

PROGRAMME PROJECT REPORT

PROGRAMME NAME: MA ECONOMICS

Institution's Mission and Vision Statement

Mission: To offer quality educational services and transforming lives through knowledge.

Vision: The vision of the Promoting Body is set-up a University with a difference. It envisages the Proposed University to come up as a centre of excellence for training of management Professional and shaping and molding of Business and Corporate Leaders of tomorrow.

Relevance of Programme to the Institution's Mission and Goals

- Committing to continuous improvement through industry relations, and assurance of learning across all programmes.
- To fulfil the knowledge and development needs of the individuals, institutions and society in general, by relating, particularly, the courses, to the needs of the employment and economic development of the state on the basis of its natural and human resources.
- To provide an innovative system of University level education in regard to the methods and pace of learning, combination of courses, eligibility for enrolment, age of entry, conduct of examinations and operation of the programme, with a review to promote learning and encourage excellence in all fields of Knowledge.

Objective of the Programme

- To gain an understanding of core economic principles and how they apply to a wide range of real-world issues.
- To master the theoretical and applied tools necessary to critique and create economic research.
- To learn how to articulate pragmatic, principles-based policies to enhance economic well-being and promote social justice.
- To become familiar with salient developments in the world economy, in both present-day and historical contexts.

Nature of Prospective Target Group of Learners

- The minimum eligibility criterion required for M.A course is having a Bachelor degree in any stream. Candidates desirous to join service sector will opt for this programme because of the unique methodology of the programme, where students will get real-life workplace experience and learn simultaneously through eLearning support.

- The Duration of M.Com courses shall be of 2 Years. The Programme is on Semester system, thus there shall be four semester Examination. The University has continuous system on assessment & evaluation of measurement of learning outcomes by students. The Learning is assessed by blend of quizzes, assignment, Exercise analysis, report submission, Annual Examination.

Programme Appropriateness in Open and Distance Learning mode

- Appropriateness of Programme to be conducted in Open and Distance Learning mode to acquire specific skills and competence
- Focus on preparing professionals for financial analysis, research orientation, investment and risk management, financial management including derivatives, hedge funds and debt funds.
- Caters to the manpower needs of companies in Accounting, Taxation, Auditing and Financial Analysis & Management.
- The learners learn the theory concepts using eLearning.
- 'Learning through working' model makes them independent at the very beginning of their graduation.

Various Modes of Education Delivery

- *Instructional Design*: Study focuses on the instructional design process on management, communication, technology and learning about organizations. Emphasis is given to the students' application and evaluation of their learning.
- *Self-Learning Material (SLM)*: SLM includes all the instructional design part like graphics oriented content, every unit contains Introduction, Activity, Notes, Summary, Keywords, Review Questions, Further reading & Explanatory figures.
- *e-Learning*: eLearning is a way to provide quick delivery of lessons. e-Learning helps in creating and communicating new training, policies, concepts, and ideas. eLearning enables educators to get a higher degree of coverage to communicate the message in a consistent way which ensures that all learners receive the same type of training with this learning mode.
- *Video Lectures*: It produces authentic learning opportunities for students. It inspires and engages students when incorporated into students centered learning activities through increased students' motivation, enhanced learning experience, and enhanced team working and communication skills.
- *Dynamic Web-Portal*: It provides a resource for locating and navigating to web based resources that support educational endeavours. It helps to keep up-to-date with new content and customize information depending on who is visiting the site.
- *Learning Management System (LMS)*: It create multimedia learning content which is comprehensive and practical, using video, images, audio and text which all serve as great tools in learning new skills or information.
- *Dictionaries of Specialized Subjects*: An insight into the terminology used subjects specific words and word origins. Dictionaries provide extra help with words and symbols to build subject understanding at home and in the classroom.

- *Instructional Simulations:* It is an educational simulation in which simulation of some type of reality (system or environment), which also includes instructional elements that help a learner explore, navigate or obtain more information.

CURRICULUM, DETAILED SYLLABUS & OTHER DETAILS

The Curriculum, Detailed Syllabus & other details are as under:

Name of Programme : MA ECONOMICS
 Duration : 2 Years
 Examination : 4 Semesters

MA ECONOMICS: Two-Year (4-Semester) CBCS Programme			
Programme Structure			
Course No.	Course Title	Credits	Course Type
	Semester I		
MAEC11	Microeconomic Theory	5	Core Course 1
MAEC12	Macroeconomic Theory – I	5	Core Course 2
MAEC13	Mathematical Methods for Economics Analysis – I	5	Core Course 3
MAEC14	Statistical Methods for Economic Analysis	5	Core Course 4
	Semester II		
MAEC21	Advanced Microeconomics	5	CORE
MAEC22	Macroeconomic Theory – II	5	CORE
MAEC23	Mathematical Methods for Economic Analysis – II	5	CORE
MAEC24	Issues in Indian Economy	5	CORE
			CORE
	Semester III		
MAEC31	Development Economics – I	5	CORE
MAEC32	Public Finance	5	CORE
MAEC33	International Economics	5	CORE
	Open Course to be chosen: Any one from MAEC34A to MAEC34 E		ELECTIVE
	Semester IV		

MAEC41	Development Economics – II	5	CORE
MAEC42	Monetary Economics	5	CORE
MAEC43	Research Methodology (Dissertation and Viva-Voce)	5	ELECTIVE
	Open Course to be chosen: Any one from MAEC44A to MAEC44 E		ELECTIVE
	OPEN COURSES:		
MAEC34A &MAEC44A	Demography-I & II	5	
MAEC34B &MAEC44B	Financial Markets and Institutions – I & II	5	
MAEC34C & MAEC44C	Econometrics-I & II	5	
MAEC34D & MAEC44D	Economics of Environmental and Social Sector – I & II	5	
MAEC34E & MAEC44E	Agricultural Economics-I&II	5	

Faculty Details

S.No.	Name	Designation
1	DR. PUTUL SARMAH	HOD
2	MS SUE ANN MARAK	Associate Professor
3	MR.TUTUMONI BORO	Asst. Professor
4	MR.DOMSENTRY R.MARAK	Asst. Professor

Student Support Staff

S.No.	Name	Designation
1	Ms. Pratyakshi Goswami	Incharge-Student Support Division
2	Ms. Anita Das	Sr. Student Counsellor
3	Mr. Nimpal Kalita	Incharge Grievance Cell
4	Mr. Geeti Gogoi	Asst. Incharge Students Activity Cell

Student Support Service System

- The Student Support System aims to help students in a variety of ways, including career development, legal regulation, counseling, psychological support, and special concerns for international students.
- New students receive student handbook, which includes helpful information to acclimate them to the campus and University community.
- Students are surrounded by an extensive support system all the way from orientation through graduation.

Procedure for Admission, Curriculum Transaction and Evaluation

- Counseling session at Campus
- Application form submission along with required documents check list – Online or at Campus
- Eligibility check from the Admission Section
- Documents verification
- Payment of Fees
- Issuance of Enrollment Number & ID Card
- Issuance of SLM & Academic Kit
- Scholarship test

Details of Laboratory Support

- Computer Lab Support to aid students with their studies.
- The lab can help you with your homework, assignments, difficult course content and test preparation.
- Both experienced students from the programme and faculty members themselves volunteer at the lab, which makes it a key resource for any student.
- There is English & Soft Skills lab for students' development.

Library Resources

- We have library at campus which combine more than 10,000+ books for various courses and 400 national and international journals can be accessed by commonly used application.
- MGU partners with Excel Books Pvt. Ltd. a renowned publishing house for digital library access. It is a distinctive group of publishing companies, has a rich history in the book industry.

Facilities Available to Learners

- *Scholarship*: Through this full tuition scholarships or other substantial awards being offered to the high qualifying students, either in the form of need-based or academic scholarships for university.

- *Book-lending*: An initiative to ensure the academic success of every student funded through alumni donations. This programme provides books for students who could not otherwise afford to purchase them.
- *CD/audio/video cassettes*: Enhance understanding with a teaching guide for using audio cassettes or CDs includes suggested teaching tips that engage learners with auditory and spatial intelligence learning styles.
- *Internet facility*: It opens doorways to a wealth of information, knowledge and educational resources, increasing opportunities for learning in and beyond the classroom.
- *Digital Library*: Provides access to digital repository or digital collection of e-books and e-notes.

Cost Estimate of the Programme and its Provisions

The Cost estimate for MA ECONOMICS Course on No Profit No Loss comes to Rs. 5500/- Semester. The University has made provision of Rs. 10 Lakh for running of different course of Commerce Dept. (MA) including the Printing of Teaching Material for the students.

Quality Assurance Mechanisms

1. Learning Material (Print Media)

2. The Self Learning Material is designed with the approach of two-way communication between the learner and content.
- It also involves the learner actively through various experience-based activities and assignments.
 - The learner gets clear information about the structure of the programme and course.

2. Audio–Video Material

- There is adequate consideration of learners' prior knowledge, skills and attitudes.
- Level and style of language shall be appropriate.

3. Online Material

- There is description of credit value of each module or unit in the course.
- There are clear guidelines on academic integrity and netiquette (internet etiquette) expectations regarding lesson activities, discussions and plagiarism.

4. Computer-based material

- There is lesson's overview, content and activities, assignments to provide the learning opportunities for learner to master the content.

5. Curriculum and Pedagogy

- The structure of curriculum is defined.
- The content is reliable and justifies the learning outcome(s).
- There is clear definition of intended outcomes of learning, benchmarked to identifiable stages of learning.

Programme Outcomes

- Upon successful completion of the programme the post-graduate would be able to:
- Take a rigorous, quantitative approach to economic problems.
- Build and test economic models, using sophisticated economics tools.
- Advance professionally and to compete for well-paying jobs across a broad spectrum of industries and sectors.
- Enroll in a doctoral program.

DETAIL SYLLABUS OF TWO YEAR M.A ECONOMICS COURSE

SEMESTER-WISE COURSE STRUCTURE

MA ECONOMICS- Syllabus

Details of Programme Syllabus & List of Recommended books are given below:

Semester I

PAPER-I: MICROECONOMIC THEORY-I (MAEC11)	Hours 64
Unit-1: Theory of production and Cost	19
Production function and related concepts – Isoquants and Substitution between Factors – Elasticity of Substitution – Returns to Scale and Returns to a Factor – Technical Progress and Production Function – Forms of Production Function; Cobb-Douglas, CES and Fixed coefficient Type – Single Decision of a Firm; Choice of Optimal Factor Combination – Expansion Path – Derivation of Cost Function from Production Function – Multi-product Firm: production Efficiency Locus, Production Possibility Frontier and Choice of Optimal Combination of Output of Products.	
Unit-2: Market Structure and Pricing of Products	15
A Review of Perfect Competition Equilibrium – Monopoly and its Regulation – Monopolistic Competition: Price-Output Equilibrium – Duopoly Models of Cournot, Bertrand and Stackelberg – Kinked Demand Curve Model of Oligopoly – Collusive Oligopoly: Price Leadership Models.	
Unit-3: Theory of Distribution and Pricing of Factors	15
Pricing of Factors under Perfect Competition – Factor Share and Technical Progress – Backward Bending Supply Curve of Labour – Monopsony	
Unit-4: Basic Financial Accounting	15
Various Terms used in Accounting – Account, Assets, Liabilities, Capital/Equity, Profit, Loss, Revenue income, Capital income, Revenue expenditure, Capital expenditure – Profit and Loss Account – Balance Sheet – Cash Flow Statement	
Recommended Readings:	
1. Koutsoyianis, A., “Modern Microeconomics”, Macmillan.	
2. Baumol, W.J., “Economic Theory and Operations Research”, Prentice Hall of India.	
3. Madalla and Miller, “Microeconomics”, McGraw Hill.	
4. Pindyck, R. &Rubinfeld, D.L., “Microeconomics”, Prentice Hall of India.	
5. Mukherjee, S., “Business and Managerial Economics”, New central Book Agency.	
6. Salvatore. D., “micro Economics”, Schaums Series.	
7. Juneja and Chawla, “Book Keeping and Accountancy”.	
8. B.B. Dam and H.C. Gautam, “Financial Accounting	

PAPER –II: MACROECONOMIC THEORY –I(MAEC12)	Hours
Unit-1: National Income Accounting	15
Different Forms of National Income Accounting; Social Accounting, Input-Output Accounting, Flow of Fund Accounting and Balance of Accounting.	
Unit-2: Theories of Income and Employment Determination	15
A Review of Classical and Keynes's Models – Income Determination Model including Money and Interest; IS-LM Analysis – Real Balance Effect and Patinkin's Full Employment Equilibrium; Patinkin's Concept of Underemployment Disequilibrium.	
Unit-3: Consumption Function	15
The Consumption Function Puzzle – The Relative Income Hypothesis – The Permanent Income Hypothesis – The Life Cycle Hypothesis.	
Unit-4: Investment Function	19
Marginal efficiency of Investment and level of Investment – The Accelerator and Investment behaviour – Impact of Inflation – Influence of policy measures on Investment.	
Recommended Readings:	
1. Jha,R., "Macroeconomics: Theory and Policy"	
2. Branson, W.H., "Macroeconomics: Theory and Policy"	
3. Agarwala, S.K., "National Income Accounting"	
4. Schultz, W., "National Income Analysis"	
5. Brooman, F.S., "Macroeconomics".	
6. Michl, "Macro Economic Theory – A Short Course", Prentice Hall of India	
7. Harris, I., "Monetary Theory"	
8. Gupta, S.B., "Monetary Economics".	
9. Paul & Taylor, "Macro Economics".	

PAPER –III: MATHEMATICAL METHODS FOR ECONOMIC ANALYSIS – I(MAEC13)	Hours 64
Unit-1: Matrix Algebra	15
Matrix Algebra-type of matrices-matrix inversion and solution of simultaneous equations-Cramer's rule-Rank of a matrix-trace of a matrix-application of partial equilibrium market model, national income model, external sector model-static and dynamic open input-output models.	
Unit-2: Differentiation	15
Basic rules of differentiation-rules of differentiations involving more than one functions of the same variable-Rules of differentiation involving functions of different variables-higher order derivatives-applications relating to derivation of elasticity, revenue function, cost function, tax yield in competitive market, tax yield and income multiplier, derivations of other marginal functions.	
Unit-3: Partial and total differentiation	15
Rules of partial and total differentiations-derivative of implicit function-application to comparative static analysis of market model, national income model and input-output model-determination of partial elasticities of demand-problems relating to indifference curve, isoquant, production function and Euler's theorem.	
Unit-4: Unconstrained Optimization	19
Unconstrained maxima and minima with a single explanatory variable-applications to cost minimization, revenue maximization, tax revenue maximization, profit maximization and equilibrium of firm, Unconstrained maxima and minima with more than one explanatory variables-applications to discriminatory monopoly, Multiproduct equilibrium, Multiplan equilibrium, equilibrium of firm with advertisement cost and subsidy.	
Unit-5: Integration	
Applications relating to derivation of total functions from marginal functions, estimation of consumer's surplus, producer's surplus.	
Recommended Readings:	
1. A.C. Chiang, "Fundamental Methods of Mathematical Economics", McGraw Hill.	
2. S. Baruah, "Basic Mathematics and its Economics Applications", MacMillan.	
3. J.M.Henderson and R.E.Quandt, "Micro-economic Theory- A Mathematical Treatment."	
4. R.G.D.Allen, "Mathematical Analysis for Economists."	
5. Mouhammed, "Introduction into Mathematical Economics", Prentice Hall of India.	
6. M.Metwally, "Mathematical Treatment of Micro-Economics."	

PAPER – IV: STATISTICAL METHOD FOR ECONOMIC ANALYSIS (MAEC14)		
UNITS	Probability Theory	
I	Axiomatic Definition and derivation of Basic Probability Rules – Conditional Probability, Baye’s Theorem (Concept only) – Random variable – Mathematical Expectation and Moments relating to both Discrete and Continuous random variables	
II	Standard Probability Distribution Binomial, Poisson and Normal – Moment Generating Function (Definition only) – The Central Limit Theory(without Proof).	
III	Income Distribution: Pareto’s Laws of Income Distribution – Log-normal Distribution – Lorenz Curve and GinniCoefficient.	
IV	Index Number: Relation Between Laspayre’s and Paasche’s Index Numbers – Time Reversal, Factor Reversal, Circular test of Index Number – Fisher’s Index Number – Chain Base Index Number – Base Shifting, Splicing and Deflating – Indices of Industrial Production	
Recommended Readings:		
1.	Yamane, Taro, “Statistics – An Introductory Analysis”.	
2.	Hooda, P.R., “Statistics for Business and Economics”, Macmillan.	
3.	Gupta, S.C. and Kapoor, U.K., “Fundamentals of Mathematical Statistics”	
4.	Nagar, A.L. and Das, R.K., “Basic Statistics”, Oxford.	
5.	Agarwala, B.L., “Basic Statistics”, New Age International.	
6.	Salvatore, Dominick and Reagle, Darrick, “statistics and Econometrics”, TMH	
7.	Klein, L.R., “An Introduction to Econometrics”.	
8.	Goon Gupta, Das Gupta, “Fundamental of Statistics, Vol. II”.	

SEMESTER-II

PAPER-I: MICROECONOMIC THEORY-II(MAEC21)	Hours 64
Unit-1: Analysis of Consumer's Choice	15
A Review of indifference curve and revealed Preference Approach-Violation of the Premises of indifference curve Approach:Satiation and Lexicographical Ordering.	
Unit-2: Inter-temporal Choice and Choice under Uncertainty	15
Discounting and present value- inter-temporal Consumption Decision- Inter-temporal Production Decision- Evaluation of Investment Projects-Determination of the rate of Interest; Attitude Towards Risk-Expected Utility-Measures of Risk Aversion-Certainty Equivalence and the cost of Risk-Economics of Insurance. – Asymmetric Information and Adverse Selection – Moral Hazard.	
Unit-3: General Equilibrium	15
Partial Versus General Equilibrium Approaches – Meaning of General Equilibrium – Walrasian General Equilibrium System: Atonement; Existence, Stability and Uniqueness of the Equilibrium – Introductions to the Contributions of Arrow and Debreu – Critique of General Equilibrium Theory – Non-atonement Process.	
Unit -4: Welfare Economic	19
Pareto Optimality – The Fundamental Theorems of Welfare Economics –Market Failure: Externality and public good – Effects of Non-price Allocations and price control – problem of Welfare Maximization: Compensation Principle, Social Welfare Function – social Choice: Contributions of Arrow and Sen.	
Recommended Readings:	
1. Layard and Walters, "Microeconomic Theory"	
2. Gravelle and Rees, "Microeconomics", Longman.	
3. Baumol,W.J., "Economic Theory and Operations Research", Prentice Hall.	
4. Madalla and Miller, "Microeconomics", Tata McGraw Hill.	
5. Sen,A., "ON Economic Inequality".	

PAPER – II: MACROECONOMIC THEORY – II(MAEC22)	Hours 64
Unit – 1: Demand for Money and Supply of Money	19
The Money Demand – The Classical Approach – The Keynesian Approach – Friedman’s Contribution – The Approaches of Baumol and Tobin:Inventory Theoretic Approach – The Portfolio Balance Approach.	
Unit 2: Theory of Inflation and Economic Stabilization	15
Classical,Keynesian and Monetarist approaches to inflation; Philips Curve Analysis – Short run and long run Philips curve – the natural rate of unemployment hypothesis; Adaptive Expectations – Rational Expectations – The New Classical Approach and its Policy Implications – Empirical Evidence.	
Unit 3: International Payments	15
Exchange Rate – Balance of Payments – Relationship between the current account and the capital and financial account – Disequilibrium in International Payment, Adjustment Mechanisms under various Exchange Rate Regimes, Devaluation and Exchange Control – The Monetarist Approach to the Balance of Payments.	
Unit 4: Business Cycles	15
Theories of Kaldor,Samuelson and Hicks – Control of Business Cycles – Relative efficacy of Monetary and Fiscal policies.	
Recommended Readings:	
1. Brooman,F.S.,”Macroeconomics”	
2. Branson,W.H.,”Macroeconomics:Theory and Policy”	
3. Jha,R.,”Macroeconomics:Theory and Policy”	
4. Dornbursch,R. And Fisher,S., “Macroeconomics”	

PAPER – III: MATHEMATICAL METHODS FOR ECONOMIC ANALYSIS – II(MAEC23)	Hours 64
Unit 1: Optimization with Equality Constraint	15
Optimization with equality constraints, Lagrange’s multiplier method – application to consumer’s equilibrium and producer’s equilibrium in factor market	
Unit 2: Calculus for Dynamic Analysis	15
First order differential equation and its solutions – application to dynamic stability of market and simple growth process (Harrod-Domar), First order difference equation and its solution-application of difference equation – lagged market model (Cobweb) and Harrod’s model of growth.	
Unit 3: Optimization with inequality constrain	19
Linear programming, General formulation Transportation problem, diet problem and production problem – Simplex method of solution(two variables,two constraints only) – Concept of duality	
Unit 4: Game Theory	15
Two-person Zero sum game – pure strategies with saddle point,games without saddle point – the rules of dominance – solution of games without saddle point – mixed strategies, basic ideas and examples of non zero sum games – Nash equilibrium, Prisoner’s dilemma and Repeated games.	
Recommended Readings:	
1. A.C. Chiang, “Fundamental Methods of Mathematical Economics”, McGraw Hill.	
2. S.Baruah,”Basic Mathematics and its Economic Applications”, MacMillan.	
3. J.M.Henderson and R.E. Quandt, “Micro-economic Theory – A Mathematical Treatment.”	
4. R.G.D. Allen,”Mathematical Analysis for Economics.”	

PAPER – IV: ISSUES IN INDIAN ECONOMY (MAEC24)	Hours 64
Unit 1: National Income, Unemployment and Poverty	15
National Income: Trends in Growth and Structure – Unemployment: Recent Trends and Estimates, Employment Policy under different Plans, New Economic Policy And Employment Prospect – Poverty Analysis	
Unit 2: Industrial Policy and Controls	19
The Industrial Environment at Independence – Industrial Policy of 1956 – Performance of Industrial Licensing System – Economic Reforms and New Industrial Policy Industry – Indian Industry in the Contemporary context.	
Unit 3: Indian Agriculture	15
Agriculture Performance: Growth and Productivity – Agriculture Policy: Institutional Reforms, Credit Reforms, Agrarian Reforms – Agricultural Technology, Resources and Investment – Economic Reforms and Their Impact on Agriculture: Emerging Perspective.	
Unit 4: India’s Economic Reforms	15
Rationale for Economic Reforms – History of Economic Reforms – Current Phases of Reforms – Public Sector Enterprises – Privatisation and Competition – Financial Sector Reforms – Planning in the context of Liberalisation – Economic Liberalisation and Regional Planning in India.	
Unit 5: India In The Context of Emerging Global Economy	
The Nature of Global Economy – Development in the World Economy – India’s Economic Reforms in The Global Context – Foreign Trade Policy – Convertibility of Rupee – Impact of WTO on Indian Economy – Foreign Investment and Multinational Corporations.	
Recommended Readings:	
1. Bardhan, P, ”The Political Economy of Development of India”, OUP.	
2. Jalan, Bimal (Ed), ”The Indian Economy – Problems and Prospects”, Viking.	
3. P.K.Dhar, ”Indian Economy”.	
4. Mishra, S. K. and V. K. Puri, (2015), “Economics of Development and Planning”, e, Himalaya Publishing House, New Delhi.	
5. Dutt and K.P.M. Sundaram - Indian Economy, Sultan Chand & Sons, New Delhi.	

SEMESER-III

PAPER – I: DEVELOPMENT ECONOMICS – I(MAEC31)	Hours 64
Unit 1: Development and Underdevelopment – An Overview	15
Problems in defining economic development – Per Capita Income as an Index of Development – Alternative Measures of Development Gap:HDI,GDI Including new concepts) and related indices.Poverty: Concepts and Measurement – Income Inequality and Growth – Redistribution with Growth.	
Unit 2: Theories of Economic Growth	19
Classical Approach:Adam Smith and Ricardo – The Theory of Marx – Schumpeter’s Analysis,Harrod-Domar Model: Instability of Equilibrium – Solow’s Neoclassical Model and Steady State Growth – Role of Technical Progress – Convergence – Role of Human Capital – Endogenous Growth – Alternative Growth Model: Joan Robinson and Kaldor.	
Unit 3: Theories of Development	15
The Vicious Circle Theory – The Process of Cumulative Causation: Myrdal – Neo-Colonial Dependence Model. The Stages of Growth: Rostow –Big Push: Rosenstein – Rodan – Balanced Growth: Nurkse – Unbalanced Growth: Hirschman – Critical Minimum Efforts: Leibenstein.	
Unit 4: Development From Dual Economic Structure	15
Unlimited Supply of Labour and The Dual Economic Models of Lewis and Fei-Renis – The Harris-Todaro Model.	
Recommended Readings:	
1. Meier,G.M.,”Leading Issues in Economic Development”,OUP	
2. Todaro,M.P.,”Development Economics”, Pearson.	
3. Thirlwal,A.P.”Growth and Development” Palgrave	
4. Roy,D.,”DevelopmentEconomics”,OUP	
5. Sen,A.(Ed.),”Growth Economics”,Penguin.	

PAPER – II: PUBLIC FINANCE (MAEC32)	Hours 64
Unit I: Public Debt	12
Classical view of public debt, compensatory aspect of debt policy, burden of public debt, sources of public debt, debt through created money, public borrowing and price level, principles of debt management and repayment.	
Unit II: Fiscal Policy	12
Objectives of fiscal policy – full employment-Anti-inflation, economic growth, redistribution of income and wealth, interdependence of fiscal and monetary policies, budgetary deficits and its implications, fiscal policy for stabilization automatic vs. discretionary stabilization, alternative measures of resource mobilization and their impact on growth, distribution and prices, balanced budget multiplier.	
Unit III: Fiscal Federalism	12
Fiscal federalism in India, vertical and horizontal imbalance, assignment of function and sources of revenue, constitutional provisions, Finance Commission and Planning Commission, devolution of resources and grants, criteria for transfer of resources, center-state financial relations in India, problems of states' resources and indebtedness, transfer of resources from Union and State to local bodies.	
Unit IV: Indian Finances	16
Indian tax system, revenue of the Union, States and local bodies, Major taxes in India, base of taxes, direct and indirect taxes, taxation of agriculture, expenditure tax, reforms in direct and indirect taxes, taxes on services, Non-tax revenue of center, state and local bodies, analysis of central and State Government budgets.	
Unit V: State Finance	
State Finance–Revenue, Expenditure, Public debt – State Finance Commission State Planning Commission.	12
Recommended Readings:	
1. Tyagi, B.P (2014), “Public Finance”, Jai PrakashNath& Co.	
2. Bhatia, H.L (2010), “Public Finance”, VikasPublising House Pvt.Ltd.	
3. Musgrave, R. A and P.B. Musgrave (1976) “Public Finance in Theory and Practice, McGrow Hills, Kogakhusa, Tokyo	
4. Gupta, J.R (2007), “Public Economics in India: Theory and Practice”, Atlantic Publishers and Distributors (P) Ltd.	
5. Buchanan, J.M (1958), “Public Principles of Public Debt”,	
6. Goode, R. (1986), Government Finance in Developing Countries, Tata McGraw Hill, New Delhi.	
7. Jha, R. (1998), Modern Public Economics, Rutledge, London.	
8. Musgrave, R.A. (1959), The Theory of Public Finance, McGraw Hill, Kogakhusa, Tokyo.	

PAPER – III: INTERNATIONAL ECONOMICS (MAEC33)	Hours 64
Unit 1: International Trade Theories	
The main propositions of Heckscher-Ohlin Model – Rybczynski Theorem – Heckscher-Ohlin Theorem – Stolper-Samuelson Theorem – Factor Price Equalization Theorem	15
Alternative Trade Theories: Vent for Surplus – Availability – increasing Returns to Scale – Monopolistic Competition and International Trade – Imitation Gap and Product Cycle Theories of Trade.	
Unit 2: Economic Growth and International Trade	15
Effects of Growth on Trade – Growth, Trade and National Income – Trade and Technical Progress – Terms of Trade Effects – Prebisch-Singer Thesis.	
Unit 3: Trade and Policy Prescriptions	19
Types of Tariff – Partial Equilibrium Analysis of Tariff – General Equilibrium Analysis (Small Country case) – Tariff and World Welfare Tariff and Income Distribution – Effective Protection – Economic and non-Economic Arguments for Protection.	
Instruments of Commercial Policy: Export Tax and Subsidy – Quantitative Restrictions – International Cartels – Dumping – Other Non-Tariff Barriers	
Preferential Trading Club – Free trade Area – Customs Union – Common Market – Economic Union Trade Creation and Diversion – Dynamic Effects of Customs	
Unit 4: International Monetary Order	15
Portfolio and Direct Investment – Theory of Direct Investment – Effects on Host and Investing Countries – Direct Investment and Exploitation, International Monetary System and Characteristics of a good IMS – the Gold Standard – Inter-War Period – The Bretton Woods System – Present System of Managed Flexibility Union – Optimum currency Area – European Monetary System	
Recommended Readings:	
1. Soderston.B., "International Economics", Tat McGraw Hill	
2. Chacholiades, M., "International Trade: Theory and Policy", McGraw Hill	
3. Kindleberger, Ridge, "International Economics", Irwin.	
4. Roy, P.N., "International Trade: Theory and Policy".	
5. Lipsey, R.G., "The Theory of Custom Union", Windfield	

SEMESTER-IV

PAPER – I: DEVELOPMENT ECONOMICS – II (MAEC41)	Hours 64
Unit – 1: Components in the development Process	15
Agriculture’s Contribution to Development – Agriculture-Industry Interactions – The Role of Land Reforms and Price Policy in Agricultural Transformation – Industrialization: Export Promotion versus Import Substitution Strategies – The Choice of Techniques.	
Unit – 2: Development Planning	15
The Concept and Types of planning – Rational for Planning in a Developing Economy – The Planning Process: Projection of Macro Variables, Input-Output Models and Sectoral Projections, Project Evaluation and Social Cost-Benefit Analysis – Plan Failures ,Marked versus Planning – Planning in a market Oriented Economy – Plan Models in India (The Models of second Plan, 5 th plan and the ongoing plan)	
Unit-3: Financing of Development	19
Domestic Sources: Private Savings, Taxation – Financing by Money Creation and its Effects – The Dual Gap Analysis: Saving Investment and the Foreign Exchange Gap – Foreign Borrowing and the Debt Saving Problem – Private Foreign Investment.	
Unit-4: Environment and Development	15
Environment and Economy Interdependence – Poverty and Environmental Degradation – The Concept of Sustainable Development – Micro Planning for Environmental and Eco-prevention – Watersheds and joint Forest Management – Role of State in Environmental Preservation.	
Recommended Readings:	
1. Todaro,M.P.,”Development Economics”, Pearson.	
2. Thirwal, A.P. “ Growth and Development” , Palgrave.	
3. Meier, G.M.,”Leading Issues in Economic Development”,OUP.	
4. M.L.Jhingan, (2006) Economics of Planning and Development, S.Chand, New Delhi.	

PAPER-II: MONETARY ECONOMICS (MAEC42)	Hours 64
Unit I: Nature and Function of Money	12
Classification of money- theories of money; Fisher's quantity theory of money, Cash transaction approach, the Cambridge equations, Keynesian theory of money, Patinkin's real balance effect, Friedman restatement of quantity theory of money.	
Unit II: Money Supply and its Determinants	12
Money supply and high power money- four concepts of money- theory of money – deposit and money multiplier- factors determining money supply in India- growth of money supply and rate inflation.	
Unit III: Demand for Money	12
Keynesian liquidity preference theory of interest- motives for liquidity preference- aggregate demand for money- theories of demand for money; Tobin's portfolio approach to demand for money, Boumal's inventory approach , Friedman's theory of demand for money.	
Unit IV: Theory of Inflation and Unemployment	16
Classical, Keynesian and Monetarist approaches to inflation, structuralist theory of inflation, Philips curve analysis-short run and long run Philips curve-Tobin's modified Philips curve, adaptive expectations and rational expectations, policies to control inflation.	
Unit V: Role of Monetary Policy in a Developing Economy	12
Objectives of monetary policy-role of monetary policy in economic growth-monetary policy and saving and investment- monetary policy of reserve bank of India- monetary policy in pre and post reform period- Easy and Tight monetary policy-critical evaluation on easy monetary policy in developing countries.	
Recommended Readings:	
1. Jhingan,M.L.(2001), "Macro Economic Theory", Vrindra Publication, New Delhi	
2. Ahuja, H. L (2006), "Modern Economics", S. Chand & Company Ltd. New Delhi	
3. Seth, M.L (2013), "Monetary Economics", Lakshmi NarainAgarwal, New Delhi	
4. Jadhav, Narendra, (1993), "Monetary Economic for India", Macmillan India Ltd. Madras	
5. Jhingan, M. L. (2011), "Monetary Economics", Vrindra Publication, New Delhi	
6. Suraj B. Gupta (2004), "Monetary Economics: Institutions, Theory and Policy", S. Chand & Company Ltd. New Delhi	

OPEN COURSES:

(THIRD SEMESTER)

DEMOGRAPHY-I (MAEC34A)	Hours 64
Unit – I: Population and Development: Meaning and scope of demography, components of population growth and their interdependence; Sources of population data; Theories of population –Malthus, Optimum theory of population; Theories of demographic transition; Models of Meadows, Enke, Becker and Easterlin; Population and Development.	15
Unit –II: Structure of Population: Population trends since the twentieth century; International aspects of population growth and distribution; Age and Sex structure in more developed and less developed countries; determinants of age and sex structure; Population pyramids- individual aging and population aging; Population projection	15
Unit – III: Fertility: Importance of the study of fertility-Total fertility rate, Gross reproduction rate and Net reproduction rate. Levels and trends in developed and developing countries; Factors affecting fertility . Nuptiality: Concept and analysis of marital status; Trends in age at marriage, widowhood and divorce.	19
Unit – IV: Mortality: Levels and trends in mortality in developed and developing countries; Mortality differences by age & sex, residence, occupation etc. ; Foetal and Infant mortality; Factors leading to decline in mortality in recent past; Life Tables:- construction and uses.	15
Reading List	
1. Agarwal S.N. (1972), India, s Population Problem, Tata McGraw- Hill Co., Bombay.	
2. Bose, A. (1996), India’s Basic Demographic Statistics, B.R. Publishing Corporation, New Delhi.	
3. Bogue, D.J. (1971), Principle of Demography, John Wiley, New York.	
4. Chenery H. and T.N. Srinivasan (Eds.)(1989), Hand Book of Development Economics, Vol. 1 & 2 Elsevier, Amsterdam.	
5. Choubey, P.K. (2000), Population Policy in India, Kanishka Publications, New Delhi.	
6. Coals, A.J. and E.M. Hoover (1958), Population Growth and Economic Development in Low income Countries: A Case Study of India’s Prospectus, Princeton University Press, Princeton.	
7. Gulati, S.C (1988), Fertility in India: An Econometric Study of a Metropolis, Sage, New Delhi.	

FINANCIAL MARKETS AND INSTITUTIONS-I (MAEC34B)	Hours
Unit-I: Financial System	15
Meaning and Rationale of studying Financial System; Risk management in Financial Institutions; Risk management in Banks. Interest Rate: Terms structure of Interest rate and Yield curve; Efficient Market Hypothesis.	
Unit-II: Commercial Banking System	15
Meaning, Functions and Types of Commercial Banks ; Recent NPA Scenario in Indian Banking ; Banking sector reforms over last decade. Central Banking System: Central Banking in India; Conduct of monetary policy in India; Role of RBI in Financial Stability and Financial inclusion.	
Unit-III: Money Market	15
Introduction, Meaning and main characteristics of Money Market segments- Call Money Market, Treasury bill market, Commercial Papers Market, Certificate of Deposit Market, Gilt- edged Securities Market, Repo Market, Functions and Importance of money market in India; Recent Developments in Indian Money Market; An introduction about Discounting services by DFHI and STCI.	
Unit-IV: Capital Market	19
Meaning, Objectives, Importance and Functions of Capital Market; Financial instruments in primary capital Market; Characteristics and Functions of Stock Exchange. Hedging with Financial derivatives- Futures, Options and Interest Swaps.	
Reading List	
1. Bhasin, N. (2007), Banking and Financial System India 1947-2007, New Century Publications. Gupta, S.K , Aggarwal, N. and Gupta, N. (2005), Financial Institutions and Markets, Kalyani Publishers.	
2. Khan, M.Y.(2008) Indian Financial System. Tata McGraw Hill Company Ltd	
3. Mishkin, F.S and Eakins, S.G.(2009) Financial Markets and Institutions, (5 th Edition) Dorling Kindersley.	
4. Bhole, L.M. and Mahakud, J.(2009), Financial Institutions and Markets- Structure, Growth and Innovations, Tata McGraw Hill.	
5. Mishkin, (2013) ‘ The economics of Money, Banking and Financial Markets’ . 7e, Pearson Publications.	
6. Cecchetti, S.G. and Schoenholtz, K.L.(2013) , ‘Money , Banking and Financial Markets’ . 3rd edition. Tata McGraw Hill Company Ltd	
7. Bhole, L.M. (1999), Financial Institutions and Markets, Tata McGraw Hill Company Ltd., New Delhi.	
8. Johnson, H.J. (1993), Financial Institutions and Markets, McGraw Hill, New York.	
9. Chandra, P. (1997), Financial Markets, (4th Edition), Tata McGraw Hill, New Delhi.	

ECONOMETRICS-I (MAEC34C)	Hours 64
Unit – I	15
Definition, Scope and Methodology of Econometrics, Simple Linear Regression Model; OLS Estimates and Their Properties. Functional forms of Regression Models, Growth Rates.	
Unit – II	15
General Linear regression Model, Maximum Likelihood Estimates and their properties. R ² and adjusted R ² ; Significance Testing of Parameters in Multiple Regression Analysis.	
Unit – III	15
Nature, Test, Consequences and remedial steps of problem of Heteroscedasticity, Multicollinearity and Autocorrelation; Generalized Least Square.	
Unit – IV	19
Types of Specification Errors, Errors of Measurement. The Simultaneous Equation bias and Consistency of OLS Estimators; The Identification Problem; Rules of Identification-Order and Rank Conditions.	
Reading List:	
1. Amemiya, T. (1985), Advanced Econometrics, Harvard University Press, Cambridge, Mass.	
2. Baltagi, B.H. (1988), Econometrics, Springer, New York.	
3. Goldberger, A.S. (1998), Introductory Econometrics, Oxford University Press, New York.	
4. Gujarati, D.N. (1995), Basic Econometrics (2nd Edition) MC Graw Hill New Delhi. Intrilligator, M.D. (1978), Econometric Methods, Techniques and Applications, Prentice Hall Englewood Cliffs, New Jersey.	
5. Johnson J. (1991), Econometric Methods, MCGraw Hall Book Co. London	
6. Kmenta J. (1998), Elements of Econometrics, University of Michigan Press, New York	
7. Koutsoyiannis, A. (1977), Theory of Econometrics, The Macmillan Press Ltd. London	
8. Maddala G.S. (Ed) (1993), Econometric Methods and application, Aldershot U.K.	

ECONOMICS OF ENVIRONMENT AND SOCIAL SECTOR-1(MAEC34D)	Hours 64
Unit - I	19
Environment, ecology and economy; Pareto optimality and perfect competition; External effects in production and consumption; Market failure in case of environmental goods -incomplete markets, externalities, non-exclusion; non-rivalry; non-convexities and asymmetric information.	
Unit - II	15
Environmental policy framework in India - problems of command & control regime;New Environment Policy. Natural resources: types, classification and scarcity;Elementary capital theory; Economics of natural resources.	
Unit – III	15
Economic instruments for environmental protection; Pollution charges, ambient charges, product charges, subsidies; Liability rules - non-compliance fees, deposit refund system, performance bonds. Marketable pollution permits; Evaluative criteria of and practical conditions for use of the economic incentives; Mixed instruments; Choice among policy instruments. Estimation of marginal cost of pollution abatement for designing the pollution tax.	
Unit - IV	15
Coase’s bargaining solution and collective action. Measures of economic value of environment WTP and WTAC; Contingent valuation method; Travel cost method; Hedonic market methods; Averting behaviour approach - household health production function method.	
Reading List	
1. Henderson, J.M. and R.E. Quandt (1980), Microeconomic Theory: A Mathematical Approach, McGraw Hill, New Delhi.	
2. Hanley, N., J.F. Shogern and B. White (1997), Environmental Economics in Theory and Practice, Macmillan.	
3. Cropper, Maureen (1999), Valuing Environmental Benefits, Edward Elgar.	
4. Sankar, U. (Ed.) (2001), Environmental Economics, Oxford University Press, New Delhi.	
5. James, A.J., M. N. Murty and SmitaMisra (1999), Economics of Water Pollution – The Indian Experience, Oxford University Press, New Delhi.	

ECONOMICS OF AGRICULTURE-I (MAEC34E)	Hours 64
Unit – I: Introduction	15
Agricultural Economics: Definition, Nature and Scope; Role of Agriculture in Economic Development; Inter- Sectorial Linkages of Agriculture (Backward and Forward Linkages and Feedback Effects), Role of Agriculture in Haryana and Indian Economy, Farming as a business or way of life, Risks and Uncertainties in Agriculture.	
Unit –II: Models of Agricultural Development	15
Ancient Economic Thought and Agriculture: Hebrew Economic Thought, Greek Economic Thought – Socrates, Plato, Aristotle; Roman Economic Thought; Medieval Economic Thought and Agriculture – St. Augustine; Physiocrats and Agriculture; Classical Economic Thought and Agriculture.	
Unit –III: Agricultural Development and Policy in India	19
Indian Agriculture: Features, Problems and Trends; Agricultural Productivity in India – Causes of Low Productivity and Suggestions to increase Productivity in India; Agricultural Price Policy : origin, objectives, need, instruments, shortcomings and suggestions for Re-orientation of Agricultural Price Policy in India, Agriculture Marketing in India, Agricultural Development and Five Year Plans.	
Unit –IV: Rural Unemployment and Poverty in India	15
Rural Unemployment : Nature, Magnitude, Causes and Suggestions to solve unemployment problem; Problems and Measures to improve the conditions of Agricultural Labourers, Rural Poverty, Inequalities in income distribution, Concept of Poverty Line and Measures to eradicate Poverty in India.	
Reading List	
1. Dantwala, M.L. et. al (1991), Indian Agricultural Development Since Independence, Oxford & IBH, New Delhi.	
2. Drummond H. Evan and Goodwin W. John (2006), Agricultural Economics, Pearson Education, New Delhi.	
3. Eicher Carl and Lawrence Witt (Eds.) (1964), Agriculture in Economic Development, New York, McGraw Hill Co.	
4. Halcrow, H.G.(1981), Economics of Agriculture, McGraw Hill International Book Agency.	
5. Meier, G.M. (1995), Leading Issues in Economic Development, Oxford University Press, New Delhi.	
6. Metcaff, D. (1969), Economics of Agriculture, Harmondsworth, Penguin Books.	
7. Nicholls, W.H. (1964), “The Place of Agriculture in Economics Development”, in Eicher, C. and Witt, L.(ed) 1964, Agriculture in Economics Development, Vora&Co. Publishers Pvt. Ltd, Bombay.	
8. Southworth Herman and Bruce Johnston (eds.) (1968), Agricultural Development and Economic Growth, Cornell University Press, New York.	

OPEN COURSES:

(FOURTH SEMESTER)

DEMOGRAPHY-II (MAEC44A)	Hours 64
Unit –I: Demographic database in India:	15
Study of Census in India-Methodology and characteristics; Nature of information collected in India with emphasis on 2011 Census ;National Family Health survey 1,2 and 3; Rapid Household Survey; Changing characteristics of population in India; Occupational Structure of Indian Population.	
Unit –II: Migration and Urbanization:	15
Basic concept and definitions; importance of migration, Types of migration; factor affecting migration. Theories of migration related to internal migration; Urbanization-Growth and distribution of rural-urban population in developed and developing countries with special reference to India.	
Unit –III: Population and Development with reference to India:	19
Population, economy and environment linkage; Population, health, nutrition productivity nexus; population and human development issues; Demography and household economic behavior.	
Unit –IV: Evolution of Population Policy in India:	15
The shift in policy from population control to family welfare, to women empowerment; Family planning strategies and their outcomes; Reproductive health, maternal nutrition and child health policies; Population and strategies for human development of different social groups; Social impact of new reproductive technologies and their regulation; The population policy; Tasks before the National Population Commission.	
Reading List	
1. Agarwal S.N. (1972), India,s Population Problem, Tata McGraw- Hill Co., Bomby.	
2. Bose, A. (1996), India’s Basic Demographic Statistics, B.R. Publishing Corporation, New Delhi.	
3. Bogue, D.J. (1971), Principle of Demography, John Wiley, New York.	
4. Choubey, P.K. (2000), Population Policy in India, Kanishka Publications, New Delhi.	
5. Coals, A.J. and E.M. Hoover (1958), Population Growth and Economic Development in Low income Countries: A Case Study of India’s Prospectus, Princeton University Press, and Princeton.	
6. Gulati, S.C (1988), Fertility in India: An Econometric Study of a Metropolis, Sage, New Delhi	

FINANCIAL MARKETS AND INSTITUTIONS-II(MAEC44B)	Hours 64
Unit-I: Insurance Market	15
Meaning, Types and Principles of Life Insurance and General Insurance; Rationale for opening up of the Insurance to Private Sector, Emerging Scenario in Insurance Sector in India; Main features of Working of LIC.	
Unit-II: International Finance	15
Foreign Exchange Rate- Meaning, Types; Foreign Exchange market- Importance, Trading and Participants, International Financial and Monetary System; Working and Functions of IMF.	
Unit-III: Financial Institutions	19
Functions and Importance of Merchant Bankers, Functions and Types of Mutual Funds, Main features of Working of UTI. Meaning and Functions of NBFC's- Credit Unions, Savings and Loan Associations, Pension Funds, Finance Company, Investment Trusts, Common Trusts Fund.	
Unit-IV: Regulatory Framework of Financial Institutions in India	15
Role, Main Features and Functions of -- Forward Markets Commission (FMC), Securities and Exchange Board of India (SEBI), Pension Fund Regulatory and Development Authority (PFRDA), Insurance Regulatory and Development Authority (IRDA). Financing and refinancing institutions in India Functions and working of Small Industries Development Bank of India (SIDBI), National Bank for Agriculture and Rural Development (NABARD), Export-Import Bank of India (EXIM) National Housing Bank (NHB).	
Reading List	
1. Bhasin, N. (2007), Banking and Financial System India 1947-2007, New Century Publications.	
2. Gupta, S.K., Aggarwal, N. and Gupta, N. (2005), Financial Institutions and Markets, Kalyani Publishers.	
3. Mishkin, F.S and Eakins, S.G. (2009) Financial Markets and Institutions, (5 th Edition) Dorling Kindersley.	
4. Bhole, L.M. and Mahakud, J. (2009), Financial Institutions and Markets- Structure, Growth and Innovations, Tata McGraw Hill.	
5. Mishkin, (2013) 'The economics of Money, Banking and Financial Markets'. 7e, Pearson Publications.	
6. Cecchetti, S.G. and Schoenholtz, K.L. (2013), 'Money, Banking and Financial Markets'. 3rd edition. Tata McGraw Hill Company Ltd	
7. Bhole, L.M. (1999), Financial Institutions and Markets, Tata McGraw Hill Company Ltd., New Delhi.	
8. Machiraju, M.R. (1999), Indian Financial Systems, Vikas Publishing House, New Delhi.	
9. Prasad, K.N. (2001), Development of India's Financial System, Sarup & Sons, New Delhi.	
10. Gupta, L.C. (Ed.) (1999), India's Financial Markets and Institutions, Society for Capital Research and Development, Delhi.	

ECONOMETRICS-II (MAEC44C)	Hours 64
Unit – I	
Auto Regressive and Distributed lag Models- Koyak Model, Partial Adjust Model, Adaptive Expectations; Almon Approach to distributed- lag model; Causality tests; Granger and Sim's Test.	16
Unit – II	
Dummy Variable Technique- Testing Structural Stability of Regression Models, Comparing two regressions, interaction effects, seasonal analysis, piecewise linear Regression; Regression with dummy dependent variables; The LPM , Logit and Probit Models.	16
Unit – III	
Methods of Estimating Simultaneous Equation System; Indirect Least Squares (ILS), Instrumental Variables (IV) , 2SLS and 3SLS Methods. Basic idea and outline of Limited Information Maximum Likelihood (LIML), FIML& SURE Methods. Application to theory of firm – Estimation of Cobb Douglas and CES Production Functions.	16
Unit – IV	
Time Series; Stationarity, Unit Roots, Co-Integration, Dicky Fuller Test, Random Walk Model, Forecasting with ARIMA and VAR Models-Box Jenkins Methodology, Vector Auto Regression (VAR).	16
Introduction to Panel Data Methods: Problems with panel data, Pooled OLS, Random effects and fixed effects models.	
Reading List:	
1. Gujarati, D.N. (1995), Basic Econometrics (2nd Edition) MC Graw Hill New Delhi.	
2. Johnson J. (1991), Econometric Methods, MCGraw Hall Book Co. London	
3. Koutsoyiannis, A. (1977), Theory of Econometrics, The Macmillan Press Ltd. London	
4. Maddala G.S.(Ed) (1993), Econometric Methods and application, Aldershot U.K.	
5. Pindyck R.S. and D.L. Rubinfeld (1976), Econometric Models and Economic Forecasts, MCGraw Hill Kogakusha Tokyo	
6. Theil H. (1981), Introduction to Econometrics, Prentice Hall of India, New Delhi.	
7. Shyamala S., NavdeepKaur& T. Arul Pragasam (2009) “ A Text book on Econometrics Theory and Applications” Vishal Publishing Company Jalandhar.	

ECONOMICS OF ENVIRONMENT AND SOCIAL SECTOR-I1(MAEC44D)	Hours 64
Unit-I	16
Concept and indicators of sustainable development - sustainability rules, Common-Perrings model; The Solow/Hartwick approach to sustainability. System of integrated environmental and economic accounting (SEEA).	
Unit-II	
Management of common property resources; CPRs, LDCs and sustainable development; Subsidies, controls and use of natural capital in India. Political Economy of ecology and equity. Gender perspective in environmental management.	16
Unit-III	
Environment and energy; Water resource planning; Water and air pollution – existing pollution control mechanisms; People’s participation in the management of common and forest lands; The institutions of joint forest management and the joint protected area management; Social forestry — rationale and benefits. Wetlands. Global environmental issues- problems in managing climate change; International trade and environment; Trade and environment in WTO regime.	16
Unit-IV	
Education as an instrument for economic growth; Important issues in basic and higher education; Education and labour market — Effects of education, ability and family background on earnings, poverty and income distribution, education and employment; production function models, growth accounting equations of Schultz and Denison, Manpower requirements approach; Economic dimensions of health care and determinants of health; Role of Government and market in health care; Inequalities in health and education – the class and gender perspective; Financing of education and health in India.	16
Reading List	
1. Hanley, N., J.F. Shogern and B. White (1997), Environmental Economics in Theory and Practice, Macmillan.	
2. Chary, S.N. and Vyasulu, Vinod (2000), Environmental Management - an Indian Perspective, Macmillan, New Delhi.	
3. Panchmukhi, P.R. (1980), Economics of Health: A Trend Report in ICSSR, A Survey of Research in Economics, Vol. VI, Infrastructure, Allied, Delhi.	
4. Brian G. Dahlin , The Impact of Education on Economic Growth -Theory, Findings, Painuly, J P, Economic Instruments: Application to Environmental Problems, Working paper no 3, by UNEP from IGIDR, Bombay, 1995.	
5. Hussen, A.M. (1999), Principles of Environmental Economics, Routledge, London.	
6. Jeroen. C.J.M. van den Berg (1999), Handbook of Environmental and Resource	
7. Economics, Edward Elgar Publishing Ltd., U.K.	
8. □ Pearce, D.W. and R. Turner (1991), Economics of Natural Resource Use and Environment, John Hopkins University Press, Baltimore.	

ECONOMICS OF AGRICULTURE-II MAEC44E)	Hours 64
Unit I: Agricultural Production and Productivity	
Agricultural Production- Stock and Flow Resources, Production Relationships, Resource use and efficiency; Production Functions analyses in agriculture; Factor Relationships – Isoquant and Iso Cost Line, Optimum Combination; Product Relationships – Joint Products, Competitive Products, Supplementary Products and Antagonistic Products; Diversification of Agricultural Production – Horticulture and Floriculture, Mushroom Cultivation and Processing of Agricultural Products.	15
Unit II: Agricultural Credit	
Role of capital and rural credit; Organized and unorganized capital market; Rural savings and capital formation; Characteristics and Sources of rural credit- Institutional and non-institutional; Reorganization of rural credit- cooperatives, commercial banks, regional rural banks; Role of the NABARD	15
Unit III: Development Theory and Agriculture	
Schultz's Transformation of Traditional Agriculture, Mellor's Model of Agricultural Development,	15
Boserup Model of Agriculture Development, Hayami - Ruttan Induced Innovation Hypothesis.	
Unit IV: Recent Agricultural Problems in India	
Issues in liberalization of domestic and international trade in agriculture, Impact of the World Trade Organization on Indian Agriculture; Agriculture and Environment- Sustainable Development, Food Security and International Trade – Concept, Threat, Indicators and Mechanism to Food Security.	19
Reading List	
1. Dantwala, M.L. et. al (1991), Indian Agricultural Development Since Independence, Oxford & IBH, New Delhi.	
2. Drummond H. Evan and Goodwin W. John (2006), Agricultural Economics, Pearson Education, New Delhi.	
3. Gulati, A. and T. Kelly (1999), Trade Liberalisation and Indian Agriculture, Oxford University Press, New Delhi.	
4. Rao, C.H. Hanumantha (1994), Agricultural Growth, Rural Poverty and Environmental Degradation in India, Oxford University Press, New Delhi.	
5. Rudra, A. (1982), Indian Agricultural Economics: Myths and Reality, Allied Publishers, New Delhi.	