



SunRise University

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**Scheme
For Two-year Course in M.Sc.
Agricultural Economics &
Farm Management**

2023-2024

SCHOOL OF AGRICULTURE

SUNRISE UNIVERSITY - ALWAR



SUNRISE UNIVERSITY – ALWAR

Campus: Bagad Rajput, Ramgarh, Alwar, Rajasthan 301028

**M.Sc Agricultural Economics & Farm Management
1st Semester (Session - 2023-2024)**

Course No	Course Title	Credit Hours		Maximum Marks				
		T	P	Theory			Practical	G. Total
				Mid Term	Internal Assessment	External Theory		
AGECON 511*	MICRO ECONOMIC THEORY AND APPLICATIONS	3	0	20	-	80	-	100
AGECON 512*	MACRO ECONOMICS AND POLICY	3	0	20	-	80	-	100
AGECON 513*	AGRICULTURAL PRODUCTION ECONOMICS	2	1	20	-	50	30	100
	Total	8	1	-	-	-	-	300

Dean

College of Agriculture

SunRise University, Alwar

Agricultural Economics & Farm Management

AG ECON 511

Micro Economic Theory and Applications

3(3+0)

Objective

This course is intended to provide an overview of microeconomic theory and its applications. The course starts with the theory of consumer behaviour consisting of consumer's utility maximization problem and demand theory. It intends to provide fundamental concepts and models in the theory of production and costs and sets out to provide a basic understanding of price and / or output determination under different types of market structures including factor markets. This course will also expose the students to the theory of general equilibrium and welfare economics.

Theory

UNIT I

Theory of Consumer Behaviour - Cardinal Utility Approach – Ordinal Utility Approach – Income effect and substitution effect – Applications of Indifference curve approach - Revealed Preference Hypothesis – Consumer surplus - Derivation of Demand curve – Elasticity of demand.

UNIT II

Theory of Production - Production functions – Returns to scale and economies of scale – Technical progress – Theory of Costs – Cost curves– Profit maximization and cost minimization – Derivation of supply curve – Law of Supply – Producers' surplus.

UNIT III

Market Equilibrium - Behavior of Firms in Competitive Markets – Perfect Competition- Effect of Taxation and Subsidies on market equilibrium - Monopoly- Monopolistic – Oligopoly

UNIT IV

General Equilibrium Theory - Welfare Economics - Pareto Optimality – Social welfarecriteria - Social Welfare functions.

Suggested Readings

David M Kreps 1990. A Course in Microeconomic Theory . Princeton University Press.

Dewitt K.K. 2002. Modern Economic Theory . Sultan Chand & Co.

Henderson J.M & Quandt R.E. 2000. Microeconomic Theory: A Mathematical Approach . McGraw-Hill.

Jhingan, M.L. 2004. Micro Economic Theory. Vikash Publishing House Pvt. Ltd. New

Delhi.

Koutsoyiannis A. 2003. Modern Microeconomics. The Macmillan Press.

Silberberg E & Suen W. 2001. The Structure of Economics – A Mathematical Analysis .

AG ECON 512

Macro Economics and Policy

3(3+0)

Objective

Macro economics and Policy course is intended to expose the students to macroeconomic concepts and theory, the application of the macro economic theory, and implication of themacroeconomic policies.

Theory

UNIT I

Nature and Scope of Macro Economics - Methodology and Keynesian Concepts
National Income - Concepts and measurement- Classical theory of Employment and Say's Law- Modern theory of Employment and Effective Demand.

UNIT II

Consumption function- Investment and savings - Concept of Multiplier and Accelerator -
Output and Employment - Rate of interest - Classical, Neo classical and Keynesian
version- Classical theory Vs Keynesian theory - Unemployment and Full employment.

UNIT III

Money and classical theories of Money and Price - Keynesian theory of money and
Friedman Restatement theory of money - Supply of Money - Demand for Money -
Inflation: Nature, Effects and control.

UNIT IV

IS & LM frame work - General Equilibrium of product and money markets -Monetary
policy - Fiscal policy- Effectiveness of Monetary and Fiscal policy - Central banking.

UNIT V

Business cycles - Balance of Payment - Foreign Exchange Rate determination.

Suggested Readings

Ahuja H.L. 2007. Macroeconomics: Theory and Policy . S. Chand & Co.

Eugene A Diulio 2006. Macroeconomics . 4 Ed. Schaums' Outlines. th

Gardner Ackely 1987. Macro Economic: Theory and Policy . Collier Macmillan.

Dornbusch. 2006. Macroeconomics . McGraw Hill Publication.

AG ECON 513

Agricultural Production Economics

3(2+1)

Objective

To expose the students to the concept, significance and uses of agricultural production economics.

Theory

UNIT I

Nature, scope and significance of agricultural production economics- Agricultural Production processes, character and dimensions-spatial, temporal - Centrality of production functions, assumptions of production functions, commonly used forms - Properties, limitations, specification, estimation and interpretation of commonly used production functions.

UNIT II

Factors of production, classification, interdependence, and factor substitution - Determination of optimal levels of production and factor application -Optimal factor combination and least cost combination of production - Theory of product choice; selection of optimal product combination.

UNIT III

Cost functions and cost curves, components, and cost minimization - Duality theory – cost and production functions and its applications - Derivation of firm's input demand and output supply functions –Economies and diseconomies of scale.

UNIT IV

Technology in agricultural production, nature and effects and measurement - Measuring efficiency in agricultural production; technical, allocative and economic efficiencies - Yield gap analysis-concepts-types and measurement - Nature and sources of risk.

Practical

Different forms of production functions - specification, estimation and interpretation of production functions – returns to scale, factor shares, elasticity of production - physical optima-economic optima-least cost combination- optimal product choice- cost function estimation, interpretation-estimation of yield gap - incorporation of technology in production functions- measuring returns to scale.

Suggested Readings

Beattie B.R & Taylor C.R. 1985. The Economics of Production . John Wiley & Sons.

Doll J.P & Frank O. 1978. Production Economics - Theory and Applications . John Wiley & Sons.

Gardner B.L & Rauser G.C. 2001. Handbook of Agricultural Economics Vol. I. Agricultural Production . Elsevier.

Heady E.O. Economics of Agricultural Production and Resource Use .Prentice-Hall.
Sankayan P.L. 1983. Introduction to Farm Management . Tata Mc Graw Hill.

M.Sc Agricultural Economics & Farm Management
IInd Semester (Session - 2023-2024)

Course No	Course Title	Credit Hours		Maximum Marks				
		T	P	Theory			Practical	G. Total
				Mid Term	Internal Assessment	External Theory		
AGECON 521	AGRICULTURAL MARKETING AND PRICE ANALYSIS	2	1	20	-	50	30	100
AGECON 522	RESEARCH METHODOLOGY FOR SOCIAL SCIENCES	2	1	20	-	50	30	100
AGECON 523	ECONOMETRICS	2	1	20	-	50	30	100
AGECON 524	INTERNATIONAL ECONOMICS	2	1	20	-	50	30	100
AGECON 525	LINEAR PROGRAMMING	2	1	20	-	50	30	100
	Total	10	5	-	-	-	-	500

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AG ECON 521

Agricultural Marketing and Price Analysis

3(2+1)

Objective

To impart adequate knowledge and analytical skills in the field of agricultural marketing issues, and enhance expertise in improving the performance of the marketing institutions and the players in marketing of agricultural commodities.

Theory

UNIT I

Review of Concepts in Agricultural Marketing - Characteristic of Agricultural product and Production – Problems in Agricultural Marketing from Demand and Supply and Institutions sides. Market intermediaries and their role - Need for regulation in the present context - Marketable & Marketed surplus estimation. Marketing Efficiency - Structure Conduct and Performance analysis - Vertical and Horizontal integration – Integration overspace, time and form-Vertical co-ordination.

UNIT II

Marketing Co-operatives – APMC Regulated Markets - Direct marketing, Contract farming and Retailing - Supply Chain Management - State trading, Warehousing and other Government agencies -Performance and Strategies - Market infrastructure needs, performance and Government role.

UNIT III

Role of Information Technology and telecommunication in marketing of agricultural commodities - Market research-Market information service - electronic auctions (e-bay), e-Chaupals, Agmarket and Domestic and Export market Intelligence Cell (DEMIC) – Market extension

UNIT IV

Spatial and temporal price relationship – price forecasting – time series analysis – timeseries models. Price policy and economic development – non-price instruments.

UNIT V

Theory of storage - Introduction to Commodities markets and future trading - Basics of commodity futures - Operation Mechanism of Commodity markets – Price discovery - Hedging and Basis - Fundamental analysis - Technical Analysis - Role of Government in promoting commodity trading and regulatory measures.

Practical

Supply and demand elasticities in relation to problems in agricultural marketing. Price spread and marketing efficiency analysis. Marketing structure analysis through concentration ratios. Performance analysis of Regulated market and marketing

societies.

Analysis on contract farming and supply chain management of different agricultural commodities, milk and poultry products. Chain Analysis - quantitative estimation of supply chain efficiency - Market Intelligence – Characters, Accessibility, and Availability Price forecasting. Online searches for market information sources and interpretation of market intelligence reports.

Suggested Readings

Purecell W.D & Koontz S.R. 1999. Agricultural Futures and Options: Principles and Strategies .

2nd Ed. Prentice-Hall.Rhodes V.J. 1978. The Agricultural Marketing System . Grid Publ., Ohio.

Shepherd S.G & Gene A.F. 1982. Marketing Farm Products . Iowa State Univ. Press.

Singhal A.K. 1986. Agricultural Marketing in India . Annual Publ., New Delhi.

AG ECON 522

Research Methodology for Social Sciences

3(2+1)

Objective

To expose the students to research methodology used in social sciences. The focus will be on providing knowledge related to research process, data collection and data analysis etc.

Theory

UNIT I

Importance and scope of research in agricultural economics. Types of research - Fundamental vs. Applied. Concept of researchable problem – research prioritization – selection of research problem. Approach to research – research process.

UNIT II

Data collection – assessment of data needs – sources of data collection – discussion of different situations. Mailed questionnaire and interview schedule – structured, unstructured, open ended and closed-ended questions. Scaling Techniques. Preparation of schedule – problems in measurement of variables in agriculture. Interviewing techniques and field problems - methods of conducting survey – Reconnaissance survey and Pre testing.

UNIT III

Sampling theory and sampling design – sampling error - methods of sampling – probability and non-probability sampling methods - criteria to choose. Research design and techniques – Types of research design.

UNIT IV

Hypothesis – meaning - characteristics - types of hypothesis – review of literature – setting of Course Objective and hypotheses - testing of hypothesis.

UNIT V

Preparing research report / thesis – Universal procedures for preparation of bibliography

–writing of research articles.

Practical

Exercises in problem identification. Project proposals – contents and scope. Formulation of Objective and hypotheses. Assessment of data needs – sources of data – methods of collection of data. Methods of sampling – criteria to choose – discussion on sampling under different situations. Preparation of interview schedule - Field testing. Method of conducting survey. Preparing for data entry into computer. Hypothesis testing – Parametric and Non-Parametric Tests. Exercises on format for Thesis / Report writing. Presentation of the results.

Suggested Readings

Black T.R. 1993. *Evaluating Social Science Research - An Introduction* . SAGE Publ.

Creswell J.W. 1999. *Research Design - Qualitative and Quantitative Approaches*. SAGEPubl.

Dhondyal S.P. 1997. *Research Methodology in Social Sciences and Essentials of Thesis Writing* . Amman Publ. House, New Delhi.

Kothari C.R. 2004. *Research Methodology - Methods and Techniques* . Wishwa Prakashan, Chennai.

Rao K.V. 1993. *Research Methodology in Commerce and Management*. Sterling Publ.,New Delhi.

Singh A.K. 1993. *Tests, Measurements and Research Methods in Behavioural Sciences*.

Tata McGraw-Hill.

Venkatasubramanian V. 1999. *Introduction to Research Methodology in Agricultural and Biological Sciences*. SAGE Publ.

AG ECON 523

Econometrics

3(2+1)

Objective

The Course Objective of the course is to impart knowledge on econometric tools to the students of agricultural economics. Training in econometrics will help the student to analyze the economic problem by applying quantitative techniques

Theory

UNIT I

Introduction – relationship between economic theory, mathematical economics, models and econometrics, methodology of econometrics- regression analysis.

UNIT II

Basic two variable regression - assumptions estimation and interpretation- approaches to estimation - OLS and their properties -multiple regression estimation and interpretation.

UNIT III

Violation of assumptions – identification, consequences and remedies for

Multicollinearity, heteroscedasticity, autocorrelation – data problems and remedial approaches - model misspecification.

UNIT IV

Use of dummy variables- specification, estimation and interpretation.

UNIT V

Simultaneous equation models - identification and approaches to estimation.

Practical

Single equation two variable model specification and estimation - hypothesis testing- transformations of functional forms and OLS application-estimation of multiple regression model - hypothesis testing -

testing and correcting specification errors - testing and managing Multicollinearity -

testing and managing heteroscedasticity - testing and managing autocorrelation -

estimation of regressions with dummy variables - estimation of regression with limited dependent variable - identification of equations in simultaneous equation systems.

Suggested Readings

Gujarati D.N. 2003. Basic Econometrics . McGraw Hill.

Johnson A.G Jr., Johnson M.B & Buse RC. 1990. Econometrics - Basic and Applied. MacMillan.

Kelejan H.H & Oates WE. 1994. Introduction to Econometrics Principles and Applications. Harper and Row Publ.

Koutsoyianis A. 1997. Theory of Econometrics . Barner & Noble.

Maddala G.S. 1992. Introduction to Econometrics . MacMillan. G.S. 1997. Econometrics. McGraw Hill.

Pindyck R.S & Rubinfeld D.L. 1990. Econometrics Models and Econometric Forecasts . McGraw Hill.

AGECON 524

International Economics

3(2+1)

Objective

The expected outcome of this course will be creating awareness among the students about the role of International Economics on National welfare.

Theory

UNIT I

Scope and Significance of International Economics - The role of trade- General Equilibrium in a Closed Economy (Autarky Equilibrium) – Equilibrium in a Simple Open Economy - Possibility of World Trade - Trade gains and Trade Equilibrium.

UNIT II

Tariff, Producer Subsidy, Export Subsidy, Import Quota and Export Voluntary Restraints-The Case of Small Country and Large Country Case.

UNIT III

Heckscher – Ohlin Model - Trade Creation and Trade Diversion – Offer Curve – Export Supply Elasticity and Import Demand Elasticity - Comparative Advantage and Absolute Advantage.

UNIT IV

Official Exchange Rate and Shadow Exchange Rate - Walra's Law and Terms of Trade.

UNIT V

IMF, World Bank, IDA, IFC, ADB – International Trade agreements – Uruguay Round – GATT – WTO.

Practical

National Welfare under Autarky and Free Trade Equilibrium with small and large country assumption- Estimation of Trade Gains- Estimation of competitive and comparative measures like NPC, EPC, ERP and DRC- Estimation of Offer Curve Elasticity- Estimation of Effect of Tariff, Export Subsidy, Producer Subsidy, Import Quota and Export Voluntary Restraints on National Welfare- Estimation of trade Equilibrium under Heckscher -Ohlin model.

Suggested Readings

Apple Yard D.R & Field A.J Jr. 1995. International Economics - Trade, Theory and Policy. Irwin, Chicago.

Cherunilam F. 1998. International Economics . Tata McGraw Hill.

Krugman P.R & Obstfeld M. 2000. International Economics – Theory and Policy . Addison-Wesley.

AGECON 524

International Economics

3(2+1)

Objective

The expected outcome of this course will be creating awareness among the students about the role of International Economics on National welfare.

Theory

UNIT I

Scope and Significance of International Economics - The role of trade- General Equilibrium in a Closed Economy (Autarky Equilibrium) – Equilibrium in a Simple Open Economy - Possibility of World Trade -Trade gains and Trade Equilibrium.

UNIT II

Tariff, Producer Subsidy, Export Subsidy, Import Quota and Export Voluntary Restraints-The Case of Small Country and Large Country Case.

UNIT III

Heckscher – Ohlin Model - Trade Creation and Trade Diversion – Offer Curve – Export

Supply Elasticity and Import Demand Elasticity - Comparative Advantage and Absolute Advantage.

UNIT IV

Official Exchange Rate and Shadow Exchange Rate - Walra's Law and Terms of Trade.

UNIT V

IMF, World Bank, IDA, IFC, ADB – International Trade agreements – Uruguay Round – GATT – WTO.

Practical

National Welfare under Autarky and Free Trade Equilibrium with small and large country assumption- Estimation of Trade Gains- Estimation of competitive and comparative measures like NPC, EPC, ERP and DRC- Estimation of Offer Curve Elasticity- Estimation of Effect of Tariff, Export Subsidy, Producer Subsidy, Import Quota and Export Voluntary Restraints on National Welfare- Estimation of trade Equilibrium under Heckscher -Ohlin model.

Suggested Readings

Apple Yard D.R & Field A.J Jr. 1995. International Economics - Trade, Theory and Policy. Irwin, Chicago.

Cherunilam F. 1998. International Economics . Tata McGraw Hill.

Krugman P.R & Obstfeld M. 2000. International Economics – Theory and Policy .Addison-Wesley.

AG ECON 525

Linear Programming

3(2+1)

Objective

The objective of the course is to impart knowledge of Linear programming techniques.

Theory

UNIT I

Decision Making- Concepts of decision making, introduction to quantitative tools introduction to linear programming, uses of LP in different fields, graphic solution to problems, formulation of problems.

UNIT II

Simplex Method: Concept of simplex Method, solving profit maximization and cost minimizations problems. Formulation of farms and non farm problems as linear programming models and solutions.

UNIT III

Extension of Linear Programming models.UNIT IV

Game Theory- Concepts of game theory, two person constant sum, zero sum game, saddlepoint, solution to mixed strategies.

Practical

Graphical and algebraic formulation of linear programming models. Solving of maximization and minimization problems by simplex method. Formulation of the

simplexmatrices for typical farm situations.

Suggested Readings

Dorfman R. 1996. *Linear Programming & Economic Analysis*. McGraw Hill.

Lomba N.P.2006. *Linear Programming* . Tata McGraw Hill.

Shenoy G. 1989. *Linear Programming-Principles & Applications*. Wiley Eastern Publ.Vaserstein.

2006. *Introduction to Linear Programming*. Pearson Education Publication.

M.Sc Agricultural Economics & Farm Management IIIrd Semester (Session - 2023-2024)

Course No	Course Title	Credit Hours		Maximum Marks				
		T	P	Theory			Practical	G. Total
				Mid Term	Internal Assessment	External Theory		
AGECON 531	AGRICULTURAL FINANCE AND PROJECT MANAGEMENT	2	1	20	-	50	30	100
AGECON 532	AGRICULTURAL DEVELOPMENT AND POLICIES	3	-	20	-	80	-	100
AGECON 533	NATURAL RESOURCE AND ENVIRONMENTAL ECONOMICS	2	1	20	-	50	30	100
AGECON 534	EVOLUTION OF ECONOMIC THOUGHT	3	-	20	-	80	-	100
	Total	10	2	-	-	-	-	400

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AG ECON 531

Agricultural Finance and Project Management

3(2+1)

Objective

The Course Objective of the course is to impart knowledge on issues related to lending to priority sector credit management and financial risk management. The course would bring in the various appraisal techniques in project - investment of agricultural projects.

Theory

UNIT I

Role and Importance of Agricultural Finance. Financial Institutions and credit flow to rural/priority sector. Agricultural lending – Direct and Indirect Financing - Financing through Co-operatives, NABARD and Commercial Banks and RRBs. District Credit Plan and lending to agriculture/priority sector. Micro-Financing and Role of MFI's - NGO's, and SHG's.

UNIT II

Lending to farmers – The concept of 3 C's, 7 P's and 3 R's of credit. Estimation of Technical feasibility, Economic viability and repaying capacity of borrowers and appraisal of credit proposals.

UNIT III

Preparation of financial statements - Balance Sheet, Cash Flow Statement and Profit and Loss Account. Ratio Analysis and Assessing the performance of farm/firm.

UNIT IV

Identification, preparation, appraisal, financing and implementation of projects. Project Appraisal techniques – Undiscounted measures. Time value of money – Use of discounted measures - B-C ratio, NPV and IRR. Agreements, supervision, monitoring and evaluation phases in appraising agricultural investment projects. Network Techniques – PERT and CPM.

UNIT V

Risks in financing agriculture. Risk management strategies and coping mechanism. Crop Insurance programmes – review of different crop insurance schemes - yield loss and weather based insurance and their applications.

Practical

Rural Lending Programmes of Commercial Banks, Lead Bank Scheme- Preparation of District Credit Plan, Rural Lending Programmes of Co-operative Lending Institutions, Preparation of financial statements using farm/firm level data, Farm credit appraisal

techniques and farm financial analysis through financial statements, Performance of Micro Financing Institutions - NGO's and Self-Help Groups, Identification and formulation of investment projects, Project appraisal techniques – Undiscounted Measures and their limitations. Project appraisal techniques – Discounted Measures, Network techniques –PERT and CPM for project management, Case Study Analysis of an Agricultural project, Financial Risk and risk management strategies – crop insurance schemes, Financial instruments and methods – E banking, Kisan Cards and core banking.

Suggested Readings

Dhubashi P.R. 1986. *Policy and Performance - Agricultural and Rural Development in Post Independent India* . Sage Publ.

Gittinger J.P 1982. *Economic Analysis of Agricultural Projects*. The Johns Hopkins Univ. Press.

Gupta S.C. 1987. *Development Banking for Rural Development* . Deep & Deep Publ.

Little I.M.D & Mirlees J.A. 1974. *Project Appraisal and Planning for Developing Countries*. Oxford & IBH Publ.

Muniraj R. 1987. *Farm Finance for Development*. Oxford & IBH Publ

AG ECON 532

Agricultural Development and Policies

3(3+0)

Objectives

To provide orientation to the students regarding the concepts and measures of economic development.
To provide orientation on theories of economic growth and relevance of theories in developing countries.

To make them to understand the agricultural policies and its effect on sustainable agricultural development. To make them to understand the globalization and its impact on agricultural development.

Theory

UNIT I

Development Economics – Scope and Importance - Economic development and economic growth - divergence in concept and approach - Indicators and Measurement of Economic Development – GNP as a measure of economic growth – New Measures of Welfare. Criteria for under development – Obstacles to economic development – Economic and Non-Economic factors of economic growth.

UNIT II

Economic development – meaning, stages of economic development, determinants of economic growth. Theories of economic growth – Ricardian growth model – The Harrod – Domar Model – Marxian model, Schumpeter, Lewis Model. Role of state in economic development – Government measures to promote economic development. Introduction to development planning.

UNIT III

Role of agriculture in economic / rural development – theories of agricultural development – Population and food supply - need for sound agricultural policies – resource policies – credit policies – input and product marketing policies – price policies.

UNIT IV

Development issues, poverty, inequality, unemployment and environmental degradation – Models of Agricultural Development – Induced Innovation Model - policy options for sustainable agricultural development.

UNIT V

Globalization and the relevance of development policy analysis – The dilemma of free trade? – Free trade versus Protectionism- Arguments for protection. Arguments against protection. Role of protection in Developing Countries. WTO – Agreement on Agriculture- Contradictions of free trade - proponents and opponents policies in vulnerable sectors like agriculture – Lessons for developing countries.

Suggested Readings

Chakaravathi R.M. 1986. *Under Development and Choices in Agriculture* Heritage Publ., New Delhi.

Diwett K.K. 2002. *Modern Economic Theory*. S. Chand & Co.

Eicher K.C & Staats J.M. 1998. *International Agricultural Development*. Johns Hopkins Univ. Press.

Frank E. 1992. *Agricultural Policies in Developing Countries*. Cambridge Univ. Press.

Ghatak S & Ingersent K. 1984. *Agriculture and Economic Development*. Select Book Service Syndicate, New Delhi.

Jhingan M.L. 1998. *The Economics of Development and Planning*. Vrinda Publ.

Jules P.N. 1995. *Regenerating Agriculture – Policies and Practice for Sustainability and Self Reliance*. Vikas Publ. House.

Naqvi S.N.H. 2002. *Development Economics – Nature and Significance*. Sage Publ.

AG ECON 533

Natural Resource and Environmental Economics

3(2+1)

Objectives

To introduce economics principles related to natural resource and environmental economics. To explore the concept of efficiency and the efficient allocation of natural resources. To understand the economics of why environmental problems occur. To explore the concept of efficiency and the efficient allocation of pollution control and pollution prevention decisions. To understand the environmental policy issues and alternative instruments of environmental policies.

Theory

UNIT I

Concepts, Classification and Problems of Natural Resource Economics – Economy - Environment interaction – The Material Balance principle, Entropy law- Resources Scarcity - Limits to Growth - Measuring and mitigating natural resource scarcity – Malthusian and Recardian scarcity – scarcity indices - Resource Scarcity and Technical Change.

UNIT II

Theory of optimal extraction renewable resources –economic models of oil extraction- efficiency - time path of prices and extraction - Hotelling's rule, Solow-Harwick's Rule. Theory of optimal extraction exhaustible resources –economic models of forestry and fishery.

UNIT III

Efficiency and markets – market failures - externalities – types – property rights- transaction costs – Coase's theorem and its critique - public goods - common property and open access resource management – Collective action.

UNIT IV

Environmental perspectives, sustainability, Environmental problems and quality of environment - Sources and types of pollution -air, water, solid waste, land degradation – environmental and economic impacts - Economics of pollution control - efficient reduction in environmental pollution.

UNIT V

Environmental regulation – economic instruments - pollution charges – Pigovian tax - tradable permits – indirect instruments – environmental legislations in India.

UNIT VI

Concept of sustainable development - Economic Perspective – Indicators of sustainability Relation between development and environment stress- Environmental Kuznet's curve Environmental Accounting – resource accounting methods - International Environmental Issues – climate change – likely impacts -mitigation efforts and international treaties.

Practical

Exhaustible resource management –optimum rate of oil extraction. Renewable resource management – optimum harvest of Forestry/fishery. Exercise on pollution abatement –I. Exercise on pollution abatement –II. Concepts in valuing the environment. Taxonomy of valuation techniques. Productivity change method – substitute cost method - Hedonic price method - Travel cost method -Contingent valuation methods. Discount rate in natural resource management. Environment impact assessment Visit to Pollution Control Board.

Suggested Readings

Ahmad Y, E.I Serafy S & Lutz E. (Eds.). 1989. Environmental Accounting for Sustainable Development. World Bank.

Freeman A.M. 1993. *The Measurement of Environmental and Resource Values*. Resources for the Future Press, Baltimore.

Hackett S.C. 2001. *Environmental and Natural Resource Economics: Theory, Policy, and the Sustainable Society*. M. E. Sharpe, Armonk, NY.

Hartwick J.M & Olewiler N.D. 1998. *The Economics of Natural Resource Use*. 2nd Ed. Addison-Wesley Educational Publ.

Kerr J.M, Marothia D.K, Katar Singh, Ramasamy C & Bentley W.R. 1997. *Natural Resource Economics: Theory and Applications in India*. Oxford & IBH.

Kolstad C.D. 2000. Environmental Economics. Oxford Univ. Press.

Pearce D.W & Turner K. 1990. *Economics of Natural Resources and the Environment*.

John Hopkins Univ. Press. Prato T. 1998. *Natural Resource and Environmental Economics*. Iowa State Univ. Press.

Sankar U. 2001. Environmental Economics. Oxford Univ. Press.

Sengupta R. 2000. *Ecology and Economy, an Indian Perspective*. Oxford Univ. Press. Tietenberg T. 2003. *Environmental and Natural Resource Economics*. 6 Ed. Addison Wesley.

AG ECON 534

Evolution of Economic Thought

3(3+0)

Objective

To introduce the students to the evolution of economic thought over a period of time, the background of emanation of thoughts and approaches, as acts of balancing and counterbalancing events and criticisms. The course will also in a comprehensive way help the students to know and appreciate the contributions of the Galaxy of Economists.

Theory

UNIT I

Approaches for the study of history of economic thought – Absolutist vs. Relativist approaches – Evolution of Economic Thought vs. Economic History. Ancient economic thought – medieval economic thought – mercantilism – physiocracy – Forerunners of Classical Political Economy.

UNIT II

Development of Classical Thoughts (Adam Smith, Robert Malthus and David Ricardo) – Critics of Classical Thoughts- Socialist critics – Socialist and Marxian Economic Ideas. Origins of Formal Microeconomic Analysis

UNIT III

The birth of neoclassical economic thought – Marshall and Walras – General Equilibrium Theory - Welfare Theory – Keynesian economics.

UNIT IV

Economic Thought in India – Naoroji and Gokhale – Gandhian Economics - Economic thought of independent India – Nehru’s economic philosophy - Experiences of the Structural adjustment programmes of the post liberalization era.

UNIT V

The Era of globalization – Experiences of developing world - Rigidity of the past vs. emerging realism – The changing path of international Institutions to economic growth and development approaches.

Suggested Readings

Blaug M. 1964. *Economic Theory in Retrospect*. Heineman.

Blaug M. 1986. *Economic History and the History of Economic Thought*. Wheatsheaf Books, Brighton.

Ekelund R.B & Hebert R.F. 1975. *A History of Economic Theory and Methods*. McGraw-Hill. John Mills A. 2002. *Critical History of Economics: Missed Opportunities*. Palgrave Macmillan.

Screpanti E & Zamagni S. 1995. *An Outline of the History of Economic Thought*. Clarendon Press, Oxford.

M.Sc Agricultural Economics & Farm Management IVth Semester (Session - 2023-2024)

Course No	Course Title	Credits Hours	Maximum Marks				
			Theory			Practical	G. Total
			Mid Term	Internal Assessment	External Theory		
AGECON 541	SEMINAR	1	-	-	-	-	100
AGECON 542	COMPREHENSIVE	2	-	-	-	-	100

AGECON 543	RESEARCH	15	-	-	-	-	100
	Total	-	-	-	-	-	300

Dean

College of Agriculture

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