Solution of a Simple Macroeconomic Model with Rational Expectations and Economic Interpretation.

Books Recommended:

1. Eric Penta cost, *Macro Economics: An Open Economy Approach*, Macmillan, Indian Edition, New Delhi.
2. Errol D'souza, *Macroeconomics*, Pearson Education.
3. Richard, T. Froyen, *Macro Economics: Theories and Policies*, Pearson Education.
4. P. Edgmond, *Macroeconomics*, PHI, New Delhi.
5. S. Gregory Mankiw, *Macroeconomics*, CBS Publishers, New Delhi.
6. Robert J. Gordon, *Macroeconomics*, Harper Collins.

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Paper-VII Statistical Methods (6 CREDITS)

Note: There will be two parts in end semester paper.

Part A of the paper consists 10 short answer questions carrying 1 mark each.

Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each.

Course Objectives

The objective of this paper is to train the students in the use of mathematical and statistical tools in analyzing economic problems. The course content contains simple tools and techniques, thought necessary for data collection, presentation, analysis and drawing inferences about various statistical hypotheses.

Course Learning Outcomes

Students can learn the fundamental statistical concepts such as probability theory, random variables, sampling distributions, hypothesis testing, confidence intervals, and statistical inference. They will Analyze and interpret data using descriptive statistics, including measures of central tendency, dispersion, and graphical representations.

Unit-I (20 Hrs)

Measures of Central Tendency, Dispersion, Skewness and Kurtosis, Measurement of Inequality-Lorenz Curve and Gini Co-efficient. Correlation, Simple Regression and Multiple linear regression equation.

Unit-II (20 Hrs)

Analysis of Time Series and Curve Fitting, Index Numbers. Probability, Mathematical Expectation, Probability Distributions (Binomial, Poisson, and normal)

Unit-III (20 Hrs)

Sample and Survey Methods, Testing of Hypothesis, Application of Z, Chi-square, F & t tests,

Association of Attributes, Analysis of Variance.

Book Recommended:

1. S.P. Gupta: *Statistical Methods*, Sultan Chand & Sons, New Delhi.
2. Kailash Nath Nagar: *Sankhyi ki Ke Mool Tatva* (Hindi) Meenakshi Prakashan, Meerut.
3. A.L. Nagar & R.K. Das: *Basic Statistics*, Oxford University; Press, New Delhi.
4. D.R. Agarwal: *Quantitative Methods*, Vrinda Publication

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Elective Core Courses

Paper VIII (A) DEMOGRAPHY –II(6 CREDITS)

Note: There will be two parts in end semester paper.

Part A of the paper consists 10 short answer questions carrying 1 mark each.

Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each.

Course Objectives

The objective of this course is to enable the students to understand thoroughly the theories of Gender and Development. It also attempts to study the economic growth and gender equality, impact of technology women's labour market. Students would have knowledge about the gender planning, gender budgeting and development.

Course Learning Outcomes

Students must understand the occupational structure of Indian population and population policy, and the concept of migration and urbanization with special reference to India.

Unit -I(15Hrs)

Demographic database in India: Study of Census in India-Methodology and characteristics; Nature of information collected in India with emphasis on 2011 Census; National Family Health survey 1,2 and 3; Rapid Household Survey; Changing characteristics of population in India; Occupational Structure of Indian Population.

Unit -II(20Hrs)

Migration and Urbanization: Basic concept and definitions; importance of migration, Types of migration; factor affecting migration. Theories of migration related to internal migration; Urbanization-Growth and distribution of rural-urban population in developed and developing countries with special reference to India.

Unit –III(25Hrs)

Population and Development with reference to India: Population, economy and environment linkage; Population, health, nutrition productivity nexus; population and human development issues; Demography and household economic behavior.

Evolution of Population Policy in India: The shift in policy from population control to family Welfare and women empowerment; Population and strategies for human development of different social groups; Social impact of new reproductive technologies and the irregularization; The population policy.

Books Recommended:

1. Agarwal S.N. (1972), *India's Population Problem*, Tata McGraw- Hill Co., Bombay.
2. Bose, A. (1996), *India's Basic Demographic Statistics*, B.R. Publishing Corporation, New Delhi. Bogue, D.J. (1971), *Principle of Demography*, John Wiley, New York.
3. Chenery H. and T.N. Srinivasan (Eds.) (1989), *Hand Book of Development Economics, Vol.1 & 2*
4. Elsevier, Amsterdam.
5. Choubey, P.K. (2000), *Population Policy in India*, Kanishka Publications, New Delhi.
6. Coals, A.J. and E.M. Hoover (1958), *Population Growth and Economic Development in Low income Countries: A Case Study of India's Prospectus*, Princeton University Press, Princeton.
7. Gulati, S.C (1988), *Fertility in India: An Econometric Study of a Metropolis*, Sage, New Delhi.

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Paper VIII (B) Mathematical Economics-II (6 CREDITS)

Note: There will be two parts in end semester paper.

Part A of the paper consists 10 short answer questions carrying 1 mark each.

Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each.

Course Objectives

The objective of this course is to develop a strong foundation in advanced mathematical techniques, including calculus, linear algebra, optimization, and mathematical modeling. They will learn how to apply these mathematical tools to economic analysis and problem-solving.

Course learning outcome

The learning outcome of a Mathematical Economics-II includes acquiring a deep understanding of economic theory and advanced mathematical techniques used in economic analysis. Students will gain thorough understanding of microeconomic and macroeconomic theories, such as consumer behavior, production theory, market equilibrium, game theory, economic growth, and business cycle etc. Students will learn to formulate economic problems using mathematical equations and models. Students will become proficient in econometric methods used to analyze economic data.

Unit-I(20 Hrs.)

Monopoly- Maximization of Profit and Sales Revenue, Price Discrimination: Market Discrimination and Perfect Discrimination, Multi-Plant Monopolist, Effect of Various Taxes on Output and Price of a Monopoly Firm, Bilateral Monopoly; Monopolistic Competition Equilibrium: Short Run and Long Run; Duopoly and Oligopoly Market Models: The Quasi-Competitive Solution, the Collusion Solution, the Cournot Solution, Stackelberg Solution, the Market Share Solution and the Kinked- Demand Curve Solution Models.

Unit-II(20 Hrs)

Macroeconomic Models- Keynesian Theory of Income Determination and Derivation of Different Multipliers, Employment and Output Determination With Fixed and Flexible Prices: IS- LM and AD-AS Models, Fleming-Mundell Open Economy Model, Trade Cycles: Multiplier- Accelerator Interaction Models of Samuelson and Hicks; Growth Models: Harrod-Domar Model, Neo classical Models of Solow & Meade and Kaldor's Model.

Unit-III (20 Hrs)

Linear Programming- Simplex Method; Problem of Degeneracy and Mixed Constraints, Duality Theorems, Complimentary Slackness Conditions, Application of Linear Programming in Economics; Input-Output Analysis- Concepts of Static, Dynamic, Closed and Open Input - Output Models, Hawkins-Simon Conditions of Viability, Determination of Gross Output, Price and Value Added in Open Input-Output Model, Determination of Goss Output in Closed Input-Output Model; Theory of Games- Two-Person, Constant Sum Games, Zero-Sum Game, Maximin and Minimax, Dominant Strategies, Pure and Mixed Strategies, Saddle Point Solution, Linear- Programming Formulation of a Matrix Game and Conversion of Game Theory into Linear Programming.

Note: Use of non-programmable calculator is permitted.

Books Recommended:

1. J.M. Henderson and R.L. Quandt: *Micro Economic - Theory: A Mathematical Approach*, McGraw-Hill. London.
2. R.G.D. Allen, *Mathematical Economics*, MacMillan.
Alpha C Chiang: *Fundamental Methods of Mathematical Economics*, McGraw-Hill, Kagakusha, Tokyo.
3. R.G.D. Allen, *Macroeconomic Theory: A Mathematical Treatment*, McGraw-Hill, London.
4. Michael K. Evans: *Macroeconomic Activity: Theory, forecasting finds Control*.
5. David Romer: *Advanced Macroeconomics*, McGraw-Hill, Singapore.

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Semester — III
Compulsory Core Courses

Paper IX Public Economics-I(6 CREDITS)

Note: There will be two parts in end semester paper.

Part A of the paper consists 10 short answer questions carrying 1 mark each.

Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each.

Course Objectives

This course covers several topics in Public Economics at an advanced level. The course contents draw upon the recent theoretical and empirical research on the issues covered. The focus of the course is on the following areas: Taxes, Land Markets, Procurement of Public Goods, and Public vs. Private organizations. Each area covered starts with a mathematical model that serves as a basic framework of analysis

Course Learning Outcomes

The learning outcomes of the course is to draw the policy conclusions related to Taxes, Procurement of Public Goods, and Public vs. Private organizations.

Unit-I (20 Hrs)

Nature and Scope of Public Finance, Public Finance and Private Finance, Economic Analysis of Public Policy, Role of Government in the Economic Activity Allocation, Distribution and Stabilization Functions, Private, Public and Merit Goods. Theory of Externalities — External Benefits and Cost — Correction of Externalities, Principle of Maximum Social Advantage, Public Budgets — Kinds of Budgets, Optimal Budgeting, Balanced and Unbalanced Budgets — Deficit Financing, Zero base budgeting.

Unit-II (25 Hrs)

Public Expenditure — Hypothesis and evaluation, Effects of Public Expenditure on Production and Distribution, Bowen, Lindhal and Samuelson's Models, Wagner's Law of Increasing State Activities, Wiseman-Peacock Hypothesis. Public Revenue- Canons of Taxation, Different Approaches to the Division of Tax Burden, Incidence and Effects of Taxation, Taxable Capacity, Justice in Taxation, Benefit & Ability to Pay Approaches. Theory of Optimal Taxation- Equal Absolute, Equal-Proportional, Equal-Marginal and least Aggregate Sacrifice principles, Buoyancy and Elasticity of a Tax.

Unit-III(15 Hrs)

Efficiency and Equity Principles of Taxation; Incentive Effects of Taxation on Labour Supply; Other Distorting Effects of the Tax System; Tax Incidence – Partial and General Equilibrium Analysis; Mieszkowski Analysis of Tax Incidence; shifting and incidence of taxation under monopoly and perfect competition.

Books Recommended:

1. Musgrave R.A and Peacock A.T., "*Classics in the Theory of Public Finance*",
2. Mcmillan Boadway, Robin, "*Public Sector Economics*", Cambridge, Winthrop Publishers Bruce, Neil, "*Public Finance*", Addison- Wesley Educational Publishers, Inc.
3. Jones. Philip and Cullis, Jones, "*Public Finance and Public Choice- Analytical*
4. *Perspectives*", Oxford University press Stiglitz, Joseph, "*Economics of the Public Sector*",
5. W.W. Norton and Company, new York/London Rosen, H.S., "*Public finance*", Tata McGraw Hill Mc Nutt, P.A., "*The economics of Public Choice*", Edward Elgar Publishing Inc. Mueller, D.C., "*Public Choice- I,II,III*" Cambridge university Press, Cambridge Downs, A., "*An Economic Theory of Democracy*", Harper and Row, New York

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Paper X International Trade Theory (6 CREDITS)

Note: There will be two parts in end semester paper.

Part A of the paper consists 10 short answer questions carrying 1 mark each.

Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each.

Course Objectives

This course is designed to make familiarise students with discussions in the area of international trade and trade policy, reviewing traditional theories of international trade and recent developments in the economic literature based on the New trade theory and on the analysis of FDI and global production chains.

Course Learning Outcomes

The student will be able to analyze historical as well as contemporary issues in trade theory and policy using a variety of lenses provided in the course: classical theories of comparative advantage, imperfect competition, political economy of trade agreements and protectionism. The analytical tools relating to the issues of migration, trade and capital formation will be updated.

Unit-I(25 Hrs)

Early Trade Theories: Mercantilism, Classical Theory of Trade, Absolute Advantage and Comparative Advantage — Views of Adam Smith and Ricardo, Reciprocal demand theory of J.S. Mill and Opportunity cost theory of Haberler, Empirical Testing of Classical Theory, Standard Theory of Trade—Production Possibility Frontier, Community Indifference Curves, Offer Curves, Trade Indifference Curves, Terms of Trade and Gains from Trade.

Unit-II(15 Hrs)

Factor Endowments and Heckscher - Ohlin Model-factor Price Equalization Theorem, Stolper — Samuelson theorem, Metzler Paradox and Rybczynski Theorem, Empirical verification of H-O theory, Leontief Paradox, Meade's equilibrium in trade, International trade under Imperfect competition in goods market.

Unit-III(20 Hrs)

Economic Growth and International Trade—Growth of Factors of Production, Technical Progress, International Factor movements -Labour and Capital Movements and their Effects, Brain Drain, Multinational Corporations and their Role, Free Trade versus Protection, Instruments of Protection and their Effects; Tariffs (Partial and General Equilibrium), Quota, and other Non- Tariff Barriers.

Books Recommended:

1. J. Bhagwati: *International Trade*, Cambridge University Press, London.
2. R.J. Carbough: *International Economics*, Cengage Learning; 13 edition.
3. D. Salvatore: *International Economics*, PHI, New York.
4. Rana and Verma: *International Economics*, Vishal Publishing House Ludhiana (Hindi and English).

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Paper XI Economics of Development and Growth — I(6 CREDITS)

Note: There will be two parts in end semester paper.

Part A of the paper consists 10 short answer questions carrying 1 marks each.

Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each.

Course Objectives

The aim of this course to familiarise students with recent research on issues concerning economic development and policy in India, with an emphasis on contemporary debates, and to train them in the conduct of policy analysis using the tools of economics. It includes comprehensive understanding of the economic challenges faced by developing countries and acquiring the analytical tools necessary to address these challenges. Students will develop a strong theoretical and empirical foundation in the field of development economics and gain the skills needed to analyze and propose policies for sustainable development.

Course Learning Outcomes

Students will learn and apply economic theories and models specifically designed to analyze development-related issues. They will explore theories of economic growth, trade, finance, and institutions that affect development outcomes. They will also understand the limitations and challenges associated with applying standard economic models to developing economies.

Unit-I(25 Hrs)

Understanding Development: Dividing the World and levels of Development (Development as an Evolving Concept i.e. Development, Growth and Change; Goulet's Core Values of Development; Sen's Conception of Development; Income/ Output Based Measures and their Inadequacies; PQLI and HDI as Indicators of Development). Ingredients of Development— Land, labour, Physical and Human Capital, Technological Change, Scale and Organization, Sustainable Development; Concept, Measures and Problems of Growth, Poverty and Inequalities in LDCs and their Impact on Development.

Unit-II(15 Hrs)

Theories of Economic Development: Agriculture — Industry Interface — Interdependence between Agriculture and Industry; Industrialization and Urbanization (The models of Lewis, Fei and Ranis, Todaro) Balanced Vs Unbalanced growth

Unit-III(20 Hrs)

Project Evaluation Criteria: Internal Rate of Return, Net Present Value and Cost-Benefit Analysis. Social Discount Rate, Shadow Prices of Capital, Unskilled labor and Foreign Exchange, Choice of Techniques, Capital-Output Ratio, Applications of Input-Output Analysis in Planning, Finance of Economic Development- Domestic and External Resources, Two-Gap Model, International Trade and Development, Types and Approaches of Planning, Plan Models of India.

Books Recommended:

1. Meier, Gerald M. and James E. Rauch: *Leading Issues in Economic Development*, Eighth Edition, Oxford University Press, New York.
2. Ray, Debraj: *Development Economics*, Seventh Impression, Oxford University Press, New Delhi,
3. Thirlwall, A.P: *Growth and Development*, Eighth Edition, Palgrave Macmillan, New York.
4. Todaro, Micheal P. and Stephen Smith C: *Economic Development*, Eighth Edition, Second Impression, Pearson Education, (Singapore) Pvt. Ltd. Indian Branch, Delhi.
5. Yotopoulos, Pan A. and Nugent Jeffery B: *Economics of Development: Empirical Investigations*, Harper and Row Publishers, New York.

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Paper XII Indian Economy-I (6 CREDITS)

Note: There will be two parts in end semester paper.

Part A of the paper consists 10 short answer questions carrying 1 marks each.

Part B of the paper consists three units. 3 Long answer questions with internal Choice carrying 20 marks each.

Course Objectives

The objective of this paper is to acquaint the students with the performance of different sectors of the Indian economy and the policy framework governing them. This will provide them an insight into the past, present and future functioning of the Indian economy and strengthen their analytical capability.

Course Learning Outcomes

Students can gain valuable insights into the economic complexities and unique characteristics of the country. They can use this knowledge to pursue careers in academia, research, government agencies, international organizations, and the private sector, where an understanding of the Indian economy is increasingly vital in a globalized world.

Unit-I(20 Hrs)

Natural Resource in India- land, Water, Forest and Minerals, Population- Size. Composition, Quality and Growth Trends. Characteristics of Indian Population through Recent Census, Population Policy and Economic Effects of Population Pressure, Poverty, Unemployment and Human Development during Plan Period- Appraisal of Government Measures, India's Human Development Record in Global Perspective

Unit-II(20 Hrs)

Agricultural Developments in India-Institutional Aspects- land Reforms, Green Revolution Technological Aspects- Agricultural Inputs and Shifts in Production Function, Agricultural Cost and Price Policy, Agricultural Marketing and Credit, Food Policy and Security, Subsidy and Public Distribution System, Capital Formation in Indian Agriculture, Problems in Agriculture- A Need for Second Green Revolution.

Unit-III(20 Hrs)

Industry- Strategy of Industrial Development and Industrial Policy Reforms, Small Scale and Cottage Industries, Reservation Policy Relating to Small Scale Industries, Sources of Industrial Finance- Banks, Share Market, Insurance Companies, Pension funds, Non-Banking Sources and FDI, Role of Foreign Capital for Direct Investment and Portfolio Investment, Public Sector Reforms, Privatization and Disinvestment.

Books Recommended:

1. Dutt and Sundram: *Indian Economy*, S.Chand (Latest Ed) (Hindi and English).
2. A.N. Agrawal: *Indian Economy*, New Age International Pub.(P) Limited, (Latest Ed) (Hindi and English).
3. Laxmi Narayan Nathuramka: *Bhartiya Arthshastra*, College Book House, Jaipur (Latest Ed).
4. Mishra and Purri: *Indian Economy*, Himalaya Publishing House (Latest Ed) (Hindi and English).
5. Twelfth Five Year Plan, Planning Commission.
6. Economic Survey (Latest),GOI.
7. Monthly Bulletins,RBI.

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Elective Core Courses

Paper XIII (A) History Of Economic Thought-I

(6 CREDITS)

Note: There will be two parts in end semester paper.

Part A of the paper consists 10 short answer questions carrying 1 marks each.

Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each.

Course Objectives

Evolution of economic ideas is both a response to contemporary economic problems and a self-conscious attempt to refine earlier ideas to integrate them as a part of current social thought. The objective of this course is to familiarize the students with the historical evolution of economic ideas into the contemporary economics. It also focus on the works of prominent economists from different eras, such as Adam Smith, Karl Marx, John Maynard Keynes, Friedrich Hayek, and others. Understand their key contributions, methodologies, and the socio-economic contexts in which they worked.

Course Learning Outcome

The outcome of this course is to develop critical thinking skills to analyze and critique different economic theories and paradigms. Students should be able to assess the strengths, weaknesses, and limitations of various economic frameworks.

Unit-I(25 Hrs)

General outline of Mercantilist theories: Physiocracy - Basic principles and policies, natural order, tableau Economique; Classical Political Economy: Adam Smith : division of labour, Theory of Value, Economic Development. David Ricardo : Theory of value, Theory of Distribution, Doctrine of Rent, Views on International Trade, Theory of Economic Development and the Stationary State, Critique by Sraffa.

Unit-II(15 Hrs)

T.R.Malthus: Theory of Population and Theory of Gluts - Critics of Classicism. Karl Marx: Materialistic Interpretation of history, Labour Theory of Value and Surplus Value

Unit-III(20Hrs)

Neo-Classical School: Marshall: Consumers' Surplus, Tax buoyancy analysis, External Economies, Quasi-Rent, Role of time element in value, Pigou: Welfare Economics. Indian Economic Thought : Kautilya and Gandhi.

Books Recommended:

1. Blaug, M 1997, *Economic Theory in retrospect*, Cambridge University press, Cambridge Da Costa, G.C: *Production, Prices and Distribution* (1985) TMH, New Delhi
2. Dasgupta A.K. (1985) *Epochs of Economic Theory*, Oxford Univ Press, New Delhi. Ekelund and Hebert: *A History of Economic Theory and Method* (1990) McGraw Hill PublCo. New York.
3. Eatwell, John, Murray Milgate, Peter Newman (1998): *The New Palgrave - A Dictionary of Economics*, Macmillan Reference Ltd.
4. Ghosh and Ghosh; *Concise History of Economic Thought*, Himalaya.
5. Gill Richard: (1972) *Evolution of Modern Economics*, Prentice Hall of India. Hunt
6. E.K : (1990) *History of Economic Thought*, Wodsworth.

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Paper XIII(B) Econometrics- I (6 Credits)

Note: There will be two parts in end semester paper.

Part A of the paper consists 10 short answer questions carrying 1 marks each.

Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each.

Course Objectives

Students would acquire theoretical knowledge of statistics and basic econometric techniques used in the empirical analysis of economic relationships

Course Learning Outcomes

Students will become proficient in econometric methods used to analyze economic data. They will learn to estimate and interpret statistical models, conduct hypothesis tests, and apply econometric techniques such as regression analysis, time series analysis, panel data analysis, and instrumental variables.

Unit-I(20Hrs)

Basic Econometrics: Nature, meaning and scope of econometrics; Simple and General linear Regression Model — Assumptions, Estimation (OLS approach) and Properties of Estimators; Derivation of Least Square Parameters; Goodness of Fit and Econometric Inference. Functional Forms of Regression Models: Log-log, Semi-log, Reciprocal Transformation

Unit-II(20Hrs)

Violation of Assumptions: Heteroscedasticity; Multicollinearity and Auto-correlation; Specification Problems. Regressions with Qualitative Independent Variables: Dummy Variable Technique; Regression with Binary Dependent Variables: Logit, Probit and Tobit models.

Unit-III(20Hrs)

Dynamic Econometric Model: Auto-regressive and Distributed Lag Models — Koyck Model, Partial Adjustment Model, Adaptive Expectations, Almon Approach to Distributed Lag models. Method of Instrument Variables.

Note- Use of non-programmable calculator is permitted

Books Recommended

1. Amemiya, T. (1985), *Advanced Econometrics*, Harvard University Press, Cambridge, Mass. Baltagi, B.H. (1988), *Econometrics*, Springer, New York.
2. Goldberger, A.S. (1998), *Introductory Econometrics*, Oxford University Press, New York. Gujarati, D.N. (1995), *Basic Econometrics* (2nd Edition) McGraw Hill New Delhi.
3. Intriligator, M.D. (1978), *Econometric Methods, Techniques and Applications*, Prentice Hall Englewood Cliffs, New Jersey.
4. Johnson J. (1991), *Econometric Methods*, McGraw Hill Book Co. London
5. Kmenta J. (1998), *Elements of Econometrics*, University of Michigan Press, New York. Koutsoyiannis, A. (1977), *Theory of Econometrics*, The Macmillan Press Ltd. London Maddala G.S. (Ed) (1993), *Econometric Methods and application*, Aldershot U.K.
6. Pindyck R.S. and D.L. Rubinfeld (1976), *Econometric Models and Economic Forecasts*, McGraw Hill Kogakusha Tokyo

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Paper XIII(C) Survey Methods (6 CREDITS)

Note: There will be two parts in end semester paper.

Part A of the paper consists 10 short answer questions carrying 1 marks each.

Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each.

Course Objectives

The objective of this subject is to make the students to know the basic concepts and methods in methodology. This paper helps the students to pursue further research such as M.Phil. and Ph.D. this course focus on providing students with a comprehensive understanding of survey research design, methodology, and analysis. Students will gain the knowledge and skills necessary to design and conduct surveys, collect high-quality data, and analyze survey results

Course Learning outcomes

Students will learn how to design surveys that effectively measure the constructs and variables of interest. They will study the principles of question construction, including question wording, response options, and survey formatting. Students will also understand the importance of pre-testing and pilot studies to ensure the validity and reliability of survey instruments.

Unit1(20Hrs)

Sample Methods: Principle of Sample Surveys, Stages of Survey, Practical Problems in Planning Execution and Analysis of Surveys, Random Number Tables and their Uses in Drawing Samples with Equal Probability (Simple Random Sampling) and Probability Proportional Size. Sampling and Non - Sampling errors. Critical Study of Sample Design Employed by NSSO and in Rural Credit Surveys.

Unit 2(20Hrs)

Sample Designs: Simple Random Sampling With and Without Replacement Relative Efficiency of WR and WOR Stratified Sampling Proportional Optimum and Neyman Allocation Gain in Precision, Cluster Sampling. Two Stage Sampling. Systematic Sampling.

Unit 3(20Hrs)

Regression Analysis with One and Two Explanatory Variables. Multiplicative and Additive models. Growth Equations. Estimation of Regression Parameters and their Standard Errors. The Problem of Curve Fitting. Fitting of linear, Exponential and Parabolic Curves. Application in the Estimation of Elasticities and Growth Rates.

Books Recommended :

1. M.N. Mutby, *Sampling Methods*,
2. Sukhatma P.V. Sukhatme B.V. and C. Ashok, *Sampling Theory of Surveys with applications*, Asia Publishing House, New Delhi.
3. Gujarati D, *Basic Econometrics*, McGraw Hill Higher Education.
4. Intriligator M.D ., *Econometric Models, Techniques, and applications*, Prentice Hall of India

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Semester — IV
Compulsory Core Courses
Paper-XIV: Public Economics-II(6CREDITS)

Note: There will be two parts in end semester paper.

Part A of the paper consists 10 short answer questions carrying 1 marks each.

Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each.

Course Objectives

This course covers several topics in Public Economics at an advanced level. The course contents draw upon the recent theoretical and empirical research on the issues covered.

The focus of the course is on the following areas: Tax system, fiscal policy fiscal federalism, etc.

Course Learning Outcomes

The learning outcomes of the course as follows: First, students successfully completing this course will enhance their skill to develop formal analytical framework to examine the settings and areas covered in the course. Second, they will learn about the incentive structure for the individuals. Finally, they will learn to draw the policy conclusions related to Taxes.

Unit-I(20Hrs)

Public Debt—Sources, Effects, Burden and its Management, Theory of Public Debt, Loans and Saving as Sources of Finance for Development. Fiscal Policy, Neutral and Compensatory Fiscal Policy, Functional Finance; Fiscal Policy in Developing Countries, Fiscal Policy for Stabilization — Automatic and Discretionary Stabilizers. Built-in- Flexibility, interdependence of Fiscal and Monetary Policies, Balanced Budget Multiplier, Anti inflationary Policy.

Unit-II(20Hrs)

Indian Tax System- Salient features, Major Taxes, Main Trends in the Revenue of the Central and State Government in India, Non- Tax Revenue, Union Budget of India, Major Trends in Public Expenditure in India (growth and composition), Problem of Budget Deficit and FRBM Act. Pricing Policy in Public Enterprises, Disinvestment and Privatization Of Public Enterprises in India, Internal and External Public Debt of India.

Unit-III(20Hrs)

Fiscal Federalism- theory and Problems of Centre- State Finance Relation in India, Criteria for resource transfer from the Centre to states, Finance Commission and devaluation of resource to states, Recent tax reforms in India Recommendation of Raja J. Chelliah Committee and Kelkar Committee. Direct Tax code and GST.

Books recommended:

1. R.A. Musgrave and P.B. Musgrave: *Public Finance in Theory and practice*, New York: McGraw-Hill.
2. R.A. Musgrave: *Theory of Public Finance*, McGraw-Hill,
3. S.G. Ganguli: *Public Finance*, The World Press Private Limited.
4. John Callis and Phillip Jones, *Public Finance and Public Choice*. Oxford University Press.
5. Harvey Rosen, *Public Finance*, McGraw Hill Publications.
6. David N. Hyman, *Public Finance: A Contemporary Applications of Theory to Policy*, Thomson South Western.
7. R. K. Lekhi, *Public Finance*, Kalyani Publishers.
8. Chelliah and Kelkar Committee Reports

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**Paper- XV Trade Policy and International Monetary System
(6 CREDITS)**

Note: There will be two parts in end semester paper.

Part A of the paper consists 10 short answer questions carrying 1 marks each.

Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each.

Course Objectives

The objective of this course is to introduce the trade policy and terms of trade in developing nations. The course also helps to understand the students foreign exchange market operations and various forms of foreign capital and its role in economic development.

Course Learning Outcomes

This course will enable students to understand and apply dynamic programming methods to analyze macroeconomic problems and policy strategies

Unit-I(20Hrs)

Political Economy of Protectionism: Trade Policy in Developing Nations- Import Substitution V/s Export Promotion, Strategic Trade Policy in Developed Nations. Trade and Economic Development, Deteriorating Terms of trade of developing Nation- Prebisch-Singer Hypothesis, Current Trade Problems of Developing Nations. International Capital Movement and Factors Affecting it, Various Forms of Foreign Capital and its Role in Economic Development.

Unit-II(20Hrs)

Economic Integration - Stages and Forms, Theory of Customs Union Static and Dynamic Effects, Regional Trade Blocks - Bilateral and Multi- Lateral International Negotiations, Preferential Trade Areas (PTAs) and Free Trade Areas (FTAs). WTO: issues and its impact on trade, IMF, World Bank- Their achievement and failures.

Unit-III(20Hrs)

Foreign Exchange Market- Functions and Exchange Rate Determination, Exchange Rate Theories- Mint Parity, Purchasing Power Parity (PPP), Monetary Approach, Fixed and Flexible Exchange Rates, Exchange Controls and Multiple Exchange Rates, Current Exchange Rate Regime, Euro Currency Market. BOP —Accounting, Components, Causes of Disequilibrium and Mechanism of Adjustments, Foreign Trade Multiplier, Devaluation and Marshall -Lerner Condition, Elasticity and Absorption Approaches, External and Internal Balance, Swan Model.

BooksRecommended:

1. J.Bhagwati: *International Trade*, Cambridge University Press, London
2. R.J. Carbaugh; *International Economics*, Cengage Learning; 13edition.
3. FI. Salvatore: *International Economics*, PHI, New York.
4. Rana and Verma: *International Economics*, Vishal Publishing House Ludhiana(Hindi and English).
5. Soderston and Reed: *International Economics*, Falgrave Macmillan;»RevEdedition.

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Paper XVI Economics of Development and Growth —II

(6 CREDITS)

Note: There will be two parts in end semester paper.

Part A of the paper consists 10 short answer questions carrying 1 marks each.

Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each.

Course Objectives

The objective of this course is to evaluate and purpose policies promoting inclusive and sustainable development they will also learn about experimental and quasi-experimental methods commonly used in impact evaluations of development programs.

Course Learning outcomes

Students will develop a global perspective on development issues and understand the interconnectedness of economies and societies. They will study the role of international trade, foreign aid, global financial institutions, and global governance in shaping development outcomes. They will also explore the challenges and opportunities presented by globalization, technological advancements.

Unit-I(20Hrs)

Economic Growth and Structural Change: Structural Changes in the Composition of Gross Domestic Product, Occupational Structure, Structure of Capital Accumulation; and accumulation of Human Capital; Exploring the Relationship between Economic Development and Income Distribution (Kuznets' inverted U —Shaped Curve and Augmented Kuznets's Curve, Denison & Chenery empirical studies), Living in a Heterogeneous World, World-Islands of Prosperity and How the Other Three Quarters live.

Unit-II(20Hrs)

Theories of Growth: Classical Approach: Adam—Smith, Marx and Schumpeter
Neo-Classical Approach: Robinson, Solow, Kaldor and Harrod-Domar model, Cambridge Criticism of Neoclassical Analysis of Growth, the Capital Controversy. Technological Progress- Embodied and Disembodied Technical Progress, Hicks, Harrod learning by doing, Production Function Approach to the Economic Growth, Growth Models of Kaldor and Pasinetti, Optimal Savings and Ramsay's Rule of Accumulation. Romar's Model of Technological Change.

Unit-III(20Hrs)

Endogenous Growth; Intellectual Capital, AK Model, Uzawa-Lucas Model-Explanation of Cross Country Differentials in Economic Growth. Economic Isolation and Integration with the Global Market. An Overview of the Economic Functions of the Market and State, Efficiency of the Competitive Market, Market Failure, Government Failure, On the Choice of Economic System, Market Failure in a Dynamic Economy.

Books Recommended:

1. Chenery, Hollis and Moises Syrquin: *Patterns of Development: 1950-70*, Oxford University Press.
2. Kuznets, S.: *Modern Economic Growth, Rate Structure and Spread*, Vakils, Feffer and Simons Private Limited, Bombay.
3. Meter, Gerald M. And James E. Rauch: *Leading Issues in Economic Development*, Eighth Edition, Oxford University Press, New York.
4. Ray, Debraj: *Development Economics*, Oxford University Press, Delhi.
5. Robert J. Barrow and Xavier Sala-i-Martin: *Economic Growth*, Prentice-Hall of India, Pvt. Ltd., New Delhi.
6. Thir1wal I, A.P: *Growth and Development*, Eighth Edition, Palgrave Macmillan, New York.
7. Thorvaldur Gylfason: *Principles of Economic Growth*, Oxford University Press.

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Paper XVII Indian Economy-II (6 CREDITS)

Note: There will be two parts in end semester paper.

Part A of the paper consists 10 short answer questions carrying 1 marks each.

Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each.

Course Objectives

The objective of this paper is to acquaint the students with the performance of different sectors of the Indian economy and the policy framework governing them. This will provide them an insight into the past, present and future functioning of the Indian economy and strengthen their analytical capability.

Course Learning Outcomes

The learning outcome of this course is to formulate evidence-based policy recommendations to address economic challenges and promote sustainable economic development in India.

Unit-I(15Hrs)

Foreign Trade: Salient features, Trends, composition, Direction and Organization, Trade reforms, Liberalization and recent changes in trade policy, MNCs and their impact on Indian Economy, India's BOP position in recent years

Unit-II(25Hrs)

Economic planning: Goals, Achievements and Shortcomings of Planned Development Economy. Decentralized Planning: Constitutional Obligations and Panchayati Raj Institutions. Balwant Rai Mehta Committee and Ashok Mehta committee, Financial Aspects of 73rd and 74th Constitutional Amendments. Problem of Subsidy, National and Per Capita Income -Growth pattern and trends, Aggregate and Sectoral Composition and Change therein, Regional Distribution, Income Inequalities in India.

Unit-III(20Hrs)

New Economic Policy — LPG and Second Phase of Economic Reforms, Infrastructure Development in India — Physical Infrastructure (Power, Transport, Communication and Irrigation) and Social Infrastructure (health and education), SEZs

Books Recommended:

1. Rudra Dutt and Sundaram: *Indian Economy*, S.Chand (LatestEd.) (Hindi and English)
2. A.N Agrawal: *Indian Economy*, New Age International Pub.(P)Limited, (Latest Ed.) (Hindi and English).
3. Laxmi Narayan Nathuramka: *Bhartiya Arthshastra*, College Book House (Latest Ed.)
4. Mishra & Puri: *Indian Economy*, Himalaya Publishing House (Latest Ed.) (Hindi and English)
5. Uma Kapila: *Indian Economy*, Academic Foundation.

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Elective Core Courses

Paper XVIII (A) History Of Economic Thought-II

(6 Credits)

Note: There will be two parts in end semester paper.

Part A of the paper consists 10 short answer questions carrying 1 marks each.

Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each.

Course Objectives

This course aims to connect contemporary issues in economics with their historical counterparts to better understand the evolution of ideas and the empirical patterns that accompany them.

Course Learning Outcomes

This will help them critically evaluate economic techniques and link them to the challenges of economic environment that led to their emergence.

Unit-I(20Hrs)

Institutionalism: Veblen - Theory of the leisure class, Commons; Frank Knight: Theory of Profit, Risk and Uncertainty; Schumpeter: Vision of Development and the demise of Capitalism

Unit-II(20Hrs)

Keynesianism: Principle of Effective demand, consumption function, multiplier, investment function, liquidity preference theory of interest, role of fiscal policy, uncertainty and role of expectations.

Unit-III(20Hrs)

Post Keynesian Developments: Hayek - Supply side economics, Arthur Laffer, Evans Monetarism, Milton Friedman, Don Patinkin. An overview of the neo classical economics: Rastex-JF, Muth, Robert Lucas, Sargent and Wallace. Nobel Prize Winners in Economics- Gunnar Myrdal (1974), A.K Sen(1998), Abhijit Banerjee, Esther Duflo, Michael Kremer (2019)

Books Recommended:

1. Blaug, M 1997, *Economic Theory in retrospect*, Cambridge University press, Cambridge Da Costa, G.C: *Production, Prices and Distribution*(1985)TMH, New Delhi
2. Das gupta A.K. L (1985) *Epochs of Economic Theory*, Oxford UnivPress, New Delhi.
3. Ekelund and Hebert: *A History of Economic Theory and Method* (1990) McGraw Hill PublCo. New York. Eatwell,John, Murray Milgate, Peter Newman(1998):*The New Palgrave _A Dictionary of Economics*, Macmillan Reference Ltd.
4. Ghosh and Ghosh; *Concise History of Economic Thought*, Himalaya.

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Paper XVIII (B) Econometrics — II
(6 CREDITS)

Note: There will be two parts in end semester paper.

Part A of the paper consists 10 short answer questions carrying 1 marks each.

Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each.

Course Objectives

This course provides the theoretical underpinnings for conducting applied econometric studies. It provides the conceptual framework on which such analyses are based, supplemented by illustrative empirical applications.

Course Learning Outcomes

The ability to conduct empirical analyses and data analytics are increasingly valued in the job market. This course will enable students to understand why and how questions are to be framed and answered. It will also equip them to learn more advanced topics on their own.

Unit-I(20Hrs)

Simultaneous Equation Models: The Simultaneous Equation bias and Inconsistency of OLS estimators; The Identification Problem; Rules of identification — order and rank conditions; Methods of estimating simultaneous equation system; Recursive methods and OLS; Indirect least squares (ILS); 2SLS, K class estimators, 3SLS and ML methods —application.

Unit-II(20Hrs)

Time Series Econometrics: Key Concepts, Spurious Regression, Stationary Stochastic Processes, Non -Stationary Processes, Unit Root Tests — Dickey-Fuller Test, Augmented Dickey Fuller Test, Phillips-Perron Test. Properties of AR, MA and ARMA Processes. Co- integration and Error Correction Mechanism(ECM).

Unit-III(20Hrs)

Introduction to Panel Data: Panel Data with Fixed and Random Effects. Fixed Effects: With in and Between Group Effects, Unbalanced Panel and Fixed Effects. Random Effects: GLS, Testing for Random Effects, Estimation of Dynamic Panel Model.

Note: Use of non-programmable calculator is permitted.

Books Recommended:

1. Amemiya, T. (1985), *Advanced Econometrics*, Harvard University Press, Cambridge, Mass.
2. Baltagi, B.H. (1988), *Econometrics*, Springer, New York.
3. Goldberger, A.S. (1998), *Introductory Econometrics*, Oxford University Press, New York.
4. Gujarati, D.N. (1995), *Basic Econometrics* (2nd Edition) MC Graw Hill New Delhi.
5. Intrilligator M.D. (1978), *Econometric Methods, Techniques and Applications*, Prentice Hall Englewood Cliffs, New Jersey.
6. Johnson J. (1991), *Econometric Methods*, McGraw Hall Book Co. London
7. Kmenta J. (1998), *Elements of Econometrics*, University of Michigan Press, New York.
8. Koutsoyiannis, A. (1977), *Theory of Econometrics*, The Macmillan Press Ltd. London
9. Maddala G.S. (Ed) (1993), *Econometric Methods and application*, Aldershot U.K.
10. Pindyck R.S. and D.L. Rubinfeld (1976), *Econometric Models and Economic Forecasts*, McGraw Hill KogakushaTokyo

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Paper XVIII (C) Dissertations

Applicable only those students who scored minimum of 55% marks in I and II semester (Aggregate)

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Tom

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Pooja

Aditya