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 2024-25

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.

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

Semester Structure

Course Details

Semester I

Paper Code	Name of the Paper (DSC/DSE)	Credits
MAEC101	DSC-I Micro Economic Theory — I	06
MAEC102	DSC-II Macro Economic Theory — I	06
MAEC103	DSC-III Mathematical Methods for Economics	06
MAEC104A MAEC104B	**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
MAEC201	DSC-I Micro Economic Theory — II	06
MAEC202	DSC-II Macro Economic Theory — II	06
MAEC203	DSC-III Statistical Methods	06
MAEC204A MAEC204B	**Choose One From Pool Of Course:** DSE-IV Demography-II DSE-V Mathematical Economics – II	06
	Total	**24**

Semester III

Paper Code	Name of the Paper (DSC/DSE)	Credits
MAEC301	DSC-I Public Economics- I	06
MAEC302	DSC-II International Trade Theory	06
MAEC303	DSC-III Economics of Development and Growth -I	06
MAEC304	Indian Economy- I	06
	Choose One From Pool Of Course:	06
MAEC305A	DSE-IV History of Economic Thought-I	
MAEC305B	Econometrics - I	
MAEC305C	Survey Method	
	Total	**30**

Semester IV

Paper Code	Name of the Paper (DSC/DSE)	Credits
MAEC401	DSC-I Public Economics- II	06
MAEC402	DSC-II Trade Policy and International Monetary System	06
MAEC403	DSC-III Economics of Development and Growth -II	06
MAEC404	Indian Economy- II	06
	Choose One From Pool Of Course:	06
MAEC405A	DSE-IV History of Economic Thought-II	
MAEC405B	Econometrics - II	
MAEC405C	Dissertations	
	Total	**30**

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.	MAEC101	Micro Economic Theory — I	**DSC**	**6**	**6**			**3**	
2.	MAEC102	Macro Economic Theory — I	**DSC**	**6**	**6**			**3**	
3.	MAEC103	Mathematical Methods for Economics	**DSC**	**6**	**6**			**3**	
4.	 MAEC104A MAEC104B	**Choose One From Pool Of Course:** Demography-I Mathematical Economics – I	**DSE**	**6**	**6**			**3**	

SEMESTER-II

S.NO.	Subject Code	Course Title	Course Category	Credit	Contact Hours Per Week			ESE Duration (Hrs.)	
					L	T	P	THEORY	PRACTICAL
1.	MAEC201	Micro Economic Theory — II	DSC	6	6			3	
2.	MAEC202	Macro Economic Theory — II	DSC	6	6			3	
3.	MAEC203	Statistical Methods	DSC	6	6			3	
4.	MAEC204A MAEC204B	**Choose One From Pool Of Course:** Demography-II Mathematical Economics – II	DSE	6	6			3	

SEMESTER-III

S.NO.	Subject Code	Course Title	Course Category	Credit	Contact Hours Per Week			ESE Duration (Hrs.)	
					L	T	P	THEORY	PRACTICAL
1.	MAEC301	Public Economics- I	DSC	6	6			3	
2.	MAEC302	International Trade Theory	DSC	6	6			3	
3.	MAEC303	Economics of Development and Growth -I	DSC	6	6			3	
4.	MAEC304	Indian Economy- I	DSC	6	6			3	
5.	MAEC305A MAEC305B MAEC305C	**Choose One From Pool Of Course:** History of Economic Thought-I Econometrics-I Survey Method	DSE	6	6			3	

SEMESTER-IV

S.NO.	Subject Code	Course Title	Course Category	Credit	Contact Hours Per Week			ESE Duration (Hrs.)	
					L	T	P	THEORY	PRACTICAL
1.	MAEC401	Public Economics-II	**DSC**	**6**	**6**			**3**	
2.	MAEC402	Trade Policy and International Monetary System	**DSC**	**6**	**6**			**3**	
3.	MAEC403	Economics of Development and Growth -II	**DSC**	**6**	**6**			**3**	
4.	MAEC404	Indian Economy- II	**DSC**	**6**	**6**			**3**	
5.	MAEC405A MAEC405B MAEC405C	**Choose One From Pool Of Course:** History of Economic Thought-II Econometrics – II Dissertations	**DSE**	**6**	**6**			**3**	

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

Semester- I

Paper I —Microeconomic Theory — I(6Credit)(MAEC101)

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 Heoremand 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(15 hrs)

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: PerfectCompetition, 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. RobertS.PindyckandDanielL.Rubinfeld:Micro economics,Pearson EducationInc., NewDelhi.
3. D.Salvatore:MicroeconomicTheory,OxfordUniversityPress,NewDelhi.
4. Hal R. Varian: Microeconomic Analysis, W.W. Norton & Company Inc.,NewYork.

Paper II — Macroeconomic Theory — I(6 credit)(MAEC102)

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

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.

1.

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, PearsonEducation.
2. Richard,T.Froyen,MacroEconomics:TheoriesandPolicies,PearsonEducation.
3. P.Edgemond,Macreconomics,PHI,NewDelhi.
4. GregoryMankiw,Macroeconomics,CBSPublishers,NewDelhi.

S. Robert J. Gorden, Macroeconomics, Harper Collins.

Paper III -Mathematical Methods for Economics(6 Credits)(MAEC103)

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 tat 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:

l .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 Economicswith application, Volume—I&II, Himalaya Publishing House.

Elective Core Courses

Paper IV (A) DEMOGRAPHY-I(6 Credits)(MAEC104A)

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 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:

Agarwal S.N. (1972), India's Population Problem, Tata McGraw- Hill Co., Bombay.

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.

CheneryH.andT.N.Srinivasan(Eds.)(1989),HandBookofDevelopmentEconomics,Vol. 1 & 2 Elsevier,Amsterdam.

Choubey, P.K. (2000), Population Policy in India, Kanishka Publications, New Delhi.

Coals,A.J.andE.M.Hoover(1958),PopulationGrowthandEconomicDevelopmentinLow income Countries: A Case Study of India’s Prospectus, Princeton University Press, Princeton.

Gulati, S.C (1988), Fertility in India: An Econometric Study of a Metropolis, Sage, New Delhi

PAPER IV (B) MATHEMATICAL ECONOMICS- I (6 CREDITS)(MAEC104B)

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

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

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

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 plat 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.

Semester — II

Compulsory Core Courses

PAPER-V: MICROECONOMIC THEORY–II 6(CREDITS)(MAEC201)

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. **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:

l . A. Koutsoyainnis: 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.

PAPER- VI MACROECONOMIC THEORY —II(6 CREDITS)(MAEC202)

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.

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,MacroEconomics:TheoriesandPolicies,PearsonEducation.
4. P.Edgemond,Macro economics, PHI, New Delhi.
5. S. Gregory Mankiw, Macroeconomics, CBS Publishers, New Delhi.
6. Robert J. Gorden, Macroeconomics, Harper Collins.

Paper-VII Statistical Methods (6 CREDITS)(MAEC203)

Note: There will be two parts in end semester paper.
Part A of the paper consists 10 short answer questions carrying 1 markeach.
PartBofthepaperconsiststhreeunits,3LonganswerquestionswithinternalChoicecarrying20 markseach.

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)

Module 3 (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:StatisticalMethods,SultanChand&Sons,NewDelhi.
2) KailashNathNagar:SankhyikiKeMoolTatva(Hindi)Meenakshi Prakashan,Meerut.
3) A.L. Nagar & R.K. Das: Basic Statistics, Oxford University; Press, New Delhi
4) D.R.Agarwal:QuantitativeMethods,VrindaPublication

Paper VIII (A) DEMOGRAPHY –II(6 Credits)(MAEC204A)

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 course is to enable the students to understand thoroughly the theories of Gender and Development. ϖ It also attempts to study economic growth and gender equality and, the impact of technology on women's labor market. ϖ Students would know about gender planning, gender budgeting, and development.

Course Learning Outcomes

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

Unit -I

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

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

Population and Development with reference to India: Population, economy and environmental 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 their regulation; The population policy.

Books Recommended:

Agarwal S.N. (1972), India's Population Problem, Tata McGraw- Hill Co., Bomby.

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.

CheneryH.andT.N.Srinivasan(Eds.)(1989),HandBookofDevelopmentEconomics,Vol.1 & 2 Elsevier,Amsterdam.

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 inLow income Countries: A Case Study of India's Prospectus, Princeton University Press, Princeton.

Gulati, S.C (1988), Fertility in India: An Econometric Study of a Metropolis, Sage, New Delhi.

Paper VIII (B) Mathematical Economics-II (6Credits)(MAEC204B)

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 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.

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

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 Runand Longrun; Duopoly and Oligopoly Marke tModels: The Quasi- Competitive Solution, the Collusion Solution, the Cournot Solution, Stackelberg Solution,theMarketShareSolutionandtheKinked-DemandCurveSolutionModels.

Unit-II

MacroeconomicModels-KeynesianTheoryofIncomeDeterminationandDerivationof DifferentMultipliers,EmploymentandOutputDetermination WithFixedandFlexiblePrices: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, Neoclassical Models of Solow & Meade and Kaldor's Mundell.

Unit-III

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-OutputModel, 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.
3. Alpha C Chiang: Fundamental Methods of Mathematical Economics, McGraw-Hill, Kagakusha, Tokyo.
4. R.G.D.Allen, Macroeconomic Theory :A Mathematical Treatment, McGraw- Hill, London.
5. Michael K.Evans :Macroeconomic Activity:Theory , forecasting Control.
6. David Romer: Advanced Macroeconomics, McGraw-Hill,Singapore.

Semester — III

Paper IX Public Economics — I (6 Credits)(MAEC301)

Note: There will be two parts in end semester paper.
Part A of the paper consists 10 short answer questions carrying 1 markeach.
PartBofthepaperconsistsofthreeunits,3LonganswerquestionswithinternalChoicecarrying20markseach.

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

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

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, JusticeinTaxation, Benefit & Ability to Pay Approaches. Theory of Optimal Taxation —EqualAbsolute, Equal- Proportional, Equal-Marginal and least Aggregate Sacrifice principles, Buoyancy and Elasticity of a Tax.

Unit-III

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:

MusgraveR.AandPeacockA.T.,"ClassicsintheTheoryofPublicFinance",McmillanBo
adway,Robin,"PublicSectorEconomics",Cambridge,WinthropPublishers
Bruce, Neil, "Public Finance", Addison- Wesley Educational Publishers, Inc.
Jones. Philip and Cullis, Jones, "Public Finance and Public Choice- Analytical Perspectives", Oxford University press
Stiglitz, Joseph, "Economics of the Public Sector", W.W.Norton and Company, new York/London
Rosen, H.S., "Public finance", Tata McGraw Hill
McNutt,P.A.,"TheeconomicsofPublicChoice",EdwardElgarPublishingInc.
Mueller, D.C., "Public Choice- I,II,III" Cambridge university Press, Cambridge
Downs,A.,"AnEconomicTheoryofDemocracy",HarperandRow,NewYork

Paper X International Trade Theory (6 Credits)(MAEC302)

Note: There will be two parts in end semester paper.
Part A of the paper consists 10 short answer questions carrying 1 markeach.
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

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 ofHaberler, Empirical Testing of Classical Theory, Standard Theory of Trade—Production Possibility Frontier, Community Indifference Curves, Offer Curves, TradeIndifference Curves,Terms of Trade and Gains form Trade.

Unit-II

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

Unit-III

EconomicGrowthandInternationalTrade—GrowthofFactorsofProduction,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:InternationalEconomics,CengageLearning;13edition.
3. D.Salvatore: International Economics,PHI,NewYork.
4. Ranaand Verma:International Economics,Visha lPublishingHouse Ludhiana (Hindi and English).

Paper XI Economics of Development and Growth — I(MAEC303) (6 CREDITS)

Note: There will be two parts in end semester paper.
Part A of the paper consists 10 short answer questions carrying 1 markseach.
Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each.

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

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, Scal*e* and Organization, Sustainable Development; Concept,Measures and Problems of Growth, Poverty and Inequalities in LDCs and their Impact on development.

Unit-II

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

Unit-III

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 Analysisin 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,GeraldM.andJamesE.Raunch:LeadingIssuesinEconomicDevelopment, Eighth Edition, Oxford University Press, NewYork.

2. Ray,Debraj:DevelopmentEconomics,SeventhImpression,OxfordUniversity Press, New Delhi,

3,Thirlwall,A.P:GrowthandDevelopment,EighthEdition,PalgraveMacmillan, NewYork.

4. Todaro, Micheal P. and Stephen Smith C: Economic Development, Eighth Edition, Second Impression, Pearson Education, (Singapore) Pvt. Ltd. IndianBranch, Delhi.

5. Yotopoulos,PanA.andNugentJefferyB:EconomicsofDevelopment:Empirical Investigations,HarperandRowPublishers,NewYork.

Paper XII Indian Economy-I (6 Credits)(MAEC304)

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.

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.

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

Natural Resource in India- land, Water, Forest and Minerals, Population- Size. Composition, Quality and Growth Trends. Characteristics of IndianPopulation 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

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

Industry- Strategy of Industrial Development and Industrial Policy Reforms, $mall ScaleandCottageIndustries,ReservationPolicyRelatingtoSmallScaleIndustries, 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. DuttandSundram: Indian Economy,S.Chand(LatestEd)(HindiandEnglish).
2. A.N.Agrawal: Indian Economy, New Age International Pub.(P) Limited, (Latest Ed) (Hindi and English).
3. LaxmiNarayanNathuramka:BhartiyaArthshastra,CollegeBookHouse,Jaipur (Latest Ed).
4. MishraAPurr:Indian economy,Himalaya PublishingHouse(LatestEd)(Hindi and English).
5. Twelfth Five Year Plan, PlanningCommission.
6. Economic Survey (Latest),GOI.
7. Monthly Bulletins,RBI.

Paper XIII (A) HISTORY OF ECONOMIC THOUGHT-I (6 Credits)(MAEC305A)

Note: There will be two parts in end semester paper.
Part A of the paper consists 10 short answer questions carrying 1 markseach.
Part B of the paper consists three units, 3 Long answer questions with internal Choice carrying 20 marks each.

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.

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

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

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

Unit-III

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:

Blaug, M 1997, Economic Theory in retrospect, Cambridge Universitypress, Cambridge Da
Costa,G.C:Production,Prices and Distribution(1985)TMH,NewDelhi
Dasgupta A.K.L1985) 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.
Eatwell,John, Murray Milgate ,Peter Newman(1998):
The New Palgrave _A Dictionary of Economics, Macmillan Reference Ltd.
Ghosh and Ghosh; Concise History of Economic Thought, Himalaya.
Gill Richard: (1972)Evolution of Modern Economics,Prentice Hall ofIndia. Hunt
E.K : (:1990) History of Economic Thought, Wodsworth.

Paper XIII (B) Econometrics- I (6 CREDITS)(MAEC305B)

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.

Objectives

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

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

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 Forints of Regression Models: Log-low, Semi-log, Reciprocal Transformation

Unit-II

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

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

Amemiya,T.(1985),AdvancedEconometrics,HarvardUniversityPress,Cambridge,Mass.
Baltagi,B.H.(1988),Econometrics,Springer,NewYork.
Goldberger,A.S.(1998),IntroductoryEconometrics,OxfordUniversityPress,NewYork.
Gujarati,D.N.(1995),BasicEconometrics(2ndEdition)MCGrawHillNewDelhi.
Intrilligator, M.D. (1978), Econometric Methods, Techniques and Applications, Prentice Hall Englewood Cliffs, New Jersey.
Johnson J. (1991), Econometric Methods, MCGraw Hall Book Co. London
Kmenta J. (1998), Elements of Econometrics, University of Michigan Press, NewYork. Koutsoyiannis, A. (1977), Theory of Econometrics, The Macmillan Press Ltd. London Maddala G.S.(Ed) (1993), Econometric Methods and application, Aldershot U.K.
Pindyck R.S. and D.L. Rubinfield (1976), Econometric Models and Economic Forecasts, MCGraw Hill Kogakusha Tokyo

Paper XIII(C) Survey Methods (6 Credits)(MAEC305C)

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.

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

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

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

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

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. **IntriligatorM.D ., Econometric Models, Techniques, and applications, Prentice Hall of India**

Semester — IV

Paper-XIV: Public Economics-II (6 Credits)(MAEC401)

Note: There will be two parts in end semester paper.
Part A of the paper consists 10 short answer questions carrying 1 mark each.
PartBofthepaperconsiststhreeunits,3LonganswerquestionswithinternalChoicecarrying20 marks each.

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

Public Debt—Sources , Effects, Burdenandits 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

Indian Tax System-Salient features, Major Taxes, Main Trends in the Revenue of the Central and State Governments in India, Non-Tax Revenue,Union Budget India,Maj or 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

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:

l.R.A.MusgraveandP.B.Musgrave:PublicFinanceinTheoryand practice, New York:McGraw-Hill.

2. R.A.Musgrave:TheoryofPublicFinance,McGraw-Hill,

3. S.G.Ganguli:PublicFinance,TheWorldPressPrivateLimited.

4. .JohnCallisandPhillipJones,PublicFinanceandPublicChoice.OxfordUniversityPress.

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

Paper- XV Trade Policy and International Monetary System (6 Credits)(MAEC402)

Note: There will be two parts in end semester paper.
Part A of the paper consists 10 short answer questions carrying 1 mark each.
PartBofthepaperconsiststhreeunits,3LonganswerquestionswithinternalChoicecarrying20 marks each.

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 student's 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

Political Economy of Protectionism: Trade Policy in Developing Nations-ImportSubstitutionV/sExportPromotion,StrategicTradePolicyinDeveloped 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

Economic Integration - Stages and Forms, Theory of Customs Union Static and Dynamic Effects, Regional Trade Blocks - Bilateral and Multi- Lateral InternationalNegotiations,PreferentialTradeAreas(PTAs)andFreeTradeAreas(FTAs) . WTO: issues and its impact on trade, IMF, World Bank- Their achievement andfailures.

Unit-III

ForeignExchange 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.

Books Recommended:

1. J.Bhagwati:InternationalTrade,CambridgeUniversityPress,London
2. R.J. Carbough; International Economics, Cengage Learning; 13edition.
3. FI. Salvatore: International Economics, PHI,New York.
4. Ranaand Verma:International Economics,VishalPublishingHouseLudhiana(Hindi and English).
5. SoderstonandReed:InternationalEconomics,FalgraveMacmillan;»RevEdedition.

Paper XVI Economics of Development and Growth —II (6 Credits)(MAEC403)

Note: There will be two parts in the semester paper.
Part A of the paper consists of 10 short answer questions carrying 1 mark each.
Part B of the paper consists of three units, 3 long answer questions with internal choice carrying 20 marks each.

Objective

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.

Learnig 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

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 heterogeneous World, World-Islands of Prosperity and How the Other Three Quarterslive.

Unit-II

Theories of Growth: Classical Approach: Adam—Smith, Marx and Schumpeter, Neo-Clasical Approach: Robinson, Solow, Kaldor and Harrod-Domarmodel, 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

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.

BooksRecommended:

l.Chenery,HollisandMoisesSyrquin:PatternsofDevelopment:1950-70, Oxford UniversityPress.

2. Kuznets,S.:ModernEconomicGrowth,RateStructureandSpread, Vakils,FefferandSimonsPrivateLimited,Bombay.

3. Meter,GeraldM.andJamesE.Rauch:LeadingIssuesinEconomicDevelopment, Eighth Edition, Oxford University Press, New York.

4. Ray,Debraj:DevelopmentEconomics,OxfordUniversityPress,Delhi.

5. RobertJ.BarrowandXavierSala-i-Martin:EconomicGrowth,Prentice-HallofIndia,Pvt.Lid.,NewDelhi.

6. Thir1wa11,A.P:GrowthandDevelopment,EighthEdition,Palgrave Macmillan, NewYork.

7. ThorvaldurGylfason:PrinciplesofEconomicGrowth,Oxford UniversityPress.

Paper XVII Indian Economy-II (6 Credits)(MAEC404)

Note: There will be two parts in the semester paper.
Part A of the paper consists of 10 short answer questions carrying 1 mark each. PartB of the paper consists of three units,3LonganswerquestionswithinternalChoice carrying 20 marks each

Objective

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.

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

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

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 73 and 74 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

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

BooksRecommonded:

1. RudraDuttandSundaram:IndianEconomy,S.Chand(LatestEd.) (Hindi and English)
2. A.NAgrawal:IndianEconoiiiy,NewAgeInternationalPub.(P)Limited, (LatestEd.)(HindiandEnglish).
3. LaxmiNarayanNathuramka:BhartiyaArthshastra,CollegeBookHouse (LatestEd.)
4. Mishra&Puri:IndianEconomy,HimalayaPublishingHouse(LatestEd.) (Hindi andEnglish)
5. UmaKapila:IndianEconomy,AcademicFoundation.

Elective Core Courses

Paper XVIII (A) HISTORY OF ECONOMIC THOUGHT-II(MAEC405A) (6 CREDITS)

Note: There will be two parts in the semester paper.
Part A of the paper consists 10 short answer questions carrying 1 mark each.
PartB of the paper consists three units,3 Long answer questions with internal Choice carrying20 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

Institutionalism: Veblen's 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

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

Unit-III

Post Keynesian Developments: Hayek - Supply side economics, Arthur Laffer, Evans Monetarism, Milton Friedman, Don Patinkin. An overview of the neo classical economics: Ratex-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:

Blaug,M1997,EconomicTheoryinretrospect,CambridgeUniversitypress,Cambridge Da

Costa,G.C:Production,PricesandDistribution(1985)TMH,NewDelhi

DasguptaA.K.L1985) Epochs of Economic Theory ,Oxford Univ Press, NewDelhi.

Ekelundand Hebert: A History of EconomicTheoryand Method(1990)McGraw Hill PublCo.New York.

Eatwell,John, Murray Milgate ,Peter Newman(1998):

The New Palgrave _A Dictionary of Economics, Macmillan Reference Ltd.

Ghosh and Ghosh; Concise History of Economic Thought, Himalaya.

Paper XVIII (B) Econometrics — II (6 Credits)(MAEC405B)

Note: There will be two parts in end semester paper.
Part A of the paper consists 10 short answer questions carrying 1 markeach.
PartBofthepaperconsiststhreeunits,3LonganswerquestionswithinternalChoice 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

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

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

Unit-III

Introduction to Panel Data: Panel Data with Fixed and Random Effects. Fixed Effects: Within and Between Group Effects, Unbalanced Panel and Fixed Effects. Randon Effects: GLS,Testing for Random Effects, Estimation of Dynamic PanelModel.

Note: Use of a non-programmable calculator is permitted.

Books Recommended:

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

Paper XVIII (C) (6Credits) (MAEC405C)

Scheme of Examination

TOTAL MARKS	EXTERNAL	EXTERNAL + INTERNAL (Viva-Voce)
100	60	40

Only those students who secure minimum 55 percent marks in I and II Semester (aggregate) are eligible to opt Survey Methods/ Econometrics in Semester III, and only these students are permitted to have Dissertation as their optional in Semester IV.

Learning Objective:

During this course, the students will be able to learn to:

1. Develop the ability to conduct and design theoretical and empirical Research.
2. Acquire skills in collecting, managing, analyzing and interpreting data using various mathematical and statistical tools.
3. Enhance critical thinking skills.
4. Develop project management skills including planning, organizing and executing Research Project.

Course Outcomes:

After the completion of this course, students will be able to:

1. Demonstrate the ability and show proficiency to conduct independent and original research.
2. Make a significant contribution to the body of knowledge in the field of economics.
3. Build professional relationships and networks that support academic and career development.
4. Have self-direction and initiatives in planning, managing, executing, interpreting, etc.

Students will be required to undertake a minor research project of either theoretical or experimental nature under the guidance of a faculty member of the Department and submit its report in three copies comprising minimum 50 pages. It will carry 100 marks. 60 marks will be allotted for its evaluation by external examiner and 40 marks will be for viva-voce to be conducted jointly by external and internal examiners. The topic of dissertation will be provided to the students by the Department or chosen by the students with the approval of Department. Topics are based either on Current situation in the economy or Indian Economic problems of last 5 years.

Note: **Dissertations-**Applicable only those students who scored minimum of 55% marks in I and II semester (Aggregate)