8 श्रीविद्यदिशंभ

Proposed
National Education Policy 2020 Inserted Pre-Ph. D. Course Work for

Doctor of Philosophy
in Agricultural Economics

(Session 2022-23 onwards)

Prepared and compiled by:

Dr Sarvesh Kumar (Asstt. Prof./Convener- Agril. Economics)

Examined by:

Board of Studies- Agricultural Economics

Maharaja Suhel Dev State University,

Azamgarh-276 128, Uttar Pradesh (INDIA)

9

Pre-Ph. D. Course work for Ph. D. in Agricultural Economics

The Pre-Ph. D. course work for **Doctor of Philosophy in Agricultural Economics** shall comprise of only one semester (i.e., I-semester) in which there shall be three compulsory papers and one major research project.

Distribution of courses in the I Semester

Course Code	Type of course	Paper	Title of the course	Credit hr
			I-Semester	
AEC-601	Compulsory (Major Subject)	I	Advanced Production Economics and Agricultural Marketing	6(4+2)
AEC-602	Compulsory (Major Subject)	II	Agricultural Finance and Project Management	6(4+2)
AEC-603	Compulsory (Research Methodology)	III	Research Methodology for Social Sciences (Agricultural Economics)	4(4+0)
AEC-604	Compulsory	--	Major Research Project	Non-credit /qualifying

Pre-Ph. D. Course Work for Doctor of Philosophy in Agricultural Economics

	Name of the Subject: Agricultural Economics				
Course/ paper code:	AEC-601	Course/ paper title:	Advanced Production Economics and Agricultural Marketing	Credit assigned	6(4+2)
Type of course	Compulsory	Semester		I	
Course objective & Outcomes:	The course deals with the concept of advanced production economics and agricultural marketing. Students get familiar with different production function and use them in practice and come out with useful decision. Similarly, students understand the whereabouts of agricultural marketing.				

Unit	Topic (Theory)	M. L.
I	Agricultural Production process – Relationship between farm planning and production economics-scope of agricultural production and planning-methods/ procedures in agro-economic research and planning.	10
II	Production functions, components, assumptions, properties and their economic interpretation. Concepts of APP, MPP, elasticities of substitution and their economic relevance. Commonly used forms of production function - Properties, limitations, specification, estimation and interpretation- linear, Cobb Douglas, quadratic. Measuring efficiency in agricultural production; technical, allocative and economic efficiencies - Yield gap analysis-concepts-types and measurement.	20
III	New 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 over space, time and form-Vertical co-ordination.	10
IV	Different Forms of marketing: Co-operatives Marketing – APMC Regulated Marketing - Direct marketing, Farmer Producer Companies, e-NAM and marketing under e-NAM, e-marketing Contract farming and Retailing, Organized retailing - Supply Chain Management - State trading, Warehousing and other Government agencies -Performance and Strategies -Market infrastructure needs, performance and Government role - Value Chain Finance.	10
V	Price forecasting – time series analysis – time series models – spectral analysis. Price policy and economic development – non-price instruments.	10
	Practical	
	• Different forms of production functions • Specification, estimation and interpretation of production functions • Returns to scale, factor shares, elasticity of production • Estimation of yield gap • Incorporation of technology in production functions Supply and demand elasticities in relation to problems in agricultural marketing. • Price spread and marketing efficiency analysis. • Marketing structure analysis through concentration ratios. • Estimation of demand/ supply forecasting, • Supply chain/ value chain analysis for different commodities • Commodity models- multi market estimation- time series analysis • Market integration studies- price discovery price volatility estimation	30
Suggested readings including digital platforms	1) SS Johal & TR Kapoor- Fundamentals of Farm business management. Kalyani Publishers Co Ltd. 2) VT Raju & DVS Rao-Economics of farm production & management. Oxford & IBH Publishing Ltd. 3) Subba Reddy et al.-Agricultural Economics- Oxford & IBH Publishing Ltd. 4) https://www.egyankosh.ac.in/bitstream/123456789/22871/1/Unit-6.pdf 5) Acharya SS and Agarawal NL. 2004. Agricultural Marketing in India. Oxford and IBH Publishing Co. Pvt Ltd. 6) Acharya SS and Agarawal NL. 1994. Agricultural Prices-Analysis and Policy. Oxford and IBH Publishing company Pvt. Ltd, New Delhi.	

Pre-Ph. D. Course Work for Doctor of Philosophy in Agricultural Economics

<table>
<tr><td colspan="5" align="center">Name of the Subject: Agricultural Economics</td></tr>
<tr><td>Course/
paper code:</td><td>AEC-602</td><td>Course/
paper title:</td><td>Agricultural Finance and Project Management</td><td>Credit assigned</td><td>6(4
+2)</td></tr>
<tr><td>Type of course</td><td>Compulsory</td><td>Semester</td><td colspan="3" align="center">I</td></tr>
<tr><td>Course objective
& Outcomes:</td><td colspan="5">This course is designed with an objective to deliver knowledge of the principles, procedures, problems and policies relating to financing agricultural firms. To understand the key issues of finance in Agriculture. Learn the techniques of assessing the worth of a project.</td></tr>
<tr><td>Unit</td><td colspan="4" align="center">Topic (Theory)</td><td>M. L.</td></tr>
<tr><td>I</td><td colspan="4">Estimation of Technical feasibility, Economic viability and repaying capacity of borrowers and appraisal of credit proposals. Credit inclusions – credit widening and credit deepening.</td><td>10</td></tr>
<tr><td>II</td><td colspan="4">Financial Decisions – Investment, Financing, Liquidity and Solvency. Preparation of financial statements - Balance Sheet, Cash Flow Statement and Profit and Loss Account. Ratio Analysis and Assessing the performance of farm/ firm.</td><td>15</td></tr>
<tr><td>III</td><td colspan="4">Project Approach in financing agriculture. Financial, economic and environmental appraisal of investment projects. Identification, preparation, appraisal, financing and implementation of projects.</td><td>10</td></tr>
<tr><td>IV</td><td colspan="4">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.</td><td>15</td></tr>
<tr><td>V</td><td colspan="4">Sources of Financing, Structure and Government Policy Support: Estimating Financial Requirements, Preparation of Detail Project Report, Sources of Long-Term Financing, Working Capital.</td><td>10</td></tr>
<tr><td colspan="5" align="center">Practical</td><td></td></tr>
<tr><td colspan="5">

Branch expansion, demand and supply of institutional agricultural credit and Over dues and Loan waiving;
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;
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 instruments and methods – E banking, Kisan Cards and core banking.

</td><td>30</td></tr>
<tr><td>Suggested
readings including
digital platforms</td><td colspan="5">
1) Murray WG and Nelson AG. 1960. Agricultural Finance. Iowa State University.
2) S. Subba Reddy and P. Raghur Ram. 2018. Agricultural Finance and Management. Kalyani Publisher, New Delhi
3) https://egyankosh.ac.in/bitstream/123456789/13623/1/Unit-13.pdf
4) https://egyankosh.ac.in/bitstream/123456789/18830/3/Unit-18.pdf
5) https://ecourses.icar.gov.in/
6) https://egyankosh.ac.in/
</td></tr>
</table>

Name of the Subject: Agricultural Economics					
Course/ paper code:	AEC-603	Course/ paper title:	Research Methodology for Social Sciences (Agricultural Economics)	Credit assigned	4(4+0)
Type of course	Compulsory	Semester	I		
Course objective & Outcomes:	The course deals with scientific methods of research, the initiation of an inquiry, formulation of research problems and hypotheses, the role of induction and deduction in research, collection and analysis of date and interpretation of results. The course also deals with the computer applications in research and integrity in scientific conduct and research publications.				

Unit	Topic (Theory)	M. L.
I	Concepts of research methodology, 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.	10
II	Hypothesis: Framing and Testing Hypothesis – meaning – characteristics – types of hypotheses – review of literature – setting of Course Objective and hypotheses – testing of hypothesis.	10
III	Sampling theory and sampling design – sampling error - methods of sampling – probability and non-probability sampling methods - criteria to choose.	10
IV	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.	10
V	Data Analysis and universal procedures for preparation of bibliography – writing of research articles.	10
VI	Basic Knowledge of Computer, use of computer in the research, Data Analysis Softwares and Analysis Techniques, use of multimedia tools, use of MS Office, preparation of Power Point Presentations, use of Internet for Research Purpose, Introduction to UGC infonet, INFLIBNET and ERNET etc.	5
VII	Scientific conduct: Ethics with respect to science and research, intellectual honesty and research integrity, Scientific misconducts- falsifications, fabrications and plagiarism (FFP) Redundant publications: duplicate and overlapping publications, salami slicing; selective reporting and misrepresentation of data. Publication ethics: Definition, introduction and importance. Publication misconduct: definition, concept, problems that lead to unethical behavior and vice versa, type, violation of publication ethics, authorship and contributorship. Software tools: use of plagiarism software like Turnitin, Urkund and other open-source software tools.	5
Suggested readings including digital platform	1) Dhondhyal S.P. Social Science Research and Thesis Writing 2) Willson ER. An Introduction to Scientific Research 3) C.R. Kothari. Research Methodology- Methods & Techniques 4) https://egyankosh.ac.in/handle/123456789/4812 5) https://egyankosh.ac.in/bitstream/123456789/3949/1/MWG-005B1E-U4.pdf 6) https://www.ugc.ac.in/pdfnews/7771545_academic-integrity-Regulation2018.pdf 7) https://egyankosh.ac.in/bitstream/123456789/63507/2/Unit-16.pdf	

*****