Pt. Ravishankar Shukla University Raipur

CURRICULUM & SYLLABI
(Based on CBCS & LOCF)

M.A. Economics

Semester System

Session: 2024-25 & onwards

Approved by:	Board of Studies	Academic Council
Date:		

<u>M.A. Economics</u>

Introduction:

The Master of Arts in Economics program is a two-year, four-semester program designed to provide students with a comprehensive understanding of advanced economic principles and their applications. Program provides highly demanded skills in economic analysis and policy for students seeking jobs in the public or private sector as well as prepares the academically oriented student to excel in PhD studies. The programme aims to produce successful and competent professionals with socially responsible citizens. At post graduate level, candidates are required to study 20 papers in all the four semesters (5 papers in each semester). Each paper shall carry 100 marks out of which 70 marks will be for theory paper and 30 marks for internal assessment. There shall be 2100 marks in M.A. in Economics and Candidates shall have secure 36 percent marks in aggregate of all papers in order to pass the M.A. examination. Examination and result shall be treated according to rules and regulations of ordinance no. 13.

Program Outcomes:

Upon successful completion of the two- year programme of Master of Arts in Economics, students will be able to:

PO-1	**Knowledge:** Develop academic, comprehensive, fundamental and theoretical knowledge of economic theories. It helps students to apply knowledge of economics for team building and create entrepreneurial initiatives for livelihood and social development.
PO-2	**Critical Thinking:** Develop cognitive skills to analyse the economic problems, understand the events and carry out investigation to evaluate various policies

	adopted to address socio-economic issues by giving their own suggestions.
PO-3	**Analytical skill:** Econometric methods, optimization, equilibrium, comparative statics, economic incentives, diagrams, equations and explanations will equipped students in analytical techniques of identify, compile, interpret and analyse quantitative economic data.
PO-4	**Practical Application:** Applying analytical, critical, and quantitative skills in specialized areas to make decisions in everyday life as an individual, member and team.
PO-5	**Communication:** Demonstrate effective communication skill by applying economic concepts and economic ideas that states assumptions and hypotheses supported by evidence to real world situations in oral, written, graphical and technological means in their day-to-day life.
PO-6	**Leadership:** Develop leadership qualities that promotes team work to lead others and will make them to lead diverse audiences and situations in multidisciplinary environment.
PO-7	**Quantitative Reasoning:** Access all relevant statistical and mathematical tools based on economic principles. and will be able to write & visualise primary and secondary sources of information, interpret concepts and data from a variety of sources in developing disciplinary and interdisciplinary analyses.
PO-8	**Interdisciplinary Knowledge and Global Consciousness:** Multidisciplinary knowledge and global competencies, will enhance students understanding of the world around them both within economics and beyond.
PO-9	**Ethical Values**: Develop ethical and responsible conduct in Economics and aware them to become rational & enlightened citizen so that they can responsible and committed toward development and upliftment of society.
PO-10	**Education & Employability:** Knowledge & skills will help them to engage for further academic pursuits in economic fields and make them fit to be professional, self-employed or an academician, researcher, officer, manager, administrator in different private and government sectors.
PO-11	**Public policy analysis:** understand the impact of government policies relating to taxation, price controls, subsidies, innovation and intellectual property, labour laws, efficiency and so on.
PO-12	**Research skills:** Frame an economic problem of public significance in question, evaluate it using an appropriate research methodology and write, present & publish their findings and solution in research papers.

Programme Specific Outcomes (PSOs):

At the end of the program, the student will be able to:

PSO1	Develop a thorough knowledge of theories, concepts, and research methods in the field of economics and how the economy is influenced by economic policy, technological advances, demographic conditions & environment etc.
PSO2	Develop students understanding about how market for goods and services function and how income is generated and distributed.
PSO3	Gain depth knowledge into special fields of choice like agricultural economics, industrial economics, financial market, development economics, international trade, environmental economics, urban economics, econometrics, mathematical economics etc.
PSO4	Understand how economics work and how economists think to solve economic problems related to human issues.

PSO5	Apply theories, models, and tools of Economics to analyse socio-economic issues and develop own thinking /opinion regarding current national or international policies and issues.
PSO6	Explore and engage in IT tools and software for research skills to analyse problems, formulate an hypothesis, evaluate and validate results and draw reasonable conclusions thereof.

M.A. Economics

Specification of Course	Semester	No. of Courses	Credits
Core	I-IV	16	80
Elective	III-IV	04	20
Total		20	100
Internship		01	02
Additional Courses (Qualifying in nature, for Student admitted in School of Studies only)			
Generic Elective	II-III	02	04
Skill Enhancement (Value Added Courses)	I, IV	02	04

M.A. Economics
PROGRAMME STRUCTURE

Semester	Course Nature	Course Code	Course Title	Course Type (T/P)	Hrs/ Week	Credits	CIA**	ESE*	Total
Semester-I	Core	ECO110	Micro Economics I	T	6	5	30	70	100
	Core	ECO120	Macro Economics I	T	6	5	30	70	100
	Core	ECO130	Quantitative Methods	T	6	5	30	70	100
	Core	ECO140	Public Finance	T	6	5	30	70	100
	Core	ECO150	Indian Economy	T	6	5	30	70	100
Semester-II	Core	ECO210	Micro Economics II	T	6	5	30	70	100
	Core	ECO220	Macro Economics I	T	6	5	30	70	100
	Core	ECO230	Research Methodology & Computer Application	T	6	5	30	70	100
	Core	ECO240	Indian Economic Policy	T	6	5	30	70	100
	Core	ECO250	Public Economics	T	6	5	30	70	100
	Internship			P	3w	2			100
Semester-III	Core	ECO310	Economics of Growth	T	6	5	30	70	100
	Core	ECO320	International Trade	T	6	5	30	70	100
	Core	ECO330	Environmental Economics	T	6	5	30	70	100
	Elective-1 (Select any one)	ECO340	1. Industrial Economics 2. Labour Economics	T	5	4	30	70	100
	Elective-2 (Select any one)	ECO350	1. Demography 2. Mathematical Economics	T	5	4	30	70	100
Semester-IV	Core	ECO410	Economics of Development and Planning	T	6	5	30	70	100
	Core	ECO420	International Economics	T	6	5	30	70	100
	Core	ECO430	Economics of Social Sector	T	6	5	30	70	100
	Elective-1 (Select any one)	ECO440	1. Agriculture Economics 2. Econometrics	T	6	5	30	70	100
	Elective-2 (Select any one)	ECO 450	1. Project (P) 2. Money & Banking (T)	P/T	6	5	30	70	100

* End Semester Exam ** Course Internal Assessment

Generic Elective Courses:
(Offered to PG students of other Departments/SoS only)

Semester	Course Code	Course Title	Course Type (T/P)	Hrs/ Week	Credits	CIA	ESE	Total
II	ECO510	Basic Concept of Economics	T	2	2	30	70	100
III	ECO520	Indian Economy	T	2	2	30	70	100

Skill Enhancement/Value Added Courses:
(Offered to the PG students of SoS in Economics)

Semester	Course Code	Course Title	Course Type (T/P)	Hrs/ Week	Credits	CIA	ESE	Total
I	ECO610	Economics and Indian Knowledge System	T	2	2	30	70	100
IV	ECO620	Data Analysis Using SPSS	T	2	2	30	70	100

M.A. Economics SEMESTER – I

Programme	Subject	Year	Semester
M.A.	Economics	1st	I
Course Code	**Course Title**		**Course Type**
ECO110	Micro Economics I		Core

Credit	Hours Per Week	
	T	P
5	6	0
Maximum Marks	**CIA****	**ESE***
100	30	70

* End Semester Exam ** Course Internal Assessment

Learning Objective:
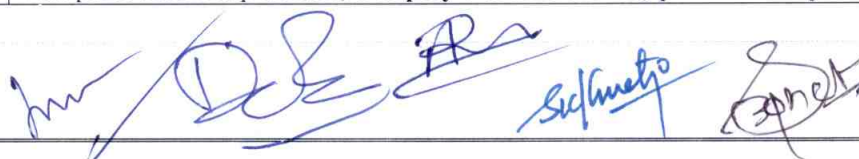
The course aims to help student in learning the core economic term and theoretical understanding of the core theories elated to behaviour of consumer, producer, market in decision making on the allocation of resources.

Course Outcome:

Expected Course Outcome	
At the end of the program, the student will be able to:	
CO1	Able to understand the basic principle of equilibrium, economic models, theories of demand and supply.
CO2	Understand the theory related to production, different types of production function & Theories of long run and short run production function.
CO3	Able to understand the various types of cost, theories of cost and revenues
CO4	Able to understand the different markets and their mechanism.
CO5	Able to explain the price and output determination, equilibrium and group equilibrium in different markets.

Detailed Syllabus:

Unit No.	Topics
I	**Introduction:** Economic problems : scarcity and choice, production possibility curve, **Neo Classical Utility Analysis:** meaning, definition , types, law of diminishing marginal utility, consumers equilibrium, **Demand :** meaning , definition, factors affecting demand, law of demand , Elasticity of Demand (Price, Income & Cross), Supply : law of supply , elasticity of supply.
II	**Indifference curve :** meaning , definition, characteristics, Marginal Rate of Substitution, Income & substitution effect : Hicks and Slutsky theorem, Revealed preference theory, Hicks's Revision of Demand, Hicksian Consumer surplus.
III	**Theory of Production:** Production function, the short period & long period production, function, the law of variable proportion (Iso-quant approach) Marginal rate of Technical Substitutions, returns to a factor and returns to scale. Expansion path, Cobb Douglas Production function, CES production function.
IV	**Theory of cost and Revenue, Market structure I: Perfect Competition**: equilibrium of firm in Perfect Competition. **Monopoly:** short run and long run equilibriums, price discrimination under monopoly competition, monopoly control and regulation. Comparison between monopoly and perfect competition.
V	**Market structure II: Monopolistic Competition:** price and output determination under monopolistic competition, Group equilibrium, theory of excess capacity. **Oligopoly:** non- collusive oligopoly model: The kinked demand curve. The collusive oligopoly; Cartels: joint profit maximization or perfect cartels, price leadership: the low cost price leadership model., **Duopoly :** characteristics, price and output determination

under duopoly.	

Text Books

1. Jhingan M. L. (2014), Advanced Economic Theory, Vrinda Publication, New Delhi
2. Jhingan M. L. (2014), Micro Economics , Vrinda Publication, New Delhi
3. Agarwal , A (2014), Micro Economic analysis , Sahitya Bhawan Publication, New Delhi

Reference Books

1. Kraps, David M. (1990) a course in micro economics theory, Princeton university press, Princeton.
2. Kout sayiannis; A (1979) modern Microeconomics (2nd Edition), macmillan press,London.
3. Layard, PRG and P.W. Watters (1978), Micro economic theory, McGraw Hill, New York.
4. San A (1999) Micro economics theory and Applications, Oxford University Press, New Delhi;
5. Stigler, G. (1996) theory of Price (4th edition), Princeton Hall of India, New Delhi.
6. Varian, H (2000) Micro economics Analysis, W.W. Norten, New York.
7. Baumol W.J., (1982) Economic theory and operations Analysis, Princeton Hall of India, New Delhi.
8. Handersan, J.M. and R.E. Quandy (1980) Micro economics theory - A Mathematical approach, Mc Graw Hill New Delhi.
9. Hirshleifer, J. And A Glazer (1997), Price theory and Application, Prentise Hall of India, New Delhi.

M.A. Economics SEMESTER – I

Programme	Subject	Year		Semester
M.A.	Economics	1st		I
Course Code	**Course Title**			**Course Type**
ECO120	Macro Economics I			Core
Credit	**Hours Per Week**			
	T			P
5	6			0
Maximum Marks	**CIA**			**ESE**
100	30			70

Learning Objective:

The course helps student in learning and understanding major issues as the arise in the field of macroeconomics understand alternative approaches to modelling consumption and investment and critically evaluate the usefulness of macroeconomic technique.

Course Outcome:

Expected Course Outcome
At the end of the program, the student will be able to:

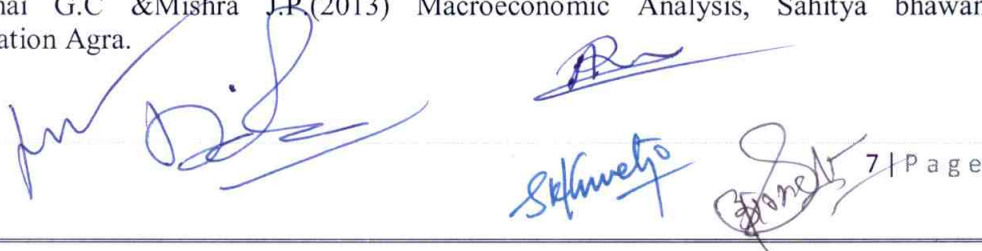|	
CO1	Able to understand the different sectors of economy, concept of National income, different forms national accounting & its methods of measurement.
CO2	Understand the various theories of employment and able to compare Classical and Keynesian theories.
CO3	Understand the concept of consumption function and able to explain various theories related to consumption in the economy.
CO4	Able to explain the concept of Investment function, working of multiplier, various forms of money and their supply in the economy.
CO5	Able to Understand & explain the various theories related to demand for money in the economy.

Detailed Syllabus:

Unit No.	Topics
I	National Income and Accounts – Concept of National Income and National Product, Problems of Measurement, Different forms of National Income Accounting – Social Accounting, Input Out-put Accounting, Flow of Funds, Balance of Payment – Accounting. Circular flow of Income – Two, Three and Four Sector Economy
II	Classical Theory of Employment, Say's Law of Market, Principle of Effective Demand, Keynesian & Pigou Theory of Employment, Comparison of Classical and Keynesian Models. National Income Determination of Keynesian Model - Two, Three and Four Sector Economy.
III	Consumption Function- Keynesian Psychological Law of Consumption, Short Run and Long Run Consumption Function. Theory of Consumption Function – Absolute Income Hypothesis, Dusenbery's Relative Hypothesis, Life Cycle and Permanent Income Hypothesis.
IV	Investment Function, Marginal Efficiency of Capital and Investment. Saving and Investment Equality, Multiplier and its working, Accelerator and its working, Super-Multiplier. Supply of Money, Determinants of Money Supply, Measurement of Money supply, Control of Money Supply. High Powered Money, Money Multiplier. The Liquidity theory of Money.
V	Demand for Money –Fisher and Cash Balance (Cambridge) Approach, Fundamental Equation of Keynes. Friedman, re-formulation of the quantity theory of money, Post Keynesian Approach to Demand for Money- Patinkin, Bamouls, James Tobin, Friedman, and Gurley & Shaw's Approaches.

Text books

1. Sethi,T.T.(2008)Macro Economics ,Laxminarayan Agrawal ,Agra.

2. Jhingan,M.L.(2010)Monetary Economics,vrinda publications pvt.ltd.
3. Jhingan,M.L.(2000)Macro Economic theory,vrinda publications pvt ltd.

4. Shinghai G.C &Mishra J.P.(2013) Macroeconomic Analysis, Sahitya bhawan publication Agra.

Reference

1. Blackhouse, R. and A. Salansi (Eds.) (20()), Macroeconomics and the Real World (2 vol.)
   Oxford University Press, London.

2. Branson, W.A. (1989), Macroeconomics Theory and Policy, (3rd Edition), Harper and Row, New York.
3. Aornbusch, R and F. Stanley (1997), Macroeconomics, McGraw Hill, inc., New York
4. Hall, R.E. and J.B. Taylor (1986), Macroeconomics, W.W>Norton, New York.
5. Heijdra, B.J. and V.P. Frederick (2001), Foundations of Modern Macroeconomics, Oxford University Press, New Delhi.
6. Jha, R. (1991), Contemporary Macroeconomic Theory and Policy, Wiley Eastern Ltd. New Delhi.
7. Romer, D.L. (1996), Advanced macroeconomics, McGraw Hill Company Ltd., New York.
8. Scarte, B.L. (1997), Cycles, Growth and inflation, McGraw Hill, New York.
9. Markeley, G. (1978), Macroeconomics Theory and Policy, macmillan, New York.

M.A. Economics SEMESTER – I

Programme	Subject	Year	Semester
M.A.	Economics	1st	I
Course Code	**Course Title**		**Course Type**
ECO130	Quantitative Methods		Core
Credit	**Hours Per Week**		
	T		P
5	6		0
Maximum Marks	**CIA**		**ESE**
100	30		70

Learning Objective:

The aim of this course is to develop mathematical approach & techniques which are directly useful in analysis of economic problems. With the help of economic examples students are train to use the techniques of mathematical and statistical analysis, which are commonly applied to understand and analyse economic problems.

Course Outcome:

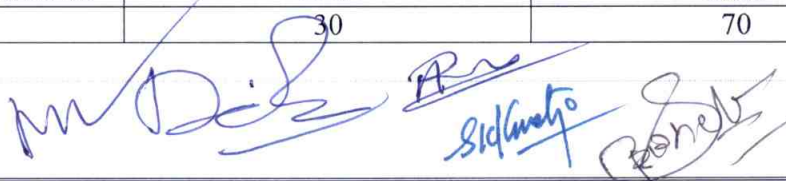| Expected Course Outcome	
At the end of the program, the student will be able to:	
CO1	Able to understand the problem of skewness and learn the measurement of correlation.
CO2	Able to solve the economic problems related to regression analysis.
CO3	Able to understand and solve the problem related to association of attributes.
CO4	Able to apply the concept of probability, permutation and combination in solving economic problems.
CO5	Able to learn the concept the index numbers, time series analysis and their applicability in economics.
CO6	Able to understand the basics of mathematical concept of function, differentiation, integration and how to use in economic problems.

Detailed Syllabus:

Unit No.	Topics
I	Skewness – Symmetrical and asymmetrical distribution, Measurement of skewness – Karl Pearson's coefficient of skewness, Bowley coefficient of skewness. Simple correlation - Measurement of correlation - Karl Pearson's coefficient of correlation and Spearman's rank correlation, Calculation of coefficient of correlation in a bivariate frequency distribution, Coefficient of correlation by the method of least square, Probable error and standard error in correlation, Coefficient of determination of correlation.
II	Regression analysis – regression and correlation, types of regression, regression lines and correlation, Regression equations. Simple regression analysis, regression equation through least squares, Determination of correlation by regression coefficients, Multiple regression analysis (up to three variables only). Standard error of the estimates of simple and multiple regression analysis. Inter potation and extrapolation: Method of fitting a parabolic curve, Newton's advancing difference method, Direct binomial expansion method and Lagrange's method
III	Association of Attributes – Meaning, classification and types of association, difference between association and correlation, Consistency of data, Methods of determining association – Method of comparison of proportion, Coefficient of association using Yule's method. Probability: Meaning and definition, Possibility chart, Permutation and combination, Types of events, Measurement of probability– Addition and multiplication theorem, Conditional probability
IV	Index Number: Meaning and characteristics of Index number, Fisher's ideal index number, Reversibility Test – Time reversibility test & factor reversibility test. Time series Analysis – Components of time series, Measurement of long term trend- semi-average method, Moving average method and method of least squares.
V	Functions: Meaning and types of functions, Differentiation: Meaning and rules of differentiation, Integration: Meaning and rules of integration, Problems related to differentiation and integration, Auto correlation.

Reference:

1. Shukla, S.M. and S.P. Sahay – "Quantitative Methods", Sahitya Bhawan Publications, Agra.
2. Agrawal, D.R., "Quantitative methods". Vrinda Publications (P) Ltd, Delhi.
3. Sancheti, D.C., "Quantitative methods" Sultanchand and Sons, New Delhi.
4. Gupta, S.P. and others, "Quantitative Techniques" Sultanchand and Sons, New Delhi.
5. मेहता एवं मदनानी, 'अर्थशास्त्र में प्रारंभिक गणित', लक्ष्मीनारायण अग्रवाल, आगरा–3.
6. Gujarati, Damodar N, "Basic Econometrics", McGraw Hill Education Pvt. Ltd. , Chennai.

M.A. Economics SEMESTER – I

Programme	Subject	Year	Semester
M.A.	Economics	1st	I
Course Code	**Course Title**		**Course Type**
ECO140	Public Finance		Core
Credit	**Hours Per Week**		
	T		**P**
5	6		0
Maximum Marks	**CIA**		**ESE**
100	30		70

Learning Objective:

This course aims to help students in understanding and analysing the impact of public policy on the allocation of resources and the distribution of income in the economy and also able to analysis of public expenditures, public revenue, taxation, budgetary procedures, stabilization instruments, debt issues etc.

Course Outcome:

Expected Course Outcome	
At the end of the program, the student will be able to:	
CO1	Able to define nature, scope & role of public finance in developing Countries and understand the objective, principles, canons & incidence of taxation
CO2	Students will able to explain the meaning, scope, forms and canons of public expenditure. It will help to explain the structure, growth and trends of public expenditure in India.
CO3	Students will able to explain the meaning, classification, sources and effects of public revenue and able to understand the possible burden, benefits and distribution of various types of taxes, use them to suggest good and bad tax system.
CO4	Understand the needs of public borrowing, different sources to meet necessary public investment/expenditures and student will able to explain principles of Public Debt Management.
CO5	Able to understand and explain the preparation of budget and how they are passed in the house. Understand the changes in size and flexibility of state and central budget along with the role played by Finance Commission.

Detailed Syllabus:

Unit No.	Topics
I	Definition, Nature and scope of Public Finance, Role of Public Finance in Developing Countries, Principles of Maximum Social Advantages. Taxation – features of good tax system, Objectives of Taxation, Principles of Taxation, canons of Taxation, Shifting, Effects and Incidence of Taxation. Impact of Tax under Laws of Returns and Perfect Competition.
II	Public Expenditure: - Meaning and Scope, Different Forms of Expenditure, Canons of Public expenditure, Structure and Growth of Public Expenditure in India. Trends in Central Government Expenditure. Economic Effects of Public Expenditure on Production and Distribution. Public Expenditure and Economic Growth.
III	Public Revenue: - Meaning, classification, sources, principles and effects of public revenue. Classification of taxation: - Indirect & Direct Tax, Goods and Service Tax (GST) New Direct tax, Central Excise, Custom Duties, Taxes on Land and Agriculture, Value Added Tax, Modvat, Service Tax, Taxable Capacity.
IV	Public Debt – Meaning and Objectives of public debt, Different Sources of Public Debt, Redemption of Public Debt. Principle of Public Debt Management, Growth of Public Debt in India, Burden of Public Debt.
V	Budget – Meaning, Objectives, Different forms of Budget, Budgetary Process in India, Kinds of Budget – traditional Budget, Performance Budget, Zero Based Budget, Outcome Budget, Gender Budget. Budget Theory – Classical Viewpoint (Balance Budget), Modern View Point (Imbalanced Budget.)

Text Book

1. Lekhi, R.K.,(2014), Public Finance, Kalyani Publication Ludhiana New Delhi
2. S.K., Singh, (2013) Principal of Public Finance Sahitya Bhavan Publication, Agra.

3. Pant, K.C., (2012) Public Finance

4. Sinha, V.C.,(2013) Public Finance and Economic, Sahitya Bhavan Publication.

Reference Books

1. Atkinson, A.B. and J.E. Siglitz (1980), Lectures on Public Economics, Tata McGraw Hill, New York.

2. Government of India (1992), Reports of the Tax Reforms Committee – Interim and Final (Chairman: Raja J. Chelliah).

3. Chelliah, Raja J. et. Al (1981), Trends and issues in India"s Federal Finance, NIPFP. New Delhi.

4. Peacock, A. and G.K. Shaw (1976), The Economic Theory of Fiscal Policy, George Alen and Unwin, London.

5. Sahni, B.S. (Ed.) (1972), Public Expenditure Analysis: Selected Readings, Rotherdam University Press.

6. Musgrave, R.A. and P.B. Musgrave (1976), Public Finance in Theory and Practice, Mcgraw Hill, Kogakusha, Tokyo.

7. 14th Finance commission Report-2015

8. Central Govt. and Stat Govt. Budget.

M.A. Economics SEMESTER – I

Programme	Subject	Year		Semester
M.A.	Economics	1st		I
Course Code	**Course Title**			**Course Type**
ECO150	Indian Economy			Core
Credit	**Hours Per Week**			
	T			P
5	6			0
Maximum Marks	**CIA**			**ESE**
100	30			70

Learning Objective:

The aim of this course is to learn the pre and post development of Indian economy, growth phases and economic planning. Students will understand the development of various sectors of economy and their contribution in economic growth of India.

Course Outcome:

Expected Course Outcome
At the end of the program, the student will be able to:
CO1 Able to understand the issues and challenges of development of Indian economy.

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CO2	learn the concept of national income and their components & methods of calculation
CO3	Understand the demographic profile of India & Chhattisgarh and their relationship.
CO4	Able to explain the agriculture development in India.
CO5	Able to explain the health economics and important concept related to health economics.
CO6	Able to understand the term infrastructure and social sector and explain the contribution of energy, power, transportation, education, human capital etc. in the economic development of India.

Detailed Syllabus:

Unit No.	Topics
I	**History of Indian Economy:** Meaning, basic characteristics and major issues of Indian Economy in the pre independence era, **GDP and National Income of India :** Components and Structure of GDP, Role of Primary, Secondary and Tertiary Sectors in GDP, Per Capita Income.
II	**Demographic Features of India** : Size, Growth Rate, Sex Ratio, Age-Composition, Literacy and Density of Population, **Migration :** meaning, types, causes, Urbanization and Civic Amenities, Occupational Structure, National Population Policy, Demographic Features of Chhattisgarh State.
III	**Agricultural Economics :** Agricultural Growth and Productivity, Causes of Low Productivity and Measures to Increase it, Agricultural Marketing and Warehousing, Institutional Structure- Land Reforms in India, The Green Revolution, National Agricultural Policy and Food Security in India, Rural credit in India, NABARD and its role in rural credit.
IV	**Health Economics:** Basic concepts; definition and dimensions of health [WHO definition], meaning and importance of health economics, determination of health – input and output indicators of health. Health as investment- Economics of public health, Education and Health – concept of health education capital formation in health care. Health in developing countries – significance of health in LDCs – measuring the burden of disease- the concept of DALYs and QALYs – challenges for the future
V	**Infrastructure and Social Sector Economics:** Infrastructure and Economic Development, Energy, Power, Transportation-Road, Railway, Water and Civil Aviation in India. **Concept of Social Sector and Social Infrastructure,** Education; investment in Human capital, rate of return to education; private and social; quality of education; signalling or human capital; theories of discrimination; gender and caste discrimination in India. Education sector in India: An overview literacy rates, school participation, school quality measures.

Reference: -

1. Ahulwalia, I. J. and I. M. E. Litle (Eds.) 1999): India"s Economic Reforms and Development
2. (Essay honor of Manohar Singh), Oxford University Press, New Delhi
3. .Bardhan, P. K. (9th Edition) (1998): The Political Economy of Development India, Oxford University Press, New Delhi.
4. Bawa, R.S. and Raikhy (Ed.) (1997): Structural Change in Indian Economy, Guru Nanak Dev University Press. Amritsar (PB).
5. Brahmananda, P. R. and V. R. Panchmukhi (9th Eds.) (2001): Development Experience in the
6. Indian Economy: Interstate Perspectives, Bookwell, Delhi.
7. Chakravarty, S. (1987): Development Planning: The Indian Experience, Oxford University Press, New Delhi.
8. Dantwala, M. L. (1996): Dilemmas of Growth: the Indian Experience, Sage Publication, New Delhi.

M.A. Economics SEMESTER – II

Programme	Subject	Year	Semester
M.A.	Economics	1st	II
Course Code	**Course Title**		**Course Type**
ECO210	Micro Economics II		Core

Credit	Hours Per Week	
	T	P
5	6	0
Maximum Marks	**CIA**	**ESE**
100	30	70

Learning Objective:

The course is intended to acquaint the student with decision making in the context of critical understanding and analytical approach towards behaviour of consumer and decision making, market interdependence, complexity, uncertainties, information asymmetry with the help of linear programming and game theory. Student will gain knowledge of various theories related to distribution, behavioural economics and welfare economics.

Course Outcome:

Expected Course Outcome	
At the end of the program, the student will be able to:	
CO1	Able to critically understand various alternative theories of profit maximization such as Managerial theory, Limit price theory and Behaviouristic theory of firm.
CO2	Student gain knowledge about concept of linear Programme, general equilibrium Games theory economics efficiency & market failure and able to analyse strategic interaction and exchange between economic agents in game theory strategies and linear programming.
CO3	Able to explain marginal productivity theory of distribution, theory of wages Identify different types of rent, different theories interest and profit.
CO4	Able to apply and identify economic tools and techniques to study the strategic behaviour of economic agents.
CO5	Able to understand how factor market works knowing the Basic tools in welfare economics & know the concept of social welfare functions & compensation principal.

Detailed Syllabus:

Unit No.	Topics
I	**Sales maximization model:** Baumol's model (price-output determination of a product without advertisement and optimal advertising outlay), **Managerial theories of the firm:** Williamson's model of managerial discretion, Marris theory of the firm. Theory of limit pricing: Bains model.
II	**Theories of distribution:** marginal productivity theory of distribution: J. B. Clark's and Marshall – Hicks's Version, Product Exhaustion theorem. Neo-Classical Approach of

	Distribution: relative share of labour and capital, technological progress and factor shares in income, Determinants of rent, wages, interest and profit (classical and modern Theory).
III	**Linear programming**: Introduction, & meaning, Conditions and Generalization, Application to the theory of firm, Limitations of Linear Programming, Graphical & Mathematical Solution. **Game Theory:** Introduction, meaning, types of games : Two Person Zero Sum game, Non Constant sum game, Dominant Strategy, Nash equilibrium, Prisoner's Dilemma, Limitations of the Game Theory, importance of the Game Theory. **Input –output model :** meaning, assumptions, Hawkins-Simon conditions, limitations.
IV	**Behavioural economics:** What is behavioural economics? – History and evolution – relation with other disciplines objectives and scope- themes and methodology of behavioural economics (theory, evidence, consilience)- application.
V	**Welfare economics:** Walrasian– introduction, value judgment, classical welfare economics, Pigouvian Welfare economics, Pareto optimal conditions. New welfare economics: compensation principle of Kaldor - Hicks. Social welfare function: Bergson – Samuelsons social welfare function, Arrow's impossibility theorem.

Text Books

1. Jhingan M. L. (2014), Advanced Economic Theory, Vrinda Publication, New Delhi

2. Jhingan M. L. (2014), Micro Economics, Vrinda Publication, New Delhi

3. Agarwal , A (2014), Micro Economic analysis, Sahitya Bhawan Publication, New Delhi

Reference Books

1. Mansfield, E. (1997), Microeconomics (9th Edition), W.W. Norton and Company, New York.
2. Ray, N.C. (1975), An Introduction to Microeconomics, Macmillan Company of India Ltd., Delhi.
3. Ryan, W.J.L. (1962), Price Theory, Macmillan and Co. Limited, London.
4. Samuelson, P.A. and W.D. Nordhaus (1998), Economics, Tata McGraw Hill, New Delhi.
5. Stonier, A.W. and D.C. Hague (1972), A Textbook of Economic Theory, ELBS and Longman Group, London.

M.A. Economics SEMESTER – II

Programme	Subject	Year	Semester
M.A.	Economics	1st	II
Course Code	**Course Title**		**Course Type**
ECO220	Macro Economics II		Core
Credit	**Hours Per Week**		
	T		**P**
5	6		0
Maximum Marks	**CIA**		**ESE**
100	30		70

Learning Objective:

The course provides a broad view of objectives, targets and instruments of macroeconomic policy. It will help Students to understand and develop analytical thinking about new classical

and new Keynesian theories of Business cycle. The student will able to assess the role and importance of macroeconomic policy in both classical and Keynesian set-ups.

Course Outcome:

	Expected Course Outcome At the end of the program, the student will be able to:
CO1	Able to critically understand various theories of Inflation, control of Inflation and Philip curve analysis.
CO2	Student gain knowledge about new classical and new Keynesian theories of Business cycle.
CO3	Able to evaluate the formulations of macroeconomic policies such as Monetary and Fiscal policies in stabilizing the economy.
CO4	Able to understand and identify the various types of equilibrium like product market & money market. determination of interest rates can be easily assessed with the help of classical and neoclassical models and derivation of IS-LM curves.
CO5	Able to understand the banking system, credit creation and role of commercial banks in economic development.

Detailed Syllabus:

Unit No.	Topics
I	Theory of Inflation – Classical, Keynesian and Monetarist Approaches to Inflation, Semi and Full inflation, Theory of Structural Inflation, Stagflation, Control of Inflation. Philips Curve Analysis– Short Run and Long Run Philip's Curve. The Natural Rate of Unemployment Hypothesis, Tobin's Modified Philip Curve.
II	Business Cycles, Main Features of Business Cycles, Types of Business Cycle, measures to control business cycle. Theories of Business Cycles - Hawtrey's Monetary Theory of Trade Cycle, Schumpeter's, Keynes, Hicks, Samuelson's, Friedman, Kaldor Model of Trade Cycle.
III	Monetary Policy-Meaning of Monetary Policy, Instrument of Monetary Policy, Objective of Monetary policy, Limitations of Monetary Policy, Monetary Policy and Economic Development. Fiscal Policy– Meaning of Fiscal Policy, Instruments of Fiscal Policy, Objectives of Fiscal Policy, Fiscal Policy and Economic Growth, Effectiveness of Fiscal Policy, Monetarism Vs Fiscalism– The Debate, Similarities between Monetary Policies and Fiscal Policies. The New Classical Macroeconomics, supply side economics.
IV	IS-LM Model, The Product Market Equilibrium, The Money Market Equilibrium, Equilibrium of Product and Money Market, Merits and Demerits of IS-LM Curve, Extension of IS-LM Models with Flexible Prices and Labour Market. Effect of fiscal policy in the Neo-Classical Model, Effect of Monetary Policy in Keynesian System, Effect of monetary policy in Keynesian system.
V	Banking, meaning and function of commercial bank, Credit creation of Commercial bank, Organisation and Structure of Commercial banking ,Policies and Principles of Commercial bank ,Central banking, Function and Credit Control.

Text books
1. Sethi, T.T. (2009-10) Macro economics ,Laxminarayan Agrawal ,Agra.
2. Jhingan, M. L. (2008) Monetary Economics,vrinda publications pvt.ltd.
3 Jhingan, M. L. (2010) Macroeconomic theory,vrinda publications pvt ltd.

4. Singhai, G. C. & Mishra J. P. (2013) Macro Economic Analysis, Sahitya Bhawan Publication Agra.

Reference

1 Blackhouse, R. and A. Salansi (Eds.) (20()), Macroeconomics and the Real World (2 vols) Oxford University Press, London.
2 Branson, W.A. (1989), Macroeconomics Theory and Policy, (3rd Edition), Harper and Row, New York.
3 Aornbusch, R and F. Stanley (1997), Macroeconomics, McGraw Hill, inc., New York
4 Hall, R.E. and J.B. Taylor (1986), Macroeconomics, W.W>Norton, New York.
5 Heijdra, B.J. and V.P. Frederick (2001), Foundations of Modern Macroeconomics, Oxford University Press, New Delhi.
6 Jha, R. (1991), Contemporary Macroeconomic Theory and Policy, Wiley Eastern Ltd. New Delhi.
7 Romer, DL. (1996), Advanced macroeconomics, McGraw Hill Company Ltd., New York.
8 Scarte, B.L. (1997), Cycles, Growth and inflation, McGraw Hill, New York.

M.A. Economics SEMESTER – II

Programme	Subject	Year	Semester
M.A.	Economics	1st	II
Course Code	**Course Title**		**Course Type**
ECO230	Research Methodology & Computer Application		Core
Credit	**Hours Per Week**		
	T		P
5	6		0
Maximum Marks	**CIA**		**ESE**
100	30		70

Learning Objective:

The aim of this course is to study various methods for conducting social science research. It deals with various approaches, methods, tools and techniques which helps in develop interest on research, select and approach a research problem, concept of research design and awareness on research writing skill. Further, it helps students with basic knowledge on computer, data, and estimation of statistical tools by using software and analysing the results of economic relationships, testing economic hypotheses and forecasting.

Course Outcome:

Expected Course Outcome
At the end of the program, the student will be able to:

CO1	Able to demonstrate knowledge about scientific inquiry in social science research.
CO2	Student familiar with basic knowledge of research methodology and sampling techniques.
CO3	Able to explain and organize systematic review of literature to identify research gaps and frame research objectives.
CO4	Able to apply research knowledge on computer, with statistical software, to draw

		distributive tables, graphs, trend lines.
CO5		Able to compose data using different methods and analyse them for inferences.
CO6		Able to write a systematic research report with defending the arguments.

Detailed Syllabus:

Unit No.	Topics
I	Research methodology and research methods, Research : meaning, types of research, motivation of research, main stages of statistical research, Primary and secondary data, Different methods of collecting primary data, secondary data -different sources, precautions while constructing questionnaire/schedule, editing of primary data.
II	Sampling- Meaning and need for sampling, size of sampling, Merits and limitations of sampling, Sampling and non- sampling errors, Sampling frame, how to judge the reliability of samples. Various methods of sampling, Sampling design: Meaning and steps in sampling design.
III	Classification and tabulation of data: meaning and objective of classification, types of classification, tabulation of data, parts of a table, types of tables. Processing and analysis of data-processing operations, some problems in processing, elements. Types of analysis.
IV	Hypothesis- Meaning of hypothesis, Basic concepts concerning testing of hypothesis, Test of significance based on t-distribution- Student's T- test, Paired T- test, F- ratio test and Fisher's Z test. Practical problems related to student's t test, Chi-square test, F ratio test, paired T test and Fisher's Z test. Test of significance of correlation coefficient.
V	**Fundamentals of computer:** Basic software & hardware, MS-WORD & MS-EXCEL Work sheet, editing and formatting - sorting, filtering and pivot tables - Creating graphs and charts - mathematical and statistical functions -Data analysis pack in Excel - Descriptive statistics, tests of hypothesis, ANOVA, Correlation and Regression, Random Number Generation. Report writing: Meaning and significance of a research report, types of research reports,

Suggested Readings:

1. Kothari, C.R. "Research Methodology- Methods and Techniques", New Age International (P) Ltd. Publication, New Delhi.
2. Sharma, Dr. Ramnath, " Methods and Techniques of Social Survey and Research," A Rajhans Publication.
3. Bajpai, Dr. S.R., "Methods of Social Survey and Research," Kitab Ghar, Kanpur-3
4. मुखर्जी, रविन्द्रनाथ, सामाजिक शोध एवं सांख्यिकी, विवेक प्रकाशन, जवाहर नगर, दिल्ली — 7
5. शुक्ला एवं सहाय, सांख्यिकीय, साहित्य भवन पब्लिकेशंस, आगरा.

M.A. Economics SEMESTER – II

Programme	Subject	Year	Semester
M.A.	Economics	1st	II
Course Code	**Course Title**		**Course Type**
ECO240	Indian Economic Policy		Core
Credit	**Hours Per Week**		
	T		P
5	6		0
Maximum Marks	**CIA**		**ESE**
100	30		70

Learning Objective:

The course is intended to acquaint the student with deeper understanding of economic situation of Indian economy on different dimensions, and have the opportunity to identify the causes of the problems, and the possible further solutions to improve the Indian economy.
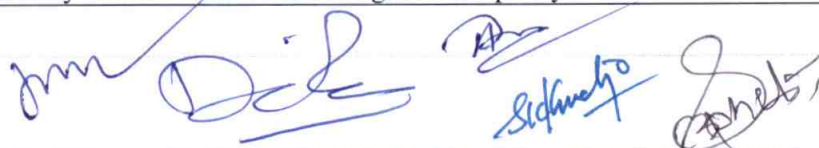
Course Outcome:

Expected Course Outcome	
At the end of the program, the student will be able to:	
CO1	Able to understand the basic characteristics of Indian economy and its planning process.
CO2	Able to understand the recent trends in the policies by which RBI controls the supply of money in the economy.
CO3	Able to understand the functioning of capital and money market in India and learn the recommendations of various committees to introduce certain reforms in the banking sector.
CO4	Able to understand the structure and direction of India's foreign trade and its policies.
CO5	Understand the WTO and its impact on the different sectors of economy.
CO6	Able to compare the data of different growth aspects of Indian economy with different countries.

Detailed Syllabus:

Unit No.	Topics
I	**Planning in India:** History, Objectives and Strategies of Planning, Twelfth Five Year Plan, Development Strategy, LPG Model of Development, PURA- a Neo Gandhian Approach to Development, Developing Gross–root Organization: Panchayats, NGO'S. Niti Aayog.
II	**Poverty and Inequality:** The Concept of Poverty, Measurement and Estimation of Poverty in India, International Comparison of Poverty and Inequality of Incomes, Poverty Eradication Programmes, Causes of Failure to Remove Poverty. Problem of Unemployment in India- Nature of Unemployment, Various Schemes to Reduce the Unemployment, Balanced Regional Development- Indicators, Causes, Changing Scenario and Policy Measures to remove Regional Disparity.

III	**Monetary Economics:** reserve bank of India, functions of RBI- quantitative and qualitative methods of credit control- bank rate policy, open market operations, cash reserve ratio, selective methods, role and limitations of monetary policy with special reference to India. Commercial banking system, Progress of Banking since 1969, RRBs, DFIs and NBFCs, Financial Sector Reforms in India, Stock Exchange in India, Composition of Indian Capital Market, SEBI and Capital market reform.
IV	**External Economics :** Foreign Trade of India, Importance of Foreign Trade for a developing Economy, Foreign Trade since 1991, Structure and Direction of Foreign Trade, Balance of Payments of India, Issues in Export Import Policies, External value of the Rupee and Foreign Exchange Reserves, FEMA, SEZs, Trade Reforms in India.
V	**International Organisations :** GATT, WTO and its Impact on the Different Sector of Economy, IMF, IBRD , G- 20, SAARC, ASEAN.

Suggested Readings:/ Reference: -

1. Ahulwalia, I. J. and I. M. E. Litle (Eds.) 1999): India's Economic Reforms and Development (Essay honor of Manohar Singh), Oxford University Press, New Delhi,.
2. Bardhan, P. K. (9th Edition) (1998): The Political Economy of Development India, Oxford University Press, New Delhi.

3. Bawa, R.S. and Raikhy (Ed.) (1997): Structural Change in Indian Economy, Guru Nanak Dev University Press. Amritsar (PB).

4. Brahmananda, P. R. and V. R. Panchmukhi (9th Eds.) (2001): Development Experience in the Indian Economy : Interstate Perspectives, Bookwell, Delhi.

5. Chakravarty, S. (1987): Development Planning: The Indian Experience, Oxford University Press, New Delhi.

6. Dantwala, M. L. (1996): Dilemmas of Growth: the Indian Experience, Sage Publication, New Delhi.

M.A. Economics SEMESTER – II

Programme	Subject	Year	Semester
M.A.	Economics	1st	II
Course Code	**Course Title**		**Course Type**
ECO250	Public Economics		Core
Credit	**Hours Per Week**		
	T		P
5	6		0
Maximum Marks	**CIA**		**ESE**
100	30		70

Learning Objective:

The course aims to provides a clear understanding of established concepts and theoretical results on collective choice, optimal income taxation and the effects of income redistribution on the provision of public goods. The course will be useful to the students aiming towards careers in the government sectors, policy analysis, business and journalism.

Course Outcome:

	Expected Course Outcome At the end of the program, the student will be able to:
CO1	Able to explain the role of public finance in economic development and understand the principles of fiscal federalism and how fiscal federalism works in India.
CO2	Students will able to explain & understand the principles of federal finance in India. learn of the feature the federal structure and financial relationship among central and state and resource transfers from central to state.
CO3	Able to explain the features, merit, demerits and measures to improvement in Tax system of India.
CO4	Learn about various commissions & committee for Taxation in India.
CO5	Able to understand & explain the financial system, budget and performance of Chhattisgarh Government.
CO6	Able to understand & explain FRBM act. Public Revenue & Public expenditure of Chhattisgarh government.

Detailed Syllabus:

Unit No.	Topics
I	Role of Public Finance in Economic Development, Major Fiscal Function, Concept of Social Goods. Fiscal Federalism in India, Principles of Fiscal Federalism, Vertical and Horizontal Imbalances.
II	Federal Finance – Principle of Federal Finance in India, Centre – State Financial Relation, Resource Transfer From Centre to States, Gadgil's Formula. Fifteen Finance Commission.
III	Indian Tax System: - Salient Features, Merits, Demerits, Measures for improvement of Indian Tax system Government measures for improvement: - Taxation enquiry Commission (1953-54), Wanchoo committee, Jha Committee, Kelkar Committee Report , Chelliah Committee Recommendations for reforming the taxation system.
IV	Analysis of Centre & Chhattisgarh Govt. Budget, Kinds of financial deficit, taxable and non-taxable income of Chhattisgarh. Performance of the Chhattisgarh government budget.
V	Financial Responsibilities and Budget Management Act, Structure and growth of public expenditure in Chhattisgarh, Revenue Expenditure and Capital Expenditure.

Text Book

1. Lekhi, R.K.,(2014), Public Finance, Kalyani Publication Ludhiana New Delhi
2. S.K., Singh, (2013) Principal of Public Finance Sahitya Bhavan Publication, Agra.
3. Pant, K.C., (2012) Public Finance
4. Sinha, V.C.,(2013) Public Finance and Economic, Sahitya Bhavan Publication.

Reference Books

1. Atkinson, A.B. and J.E. Siglitz (1980), Lectures on Public Economics, Tata McGraw Hill, New York.
2. Government of India (1992), Reports of the Tax Reforms Committee – Interim and Final (Chairman: Raja J. Chelliah).

3. Chelliah, Raja J. et. Al (1981), Trends and issues in India"s Federal Finance, NIPFP. New Delhi.

4. Peacock, A. and G.K. Shaw (1976), The Economic Theory of Fiscal Policy, George Alen and Unwin, London.

5. Sahni, B.S. (Ed.) (1972), Public Expenditure Analysis: Selected Readings, Rotherdam University Press.

6. Musgrave, R.A. and P.B. Musgrave (1976), Public Finance in Theory and Practice, Mcgraw Hill, Kogakusha, Tokyo.

7. 14th Finance commission Report-2015

8. Central Govt. and Stat Govt. Budget.

M.A. Economics SEMESTER – III

Programme	Subject	Year		Semester
M.A.	Economics	2nd		III
Course Code	**Course Title**			**Course Type**
ECO310	Economics of Growth			Core
Credit	**Hours Per Week**			
	T			P
4	5			0
Maximum Marks	**CIA**			**ESE**
100	30			70

Learning Objective:
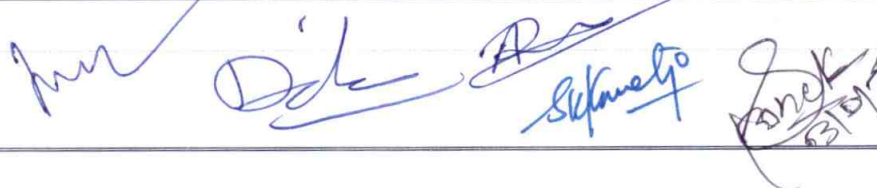
The course aims to provide knowledge to the students to explore diverse dimension and measures of growth & development, as well as the application of microeconomic analysis to issues of development in poor countries. It also through light on various theories of growth as well as impart theoretical knowledge about the concepts of poverty, inequality, development gap and various development indices.

Course Outcome:

Expected Course Outcome	
At the end of the program, the student will be able to:	
CO1	Understand the basic concept of Economic Growth and Measurement of Economic Growth, factors of economic growth, Obstacles of Economic Development, Vicious Circle of poverty, characteristics of an Underdeveloped Country.
CO2	Become familiar with factors affecting economic growth and development.
CO3	Able to understand the concept of modern growth. Savings, investment and capital formation, concept of human resource and economic growth, Human development Index, Gender Development index, Gender empowerment measure, multidimensional index.
CO4	Acquaint them with the latest issues and policies related with human development and help them to develop familiarity with the concept of human capital.
CO5	Learn & understand various Classical theories of Growth, Model and Approaches of Growth.
CO6	Learn & understand various Neo-Classical theories of Growth, Model and Approaches of Growth.
CO7	Able to understand The Concept of Capital Output Ratio, Input- Output Analysis,

	Project Evaluation and its methods and Cost-Benefit Analysis, Economic Growth and Income Distribution: The Kuznets Hypothesis.

Detailed Syllabus:

Unit No.	Topics
I	**Economic Growth:** Economic Growth and Development, Measurement of Economic Growth, Vicious Circle of poverty, Pre Condition of Economic Development, Factors of Economic Growth: Economic and Non-Economic, Meaning and characteristics of an Underdeveloped Country, Obstacles of Economic Development, Economic Growth and Income Distribution : The Kuznets Hypothesis.
II	**Modern Economic Growth :** Meaning and Characteristics of Modern Economic Growth, Savings, Investment and Capital formation, Human resource and economic growth Structural Changes under Development, Human Capital formation, A note on the demonstration effect, Human development Index, Gender Inequality Index, Gender empowerment measures, multidimensional poverty index.
III	**Theories of Growth- I :** Marx stages of Growth, Harrod - Domar model of growth, Solow Long- Run model growth , Joan Robinson model of growth, Kaldor model of Growth
IV	**Theories of Growth –II :** Meads Model of growth, The Models of Technical Changes, Pasinetti model of Profit & Growth, the new endogenous growth theory, The Mahalanobis Four Sector Model.
V	Shadow Price, The Concept of Capital Output Ratio, Project Evaluation and Cost-Benefit Analysis, The Choice of Technique.

Text Books

1. Jhingan, M. L. (2008), 31st edition, The economics of development and planning, vrinda publication pvt.Ltd.

2. Shinghai, G. C. & Mishra J. P. (2013) Macroeconomic Analysis, Sahitya bhawan publication Agra.

3. Mishra, J. P. (2012) Economics of Growth and development, Sahitya bhawan publication, Agra.

Reference Books

1. Hajela P. D. (1998), Labour Restructuring in India : A Critique of the New Economic Policies, Common wealth Publishers, New Delhi.

2. Jhabvala, R. and R.K. Subrahmanya (Eds.) (2000). The Unorganized Sector : Work Security and Social Protection. Sage Publication, New Delhi.
3. Lester, R.A. (1964). Economics of Labour. (2nd Edition), Macmilan, New York.
4. Mc Connell, C.R. and S.L. Brue (1986). Contemporary Labour Economics, Mc Graw-Hill New York.

5. Papola, T.S.P.P. Ghosh and A.N. Sharma (Eds.) 1993, Labour, Employment and industrial Relations in India, B.R. Publishing Corporation New Delhi.

6. Rosenberh M.R. (1998), Labour Markets I Low Income Countries in Chenery, H.B. and T.N. Srinivasan, (Eds.) The Handbook of Development Economics, North-Holland, New York.

7. Venkata Ratnam, C.S. (2001), Globlization and Labour- Management Relations Dynamics of change, Sage publications/ Response Books, New Delhi.

M.A. Economics SEMESTER – III

Programme	Subject	Year	Semester
M.A.	Economics	2nd	III
Course Code	**Course Title**		**Course Type**
ECO320	International Trade		Core
Credit	**Hours Per Week**		
	T		**P**
4	5		0
Maximum Marks	**CIA**		**ESE**
100	30		70

Learning Objective:

The course aims to provides a clear understanding of established concepts and theoretical base of International Trade, gains of International Trade and its distribution. It makes students familiar with various measures of protective trade such as Tariff and non-tariff barriers, Devaluation, Dumping, Subsidies and international cartel. It will help students to identify and analyse suitable trade policy for the country.

Course Outcome:
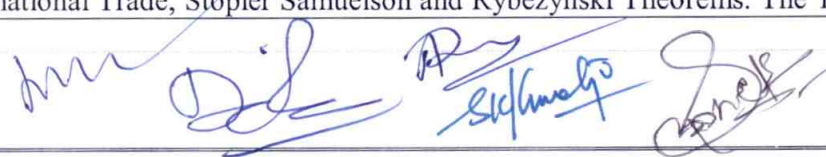
Expected Course Outcome	
At the end of the program, the student will be able to:	
CO1	Able to acquire a sound understanding of the theories underlying international trade.
CO2	Able to explain the modern theories of international trade.
CO3	Able to explain terms of trade in international trade.
CO4	Able to understand & explain theories of intervention in international trade.
CO5	Able to understand & explain various approaches of Balance of Payment, reason of disequilibrium in balance of payment and be able to suggest measure to correct BOP disequilibrium.
CO6	Able to understand & explain the concepts of foreign trade multiplier, foreign repercussion and various theories of exchange rate.

Detailed Syllabus:

Unit No.	Topics
I	Theory of International Trade – Meaning and Distinguishing Features of Inter- regional and International Trade, The Comparative Cost Theory, Refinements of the Comparative Cost Theory, Opportunity Cost Theory, Theory of Reciprocal Demand.
II	Modern Theory of International Trade, Factor Price Equalization, Theorem of International Trade, Stopler Samuelson and Rybezynski Theorems. The Terms of Trade –

	Concepts, Determination of Terms of Trade, Factors Affecting Terms of Trade, Terms of Trade & Economic Development, Its Empirical Relevance and Policy Implications for Less Developed Countries, Terms of Trade & Welfare Implications.
III	The Theory of Intervention – Tariffs, Quotas, and Non-tariff Barriers, Economic Effects of Tariff and Quotas on National Income, Output, Consumption, Price, Employment, Terms of Trade & Income Distribution, The Stopler – Samuelson Theorem of Tariff on Income Distribution, The Learner's Paradox.
IV	Balance of Payments – Meaning and components, Equilibrium and Disequilibrium in the BoP, Measures to Correct the Adverse BoP, Adjustment Mechanisms of BoP, Devaluation- The J-curve effect, Marshall-Lerner's Conditions under Devaluation, Expenditure Reducing and Expenditure Switching Policies and Direct Control.
V	Income Adjustment- Foreign Trade Multiplier, Foreign Repercussion or Back-Wash Effect, Foreign Exchange Rate-Spot and Forward Exchanges Rates, Fixed and Flexible Exchange Rates, their Merits and Demerits, Hybrid Exchange Rate, Floating Rate of Exchange, Managed Floating System

Suggested Readings/ Reference: -

1. Bhagwati, J. (Ed). (1981): International Trade, Selected readings, Cambridge, University Press, Massachusetts.
2. Carbough, R.J. (1999), International Economics, International Thompson Publishing, New York.
3. Chacholiades, M. (1990), International Trade: Theory and Policy, McGraw Hill, Kogakusha, Japan.
4. Dana, D. S. (2000), International Economics: Study Guide and Work Book, (5th Edition), Routledge Publishers, London.
5. Dunn, R. M., and J. H. Mutti (2000), International Economics, Routledge, London.
6. Kenen, P.B. (1994), The International Economy, Cambridge University Press, London.
7. Kindleberger, C. P. (1973), International Economics and International Economic Policy A Ready, McGraw Hill International, Singapore.
8. Krugman, P. R. and M. Obstfeld (1994), International Economics: Theory and Policy, Glenview, Foresman.

M.A. Economics SEMESTER – III

Programme	Subject	Year		Semester
M.A.	Economics	2nd		III
Course Code	**Course Title**			**Course Type**
ECO330	Environmental Economics			Core
Credit	**Hours Per Week**			
	T			P
4	5			0
Maximum Marks	**CIA**			**ESE**
100	30			70

Learning Objective:

The course aims to provides a clear understanding about the position of sustainable development so that he/she masters the significance & scope of environmental economics and able to understand the problems of environmental resource, environmental and social services, valuation of these services and Environment-Economy Linkages.

Course Outcome:

Expected Course Outcome	
At the end of the program, the student will be able to:	
CO1	Student gain knowledge about the economics of environment about environmental degradation, ethics, natural resource exploitation and theory of optimal resource extraction
CO2	Able to explain the relationship among Environment, Micro Economics and Macro Economics
CO3	Able to analyse the fundamental theories of welfare economics, concept of market failure and welfare judgments, Pigouvian taxes and subsidies and how to maximization of social welfare.
CO4	Able to understand & explain relationship among Population, Agriculture and The Environment.
CO5	Able to understand & explain the concept of ecological economics, National income and environmental accounting.
CO6	Able to understand & explain the concept of environmental values and methods of environmental valuation.

Detailed Syllabus:

Unit No.	Topics
I	The Economics of Environment – An elementary introduction, the big economy, causes of environmental degradation, ethics, economics and the environment. The circular flow model, Natural resources exploitation, the efficient and optimal use of natural resources. The theory of optimal resource extraction – non-renewable resources two-period model, an extension of the multi-period model of non-renewable resource depletion. Welfare economics and the environment – Benthem and Pareto Criteria..
II	Economic Theory of Environmental Issues - The Theory of Environmental Externalities, Accounting for Environmental Cost, Internalizing Environmental Cost, Positive Externalities. Market Failure and Public Goods, Social choice of optimum pollution, Pigovian Taxes and subsidies, Maximization of Social Welfare Under Perfect Competition.
III	Population, Agriculture and The Environment - Population and the Environment-Demographic Transition and Environment, Population Growth and Economic Growth, Population Policy for the 21st Century, Agriculture, Food and Environment, Sustainable Agriculture for the Future, Environment and Neo-Classical Modal of Natural Resources, Energy and Resources.
IV	Ecological Economics, National Income and Environmental Accounting - Ecological Economics Basic Concept, Natural Capital and Accounting for Changes in Natural Capital, Macro Economic Scale, Model of Economic and Ecological System. National Income and Accounting - Natural Capital, System of Environment and Economic Accounts (SEEA).
V	Environmental Value and Methods - Use Value, Option Value and Non-Use Value,

	Environmental Cost Benefit Analysis, Methods of environmental valuation- Hedonic Pricing. Household Production Function, Travel Cost Method, Averting Behaviour Approach, Contingent Valuation Method, Irreversibility risk and uncertainty.

Suggested Readings/ Reference: -

1. Madhu Raj – Environmental Economics.
2. Steve Baker – Environmental Economics.
3. D.W. Pearce – Environmental Economics.

4. Baurnol, W.J. and W.E. Oates. (1988): The Theory of Environmental Policy, (2nd Edition), Cambridge University Press, Cambridge.
5. Thomas and Callan (2009): Environmental Economics.
6. Charles D. Kolasted (2005): Environmental Economics, Oxford University Press.

7. Brian Roach, Jonathan M. Harries and Anne Marie codur (2015): Microeconomics and the environment, Global Development and Environment Institute, Tufts University, Medford.

8. Jonathan M. Harries and Anne-Marie codur (2004): Macroeconomics and the environment, Global Development and Environment Institute, Tufts University, Medford.

M.A. Economics SEMESTER – III

Programme	Subject	Year	Semester
M.A.	Economics	2nd	III
Course Code	**Course Title**		**Course Type**
ECO340	Industrial Economics		Elective
Credit	**Hours Per Week**		
	T		**P**
4	5		0
Maximum Marks	**CIA**		**ESE**
100	30		70

Learning Objective:

The course aims to give thorough knowledge to students about Industrial development in India and help them to understand the economics of industry and issues related to market structure, firms' motivations and conducts, productivity, efficiency, capacity and trends of industrial growth.

Course Outcome:

Expected Course Outcome	
At the end of the program, the student will be able to:	
CO1	Able to explain the concept, term and theories of industrial economics.
CO2	learn about industrial productivity, efficiency and capacity.
CO3	Able to explain the various laws, regulation and acts of industries in India.
CO4	understand an insight into the inter-linkages between agriculture, industry and service sectors.
CO5	Able to understand policy implication in solving industrial disputes and labour problem.
CO6	Able to explain the structure of industrial labour, employment dimensions, industrial relation, large scale industries and other important concept related to industrial economics.

Detailed Syllabus:

Unit No.	Topics
I	Concept and Organization of a Firm-Ownership, Control and Objectives of the Firm. Rationale of Industrialization: - Agriculture and Industrialization – patterns, process, speed, Implications of Industrialization. Theories of Industrial location, Alfred Weber and Sergeant Florence Theory. Factors Affecting Industrial Localization.
II	Industrial Productivity, Efficiency and Capacity. Recent Trends in Industrial Growth. Strategies for Industrial Growth, Regional Development of Industries.
III	Industrial Development in India, Industrial policies of 1948, 1956, and 1991, Role of public and private sector industries in India. Privatization and Disinvestment.
IV	Structure of Industrial Labour, Employment Dimensions of Indian Industry. Industrial Legislation, Industrial Relations, Exit policy and Social Security.
V	Large Scale Industries:- Iron and Steel, Cement, Jute, Sugar, paper industries, Development of Small Scale and Cottage Industries in India.

Text books

1. Ahluwalia, I.J. (1985), Industrial Growth in India, Oxford University Press, New Delhi.

2. Barthwal, R.R. (1985) : Industrial Economics, Wiley Eastern Ltd., New Delhi.
3. Chernilam, F (1994) : Industrial Economics : Indian Perspective (3rd Edition), Himalaya Publishing House, Mumbai.

4. Desai, B. (1999), Industrial Economic in India (3rd Edition), Himalaya Publishing house Mumbai.

5. Kuchhal .S.C , the industrial economy of India , Chaitanya publishing house.

Reference

1. Divine, P.J. and R.M. Jones et. At. (1976) : An Introduction to industrial economics, George Allen and Unwin Ltd., London.
2. Government of India, Economic Survey (Annual)

3. Hay, D. and D.J. Morries (1979), Industrial Economics: Theory and Evidence, Oxford University Press, New Delhi.

4. Kuchhal, S.C. (1980) :Industrial Economy of India, Chaitanya Publishing House, Allahabad.

5. Reserve Bank of India Report on Currency and Finance (Annual).
6. Singh, A. and A. Sadhu (1988) : Industrial Economics, Himalaya Publishing House

M.A. Economics SEMESTER – III

Programme	Subject	Year		Semester
M.A.	Economics	2nd		III
Course Code	Course Title			Course Type
ECO340	Labour Economics			Elective
Credit	Hours Per Week			
	T			P
4	5			0
Maximum Marks	CIA			ESE
100	30			70

Learning Objective:

The course aims to laid a special emphasis on informal sector and the problem of labour in India. It helps students to learn and understand the concept of labour economics, different theories on labour market & movement, labour laws & legislation in India and welfare aspects of agriculture, child and women labour in India.

Course Outcome:

Expected Course Outcome	
At the end of the program, the student will be able to:	
CO1	Able to understand the nature, characteristics and importance of labour market.
CO2	Learn & understand the classical and modern theories of labour market and theories of labour movement.
CO3	Develop awareness on institutional influence in labour market.
CO4	Acquire knowledge on post globalization scenario of labour market in India.
CO5	Aware about the laws and practices in relation to national and international labour standards.
CO6	Develop awareness on welfare of labour, concept of industrial peace, dispute settlement and National labour commission.

Detailed Syllabus:

Unit No.	Topics
I	Labour Economics - Definition, Nature, Scope & Importance, Labour Market – Nature and Characteristics of Labour Markets in India .Supply of Labour - Labour force, Factors affecting Law of Labour Supply. Demand for Labour – Labour productivity, Demand for Labour by Industrialist.
II	Theories of labour market: - Classical Theory of labour, Marginal productivity theory of Labour Concept of wages – Real Wages , Nominal Wages, Factors Affecting Real wages , Theories of Wage Determination - Classical Theory, New Theory, The theory of Collective Bargaining.
III	Theories of Labour Movement - Labour Unions in India, Rise and Growth of Labour Union, Achievements of Labour Unions. Structure and Pattern of Trade Union - Objectives, Growth, Achievements and Failures.
IV	Labour Legislation in Indian Labour, Laws and Practices in Relation to International Labour Standards. State and Labour , State and Social Security of Labour, Concept of Social Security and its Evolution Labour policy in India.
V	Labour Welfare in India, Rural and Agricultural Labour in India, Child Labour, Female Labour, Concept of Industrial Peace, Settlement of Industrial Dispute, Second National Labour Commission.

Suggested Readings/ Reference: -

1. Goyal, Sunil & Goyal, M. L. (2008):Labour Economics, R.B.S.A. Publications, Jaipur.

2. Saxsena, R.C. (2010): Labour Problems & Social Welfare, K. Nath and Company Publication, Meret.

3. Singh, Dilip Kumar, (2008): Workers Participation in Management and Industrial Relation, Rawat Publication, Jaipur & Delhi.

4. Singh, Usha & Singh, H. P. (2011):Child Labour in India :Problem and Solutions, Classical Publication, New Delhi
5. Gupta, P. K., Labour Economics, Vrinda publications, New Delhi.

M.A. Economics SEMESTER – III

Programme	Subject	Year	Semester
M.A.	Economics	2nd	III
Course Code	**Course Title**		**Course Type**
ECO350	Demography		Elective
Credit	**Hours Per Week**		
	T		**P**
4	5		0
Maximum Marks	**CIA**		**ESE**
100	30		70

Learning Objective:

The course aims to provides knowledge regarding the dynamics of population and to evaluate critically various concept and theories related with the population growth and economic development of the region and country. It will expand their knowledge about vital statistics and demographic variables. The course would orient them towards the quantitative and the qualitative aspects and characteristics of the population through various demographic techniques.

Course Outcome:

Expected Course Outcome	
At the end of the program, the student will be able to:	
CO1	Able to understand meaning and importance of Theories of Population- Optimum Population and Theory of demographic transition etc
CO2	understand the theoretical approach to the relationship between population growth and economic development.
CO3	Able to evaluate and compare population policy and population data of different countries to suggest policy measures regarding human development.
CO4	Acquaint knowledge and able to analyse social demographic variables and calculate measures of fertility, mortality and migration to compare and study of demographic process related to different regions.
CO5	Able to explain the concept and analysis of Women and Labour Market; women's work participation, determinants of wage deferential, gender & education and other related concepts.

Detailed Syllabus:

Unit No.	Topics
I	Demography – Meaning and Importance, scope and nature techniques of demographic analysis, tools of demographic analysis, population education, population growth and economic development, population policy.
II	Theories of Population – Pre Malthusian theories of population, Malthusian theory of

	population, Theory of Optimum Population and Theory of Demographic Transition – C. P. Blacker theory, Karl Marx theory, Donald Olen Cowgill's theory
III	Migration – meaning and importance, classification of migration, factors affecting migration, hurdles in migration, measurement of migration, effects of migration, theories of migration, pull and push theory of migration, Ravenstein theory of migration, stepwise movement theory, Lee's theory of migration, urbanization, causes and effects of urbanization, methods to measure urbanization.
IV	Fertility– Meaning, Causes of High Birth Rate in India, Trends in Birth Rate in India, Measurement of Fertility and Reproduction – Crude Birth Rate, General Fertility Rate, Age-Specific Fertility Rate, Total Fertility Rate. Gross Reproduction Rate and Net Reproduction Rate. Problems Related to Fertility and Reproduction Rates.
V	Mortality – Meaning and Sources of Mortality Data, Causes of High Death Rate in India, Trends in Death Rate in India, Measurement of Mortality Based on Death Statistics, Crude Death, Specific Death Rate, Infant Mortality Rate and Standardized Death Rate, Child Mortality Rate, Maternal Mortality Rate, Life Table – Functions and Construction of Life Table. Problems Related to Death Rates and Life Table.

Suggested Readings/ Reference: -

1. Agrawal, S. N. „India"s population Problems, Tata Mc-Graw Hill co. Bombay.
2. Bogue, D. J. Principles of Demography", Honwiley, New York.
3. Sinha, V. C. and Pushpa Sinha, „Principles of Demography", Mayur Paper backs.
4. Mishra, Jai Prakash, Demography", Sahitya Bhawan Publications, Agra.
5. Pathak, K. B. and F. Ram, „Techniques of Demographic Analysis", Himalaya Publishing House.
6. Jhingan, M. L. and others, „Demography", Vrinda Publications (P) Ltd.
7. Srinivasan, K., Basic Demographic Techniques and Applications", Sage Publication.

Reference Books

1. Census India SRS Bulletins, Registrar General of India, Govt. of India, 2011
2. Rural-Urban distribution *Census of India: Census Data 2001: India at a glance >> Rural-Urban Distribution.* Office of the Registrar General and Census Commissioner, India. Retrieved on 2008-11-26.
3. Number of Villages *Census of India: Number of Villages* Office of the Registrar General and Census Commissioner, India. Retrieved on 2008-11-26.
4. Urban Agglomerations and Towns *Census of India: Urban Agglomerations and Towns.* Office of the Registrar General and Census Commissioner, India. Retrieved on 2008-11-26.
5. Preston, S.H. (1976). Family Sizes of Children and Family Sizes of Women. *Demography* 13(1): 105-114.
6. Pritchett, L.H. (1994). Desired Fertility and the Impact of Population Policies. *Population and Development Review* 20(1): 1-55.

M.A. Economics SEMESTER – III

Programme	Subject	Year	Semester
M.A.	Economics	2nd	III
Course Code	**Course Title**		**Course Type**
ECO350	Mathematical Economics		Elective
Credit	**Hours Per Week**		
	T		**P**
4	5		0
Maximum Marks	**CIA**		**ESE**
100	30		70

Learning Objective:
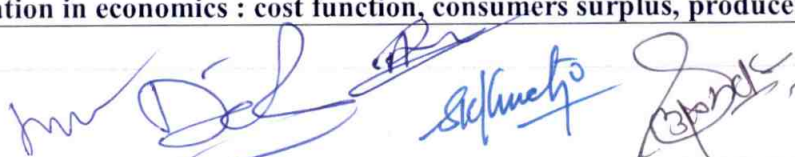
The course aims to familiarise the students with the conceptual routes to exposed economic concepts in mathematical format through simple illustrations & prepares the ground for more scientific study understand abstract ideas and rigorous methods in mathematical analysis to solve practical problems.

Course Outcome:

Expected Course Outcome	
At the end of the program, the student will be able to:	
CO1	Able to the chain rule and use it to find derivative of composite functions and obtain expression for higher order derivatives of a function using the rule of differentiation.
CO2	Able to evaluate determinants and use them to discriminate between invertible and non-invertible Matrices
CO3	Able to frame problems using multiple mathematical and statistical representations of relevant structures and relationships and solve using standard techniques.
CO4	Able to apply the methods of differentiation for solving the problems of economics.
CO5	Able to understand the concept of number series and ability to solve systems of equations.

Detailed Syllabus:

Unit No.	Topics
I	**Mathematical Economics:** Meaning and Importance, **Preliminaries Logic and proof techniques:** sets and set operations; relations; functions and their properties; number systems, sequence, series. Determinants, Matrices, Vector Spaces.
II	**Differentiation, Partial differentiation, Integration, Maxima-minima**
III	**Application of derivatives in Economics:** utility function, demand function, production function, cost analysis, revenue analysis and profit maximization, **application of integration in economics : cost function, consumers surplus, producers surplus**

IV	**Linear programming:** meaning and definition, importance, characteristics, graphical method, simplex method, **Input-output analysis:** Open and Closed Input-Output Model, Problems and Solutions Hawkins-Simon conditions. **Game Theory:** basic concepts, classification and description of games- payoff matrix, saddle points, mixed strategies, dominant strategies, prisoners dilemma.
V	**Market:** Perfect Competition, Monopoly, Monopolistic. **Use of mathematics in Economics.**

Suggested Readings/ Reference: -

1. K. Sydsaeter and P. J. Hammond (2002): Mathematics for Economic Analysis. Pearson Educational Asia
2. A. C. Chiang and K. Wainwright (2005): Fundamental Methods of Mathematical Economics, McGraw Hill International Edition.
3. T. Yamane (2012): Mathematics for Economists, Prentice-Hall of India
4. Fundamentals of Mathematical Economics, S.C. Gupta & V.K Kapoor 4. Mathematics for Economists, Mehta & Madnani

M.A. Economics SEMESTER – IV

Programme	Subject	Year	Semester
M.A.	Economics	2nd	IV
Course Code	**Course Title**		**Course Type**
ECO410	Economics of Development and Planning		Core
Credit	**Hours Per Week**		
	T		**P**
5	6		0
Maximum Marks	**CIA**		**ESE**
100	30		70

Learning Objective:

The course aims to familiarise the students with the conceptual routes, theoretical dynamics and practical strategies of Economic Planning, growth and development of India. The course would orient them towards major theories, Approaches, & Models of development which lead them towards more methodological probes and equip them with adequate analytical knowledge.

Course Outcome:

Expected Course Outcome	
At the end of the program, the student will be able to:	
CO1	Able to explain objective, strategy, achievements, and failures of economic planning in India.
CO2	Aware about saving, capital formation and overall growth rate and important facts with latest data of Indian economy.
CO3	Able to explain the Twelfth Five-year plan and achievements of eleventh five-year plan of India.
CO4	Acquaint knowledge and able to understand the theories of development, approaches of development and able to understand the Models of development.
CO5	Have conceptual framework of investment criteria in economic development.

Unit No.	Topics
CO6	Able to explain various criteria of social marginal productivity, capital turnover, Re investment, Time series and Choice of techniques etc.

Detailed Syllabus:

Unit No.	Topics
I	**Economic Planning:** objective, Achievement and failures of Indian Plans, Resource Mobilization in Indian Plans, Strategy of Indian Plan. Saving, Capital Formation and Overall Growth Rate, Twelfth Five Year Plan (2012-17) Achievement of Eleventh Five Year Plan, NITI Aayog.
II	**Classical Theories of Development:** Adam Smith Theory of growth, the Ricardian Theory of growth, Mills theory of growth, Malthusian theory of development, The Marxian Model, The Schumpeterian Model, Keynesian Theory of Development, Rostow's Stages of Economic Growth, Nurkse's Theory of Disguised unemployment as saving potential.
III	**Theories of Development – I : -** Arther Lewis Model of Unlimited Supply of Labour, Ranis & Fie Model, Harris Todaro model, Leibenstein's Critical Minimum Effort thesis , The Big push theory, Nelson's theory of low level of equilibrium.
IV	**Theories of Development – II : -** Doctrine of Balanced Growth, The concept of Unbalanced Growth, Dualistic Theories ,The Dependency theory of underdevelopment, The Limits to Growth Model, Myrdal's Theory of Circular Causation.
V	**Investment Criteria in Economic Development:** The social Marginal Productivity Criteria, The capital Turnover Criteria, The Re-Investment Criterion, Time Series Criterion, the Choice of Techniques, **domestic measures for economic development:** entrepreneurship in economic development,role of state in economic development, **international measures for economic development:** foreign trade and economic development, millennium development goals (MDGs).

Text books

1. Jhingan,M.L.(2003),The Economics of development and planning,vrinda publication pvt. Ltd.

2. Shinghai ,G.C. & Mishra ,J.P.(2013)Macro Economic Analysis,Sahitya bhawan publication Agra.

3. Mishra, J.P.(2012)Economics of Growth and Development, Sahitya bhawan publication Agra.

Reference Books

1. Todaro, M.P. (1996) (6th edition) Economic Development, Longman London.
2. Solow, R.M. (2000), Growth Theory An Exposition, Oxford University Press, Oxford.
3. United Nations, Human development Department report 2005.

4. Behrman, S. and T.N. Shrinivasan (1995), Hand book of Development Economics, Vol 1, 2 & 3, Elsevier; Amsterdam.
5. Ghatak,s (1986), An introduction to development Economics, Allen & elnein, London.

6. Sen, A.K. (Ed.) 1990 growth Economics, Penguin, Harmondsworth.

7. Dasgupta, P.A.K. Sen and S. Marglin (1972), Guidelines for project Evaluation, UNIDO, Vienna,

8. Mehrotra, S. and J. Richard (1998), Development with a Human Face, Oxford University Press New Delhi.

M.A. Economics SEMESTER – IV

Programme	Subject	Year		Semester
M.A.	Economics	2nd		IV
Course Code	**Course Title**			**Course Type**
ECO420	International Economics			Core
Credit	**Hours Per Week**			
	T			**P**
5	6			0
Maximum Marks	**CIA**			**ESE**
100	30			70

Learning Objective:
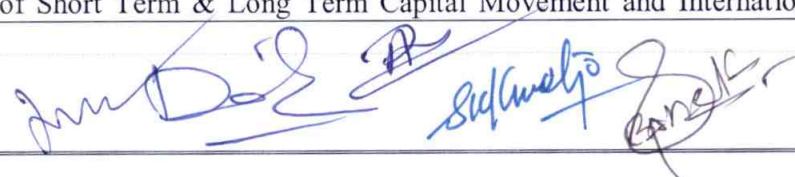
The course aims to provides a Profound knowledge about evolution of International Monetary system, regional blocks & unions, theories of capital movement and the basic ideologies of international organization at the global level.

Course Outcome:

	Expected Course Outcome
	At the end of the program, the student will be able to:
CO1	Learn about foreign trade and economic development and their importance.
CO2	Learn about theories of regional blocks, custom unions and regionalism of European Union and their importance.
CO3	Able to understand & explain short-term & long-term theories of capital movement and international trade.
CO4	Learn about International monetary system and its various organizations.
CO5	Learn & understand about concept of various international organizations and its objective and working and regulations of MNCs in India.
CO6	Learn how to deal with international institutions and to maintain relation with other countries.

Detailed Syllabus:

Unit No.	Topics
I	Foreign Trade and Economic Development, The Theory of Regional Blocks- Customs Union, Static and Dynamic Effects of a Customs Union and Free Trade Area, Rational of Economic Progress of SAARC, ASEAN, IBSA and BRICS.
II	Regionalism of European Union, The Euro-Dollar Market, NIEO,WTO- Functions of WTO, Multilateralism and WTO, TRIPS, TRIMS, Agriculture, Market- Access, Textile Clothing, Patent Rights, Ministerial Conferences of WTO, UNCTAD.
III	Theory of Short Term & Long Term Capital Movement and International Trade– Port

		Folio Investment and International trade, FDI and International Trade, Merits & Demerits of Long Term Capital Movement in International Trade, Factors Affecting International Capital Movement, The Transfer Problem, Optimum Currency Area, Global Financial Crisis.
	IV	International Monetary System, International Liquidity, IMF, World Bank, The World Bank Group, ADB, Foreign Capital in India.
	V	International Organisations- G-20, G-15, BIMSTEC, OPEC, NAFTA, OECD, Working and Regulations of MNCs in India.

Suggested Readings/ Reference: -

1. Bhagwati, J. (Ed). (1981): International Trade, Selected Readings, Cambridge, University press, Massachusetts.

2. Carbough, R. J. (1999), International Economics, International Thompson Publishing, New York.

3. Chacholiades, M. (1990), International Trade: Theory and Policy, McGraw Hill, Kogakusha, Japan.

4. Dana, M.S. (2000), International Economics: Study Guide and Work Book, (5th Edition), Routledge Publishers, London.

5. Dunn, R. M. And J. H. Mutti (2000), International Economics, Routledge, London.

6. Kenen, P. B. (1994), The International Economy, Cambridge University Press, London.

7. Kindleberger, C. P. (1973), International Economics and International Economic Policy A Reader, McGraw Hill International, Singapore.

8. Krugman, P. R. and M. Obstfeld (1994), International Economics: Theory and Policy, Glenview, Foresman.

M.A. Economics SEMESTER – IV

Programme	Subject	Year		Semester
M.A.	Economics	2nd		IV
Course Code	**Course Title**			**Course Type**
ECO430	Economics of Social Sector			Core
Credit	**Hours Per Week**			
	T			P
5	6			0
Maximum Marks	**CIA**			**ESE**
100	30			70

Learning Objective:

The aim of the course is to familiarize the students with the concepts of Environmental Economics, principles and theories of optimal use of natural resources, environmental issues, Environmental Valuations methods property rights, social costs etc. which will help them to find out the appropriate policy suggestions to improve the quality of Environment.

Course Outcome:

	Expected Course Outcome
	At the end of the program, the student will be able to:
CO1	Understand the nature and importance of Environmental Economics and Realize the importance and influence of environment on the economy
CO2	Able to explain the concepts of Pigouvian taxes and Subsidies, Coase's bargaining solution collective bargaining.
CO3	Understand and explain the concept of tradable pollution permits and International Carbon Tax.
CO4	Acquaint knowledge and able to explain the economic theory of environmental issues.
CO5	Able to explain the relationship between population, agriculture and environment. evaluate the concept of environmental value and their valuation methods.
CO6	Able to suggest appropriate policy measures to control Environmental Degradation

Detailed Syllabus:

Unit No.	Topics
I	Environmental Pollution- classification of pollution, Air, Water and Land Pollution, Cause & Effects of pollutant. Pollution control targets – A static model of efficient flow pollution. Pollution control strategies, Equi- Marginal law of pollution.
II	Pollution policy with imperfect information - Global environmental problems - Climate change, Global warming, Green House Effect, Ozone depletion, game theory, environmental input/output analysis.
III	Development and Environment: Relation between development & environmental stress, The Environmental Kuznets Curve, the concept of Sustainable Development, Indicators of sustainability, Measuring sustainable development, Green Economy.
IV	Economics of Resources- Classification of resources, Renewable & Non-renewable resources, Optimum use of resources. Land resources, Forest resources, social forestry, Peoples participation in the management of Common & forest land. Energy- Sources of energy, energy efficiency & environment, Alternative sources of energy. International trade and the environment.
V	Economics of Education and Health: Expenditure on education, Productive expenditure on education, Productivity of education, the return of education, Human capital Vs Physical capital. Health Economics- Determinants of health care, Inequalities in health-class & gender, Perspective HDI, GDI, GEM and HPI.

Suggested Readings/ Reference: -

1. Baurnol, W.J. and W.E. Oates (1988): The Theory of Environmental Policy, (2nd Edition), Cambridge University Press, Cambridge.

2. Berman, P. (Ed.) (1995): Health Sector reform in Developing Countries: Making health development sustainable, Boston: Harvard Series on Population and International health.

3. Blaug, M. (1972) : Introduction to Economics of Education J Penguin, London.

4. Bromely, D.W. (Ed.) (1995) : Handbook of Environmental Economics, Blackwell, London.

5. Cohn, E. and T. Gaske (1989) : Economics of Education, Pergamon Press, London.

6. Fisher, A.C. (1981): resource and Environmental Economics, Cambridge University Press, Cambridge.

7. Hanley, N.J.F. Shogern and B. White (1997): Environmental Economics in Theory and Practice, Macmillan.
8. Hussen, A.M. (1999) : Principles of Environmental Economics, Routledge. London.

9. Jeroen, C.J.M. van den Bergh (1999): Handbook of Environmental and Resource Economics, Edward Elgar Publishing Ltd. U.K.
10. Thomas and Callan (2009): Environmental Economics.

M.A. Economics SEMESTER – IV

Programme	Subject	Year		Semester
M.A.	Economics	2nd		IV
Course Code	**Course Title**			**Course Type**
ECO440	Agricultural Economics			Elective
Credit	**Hours Per Week**			
	T			P
5	6			0
Maximum Marks	**CIA**			**ESE**
100	30			70

Learning Objective:

The course aims to familiarise the students with the conceptual routes, theoretical dynamics and practical strategies of different theories on agricultural development to enhance their skills in undertaking research in the field of agricultural economics. It provides details views of the process of agricultural development in the country since independence.

Course Outcome:

Expected Course Outcome	
At the end of the program, the student will be able to:	
CO1	Able to understand & explain the role of agriculture in economic development, models of agricultural development, various aspects of agricultural price policy in developing countries.
CO2	Able to understand the relationship between inputs and output, causes of uncertainty and causes of instability in agriculture.
CO3	Able to explain the importance and role of land reforms in economic development.
CO4	Able to explain the relationship between the size of the farm and agricultural productivity, working of price policy in Indian agriculture, concept of diversification in agriculture and problems associated with its implementation.
CO5	Able to understand & explain the problems faced by small farmers and rural labourers, root causes of indebtedness; and remedial measures, different sources of agricultural credit and their relative importance.
CO6	Able to understand the working of marketing policy in Indian agriculture, causes and effects of green revolution, estimate the productivity trends in Indian agriculture.

Detailed Syllabus:
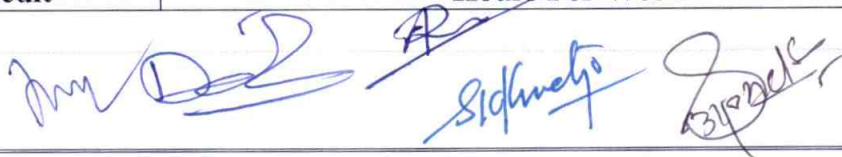
Unit No.	Topics
I	Nature and scope of Agricultural economics- Traditional and Modern agriculture, role of agriculture in economic development. Problems in rural industrialization, development of Agro-based industries, interdependence between agriculture and industry. Green revolution. Agricultural production, Production function analysis, cost concept in agricultural product, farm budgeting, Resource use and efficiency in Agricultural sector.
II	Land use, Principles of land utilization, land distribution, Land values and rent, Land reform measures and performance, Land tenures and farming systems, problems of marginal and small farmers. Rural Labour supply, Mobility of labour and labour market in agriculture sector. Nature of employment in rural sector Agriculture wages in India. Male-Female wage difference in agriculture.
III	Rural Finance - Role of rur.al capital and rural credit, Rural capital and capital formation, Characteristics and source of rural credit, Institutional and non-institutional rural credit, Rural Banks, Commercial Banks,. Regional Rural Banks and Rural credit Co-operatives Societies. Agricultural prices-Agricultural markets, Behaviour of agricultural prices, agricultural. Markets and agricultural marketable surplus. Taxation, crop insurance, state policy and Agricultural price policy.
IV	Agricultural Growth in India - Recent trends, inter-regional variation in growth of agricultural product, cropping pattern, factors affecting productivity, pricing of inputs, role of subsidies, role of technology and input of irrigation in Agricultural sector. Problems and prospects of Globalization and W.T.O. in India Agricultural commodities.
V	Infrastructure - Infrastructure and economic development, the structure of Transportation costs, Demand for transportation, Cost function in the transport Sector, Telephone utilities, role of postal services, Demand for Energy, Energy conservation, Renewable and Non-conventional Sources of Energy.

Suggested Readings/ Reference: -

1. Bhahacharjee, J.P. - Studies. in Indian Agricultural Economics.
2. Rao, V.K.R.V.- New Challenge before Indian Agriculture.
3. Mellor, J.W. - The Economics of Agricultural Development.
4. Bhadure, A. (1984), The Economic Structure of Backward Agriculture, Macmillan, Delhi.
5. Bilgrami, S.A.R. (1996), Agricultural Economics, Himalaya Publishing House, Delhi.
6. Dantewada, M.L. Et.al,(1991),Indian Agricultural Development Since independence, Oxford & BH, New Delhi.
7. Government of India (1976), Report of the National Commission of Agriculture, New Delhi.
8. Government of India, Economic Survey (Annual), New Delhi.
9. Joshi, P.C. (1975), Land Reforms in India: Trends and. Prospects. Alled Publishers, Bombay.

M.A. Economics SEMESTER – IV

Programme	Subject	Year	Semester
M.A.	Economics	2nd	IV
Course Code	**Course Title**		**Course Type**
ECO440	Econometrics		Elective
Credit	**Hours Per Week**		

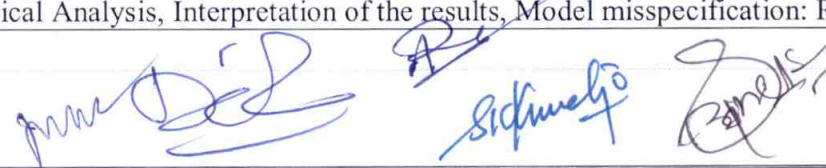|	T	P
5	6	0
Maximum Marks	**CIA**	**ESE**
100	30	70

Learning Objective:

The course aims to define Econometrics, Steps in Empirical Economic Analysis, Different types of data involved in econometric Analysis. The courses involved Simple and Multiple Linear regression model and Functional forms of Non-Linear Regression models. Basic concept of Auto regressive distributed lag model (ARDL) developed which will be helpful for future research work with time series data.

Course Outcome:

Expected Course Outcome
Expected Course Outcome   At the end of the program, the student will be able to:

CO1	Able to present the economic phenomena from ground level reality and the theoretical perspective of economic relationship to empirical verification.
CO2	To Learn development of null & alternative hypothesis & types of errors, how hypothesis can be tested, decision about the statistical significance can be taken just by introspection of probability value.
CO3	Able to develop regression model and apply for the specific perspective data in appropriate manner.
CO4	Able to understand the concepts of multicollinearity, autocorrelation and heteroscedasticity.
CO5	To learn and develop scientific view to understand the time series data and its analysis, stationary and non-stationary time series models.
CO6	Able to apply auto regressive, moving average, ARMA, ARIMA models, Box Jenkins approach to forecast time series data empirically and dummy variable analysis.

Detailed Syllabus:

Unit No.	Topics
I	**Introduction:** Nature and scope of econometrics and Econometric Analysis, Steps involved in Econometric Analysis. **Introduction to Classical Linear Regression Model:** Two variable classical linear regression models, Assumptions of Classical Linear Regression Model: Multicollinearity, Heteroscedasticity and Autocorrelation
II	**Ordinary Least Square estimators:** Properties of Ordinary Least Square estimators, the Gauss Markov theorem, scaling and units of measurement; confidence intervals. **Regression analysis:** Objective, Statistical Analysis, and Interpretation of results, Hypothesis Testing-Types of Hypotheses, Test statistic, Critical Region.
III	**Hypothesis testing:** Level of significance and confidence interval approach; Goodness of Fit(R^2): Concepts of Explained Sum of Squares (ESS)-Residual Sum of Squares -Total Sum of Squares. **Multiple Linear Regression Model:** Interpretation of the model, Statistical Analysis, Interpretation of the results, Model misspecification: R^2 vs Adjusted

	R^2.	
IV	**F Statistics:** Application of F Statistics-Overall significance of the Model-Equality between two regression coefficients- Testing the validity of linear restricted and Unrestricted models. **Simultaneous equation model:** specification – identification – rank and order conditions – problems. Introduction to Time Series Analysis: Forecasting Time Series, Concept of stationery forecasting with ARIMA Modelling using software.	
V	**Dummy Variables:** meaning and nature, uses of dummy variables, interaction effects using dummy variables, features, alternative to dummy variable models. **Error in Variables :** nature, causes, consequences and remedies.	

Textbooks

1. Basic Econometrics, D N Gujarati
2. Introductory Econometrics: A modern approach Wooldridge
3. Fundamentals of Mathematical Economics, S.C. Gupta & V.K Kapoor
4. Mathematics for Economists, Mehta & Madnani

M.A. Economics SEMESTER – IV

Programme	Subject	Year		Semester
M.A.	Economics	2nd		IV
Course Code	**Course Title**			**Course Type**
ECO450	Money & Banking			Elective
Credit	**Hours Per Week**			
	T			**P**
5	6			0
Maximum Marks	**CIA**			**ESE**
100	30			70

Learning Objective:

The course aims to provide the students with a thorough understanding of the importance of money and banking in various economies. It aims to provide the students with an introduction to understand the concept of money, theories of money supply and money demand and working of monetary policy. It provides an insight into the Banking system.

Course Outcome:

Expected Course Outcome	
At the end of the program, the student will be able to:	
CO1	Able to understand different types and functions performed by money.
CO2	Able to understand the various theories of money by different economists; its different functions and factors for liquidity preference.
CO3	Able to understanding the factors affecting the supply of money in the economy.
CO4	Able to understanding role of central bank in economy and different functions performed by them.
CO5	Able to understanding various types of commercial banks; different functions performed by them.
CO6	Able to understanding the basic concept and impact of fiscal and monetary policy on the functioning of the economy.

Detailed Syllabus:
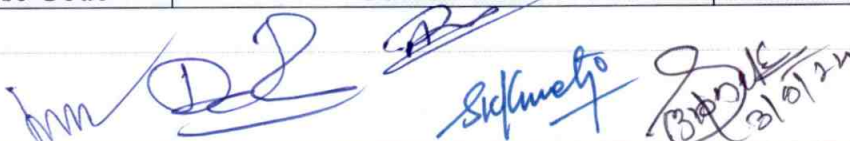
Unit No.	Topics
I	**Money and Its Functions:** Evolution of money, Money: Meaning and functions; Classification of money: Money and Near Money; Qualities of good money material; Role of money in a developing and mixed economy: Gresham's Law
II	**Price Index Numbers and Theories of Money:** Price Index Numbers: Meaning and types; Steps in Construction of Price Index Numbers; Conceptual and Practical difficulties in the Measurement of Index Numbers; Importance of Index Numbers: Fisher's Transactions Approach and Cambridge Cash Balance Approach; A comparison of Fisherian and Cambridge Versions
III	**Commercial Banks:** Commercial Banks: Meaning and functions; Types of Banks; Role of Commercial Banks in a developing economy, Process of Credit creation; Structure of Indian Commercial Banking; Banking Sector Reforms in India since 1991
IV	**Central Banking:** Central Bank: Meaning and Functions; Objectives of Credit Control: Qualitative and quantitative Methods of Credit Control; Role of Central Bank in Developing Economy: Difference between Central Bank and Commercial Bank.
V	**Monetary and Fiscal Policies:** Monetary and fiscal policy: Meaning, Features; Role of Monetary and Fiscal policy in developing countries; Monetary Policy Effects on Demand, Fiscal Policy Effects on Demand, Fiscal Policy and Investment, Interaction of Monetary and Fiscal Policies.

Suggested Readings/ Reference: -

1. Hajela, T.N., (2009) Money and Banking, Ane Books Pvt Ltd., New Delhi.
2. Sundharam KPM, Banking: Theory, Law and Practice, Sultan Chand and Sons, New Delhi (recent edition)
3. M.R. Baye, D.W. Jansen (1996), Money, Banking and Financial Markets, AITBS (Indian ed.).
4. K.C. Sekhar: Banking – Theory and Practice, Vikas Publishing House, New Delhi (recent edition).
5. S.B. Gupta, Monetary Economics, S. Chand Publications, New Delhi.
6. M.L. Seth, Monetary Economics, Vikas Publications, New Delhi
7. R.R. Paul, Money, Banking & International Trade, Kalyani Publications, Ludhiana.

M.A. Economics SEMESTER – IV

Programme	Subject	Year	Semester
M.A.	Economics	2nd	IV
Course Code	**Course Title**		**Course Type**

ECO450	Project Work		Elective
Credit	**Hours Per Week**		
	T		**P**
5	6		0
Maximum Marks	**CIA**		**ESE**
100	30		70

Learning Objective:

The aim of the course is to make student to take up a mini research topic and to work on it to carry out research activities for further studies. It is a well-planned, organized and goal-oriented work. Hence students understand application of economic concepts in real life situations.

Course Outcome:

Expected Course Outcome	
At the end of the program, the student will be able to:	
CO1	Able to applied their knowledge into practical application.
CO2	Able to exposure their knowledge with regard to sampling and collection of data and processing of data
CO3	Able to apply statistical tools for analysing economic phenomena.
CO4	Able to analysis of data with the help of the statistical software's and interpretate it in well planned and managed report writing.

M.A. Economics
Generic Elective Courses
(Offered to PG students of other departments / SoS only)
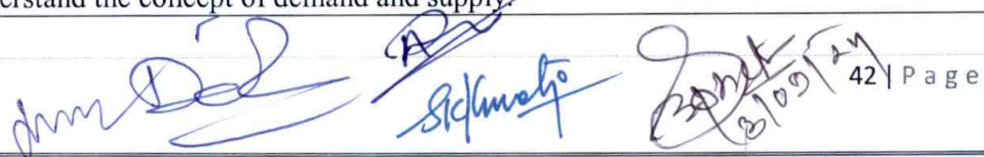
Programme	**Subject**	**Year**	**Semester**
M.A.	Economics	2nd	IV
Course Code	**Course Title**		**Course Type**
ECO510	Basic Concept of Economics		GEC
Credit	**Hours Per Week**		
	T		**P**
2	2		0
Maximum Marks	**CIA**		**ESE**
100	30		70

Learning Objective:

The course aims to familiarise the students with basic concepts of economics. It deals with basic knowledge theories of microeconomics, macroeconomics and development and growth.

Course Outcome:

Expected Course Outcome	
At the end of the program, the student will be able to:	
CO1	Understand the nature, scope and problems of economics.
CO2	Understand the concept of demand and supply.

CO3	Understand the concept of utility, revenue, cost and theories of production.
CO4	Understand the concept of and theories of macroeconomic like national income, consumption function, savings, investment, inflation, monetary and fiscal policy.
CO5	Understand the concept of development and growth like developed & developing economy, HDI, Sustainable development, WTO and international trade.

Detailed Syllabus:

Unit No.	Topics
I	Basic Economic Problems, Scope of Economics and its nature, Equilibrium Analysis, Demand, Elasticity of Demand, Law of Diminishing Marginal Utility. Consumer Surplus, Supply- Elasticity of Supply, Production Function, The Concept of Cost and its Nature, The Concept of Revenue,
II	The Concept of Market and its Kinds. Perfect Market imperfect Market, Monopoly, Marginal Theory of Distribution, Macro Economics- National Income Definition, Types and methods of Measurement, Consumption Function, Saving and Investment, Inflation, Monetary and Fiscal Policy.
III	Development and Growth -Meaning and Definition, Obstacle, Features of Developed and Developing Countries, HDI, Sustainable Development, WTO, International Trade and Balance of Payment in India.

Text Books

1. Jhingan, M. L. (2014), Advanced Economic Theory, Vrinda Publication, New Delhi

2. Ahuja, H. L. (2014), Advanced Economic Theory, S. Chand Publication, New Delhi

3. Jhingan, M. L. (2014), Macro Economic analysis, Vrinda Publication, New Delhi.

4. Ahuja, H. L. (2014), Macro Economic Theory, S. Chand Publication, New Delhi

5. Jhingan, M. L. (2008) 31ST edition, The Economics of Development and Planning, Vrinda publication New Delhi.

6. Mishra, J.P. (2012) Economics of Growth and Development, Sahitya bhawan publication Agra.
7. Vaish, M. C. and Sudama Singh, (2011) International Economics, Oxford and IBH Publishing Co. Pvt. Ltd., New Delhi.

M.A. Economics
Generic Elective Courses
(Offered to PG students of other departments / SoS only)

Programme	Subject	Year	Semester

M.A.	Economics	2nd		IV

Course Code	Course Title		Course Type
ECO520	Indian Economy		GEC
Credit	**Hours Per Week**		
	T		**P**
2	2		0
Maximum Marks	**CIA**		**ESE**
100	30		70

Learning Objective:

The course is intended to acquaint the student with Knowledge & understanding of Indian economy on different dimensions, and have the opportunity to identify the causes of the problems, and the possible further solutions to improve the Indian economy.

Course Outcome:

Expected Course Outcome	
At the end of the program, the student will be able to:	
CO1	Able to understand the basic characteristics and structure of Indian economy.
CO2	Able to understand the concept of National income and role of primary, secondary and territory sector in Indian Economy.
CO3	Able to understand role of agriculture and industry in development of Indian economy.
CO4	Able to understand role of territory and foreign sector in development of Indian economy.
CO5	Able to understand the role of public finance in development of Indian economy.

Detailed Syllabus:

Unit No.	Topics
I	GDP and National Income of India, Role of Primary, Secondary & Tertiary Sectors in GDP of India, National Income and Per Capita Income, Planning in India – Objectives and strategies of planning, NITI Aayog, Demographic Features of India and Chhattisgarh, National Population Policy.
II	Agricultural Development in Indian Economy – Agricultural Growth and Productivity, Green Revolution, Food Security in India, Poverty and Inequality in India, Industrial Development in India, Industrial Policies of 1956 and 1991, Public sector Enterprises and their performance, MSMEs.
III	External Sector Behaviour of Indian Economy - Structure and Direction of Foreign Trade, Public Finance in Indian Economy – Fiscal Federation, Central-State Financial Relationship, Fourteenth Report of Finance Commission.

Text Books :-

1. Ahulwalia, I. J. and I. M. E. Litle (Eds.) 1999), India's Economic Reforms and Development (Essay honor of Manohar Singh), Oxford University Press, New Delhi.
2. Bardhan, P. K. (9th Edition) (1998), The Political Economy of Development India, Oxford University Press, New Delhi.

3. Bawa, R.S. and Raikhy (Ed.) (1997), Structural change in Indian Economy, Guru Nanak Dev University Press. Amritsar.

4. Brahmananda, P. R. and V. R. Panchmukhi, Development Experience in the Indian Economy: Interstate Perspectives, Bookwell, Delhi (9th Eds.) 2001.

5. Chakravarty, S. (1987): Development Planning: The Indian Experience, Oxford University Press, New Delhi.

6. Dantwala, M.L. (1996): Dilemmas of Growth: the Indian Experience, Sage Publication, New Delhi.

7. Dutta, Gourav and Ashwini Mahajan, (2014) Indian Economy, S. Chand Publications, New Delhi, 71st Edition.

8. Mishra, S. K. and V. K. Puri, (2014) Indian Economy, Himalaya Publishing House Pvt. Ltd., New Delhi, 32nd Edition.

M.A. Economics
Skill Enhancement / Value Added Courses
(Offered to PG students of SoS in Economics)
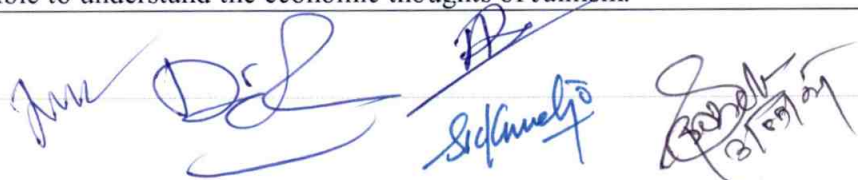
Programme	Subject	Year	Semester
M.A.	Economics	1st	I
Course Code	**Course Title**		**Course Type**
ECO620	Economics and Indian Knowledge System		VAC
Credit	**Hours Per Week**		
	T		P
2	4		0
Maximum Marks	**CIA**		**ESE**
100	30		70

Learning Objective:

The course aims to familiarise the students with Indian economic thought. The study of ancient Indian economic ideas provides a deeper insight into India's culture, tradition, and inherent national characteristics. The major sources of information about the economic ideas of Indian writers are Vedas, Arthasastra, the Ramayana and Mahabharata, Manusmriti, Sukraniti, and several other ancient Indian texts.

Course Outcome:

Expected Course Outcome	
At the end of the program, the student will be able to:	
CO1	Able to understand and familiarise with the basic Knowledge of Vaidik sanatan arthshastra
CO2	Able to understand the economic thoughs of Kautilya's Economics.
CO3	Able to understand the economic thoughts of Buddhism and Economics.
CO4	Able to understand the economic thoughts of Dada Bhai Naoroji, Mahatma Gandhi and Dr. B.R. Ambedkar.
CO5	Able to understand the economic thoughts of Jainism.

Detailed Syllabus:

Unit No.	Topics
I	**Vaidik sanatan arthshastra :** Definition, Concepts and Scope of IKS, IKS based approache on Indian Knowledge System & Role of Guru (teacher) , Understanding the concepts of dharma, karma, and the four purusharthas (goals of life**)**
II	**Kautilya's Economics:** view on the treasury and public finance of the state, **Buddhist Economics ,Economics of Jainism.**
III	**Economic Thoughts of Dada Bhai Naoroji, Mahatma Gandhi :** Swadeshi Economics and self-sufficiency;views on village centric development , Economic Thoughts of Mahatma Gandhi on Technology, Industrialization and The scale of production, **Economic Thoughts of Dr. B.R. Ambedkar** : Banking system, Industrialization, and Agricultural reforms.

Suggested Readings/ Reference: -

1. Rangarajan, L.N. (1992). Kautilya: The Arthashastra. Penguin Books.
2. Kautilya's Arthashastra, Translated by R. Shamashastry
3. Pillai, R., & Sivanandhan, D. (2022). Chanakya's 7 Secrets of Leadership. JAICO.
4. Drechsler, W. (2017). Buddhist economics: An introduction. London: Routledge.
5. Siriwardhana, N. (2016). Buddhist economics: The middle way between materialism and asceticism. Journal of Buddhist Ethics, 23, 1-27.
6. Kumarappa, Joseph Cornelius (1951). Gandhian economic thought. Library of Indian economics (1st ed.). Bombay, India: Vora.
7. B. N. Ghosh, Gandhian political economy: principles, practice and policy (2007) p. 17
8. Thorat, S. (2017). Dr. Ambedkar and the Indian economy. Pearson India Education Services.
9. Dr. B. R. Ambedkar (1923). The problem of Indian rupee: Its origin and its solution: (History Of Indian Currency & Banking).
10. Ajit K. Dasgupta (1993). A History of Indian Economic Thought, London and New York.
11. Singh, Om Prakash. Vaidik sanatan arthshastra Aanupatik mulya, aaye maapan evam poorna rojgar sidhant sahit ,Lokhit Prakashan (2021).
12. Dadabhai Naoroj, Poverty and un-British rule in India (1901)
13. Mahatma Gandhi, Hind Swaraj, (1906)

M.A. Economics
Skill Enhancement / Value Added Courses
(Offered to PG students of SoS in Economics)

Programme	Subject	Year	Semester
M.A.	Economics	2nd	IV

Course Code	Course Title		Course Type
ECO610	Data Analysis Using SPSS		VAC
Credit	**Hours Per Week**		
	T		P
2	3		1
Maximum Marks	**CIA**		**ESE**
100	30		70

Learning Objective:
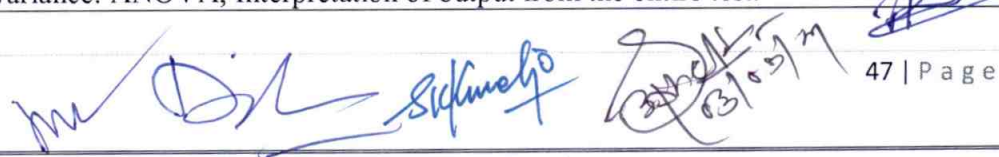
The course aims to familiarise the students with computer application in economic analysis. It deals with basic knowledge on computer, data, and estimation of statistical tools by using software and analysing the results of economic relationships, testing economic hypotheses and forecasting.

Course Outcome:

Expected Course Outcome	
At the end of the program, the student will be able to:	
CO1	To become familiar with basic knowledge of SPSS
CO2	To become familiar with application of statistical software SPSS
CO3	To familiarize with working with the data using SPSS
CO4	To calculate statistical analysis using the SPSS
CO5	To estimate hypothesis testing with the help of software and interpret it

Detailed Syllabus:
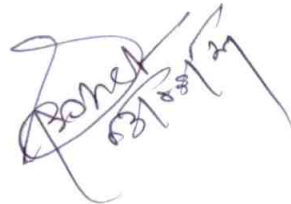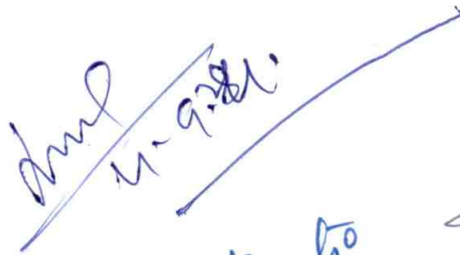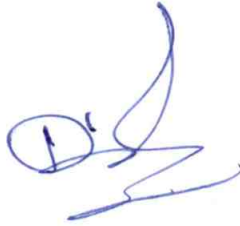
Unit No.	Topics
I	**Basics of SPSS:** data entry, formation of frequency tables, editing and saving, using built in functions in SPSS, importing data from EXCEL, copy and exporting to MS Word document. **SPSS Environment:** data editor, output viewer, syntax editor , Data view window , SPSS Syntax , Data creation , Importing data , Variable types in SPSS and Defining variables ,Creating a Codebook in SPSS.
II	**Working with Data:** Computing Variables; Recoding (Transforming) Variables: Recoding Categorical String Variables, Sorting Data - Grouping or Splitting Data. **Descriptive Statistics:** Introduction: Arithmetic mean, Median, Mode, Interpretation of these measures. Measures of Dispersion: Range, Quartile Deviation, Mean Deviation, Standard Deviation, Coefficient of Variation, Interpretation of these measures. Correlation and regression: Meaning, Karl Pearson's coefficient of correlation, Rank Correlation, Interpretation of Correlation coefficient- Applications. Principle of lease squares, fitting of a straight line, parabola and exponential curve. Simple regression analysis: Definition- Regression equations (X on Y and Y on X)-Interpretation and Prediction.
III	**Hypothesis Testing:** Null hypothesis, Alternative hypothesis, one tail test and two tail tests, Types of Errors, Critical region, Level of Significance, Power of a test, Procedure of testing of hypothesis. **T-tests:** Independent-samples: T-Test, Paired-sample T-test, Interpretation of output from the entire test. Non-parametric statistics: Chi-Square, Interpretation of output from Chi-square test for Goodness of fit, Chi-square test for independence, One-way analysis of variance: ANOVA, Interpretation of output from the entire test.

Suggested Readings/ Reference: -

1. Andy field (2013): Discovering statistics using IBM SPSS statistics ,4th Edition, SAGE Publications. Shelly and Hunt, Computers and Common Sense, Prentice Hall of India, New Delhi.
2. Rajaraman V, Fundamentals of Computers, Prentice Hall of India, New Delhi.
3. Peter Dalgaard (2008): Introductory Statistics with R, 2nd Edition, Springer, New York.
4. Peter Norton's Introduction to computers, Tata McGraw Hill Publishing Co., New York.
5. Foster,J.J.(2001), Data Analysing using SPSS For Windows 8.0 – 10.0, A Beginner's Guide. 6. M. Crawley, Basic Statistics: An Introduction using R.
6. B.S. Everitt& T. Hothorn, A Handbook of Statistical Analyses Using R (2nd Ed.).
7. J. Maindonald & J. Braun, Data Analysis and Graphics Using R: An Example-based. Approach.
8. P. Murrell, R Graphics (2nd Ed.).

पं. रविशंकर शुक्ल विश्वविद्यालय, रायपुर (छत्तीसगढ़)

स्नातकोत्तर पाठ्यक्रम

वार्षिक पद्धति

ECONOMICS
M.A. PREVIOUS AND M.A. FINAL EXAMINATION - 2024-26

At Post-graduate level. Candidates required to-study ten compulsory papers during two years period. There shall be five compulsory papers in M.A. previous and five compulsory papers in M.A. final examinations. So, there shall be ten compulsory papers in the post-graduate examination. Each paper shall carry 100 marks. Candidate shall have to secure 36 percent marks in aggregate of all papers in order to pass the M.A. previous and M.A. final Examination.

M.A. Previous
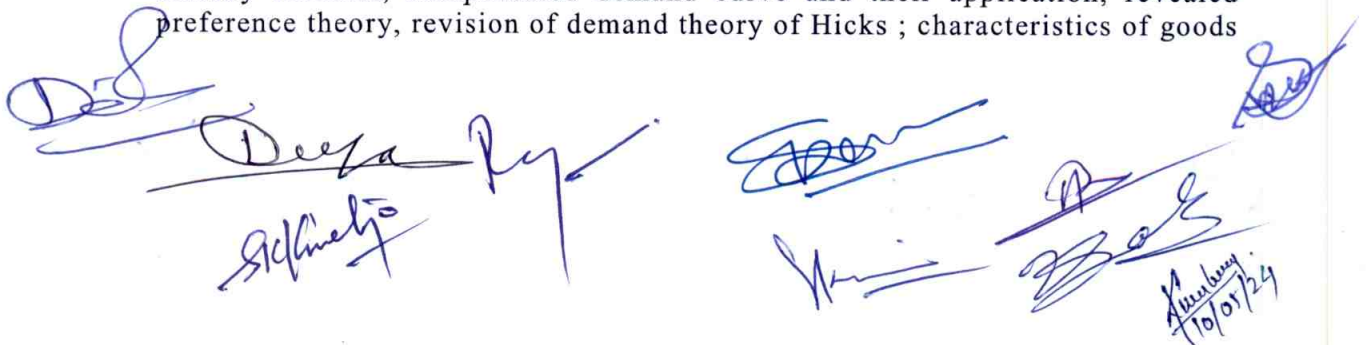
Paper I	Micro Economics (0337)
Paper II	Macro Economics (0339)
Paper III	Quantitative Methods (0341)
Paper IV	Indian Economic Policy (0343)
Paper V	Demography (0349)

M.A. Final

Paper I	Economics of Growth and Development (0338)
Paper II	International Trade and Finance (0340)
Paper III	Public Economics (0342)
Paper IV	Environmental Economics & Social Sector (0344)
Paper V	Agricultural Economics (0350) .

M. A. (Previous) Economics
PAPER - I
MICRO ECONOMICS
(Paper Code-0337)

UNIT-1   Introduction, Basic Concepts and Demand Analysis Basic Economic Problem- Choice and Security, Deductive and Inductive Methods of Analysis, Positive and Normative Economics, Economic Models, Characteristics of Equilibrium and Disequilibrium Systems. Elasticities (price, Cross, Income) of demand-theoretical aspects and empirical estimation, elasticity of supply ; theories of demand-utility, Indifference Curve, Income and substitution effects, Slutsky theorem, compensated demand curve and their application, revealed preference theory, revision of demand theory of Hicks ; characteristics of goods

approach consumer's surplus, elementary theory of price determination - demand and supply equilibrium.

UNIT-2   Theory of Production and Costs- Production Function - Short period and long period, law-of variable proportions and returns to scale, isoquants - least cost combination of inputs, returns to factor, Economics of scale, elasticity of substitution, Euler's theorem, technical progress and production function cob-Douglas, CES, production functions and their properties. Marginal analysis as an approach to price and output determination, supply curve; Monopoly-short run and long run equilibrium price determination, Welfare aspects monopoly control and regulation.

UNIT-3   Monopolistic competition, General and Chamberlin approaches to equilibrium, (equilibrium of the firm and the group with product differentiation and selling Costs, excess Capacity under monopolistic and imperfect Compotition, Criticism of monopolistic competition.
Oligopoly-Non-Collusive (Cournot, Bertrand, Edseworth, Chamberlin; Kinked demand curve) and Collusive (Carter and merger, price leadership and basic point price system) models.

UNIT-4   Critical evaluation of marginal analysis, Baumol's sales revenus maximisation model, willamsan's model of managerial discretion, morris model of managerial enterprises. Full cost pricing rule, Bains limit pricing theory and its recent developments, including styles, labinis model, and behavioural model of the firm. Neo-classical approach of distribution welfare economics and general equilibrium Marginal Productivity theory, Product Exhaustion theorem, Elasticity of Technical Substitution, technical progress and factor shares, theory of distribution in imperfect product and factor markets, Determinants of rent, wages, interest and profit.

UNIT-5   Pigovian welfare economics, Pareto optimum conditions value-judgment, social welfare function; compensation principle, inability to obtain .optimum welfare- imperfections, market failures decreasing costs uncertainty and non-existent and incomplete markets. Partial and General equilibrium, Walrasian Excess Demand and input- output approaches to general equilibrium, existence, stability and uniqueness of equilibrium and general equilibrium.

BASIC READING LIST:
1.   Kraps, David M. (1990) a course in micro economics theory princation university press, Princeton.
2.   Kout sayiannis; A (1979) modern Microeconomics (2nd Edition), macmillan press,London.
3.   Layard, PRG and P.W. Watters (1978), Micro economic theory, McGraw Hill, New
York.
4.   San A (1999) Micro economics theory and Applications, Oxford University Press, New Delhi;.

5. Stigler, G. (1996) theory of Price (4th adition), Prentise Hall of India, New Delhi.
6. Varian, H (2000) Micro economics Analysis, W.W. Norten, New York.
7. Baumol W.J., (1982) Economic theory and operations Analysis, perntice Hall of India, New Delhi.
8. Handersan, J.M. and R.E. Quandy (1980) Micro economics theory - A Mathematical approach, Mc Graw Hill New Delhi.
9. Hirshleifer, J. And A Glazer (1997), Price theory and Application, Prentise Hall of India, New Delhi.
10. Health fields and wibs (1'987) An introduction to cost and production function, Macmillan, London.
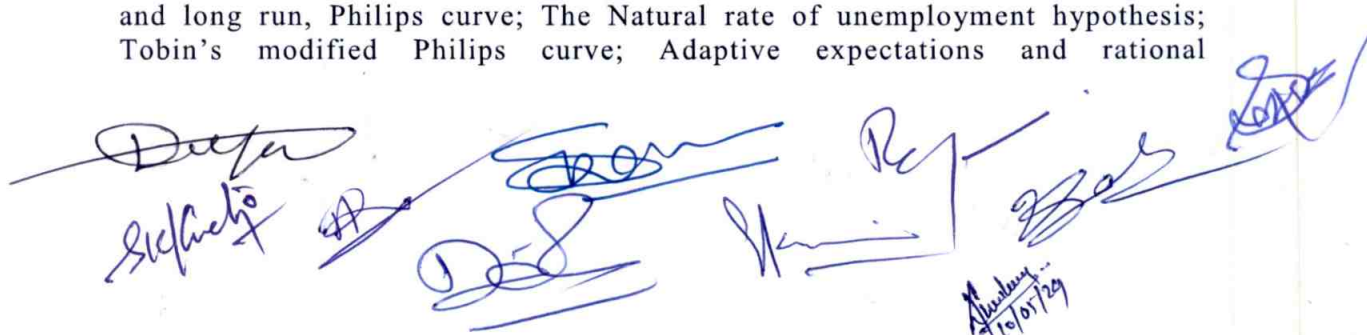
COMPULSORY PAPER
PAPER- II
MACRO ECONOMICS
(Paper Code-0339)

UNIT-1 National Income and accounts - Concepts of National Income and National Product. Problems of Measurement,' Circular Flow of Income in two, three and four sector economy; different forms of national income accounting, Social accounting, input-output accounting and flow of funds and balance of payment accounting. Consumption Function - .Keynes psychological law of consumption - implications of the law; short run and long-run consumption function, Empirical evidence on consumptions function; Income-consumption relationship Absolute income, Relative income, Life cycle and Permanent income hypotheses.

UNIT-2 Investment Function - Marginal efficiency of capital and investment - long run and short run; The accelerator and investment behavior, Saving and Investment equality, Multiplier; concept of Multiplier; Super Multiplier.
Supply of Money - money supply determination, demand determined money supply process, RBI approach to money supply; High powered money and money multiplier; budget deficits and money supply, money supply and open economy; control of money supply.

UNIT-3 Demand for money - Classical approach to demand for money - quantity theory approach, Fisher's equation, Cambridge quantity theory, Keynes's liquidity preference approach, transaction, precautionary and speculative demand for money - aggregate demand for money; Post - Keynesian approaches to demand for money - Patinkin and the real Balance Effect, Approaches of Baumol and Tobin; Friedman and the modern quantity theory; Crisis in Keynisian economics and the revival of monetarism. New-classical and Keynesian, views on interest: The IS-LM model; Derivation of IS curve; Derivation of LM curve; General equilibrium of Product and money market.

UNIT-4 Theory of Inflation - Classical, Keynesian and Monetarist approaches to inflation; Structuralism theory of inflation; Philips curve analysis - Short run and long run, Philips curve; The Natural rate of unemployment hypothesis; Tobin's modified Philips curve; Adaptive expectations and rational

expectation; Policies to control inflation. Business Cycles - Theories of Schumpeter, Kaldor, Samuelson and Hicks, Control of, business cycles.

UNIT-5 Monetary and fiscal policies - Types of Monetary Policy; Instruments of monetary Policy; Relative effectiveness of monetary and fiscal policies. Macro Economic Policies Development - Role of Monetary and fiscal Policies in India, New classical Macro economics.
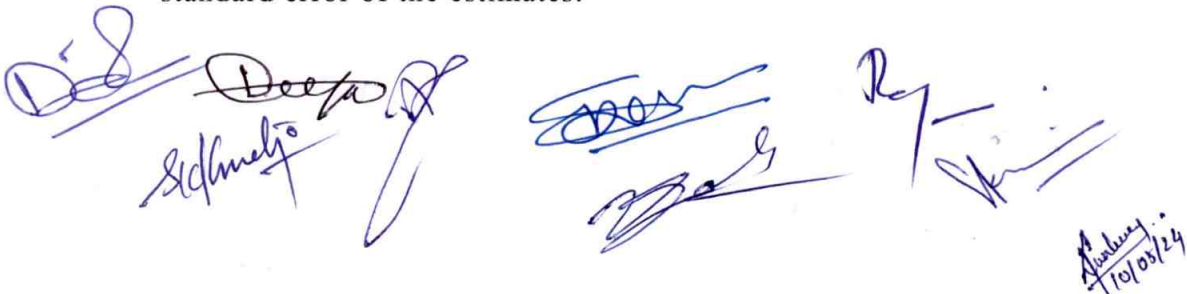
PRACTICE BOOKS:
1. Markley, G. (1978), Macroeconomics; Theory and Policy; Macmillan, New York.
2. Blackhouse, R. and A. Salansi (Eds.) (20()), Macroeconomics and the Real World (2vols) Exford University Press, London.
3. Branson, W.A. (1989), Macroeconomics Theory and Policy, (3rd Edition), Harper and Raw, New York.
4. Aornbusch, R. and .F. Stanley (1997), Macroeconomics, McGraw Hill, Inc., New York.
5. Hall, R.E. and J.B. Taylor (1986), Macroeconomics, W.W. Norton, New York.
6. Heijdra, B.J. and V.P. Frederick (2001), Foundations of Modern Macroeconomics, Oxford University' Press, New Delhi.
7. Jha, R. (1991), Contemporary Macroeconomic Theory and Policy, Wiley Eastern Ltd. New Delhi.
8. Romer. DL. (1996), Advanced Macroeconomics, McGraw Hill Company Ltd., New York.
9. Scarte, B.L. (1977), Cycles, Growth and Inflation; McGraw Hill, New York.
10. Shapiro, E. (1996), Macroeconomic Analysis', Galgotia. Publications, New Delhi.
11. Surrey, MJC (Ed) (1976), Macroeconomics Themes, Oxford University Press, Oxford

COMPULSORY PAPER
PAPER - III
QUANTITATIVE METHODS
(Paper Code-0341)

UNIT-1 Concept and types of production functions-Cobb-Douglas production function; linear programming- Basic concept; formulation of a linear programming problem its structure and variables; nature of feasible, basic and optimal solution; solution of linear programming through graphical method; concept of game; strategies - simple and mixed; value of game ; saddle point solution; simple applications, limitations of the game theory.

UNIT-2 Skewness : Symmetrical and asymmetrical distribution; measurement of skewness - Karl Pearson's of coefficient Skewness, Bowley's coefficient of skewness; meaning, assumptions and limitations of simple correlation; measurement of correlation coefficient.. Karl Pearson's coefficient of correlation and spearman's rank correlation; probable error and standard error in correlation; regression analysis, regression lines regression equations, regression coefficient, correlation and regression, partial correlation and multiple correlation; multiple regression analysis (up to three variables) standard error of the estimates.

UNIT-3 Interpolation and extrapolation, methods of fitting a parabolic curve dirnct binomial expansion method. Newton's advancing difference method and Lagrange's method; Association of attributes, meaning and types of association,consistency of data, in association. Theory of probability, various types of events, addition and multiplication theorems, conditional probability and concept of inter dependence.

UNIT-4 Index Number - Type of index number, Fisher's ideal index number, Reversibility test, Cost of living index, Time series data Analysis - Components of time series. Short period and long period trend line; moving average method.

UNIT-5 Census and sample methods of statistical inquiry: Deliberate and random sampling, simple, random, stratified random and P.P.S. sampling. Concept of an estimator and its sampling distribution. desirable properties of an estimator; formulation of statistical hypotheses - null and alternative; goodness of fit. Confidence intervals and levels of significance, hypothesis testing based on z, t, x2 (Chi-square) and F tests, Type-1 and Type-2 errors.

QUANTITATIVE METHODS :
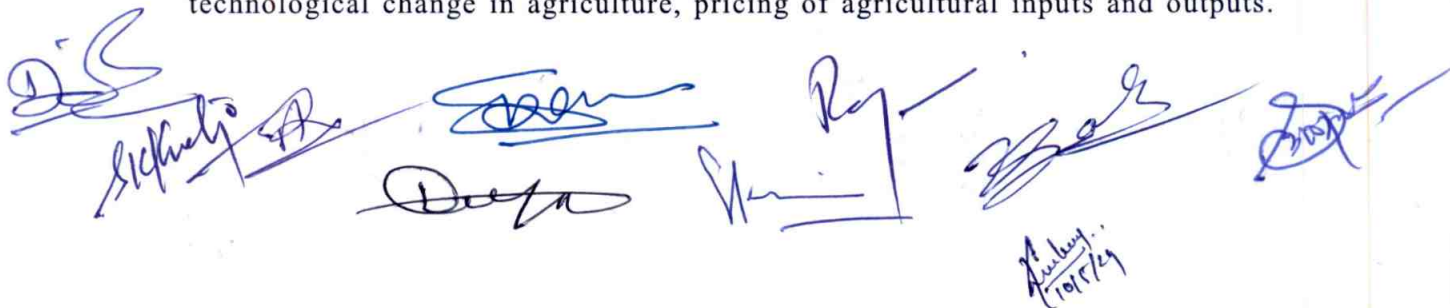
1. Allen, R.G.D. (1974): Mathematical Analysis for Economics, Mcmillan Press and ELBS, London.
2. Chiang, A.C. (1986): Fundamental methods of Mathematical Economics, Mc Graw Hill, New York.
3. Gupta S.C. (1993): Fundamental of Applied Statistics S. Chand & Sons, New Delhi.

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COMPULSORY PAPER
PAPER - IV
INDIAN ECONOMIC POLICY
(Paper Code-0343)

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UNIT-1 Economic Development and its determinants approaches to economic development and its measurement-sustainable development, role of state, market and other institutions, indicators of development-PQLI-Human Development Index (HDI), Gender development indices. Planning in India-Objectives and strategy of planning, failures and achievements of plans - developing grass-root organizations for development, Panchayats, NGOs and pressure groups.

UNIT-2 Demographic Features, Poverty and inequality, broad demographic features of Indian population, rural-urban migration, urbanization and civic amenities, poverty and Inequality. Resource Base and' Infrastructure Energy - Social infrastructure, education and health.

UNIT-3 The Agriculture-Sector-Institutional Structure, land reforms in India, technological change in agriculture, pricing of agricultural inputs and outputs.

Terms of trade between agriculture and industry, agricultural finance olicy. The Industrial Sector, Industrial Policy, public sector enterprises and their performance, problem of sick units in India. Privatization. and disinvestment debate, growth and pattern of industrialization, small-scale sector, productivity in industrial sector.

UNIT-4 Public Finance - Fiscal Federalism, Centre-state financial relations, finances of central government, finances of state government, parallel economics, problems relating to fiscal sector reforms in India, Money, Banking and prices - Analysis of price behavior in India, Financial sector reforms, Interest rate policy, Review of monetary policy of RBI.

UNIT-5 External sector - structure and direction of foreign trade, Balance of payments, Issues in Export-import policy and FEMA, Exchange rate policy, Foreign capital and MNCs in India; The progress of trade reforms in Indian. Economic Reforms - Rational of internal and external reforms: Globalization of Indian economy, W.T.O. and its impact on the different sectors of the economy.

REFERENCES:
1. Ahulwalia, I.J. and I.M.D. Litle (Eds.) (1999): India's Economic Reforms and Development (Essays honor of Mariohar Singh), Oxford University Press, New Delhi.
2. Bardhan, P.K. (9th Edition) (.1999): The Political Economy of Development India, Oxford University Press, and New Delhi.
3. Bawa, A.S. and Raikhy (Ed.) (1997): Structural change in Indian Economy, Guru Nanak Dev University Press, Amritsar.
4. Brahmananda, P.A. and V.A. Panchmukhi (9th Eds.) (2001): Development Experience in Indian Economy: Inter-state Perspectives, Bookwell, Delhi.
5. Chakravarty, S. (1987): Development Planning: The Indian Experience, Oxford University Press, New Delhi.
6. Dantwala, M.L. (1996): Dilemmans of Growth: The Indian Experience, Sage Publication, New, Delhi.

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COMPULSORY PAPER
PAPER - V
DEMOGRAPHY
(Paper Code-0349)

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UNIT-1 Meaning, Scope and importance of demography sources of demographic data, Tools of demographic analysis, measurement of population growth and population pyramid; Theories .of population - Malthus theory, Socio-cultural and economic theories of population, Biological theories of population, Theory of optimum population, Theory of demographic transition.

UNIT-2 Fertility - meaning and definition of fertility, Measurement of fertility - child woman ratio, crude birth rate, corrected birth rate, General fertility rate, Age specific fertility rate, Total fertility rate, Gross reproduction rate, and Net reproduction rate, calculation of fertility rates, determinants of fertility, Trends fertility in India.

UNIT-3   Mortality and morbidity - Importance of mortality data causes of death, meaning of morbidity, Differentials in mortality and morbidity, measurement of mortality crude death rate, Age-specific death rate, Infant mortality rate, Standardized death rate and maternal mortality rate, calculation of mortality rates, Trends in mortality in India, life table.

UNIT-4   Migration and urbanization, Population projection, growth of population in India, population and economic development, population explosion in India, Demographic characteristics of developing countries. Population Policy of India.

UNIT-5   Women empowerment - Economic status, Women in decision making, Women and labour market; Women work participation: Concept and analysis of women's work, structure or wages across regions and economic sector's, Determinants of wage Differentials, Gender and education.

REFERENCES:

1.   Agrawal S.N. (1972), India's Population Problem, Tata McGraw-Hill Co. Bombay.
2.   Bose, S. (1996), India's Basic Demographic Statistics, B.A. Publishing Corporation, New Delhi.
3.   Bogue, D.J. (1971), Principles of Demography, Hon Wiley, New York
4.   Handry, A.T. (1999): Operations Research, Prentice Hall of India, New Delhi.
5.   Speigal, M.R. (1992): Theory and problems of statistics, Mc Graw Hill Book Co., London.
6.   Taha, H.A. (1997): Operations Research: An Introduction (6th editian), Prentice Hall of India Pvt. Ltd.; New Delhi.
7.   Yamans, Tare (1975): Mathematics for Economics, Prentics Hall af India, New Delhi.
8.   Mathur, P.N. & R. Bhardwaj (Eds.) 1967: Economic Analysis in input-autput Research, Input Output, Research Association of India, Pune.
9.   Kathari, C.R. (1992): An introductian to. Operations Research Vikas Publishing House, New Delhi.
10.   Hadley, G.(1962): Linear Programming, Addisan Wesley Publishing Co. Massachusetts.
11.   Chou a (1975): Statistical Analysis Halt, Rainhart and Winstan, New Yark.

COMPULSORY PAPER
PAPER - I
ECONOMICS OF GROWTH AND DEVELOPMENT
(Paper Code-0338)

UNIT-1   Economic Growth: Economic growth and development, Factors affecting economic growth, Capital, labor and technology. Measuring economic development, development gap. Common characteristics of developing economics. Obstacles to economic development: Human development index and

other indices of development, Quality of life index, Food security. Human Resource Development.

UNIT-2   Theories of development- Ricardo, Karl marx, Schumpeter and Harrod-Domar model, Neoclassical model- solow, Meade. Mrs John Robinson and kaldor model. Technology progress and economic growth - Hick, Hayek learning by doing, Production function approach to economic development.

UNIT-3   Approaches to development - Vicious circle of poverty, circular causation unlimited supply of labour, big push theory, theory of critical minimum effort, Balanced and unbalanced growth, Low income euilibrium trap, Ranis-fie model.

UNIT-4   Problems of Development- Measuring poverty and income inequalities in developing countries. Nature and causes of poverty and income inequality. Capital formation, Capital output ratio, Human Capital formation in developing countries. Role of State in economic development.

UNIT-5   Allocation of resources - Need for investment criterion in developing countries. Marginal rate of resource criteria, the rate of turn over criterion, the time series criterion, and cost benefit Analysis, Project evaluating and UNIDO guide lines. Shadow prices, Input-output Analysis.

BASIC READING LIST:-
Adelman, I (1961), Theories of Economic Growth and Development Stanford University press, Stanford.

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COMPULSORY PAPER
PAPER - II
INTERNATIONAL TRADE AND FINANCE
(Paper Code-0340)

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UNIT-1   Theory of International Trade: The pure theory of international trade-Theories of absolute advantage, Opportunity cost, Modern theory of international trade, Theorem of factor price equalization, Heckscher-Ohlin theory of trade, Kravis and Linder theory of trade, Factor intensity reversals; Stapler-Samuelson and Rybczynski theorems, Empirical testing of comparative costs and H.O. theories, Economic growth and international trade.

UNIT-2   Measurement of gains-Measurement of gains from trade and their distribution, concepts of terms of trade- their uses and limitations, Determination of terms of trade, its empirical relevance and policy implicatations for less-developed countries, Welfare implications. The theory of intervention (Tariffs, quotas and non-tariff barriers), Economic effects of tariffs and quotas on national income,. output, employment, terms of trade, income distribution, Balance of payments on trading partners both in partial and general equilibrium analysis, The political economy of non-tariff barriers

UNIT-2 Environmental Economics - Definition of Environmental economics, Public Goods, Private goods. Market Failure and Public goods. Theory of Externalities-Economics and Diseconomies. External Costs, Marginal social cost, Marginal private cost. Pigouian Taxes and Subsidies Environmental Values use value, Option value, and non use value. International Carbon Tax. Environment and W.T.O. Macro-economic policy and Environment

UNIT-3 Pollution - Classification of Pollution, Control of Pollution, Air Pollution Control, Water, Pollution Control, Pollution Control Strategies, Cost-benefit analysis of pollution; Environmental Laws. Protection of Environment. Environment and Development, Sustainable Development. Population Growth and Environment.

UNIT-4 Resources - Classification of resources, Renewable resources, Non renewable resources, Optimal use of resources, Land resources, Forest resources, Social forestry, people's participation in the management of common and forest lands Energy Efficiency and environment. Energy Taxation-subsidies for Biomass, Automobile Fuels.

UNIT-5 Education - Economics of Education, The Return of education, Expenditure on education, The productivity of education. Human capital, Human capital vs Phyical capital, Demand producation Benifit of education, Educational Planning. Education, and Labour Market. Poverty Unemployment and Education. Health Economics Determinants of health, dimention of health care, Malnutrition. The concept of human life. Inequalities in health-Care and Gender Perspectives.

BASIC READING:

1. Baumol, W.J. and W.E. Oates (1988): The Theory of Environmental Policy, (2nd Edition), Cambridge University Press, Cambridge.
2. Berman, P. (Ed.)(1995) : Health Sector Reform in Developing Coutries : Making health development sustainable, Boston: Harvard Series on Population and International Health.
3. Blaug, M. (1972): Introduction to Economics of Education J Penguin, London. (15)
4. Bromely, D.W. (Ed.) (1995): Handbook of Environmental Economics, Blackwell, and London.
5. Cohn, E. and T. Gaske (1989) : Economics of Education, Pergamon Press, London.
6. Fisher, A.C. (1981): Resource and Environmental Economics, Cambridge University Press, Cambridge.
7. Hanley, N.J.F. Shoge'rn and B. White (1997): Environmental Economics in theory and-Practice, Macmillan.
8. Hussen, A.M. (1999): Principles of Environmental Economics, Routledge, London.
9. Jeroen, C.J.M. van den Bergh (1999)': Handbook' of -Environmental and resource Economics, Edward Elgar Publishing .Ltd: U.K:
10. Madhu Raj - Environmental Economics.
11. Steve Baker - Environmental Economics. .
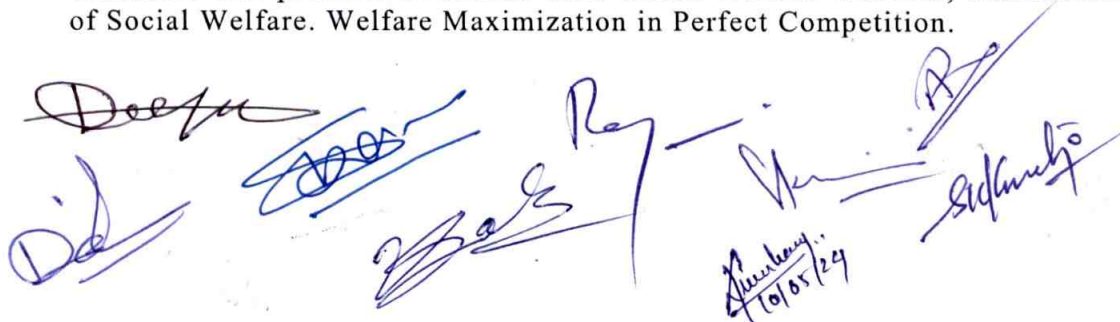
PUBLIC ECONOMICS
(Paper Code-0342)

UNIT-1 Role of Government in organized society, Government in a mixed economy, Public and Private goods, principles of maximum social advantages, Taxation- different forms, principles of taxation, shifting, effects and incidence of taxation, Indian taxes- personal income tax, excise duty, central excise and custom duties, taxes on land and agriculture, taxable capacity.

UNIT-2 Public Expenditure - Different forms of expenditure, economic effect of public expenditure on production and distribution, public expenditure and economic growth in developing countries, Wagner's law of increasing state activities, Wiseman Peacock hypothesis, pure theory of public- expenditure, structure and growth of public expenditure in India.

UNIT-3 Public Debt- different sources of public debt, Redemption of public debt, economic effects of public debt, Burden of public debt. Classical view of public debt, principles of debt management and repayment of public debt, growth of public debt in India.

UNIT-4 Fiscal policy - Objectives of fiscal policy in under-developed countries, economic stability and fiscal policy,' fiscal policy and full employment, balanced budget multiplier, functional finance.

UNIT-5 Finance Commission - Twelth Finance Commission Report - only, Analysis of Central and State Government Budgets, Financial Administration, Budget and budgetary procedure in India, Gadgil formula, federal finance, principles af federal finance in India.

BASIC READING :
1. Atkinsan, A.B: and J.E. Siglitz (1980), Lectures an Public Economics, Tata McGraw Hili, New Yark.
2. Auerbach, A.J. and M. Feldstern (Eds.), Handbook of Public Ecanamics, Vol. 1, North Holland, Amsterdam.

COMPULSORY PAPER
PAPER - IV
ENVIRONMENTAL ECONOMICS & SOCIAL SECTOR
(Paper Code-0344)

UNIT-1 Welfare Economics - Definition of Welfare Economics, Criterion of Social welfare, Benthem's Criterion, Cordiality Criterion. The Pareto optimality Criterion, Kaldor Hicks Compensation Criterion, The Bergson Criterion. The problem of second best. Social welfare function, Maximization of Social Welfare. Welfare Maximization in Perfect Competition.

UNIT-2 Environmental Economics - Definition of Environmental economics, Public Goods, Private goods. Market Failure and Public goods. Theory of Externalities-Economics and Diseconomies. External Costs, Marginal social cost, Marginal private cost. Pigouian Taxes and Subsidies Environmental Values use value, Option value, and non use value. International Carbon Tax. Environment and W.T.O. Macro-economic policy and Environment

UNIT-3 Pollution - Classification of Pollution, Control of Pollution, Air Pollution Control, Water, Pollution Control, Pollution Control Strategies, Cost-benefit analysis of pollution; Environmental Laws. Protection of Environment. Environment and Development, Sustainable Development. Population Growth and Environment.

UNIT-4 Resources - Classification of resources, Renewable resources, Non renewable resources, Optimal use of resources, Land resources, Forest resources, Social forestry, people's participation in the management of common and forest lands Energy Efficiency and environment. Energy Taxation-subsidies for Biomass, Automobile Fuels.

UNIT-5 Education - Economics of Education, The Return of education, Expenditure on education, The productivity of education. Human capital, Human capital vs Phyical capital, Demand producation Benifit of education, Educational Planning. Education, and Labour Market. Poverty Unemployment and Education. Health Economics Determinants of health, dimention of health care, Malnutrition. The concept of human life. Inequalities in health-Care and Gender Perspectives.

BASIC READING:
1. Baumol, W.J. and W.E. Oates (1988): The Theory of Environmental Policy, (2nd Edition), Cambridge University Press, Cambridge.
2. Berman, P. (Ed.)(1995) : Health Sector Reform in Developing Coutries : Making health development sustainable, Boston: Harvard Series on Population and International Health.
3. Blaug, M. (1972): Introduction to Economics of Education J Penguin, London. (15)
4. Bromely, D.W. (Ed.) (1995): Handbook of Environmental Economics, Blackwell, and London.
5. Cohn, E. and T. Gaske (1989) : Economics of Education, Pergamon Press, London.
6. Fisher, A.C. (1981): Resource and Environmental Economics, Cambridge University Press, Cambridge.
7. Hanley, N.J.F. Shoge'rn and B. White (1997): Environmental Economics in theory and-Practice, Macmillan.
8. Hussen, A.M. (1999): Principles of Environmental Economics, Routledge, London.
9. Jeroen, C.J.M. van den Bergh (1999)': Handbook' of -Environmental and resource Economics, Edward Elgar Publishing .Ltd: U.K:
10. Madhu Raj - Environmental Economics.
11. Steve Baker - Environmental Economics. .

12. D.W. Pearce - Environmental Economics.
13. John Vaizey - The Economics of Education.

COMPULSORY PAPER
PAPER - V
AGRICULTURAL ECONOMICS
(Paper Code-0350)

UNIT-I Nature and scope of Agricultural economics- Traditional and Modern agriculture, role of agriculture in economic development. Problems in rural industrialization, development of Agro-based industries, interdependence between agriculture and industry. Green revolution. Agricultural production, Production function analysis, cost concept in agricultural product, farm budgeting, Resource use and efficiency in Agricultural sector.

UNIT-II Land use, Principles of land utilization, land distribution, Land values and rent, Land reform measures and performance, Land tenures and farming systems, problems of marginal and small farmers. Rural Labour supply, Mobility of labour and labour market in agriculture sector. Nature of employment in rural sector Agriculture wages in India. Male-Femele wage difference in agriculture.

UNIT-III Rural Finance - Role of rur.al capital and rural credit, Rural capital and capital formation, Characteristics and source of rural credit, Institutional and non institutional rural credit, Rural Banks, Commercial Banks,. Regional Rural Banks and Rural credit Co-operatives Societies. Agricultural prices-Agricultural markets, Behavior of agricultural prices, agricultural. Markets and agricultural marketable surplus. Taxation, crop insurance, state policy and Agricultural price policy.

UNIT-IV Agricultural Growth in India - Recent trends, inter-regional variation in growth of agricultural product, cropping pattern, factors affecting productivity, pricing of inputs, role of subsidies, role of technology and input of irrigation in Agricultural sector. Problems and prospects of Globalization and W.T.O. in India Agricultural commodities.

UNIT-V Infrastructure - Infrastructure and economic development, the structure of Transportation costs, Demand for transportation, Cost function in the transport Sector, Telephone utilities, role of postal services, Demand for Energy, Energy conservation, Renewable and Non-conventional Sources of Energy.

REFERENCES:
1. Bhahacharjee, J.P. - Studies. in Indian Agricultural Economics.
2. Rao, V.K.R.V.- New Challenge before Indian Agriculture.
3. Mellor, J.W. - The Economics of Agricultural Development.
4. Bhadure, A. (1984), The Economic Structure of Backward Agriculture, Macmillan, Delhi.
5. Bilgrami, S.A.R. (1996), Agricultural Economics, Himalaya Publishing House, Delhi.

6. Dantewada, M.L. Et. a, (1991), Indian Agricultural Development Since independence,Oxford & BH, New Delhi.
7. Government of India (1976), Report of the National Commission of Agriculture, New Delhi.
8. Government of India, Economic Survey (Annual), New Delhi.
9. Gulati, A.and T. Kelly (1999), Trade Liberalization 'and Indian Agriculture, Oxford
    University Press, New Delhi.
10. Joshi, P.C. (1975), Land Reforms in India: Trends and. Prospects. Alled Publishers, Bombay.
11. Kahlon, A. S. and Tyage D.S. (1983), Agriculture Price. Policy in India, Allied Publishers,   New Delhi.
12. Rao, C.H.I.Hanumanth (1975), Agricultural Growth, Rural Poverty. and Environmental Degradation in India, Oxford University Press, New Delhi.
13. Reserve Bank of India, Report on Currency and Finance (Aual), Mumbai.
14. Rudra,A. (1982), Indian Agricultural Economics, Myths and Relaity, Alled Publishers,   New, Delhi.
15. Saini, G.R. (1979), Farm Size, Resource Use Efficiency and income Distribution, Allied Publishers, New Delhi.