Name of Programme: M.Sc. (Ag.) Agricultural Economics

Academic eligibility for admission: - B.Sc. (Ag.)

Curriculum and Syllabus

Semester	Course Code & No.	Course Title	Credit Hrs.	Mid Exam.	Final Exam		Total
					Theory	Practical	
I[st] Sem.	AEC-501	MICRO ECONOMICS	3 (2+1)	20	40	40	100
	AEC-502	MACRO-ECONOMICS	3 (2+1)	20	40	40	100
	AEC-503	FARM MANAGEMENT AND AGRICULTURAL PRODUCTION ECONOMICS	3 (2+1)	20	40	40	100
	AST-501	Statistical Methods	3 (2+1)	20	40	40	100
		Total	12				
II[nd] Sem	AEC-504	AGRICULTURAL FINANCE & CO-OPERATION	3 (2+1)	20	40	40	100
	AEC-505	MATHEMATICAL ECONOMICS	3(2+1)	20	40	40	100
	AEC-506	AGRICULTURAL MARKETING AND FINANCE	3 (2+1)	20	40	40	100
	AST-502	Design of Experiments	3(2+1)	20	40	40	100
		Total	12				
III[rd] Sem	AEC-507	OPERATIONAL RESEARCH METHODS FOR AGRICULTURAL DECISIONS	3(2+1)	20	40	40	100
	AEC-508	FARM BUSINESS ANALYSIS	3(2+1)	20	40	40	100
	AEC-509	AGRICULTURAL PRICE ANALYSIS	3(2+1)	20	40	40	100
	AEC-510	AGRICULTURAL INPUT MARKETING	3(2+1)	20	40	40	100
			12				
IV[th] Sem	AEC-511	RESEARCH METHODOLOGY	3(2+1)	20	40	40	100
	AEC-512	AGRICULTURAL AND NATURLA RESOURCE ECONOMIC	3(2+1)	20	40	40	100
	AEC-599	Seminar	1	Satisfactory/Unsatisfactory			
	Optional (any one from two)						
	AEC-513	PROJECT EVALUATION	12(9+3)	20	40	40	100
	or						
	AEC-598	Thesis Research	12	40 % Internal +60% External)			100
		Total	19				
		Grand Total	55				

M.Sc. Ag .Agril. Economics

Ist Semester

AEC : 6441 MICRO ECONOMICS

(Credit Hours: 2+1 = 3) **(MARKS: MID 20 + THE 40 + PRA. 40 = 100)**

Nature and scope of Micro-economics. Theory of consumer behaviourutility analysis, indifference curve analysis, the slustky theorum and revealed preference theory. Elasticity of demand and shift in demand. Theory of. profit and sales maximization, single and multiple product firms, joint product, production functions, cost function, demand for factors of production, derivation of supply function. Market equilibrium and price determination, price and output determination under perfect competition." monopoly and monopolistic competition. Price discrimination, Oligopolistic interdependence and linked mand curve, doupoly, bilateral monopolv, n10nopsony.

Practical: Related to the Course

AEC: 6442 MACRO-ECONOMICS

(Credit Hours: 2+1 = 3) **(MARKS: MID 20 + THE 40 + PRA. 40 = 100)**

Nature and significance of macro-economics, micro-macro relationship, national product, national income and national expenditure, conceptual difficulties in estimation of national income. sector account, social accounts.

Classical theory of the employment, say's Law, Keynesian theory of employment and income, consumption function, average and marginal propensity to consume, propensity to save, post Keynesian development regarding consumption function, pi go effect, the multiplier, factors affecting consumption.

Investment factors affecting investments, marginal efficiency of capital and interest rate, acceleration principle and super multiplier, demand and supply of money, general equilibrium of the product and money markets. Monetary and fiscal policies. Effect of taxation on price and output decision and game theory:

Practical: Related to the Course

AEC 6443: FARM MANAGEMENT AND AGRICULTURAL PRODUCTION ECONOMICS

(Credit Hours: 2+1 = 3) **(MARKS: MID 20 + THE 40 + PRA. 40 = 100)**

Nature and scope of agricultural production economic vis-avis- farm management. Relative importance of farm production economics and farm management, in developed

and developing countries. Basic production relationship. Criteria of economic efficiency, production function analysis, production function models and their economic application.

Tools and technique in farm decision making. Farm planning and budgeting. Linear programming risk and uncertainty.

Practical: Related to the Course

IInd Semester

AEC 6445: AGRICULTURAL FINANCE & CO-OPERATION

(Credit Hours: 2+1 = 3) **(MARKS: MID 20 + THE 40 + PRA. 40 = 100)**

Capital in agriculture, its classification and sources, credit-essential features of credit its classification, sources of finance, institutional and private comparative merits and demerits. Principles of finance 3 RS. and 3Cs of credit. Capital hudgeting and rationing.

Co-operation, its classification and principles. Cooperative bariking, its structure, working and management procedure of financing by co-operatives.

Practical: Related to the Course

AEC 6446: MATHEMATICAL ECONOMICS

(Credit Hours: 2+1 = 4) **(MARKS: MID 20 + THE 40 + PRA. 40 = 100)**

Scope of mathematics in economic analysis role in measurement of the economic relationship. Dependent, independent exogenous, endogenous .and predetermined variables, how these are defined in given economic situations, functions their properties and economic interpretations. The concept and rules of derivative applied to various functions, integral calculus, and its use in demand, consumption and cost analysis, techniques of optimization with and without constraints and their application in economics.

Practical: Related to the Course

AEC 6447: AGRICULTURAL MARKETING AND FINANCE

(Credit Hours: 2+1 = 3) **(MARKS: MID 20 + THE 40 + PRA. 40 = 100)**

Structure, conduct and performance of agricultural product markets, analysis of institutional arrangement viz. corporations, boards, C0111111ission is, federations, etc.

Price fixation demand for and supply of products. Public Policies Models: underline the behaviour of agricultural product prices. Stores and buffer stocks, price discrimination.

Practical: Related to the Course

IIIrd Semester

AEC 7441: OPERATIONAL RESEARCH METHODS FOR AGRICULTURAL DECISIONS

(Credit Hours: 2+1 = 3) **(MARKS: MID 20 + THE 40 + PRA. 40 = 100)**

Nature, scope and subject matter of operational research. Linear programming-problem formulation, graphical solution, simplex method, degeneracy. Problem duality, variable price programming, variable resource programming, dynamic programming, recursive equation approach multi-objective programming. Transportation type problems, replacement problem, simulation model. Montecarlo technique inventory models. Assignment problem.

Practical: Related to the Course

AEC 7442: FARM BUSINESS ANALYSIS

(Credit Hours: 2+1 = 3) **(MARKS: MID 20 + THE 40 + PRA. 40 = 100)**

Farm accountancy, objective of farm records and accounts, systems of accounting, types of records and accounts financial account for total farm business i analysis, enterprise accounts. Analysis of farm records, inventory, balance sheets, income accounts, expense accounts, home consumption etc. Efficiency measures for different' types of farms.

Practical: Related to the Course

AEC 7443: AGRICULTURAL PRICE ANALYSIS

(Credit Hours: 2+1 = 3) **(MARKS: MID 20 + THE 40 + PRA. 40 = 100)**

Concept of price interrelationship between price and production, nature of supply and demand of agricultural products, Types and reasons for price movement, trend-seasonal, cyclic and 'irregular change in general price level and their effect on agriculture, relationship of farm, wholesale and retail prices, price stabilization and price support, parity price, terms of trade.

Practical: Related to the Course

AEC 7444: AGRICULTURAL INPUT MARKETING

(Credit Hours: 2+1 = 3) **(MARKS: MID 20 + THE 40 + PRA.40 = 100)**

Significance of Structure, conduct and performance of agricultural input market input marketing. distribution channels and retailing of farm inputs, market services and quality

control, sales management and dealer's network, co-operative marketing of farm inputs, planning and evaluation of marketing effects, emerging problem in input marketing and suggestion for improvement.

Practical: Related to the Course

IVth Semester

AEC 7445: RESEARCH METHODOLOGY

(Credit Hours: 2+1 = 3) **(MARKS: MID 20 + THE 40 + PRA. 40 = 100)**

Nature and scope of social sciences and research, the initiation of an inquiry, formulation of re search problems and hypothesis, role of induction and deduction in research, models and methods in agricultural economics, collection, analysis and interpretation of data and presentation and use of research results. Sampling methods.

Practical: Related to the Course

AEC7446: AGRICULTURAL AND NATURLA RESOURCE ECONOMIC

(Credit Hours: 2+1 = 3) **(MARKS: MID 20 + THE 40 + PRA. 40 = 100)**

Role and importance of agriculture in Indian economy. Agricultural growth and population. Impact of agricultural development on capital fornation. Agriculture in relation to five years pIEU1S. Agricultural development prograrnlnes and their progress. Concept of agricultural labour- and measures to improve their efficiency. Land and water re source -qualitative and quantitative features, land use pattern irrigation water resource and its impact on sustainable agriculture. Agriculture production pattern. System of farming. Animal source and there role in national economy

Practical: Related to the Course

AEC 7447: PROJECT EVALUATION

(Credit Hours: 2+1 = 3) **(MARKS: MID 20 + THE 40 + PRA. 40 = 100)**

Need of project evaluation, private project evaluation alternative criteria payback period, payback reciprocal, net present value and rate of return criteria. Public project analysis, alternative criteria-net present value. Internal rate of social return and social cost and benefit/cost criteria, comparison between benefit cost ratio criterion and internal rate of social return criterion. Manipulation alternative criteria for marketing adjustment for risk and uncertainty, sensitivity analysis. Evaluation of public project - case studies of different project

Practical: Related to the Course

AST 6364: STATISTICAL METHODS

(Credit Hours: 2+1 = 3) **(MARKS: MID 20 + THE 40 + PRA. 40 = 100)**

Frequency distribution, classification and tabulation of data, graphical and diagrammatic representation of data, measures of central tendency, measures of despersian, coefficient of variance, standard error, skewness & kurtosis.

Consus & sample survey, population and sample, probability concept of random sampling, simple random sample, stratified sampling systematic cluster sampling parameter & sample value. Testing of hypothesis. test of signification based on Z t and F test x^2 - test for goodness of fit and independence of attributes.

Scattered diagram. Linear regression & correlation, regression and correlation coefficient.

Practical: Related to the Course

AST 6368: DESIGN OF EXPERIMENTS

(Credit Hours: 2+1 = 3) **(MARKS: MID 20 + THE 40 + PRA. 40 = 100)**

Analysis of variance. Basic principal of experimental design, CRD" RBD, LSD with their analysis mission plot techniques in R.B.D. and L.S.D. Factorial experiments its concepts and analysis of 2^3, factorial. Confounding in symmetrical factorial (in 2^3 experiments), split plot design, strip plot design, uniformity trials. Progeny row trials. Complete family black design, with over trials & simple rotational experiments. Statistical organization, statistics of livestock & fistrics, source of livestock and agriculture in general. Source of official statistician. Crop cutting experiments.