

RANI RASHMONI GREEN UNIVERSITY

TARAKESWAR, HOOGHLY



Syllabus of PG Diploma in Agricultural Marketing and Management(PGD-AMM)

Duration: 1 Year (2 Semesters)
Total Credits: 48 (24 credits/semester)
Total Marks: 1200 (600/semester)
Total Lecture Hours: 480 Hours
[W.e.f.: 2025-2026]

A. Programme objectives (PO)

1. **To impart specialized knowledge** of agriculture and agriprenurship, agricultural markets, value chains, and business ecosystems.
2. **To equip learners with skills** in agribusiness management, agril. start up, Project Management in Agribusiness, marketing strategies, and digital marketing in agriculture.
3. **To Enable practical understanding** of rural markets, cooperatives, FPOs, market intelligence, market linkages and SCM
4. **To promote entrepreneurship, incubation, business communication, entrepreneurial behaviour,** and innovation

B. To Up skill and upscale for careers in agri-marketing, agribusiness firms, start-ups, government agencies, NGOs, and research. Programme outcome

Outcomes

1. Understanding builds up on the structure and functioning of agricultural markets and institutions.
2. Problem solving skills, negotiation and conflict resolution skill, business models are coming up.
3. Successful start-ups are cropping up
4. Enhanced Qualitative and Quantitative Analysis with tools and techniques for Agribusiness result.

OVI AND MOV are applicable to measure milestones.

Syllabus of 1st Semester

Course Code	Revised Course Title	Credits	Marks (IA+ESE)	Hours
PGD-AMM 101	Fundamentals of Agriculture and Agribusiness	4	100 (20+80)	40
PGD-AMM 102	Entrepreneurship and Agri Marketing Principles	4	100 (20+80)	40
PGD-AMM 103	Agri Economics and Project Management	4	100 (20+80)	40
PGD-AMM 104	Marketing Research and Analytics	4	100 (20+80)	40
PGD-AMM 105	Field Visit and Environment Studies	4	100 (50+50)	40
PGD-AMM 106	Human Resource Management and Managerial Skills	4	100 (50+50)	40

Syllabus of 2nd Semester

OVI AND MOV are applicable to measure milestones

Course Code	Revised Course Title	Credits	Marks (IA+ESE)	Hours
PGD-AMM 201	Agri Supply Chain and Project Planning Tools	4	100 (20+80)	40
PGD-AMM 202	Cooperative Marketing and Rural Systems	4	100 (20+80)	40
PGD-AMM 203	Precision Farming and Smart Agriculture	4	100 (20+80)	40
PGD-AMM 204	Agri Finance, Insurance and Total Quality Management	4	100 (20+80)	40
PGD-AMM 205	Innovation and Rural Leadership	4	100 (20+80)	40
PGD-AMM 206	Summer Internship and Viva -Voce	4	100 (50+50)	40

RANI RASHMONI GREEN UNIVERSITY
PGD-AMM: FIRST SEMESTER
(Effective from 2025-26)
Paper Code: PGD-AMM 101
Subject: Fundamentals of Agriculture and Agribusiness
Full Marks: 100 No. of Classes: 40 Hours Credits: 4 (3+1)

Course Objectives

1. To impart concept and genesis of Indian agriculture.
2. To introduce the scope, and importance of Fundamentals of Agriculture and Agribusiness in agribusiness and rural organizations.
3. To critically examine different projects and policies in agriculture promoted by the Govts of India.

Course Content

Unit I: Introduction to Agriculture and Agribusiness

L-8Hr

Nature, scope, and importance of agriculture and agribusiness in India and globally; major challenges and issues of Indian agriculture; historical evolution of Indian agriculture with reference to pre- and post-Green Revolution phases; role of agribusiness in supporting farm income and rural development.

Unit II: Major Agricultural Technologies

L-8Hr

Package of practices for field crops, horticulture, and commercial crops; principles and practices of crop management; use of modern technologies and innovations in agriculture; integrated farming systems and agro-ecological considerations affecting yield, income, and livelihood; opportunities for agribusiness development.

Unit III: Agribusiness Management and Entrepreneurship

L-8Hr

Concept, principles, and practices of agribusiness for sustainable livelihood; business ecosystem in agriculture and allied sectors; start-ups, incubation, and entrepreneurship development; business planning, designing, and operational strategies for farm-based and rural enterprises.

Unit IV: Agricultural Policy and Governance

L-8Hr

Agricultural policy in India; major reforms and changes in policies to enhance agri-food productivity and food security; regulatory frameworks, institutional support, and government schemes; role of policy in shaping agribusiness, rural livelihoods, and market access.

Unit V: Climate Smart Agriculture and Sustainable Development

L-8Hr

Impact of climate change on agriculture and allied sectors; natural resource management and ecological resilience; adoption of climate-smart practices for sustainable agriculture; community mobilization, participatory approaches, and the role of SDGs in Indian agriculture; integration of technology, sustainability, and market-oriented solutions for rural development.

Practical: Visit to a Dairy Farm and Submit a report.

Suggested Readings / Reference Books

1. Reddy, T. Y., & Reddi, G. H. S. (2016). *Principles of agronomy* (5th ed.). Kalyani Publishers.
2. Singh, S. S. (2020). *Principles and practices of agronomy* (7th ed.). Kalyani Publishers.
3. Acharya, S. S., & Agarwal, N. L. (2011). *Agricultural marketing in India* (4th ed.). Oxford and IBH Publishing.
4. Lekhi, R. K., & Singh, J. (2019). *Agricultural economics* (9th ed.). Kalyani Publishers.
5. Mamoria, C. B., & Tripathi, R. K. (2012). *Agricultural problems of India* (5th ed.). Himalaya Publishing House.
6. Singh, A. K., & Pandey, D. K. (2021). *Fundamentals of agribusiness management*. Biotech Books.
7. Singh, I. (2018). *Fundamentals of agriculture: Vol. I & II* (6th ed.). Kalyani Publishers.
8. Vanitha, S. M., & Kumar, A. (2017). *Agribusiness management*. New India Publishing Agency.
9. Reddy, P. P. (2011). *Agricultural pollution: Causes and remedies*. Scientific Publishers.
10. Beierlein, J. G., Schneeberger, K. C., & Osburn, D. D. (2008). *Principles of agribusiness management* (4th ed.). Waveland Press.
11. Doll, J. P., & Orazem, F. (1984). *Production economics: Theory with applications* (2nd ed.). Krieger Publishing.
12. Johl, S. S., & Kapoor, T. R. (2020). *Fundamentals of farm business management* (6th ed.). Kalyani Publishers.
13. Singh, A. (2017). *Agribusiness and rural enterprise development*. ICAR – National Academy of Agricultural Research Management (NAARM).
14. Upton, M. (1973). *Agricultural production economics and resource use*. Oxford University Press.
15. Enterprise, Entrepreneurship and Agribusiness Management, S K Acharya, LLSomani, A B Sharangi & S Bera, ISBN978-81-8321-384-4 (ATP);2015
16. Textbook of Agribusiness Management, R Audichy, H Maloo, S K Acharya, LLSomani; ISBN:978-81-8321-368-4;2015

RANI RASHMONI GREEN UNIVERSITY

PGD-AMM: FIRST SEMESTER

(Effective from 2025-26)

Paper Code: PGD-AMM 102

Subject: Entrepreneurship and Agri Marketing Principles

Full Marks: 100 **No. of Classes:** 40 Hours **Credits:** 4(3+1)

Course Objectives

1. To introduce the principles, concept, techniques and approaches of entrepreneurship for enhanced productivity, marketability and sustainable livelihoods.
2. To impart skill oriented training on agricultural marketing, strength and weaknesses.
3. To build up understanding on policy implications on agri entrepreneurship in India.

Course Content

Unit I: Fundamentals of Enterprise and Entrepreneurship

L-8Hr

Concept, need, and importance of enterprise, entrepreneurship, and entrepreneurial skills; evolution and scope of entrepreneurship in Indian agriculture and allied sectors; role of entrepreneurship in site-specific crop management, resource use efficiency, and environmental sustainability; challenges and constraints in adopting entrepreneurial practices.

Unit II: Entrepreneurial and Behavioural Skills

L-8Hr

Motivation, theories of entrepreneurship, and their applications; conflict management and negotiation skills; problem-solving skills; experiential learning cycle (ELC) and business skill development; team building, leadership, stress, and crisis management in agribusiness contexts.

Unit III: Communication and Personality Development

L-8Hr

Communication process, models, and functions; non-verbal communication; use of ICT in business communication and ecosystem; personality development, success stories, and business simulation/games for skill enhancement; practical applications in agribusiness networking.

Unit IV: Agricultural Marketing and Value Addition

L-8Hr

Definition and concept of agricultural marketing; role of Farmer Producers Organizations (FPOs); scope and opportunities for value-added agri-horti products; Total Quality Management (TQM) and its application in value-added production systems; market segments, market intelligence, and market response analysis.

Unit V: Integration of Entrepreneurship and Market Practices

L-8Hr

Linking entrepreneurship skills with agricultural marketing and enterprise development; business planning and project design for agribusiness ventures; agricultural finance; adoption of innovative practices for market competitiveness; sustainability, ethical considerations, and contemporary trends in agribusiness entrepreneurship; case studies of successful agri-entrepreneurs and FPOs.

Practical: Visit to a Logistic Hub/Cold Storage and Submit a report.

Suggested Readings / Reference Books

1. Communication: The process and Application in Extension Education by S K Acharya & M M Adhikary, ISBN 978-81-8321-246-5 (ATP);2012
2. Enterprise, Entrepreneurship and Agribusiness Management, S KAcharya, LLSomani, AB Sharangi &SBera, ISBN978-81-8321-384-4 (ATP);2015
3. Precision Horticulture, S KAcharya, AB Sharangi, MK Panditand S Dutta. ISBN:978-81-8321-264-9(ATP, New Delhi),2012.
4. Extension Strategies for Managing Agricultural Enterprises and Entrepreneurship by M M

- Adhikary, S K Acharya & D Basu, ISBN: 978-81-8321-147-5(ATP),2008, ISBN: 978-81-8321-150-5 (ATP) ,2009
5. Information Communication Technology in Agriculture: The Changing Global Order and Scale, M M Adhikary, S K Acharya & Debabrata Basu, ISBN: 978-81-8321-290-8(ATP), 2013
 6. Gupta, C. B., & Srinivasan, N. P. (2018). *Entrepreneurship development in India* (6th ed.). Sultan Chand & Sons.
 7. Khanka, S. S. (2012). *Entrepreneurial development* (Revised ed.). S. Chand Publishing.
 8. Desai, V. (2011). *Dynamics of entrepreneurial development and management* (5th ed.). Himalaya Publishing House.
 9. Acharya, S. S., & Agarwal, N. L. (2011). *Agricultural marketing in India* (4th ed.). Oxford and IBH Publishing.
 10. Dogra, B., & Ghuman, K. (2009). *Rural marketing: Concepts and practices* (2nd ed.). Tata McGraw-Hill.
 11. Tiwari, S., & Kapoor, S. (2019). *Agri-entrepreneurship: A pathway towards rural development*. New India Publishing Agency.
 12. Singh, A. K., & Pandey, D. K. (2021). *Fundamentals of agribusiness management*. Biotech Books.
 13. Kohli, D. P., & Johl, S. S. (2016). *Marketing of agricultural produce* (5th ed.). Kalyani Publishers.
 14. Kotler, P., & Keller, K. L. (2016). *Marketing management* (15th ed.). Pearson Education.
 15. FAO. (2009). *Agri-marketing: A training manual*. Food and Agriculture Organization of the United Nations.
<https://www.fao.org>
 16. Dollinger, M. J. (2008). *Entrepreneurship: Strategies and resources* (4th ed.). Pearson Education.
 17. Hisrich, R. D., Peters, M. P., & Shepherd, D. A. (2017). *Entrepreneurship* (10th ed.). McGraw-Hill Education.
 18. Lekhi, R. K., & Singh, J. (2019). *Agricultural economics* (9th ed.). Kalyani Publishers.
 19. Singh, A. (2017). *Agribusiness and rural enterprise development*. ICAR – National Academy of Agricultural Research Management (NAARM).

RANI RASHMONI GREEN UNIVERSITY
PGD-AMM: FIRST SEMESTER
(Effective from 2025-26)
Paper Code: PGD-AMM 103
Subject: Agri Economics and Project Management
Full Marks: 100 No. of Classes: 40 Hours Credits: 4

Course Objectives

1. To introduce the fundamental principles of agricultural economics and their application to agribusiness.
2. To develop understanding of production, consumption, and distribution of agricultural resources.

3. To analyze market structures, pricing, and demand-supply mechanisms in agricultural markets.
4. To enhance skills in project planning, evaluation, and management for agricultural ventures.
5. To familiarize students with financial analysis, budgeting, and investment appraisal techniques for agri-projects.
6. To develop the ability to design, implement, and monitor sustainable and viable agricultural projects.

Course Content

Unit I: Introduction to Agricultural Economics

L-9Hr

Meaning, scope, and significance of agricultural economics; role in agribusiness and rural development; basic economic problems in agriculture; production and productivity; factors of production including land, labour, capital, and technology; concepts of cost, revenue, and profit in agriculture; role of government policies in agriculture.

Unit II: Agricultural Production and Resource Management

L-9Hr

Farm management principles; resource allocation and input-output analysis; law of diminishing returns; crop planning and diversification; cost-benefit analysis; efficiency in resource utilization; role of modern technology and innovation in improving agricultural productivity; management of natural resources and sustainability practices.

Unit III: Agricultural Marketing and Price Analysis

L-7Hr

Concept, functions, and importance of agricultural marketing; market structure and behavior; price determination and market equilibrium; demand and supply analysis; farm-to-market linkages; government interventions, subsidies, and minimum support price; marketing efficiency and marketing costs in agricultural value chains.

Unit IV: Project Management Principles

L-9Hr

Concept, importance, and scope of project management in agriculture; project life cycle; project identification, selection, and formulation; project objectives, feasibility study, and SWOT analysis; resource planning and project scheduling; role of technology and innovation in project success; financial analysis and investment appraisal including NPV, IRR, BCR, Payback Period; risk and sensitivity analysis; sources of finance for agricultural projects.

Unit V: Project Implementation, Monitoring, and Evaluation

L-9Hr

Project implementation strategies; monitoring mechanisms and progress evaluation; project control techniques; reporting, documentation, and performance measurement; sustainability and social impact assessment; case studies of successful agricultural projects; lessons from project failures and best practices in rural/agri project management.

Suggested Readings / Reference Books

1. Ahuja, H.L., Principles of Agricultural Economics, Rawat Publications, 2021.
2. Saluja, M.R., Agricultural Economics, Agrotech Publishing, 2020.
3. Misra, S.K., & Puri, V.K., Economics of Agriculture, Himalaya Publishing House, 2021.

4. Panneerselvam, R., Project Management, Prentice Hall India, 2020.
5. Chandra, P., Projects: Planning, Analysis, Financing, Implementation, McGraw Hill Education, 2021.
6. Tripathi, P.C., & Reddy, P.N., Principles of Management, McGraw Hill Education, 2020.
7. Kumar, S., Rural Project Planning and Management, Agrotech Publishing, 2019.
8. Biswas, D., Agri-Business Economics and Project Planning, Himalaya Publishing House, 2020.

RANI RASHMONI GREEN UNIVERSITY
PGD-AMM: FIRST SEMESTER
(Effective from 2025-26)
Paper Code: PGD-AMM 104
Subject: Marketing Research and Analytics
Full Marks: 100 No. of Classes: 40 Hours Credits: 4

Course Objectives

1. To introduce the concepts, scope, and significance of marketing research in agricultural marketing and management.
2. To develop skills in research design, data collection, and sampling techniques for rural and agribusiness contexts.
3. To enhance understanding of data processing, statistical analysis, and visualization for decision-making.
4. To apply marketing analytics and predictive techniques for forecasting demand, pricing, and market segmentation.
5. To familiarize students with advanced analytical tools such as conjoint analysis, factor analysis, sentiment analysis, and big data applications.
6. To develop the ability to interpret research findings, prepare reports, and link insights to practical agricultural marketing strategies.

Course Content

Unit I: Introduction to Marketing Research

L-7Hr

Marketing research in agricultural marketing; scope, objectives, and importance; role of marketing research in decision-making for farmers, agribusinesses, and rural organizations; types of research including exploratory, descriptive, and causal; defining research problems and objectives; ethical and legal considerations in conducting research.

Unit II: Research Design and Data Collection

L-8Hr

Research designs suitable for agricultural marketing; sampling methods including probability and non-probability sampling; data collection methods such as surveys, interviews, observation, and secondary sources; preparation of questionnaires and scales; measurement reliability, validity, and scaling techniques relevant to rural and agribusiness research contexts.

Unit III: Data Processing and Statistical Analysis

L-7Hr

Techniques of data coding, editing, tabulation, and cleaning; summarization using descriptive statistics including mean, median, mode, variance, and standard deviation; data visualization using charts, graphs, and dashboards; inferential statistics, hypothesis testing, and applications of statistical software such as Excel, SPSS, or R for agricultural marketing data analysis.

Unit IV: Marketing Analytics and Predictive Techniques

L-9Hr

Introduction to marketing analytics and applications in agricultural markets; correlation and regression analysis; forecasting methods including time series and trend analysis; customer segmentation using cluster analysis; predictive modeling and propensity analysis for demand forecasting, pricing, and distribution decisions in agribusiness; integration of big data and digital tools.

Unit V: Advanced Analytical Techniques, Reporting, and Decision Making

L-9Hr

Conjoint analysis for product preference and pricing decisions; factor analysis for dimensionality reduction; sentiment analysis and social media analytics for understanding consumer behavior; web analytics and e-commerce metrics in agricultural marketing; preparation and presentation of research reports; interpretation and visualization of findings; linking research insights to pricing, promotion, distribution, and policy strategies; case studies in rural and agricultural contexts.

Suggested Readings / Reference Books

1. Malhotra, N.K., Marketing Research: An Applied Orientation, Pearson, 8th Edition, 2021.
2. Aaker, D.A., Kumar, V., & Day, G.S., Marketing Research, Wiley, 12th Edition, 2020.
3. Hair, J.F., Black, W.C., Babin, B.J., & Anderson, R.E., Multivariate Data Analysis, Cengage, 9th Edition, 2022.
4. Churchill, G.A., & Iacobucci, D., Marketing Research: Methodological Foundations, Cengage, 12th Edition, 2020.
5. Gupta, S., Marketing Analytics, McGraw Hill Education, 2021.
6. Kotler, P., Keller, K.L., Marketing Management, Pearson, 16th Edition, 2022.
7. Biswas, D., Data-Driven Marketing for Rural Markets, Himalaya Publishing House, 2019.
8. Cooper, D.R., & Schindler, P.S., Business Research Methods, McGraw Hill, 14th Edition, 2021.

RANI RASHMONI GREEN UNIVERSITY

PGDAMM: FIRST SEMESTER

(Effective from 2025-26)

Paper Code: PGD-AMM 105

Subject: Field Visit and Environment Studies

Full Marks: 100 No. of Classes: 40 Hours Credits: 4

Out of 4 credits, 2 credits have been assigned for Field Visit purpose and the Environment Studies is compulsory for all programs offered by the University. The syllabus is common for all students across different programs; therefore, a separate syllabus for the PGD-AMM program is not provided.

Course Objective

1. To provide students an insight into the internal workings of companies.
2. To complement theoretical knowledge with practical exposure.
3. To give students a real-world perspective on business operations and professional environments.
4. To help students understand organizational processes, culture, and management practices.
5. To enhance learning beyond the classroom and support career readiness.
6. To enable students to observe, analyze, and relate academic concepts to practical scenarios.

Note: After field visit, students are supposed to submit a report containing his /her personal observation and realization. The students need to present the summary of the report through Power-Point presentation, keeping in view his /her personal observation and realization. 25 marks has been assigned for Report writing and it should be evaluated by external members and remaining 25 marks has been assigned for presentation of Report before the internal and external examiners.

RANI RASHMONI GREEN UNIVERSITY

PGD-AMM: FIRST SEMESTER

(Effective from 2025-26)

Paper Code: PGD-AMM 106

Subject: Human Resource Management and Managerial Skills

Full Marks: 100 **No. of Classes:** 40 Hours **Credits:** 4

Course Objectives

1. To introduce the concepts, scope, and importance of Human Resource Management (HRM) in agribusiness and rural organizations.
2. To develop skills in human resource planning, recruitment, selection, and talent management.
3. To enhance understanding of training, development, and performance management systems.
4. To apply theories of motivation, leadership, and communication in organizational contexts.
5. To develop essential managerial skills for effective decision-making, time management, and problem-solving.
6. To examine contemporary HRM practices and challenges in the context of digitalization, diversity, and sustainability.

Course Content

Unit I: Introduction to Human Resource Management

L-8Hr

Nature, scope, and importance of HRM; objectives and functions of HRM; role of HR managers in agricultural marketing organizations, cooperatives, and Farmer Producer Organizations (FPOs); levels of HRM; HRM in changing business environments and globalization; significance of HRM in rural and agribusiness contexts.

Unit II: Human Resource Planning and Talent Acquisition

L-8Hr

Concept and process of human resource planning; job analysis, job description, and job specification; sources and methods of recruitment with emphasis on rural and agri-based talent; selection process and techniques; placement, orientation, and induction programs.

Unit III: Training, Development, and Performance Management**L-8Hr**

Need and significance of training in agribusiness; on-the-job and off-the-job training methods; management development programs (MDPs); performance appraisal—methods, modern approaches, and feedback systems; linking performance with rewards, recognition, and career growth; employee engagement and skill enhancement initiatives.

Unit IV: Motivation, Leadership, and Communication**L-8Hr**

Theories of motivation—Maslow, Herzberg, McClelland, and Vroom; application of motivation theories in rural/agri organizations; leadership—concept, styles, and situational leadership; communication process, barriers, and strategies for effective workplace communication; negotiation skills and conflict resolution; fostering teamwork and collaboration.

Unit V: Managerial Skills, Contemporary HRM, and Emerging Trends**L-8Hr**

Types of managerial skills—technical, human, and conceptual; decision-making—process, types, and tools; time management and stress management; creativity and innovation; problem-solving approaches in agricultural marketing and management; HRM in the digital era including e-HRM, HR analytics, and remote workforce management; diversity, inclusion, CSR, ethics, sustainability, and future challenges in rural/agri HRM.

Suggested Readings / Reference Books

1. Dessler, G., *Human Resource Management*, Pearson Education, 16th Edition, 2020.
2. Armstrong, M., *Armstrong's Handbook of Human Resource Management Practice*, Kogan Page, 15th Edition, 2021.
3. Rao, V.S.P., *Human Resource Management: Text and Cases*, Excel Books, 4th Edition, 2022.
4. Tripathi, P.C. & Reddy, P.N., *Principles of Management*, McGraw Hill Education, 2020.
5. Daft, R.L., *The New Era of Management*, Cengage Learning, 13th Edition, 2021.
6. Gupta, C.B., *Human Resource Management*, Sultan Chand & Sons, 2022.
7. Kumar, P., *Human Resource Development in Agriculture*, Agrotech Publishing, 2019.
8. Chhabra, T.N., *Fundamentals of Management*, McGraw Hill Education, 2020.
9. Biswas, D. (2013). *The Romance of Human Resource Management*. Himalaya Publishing House, Mumbai.

Syllabus of 2nd Semester**OVI AND MOV are applicable to measure milestones**

Course Code	Revised Course Title	Credits	Marks (IA+ESE)	Hours
PGD-AMM 201	Agri Supply Chain and Project Planning Tools	4	100 (20+80)	40
PGD-AMM 202	Cooperative Marketing and Rural Systems	4	100 (20+80)	40
PGD-AMM 203	Precision Farming and Smart Agriculture	4	100 (20+80)	40

Course Code	Revised Course Title	Credits	Marks (IA+ESE)	Hours
PGD-AMM 204	Agri Finance, Insurance and Total Quality Management	4	100 (20+80)	40
PGD-AMM 205	Innovation and Rural Leadership	4	100 (20+80)	40
PGD-AMM 206	Summer Internship and Viva -Voce	4	100 (50+50)	40

RANI RASHMONI GREEN UNIVERSITY

PGD-AMM: SECOND SEMESTER

(Effective from 2025-26)

Paper Code: PGD-AMM 201

Subject: Agri Supply Chain and Project Planning Tools

Full Marks: 100 **No. of Classes:** 40 Hours **Credits:** 4

Course Objectives

1. To build up understanding on the concept, principles, and applications of agri supply chain management.
2. To impart training on role and operation of supply chain management in a business ecosystem.
3. To impart hands-on training on project preparation, monitoring and evaluation.

Course Content

Unit I: Fundamentals of Supply Chain Management

L-8Hr

Concept, need, and importance of supply chain management; scope in Indian agriculture and allied sectors; difference between supply chain management and value chain management; blockchain management in agricultural supply chains; role of technology in enhancing efficiency and transparency.

Unit II: ICT and Digital Tools in Supply Chain Management

L-8Hr

Digital marketing and its integration with supply chain management; mobile applications for logistics and supply chain tracking; development of logistic hubs; Management Information Systems (MIS) and data management; application of Artificial Intelligence (AI) and Machine Learning (ML) in supply chain decision-making; mobile telephony and digital platforms for agricultural information systems and rural marketing; real-time digital tracking of supply chain movement.

Unit III: Project Management Principles and Practices

L-8Hr

Concept, principles, and typology of projects; project management in terms of cost, resources, and time; project life cycle management; feasibility analysis including financial, technical, and social aspects; planning, scheduling, and resource allocation in agricultural projects.

Unit IV: Project Monitoring, Evaluation, and Tools

L-8Hr

Definition, principles, and typology of project monitoring and evaluation (PME); log-frame analysis (LFA); programme evaluation and review technique (PERT); critical path method (CPM); performance measurement; impact assessment and reporting; integration of digital tools in PME for efficiency and transparency.

Unit V: Contemporary Issues and Emerging Trends in Supply Chain and Project Management **L-8Hr**

Challenges in agricultural supply chains including fragmented holdings, infrastructure gaps, and policy constraints; sustainability and risk management in supply chains; emerging trends such as digital supply chains, blockchain, IoT-enabled monitoring, and Agri-tech integration; case studies of successful supply chain management and project implementation in agriculture; lessons for replication and innovation.

Suggested Readings / Reference Books

1. Participatory Planning and Project Management in Extension Sciences by M M Adhikary, S K Acharya, A Sarkar & D Basu ISBN: 81-8321-021-X(ATP),2006
2. Value Addition and Quality Issues in Agriculture and Allied Areas: Techniques and Challenges M M Adhikary, S K Acharya & D Basu, ISBN: 81-8321-041-4(ATP),2006
3. Quality Management in Horticulture, A B Sharangi & S K Acharya ISBN: 81-8321-090-2(ATP),2008
4. Enterprise Dynamics of Agribusiness: The System and Social Ecology; S K Acharya, S Das, G C Mishra & A Biswas ISBN:978-93-85822-04-9(KSP, New Delhi),2015
5. Principles of Agricultural Economics by Latika Sharma, SK Acharya, L L Somani & H Maloo ISBN: 978-81-8321-380-6(ATP),2015
6. Enterprise Dynamics of Agribusiness: The System and Social Ecology S K Acharya, S Das, G C Mishra & A Biswas ISBN:978-93-85822-04-9 (KSP),2015
7. Management: The Prism and Spectra S K Acharya, A Biswas, Moumita Gupta & G C Mishra ISBN: 978-93-85822-45-9 (KSP), 2017

RANI RASHMONI GREEN UNIVERSITY

PGD-AMM: SECOND SEMESTER

(Effective from 2025–26)

Paper Code: PGD-AMM 202

Subject: Cooperative Marketing and Rural Systems

Full Marks: 100

No. of Classes: 40 Hours

Credits: 4

Course Objectives

1. To provide an understanding of the principles, structure, and functioning of cooperatives in India, with special focus on agriculture and rural development.
2. To study the role of cooperative marketing in enhancing rural livelihoods and farmer income.
3. To understand the structure and dynamics of rural systems and their relevance for marketing and development.

4. To familiarize students with institutional support mechanisms for cooperative and rural marketing.
5. To examine contemporary challenges and explore future opportunities for cooperatives and rural systems.

Course Content

Unit I: Introduction to Cooperatives

L-8Hr

Concept, nature, objectives, and principles of cooperatives; historical evolution and growth of the cooperative movement in India; role and importance of cooperatives in agricultural marketing and rural development; types of cooperatives including credit, marketing, consumer, producer, and multi-purpose; contribution of cooperatives to rural employment and poverty alleviation.

Unit II: Cooperative Marketing – Concepts and Practices

L-8Hr

Meaning, scope, and importance of cooperative marketing; functions of cooperative marketing societies including procurement, storage, processing, grading, packaging, and distribution; price discovery and market intervention; successful cooperative marketing models such as AMUL, IFFCO, and NAFED; integration of ICT and digital platforms in cooperative marketing.

Unit III: Institutional Framework and Support for Cooperatives

L-7Hr

Organizational structure of cooperative marketing in India including primary, district, and state-level societies; role of National Cooperative Development Corporation (NCDC), NABARD, and state cooperative federations; government policies, legal provisions, and regulatory framework for cooperatives; financing, auditing, and capacity-building of cooperative societies.

Unit IV: Rural Systems and Marketing Channels

L-8Hr

Concept, characteristics, and components of rural society; rural social structures including caste, class, and community networks; rural economy and livelihood patterns; agricultural production systems; rural infrastructure such as roads, storage, markets, and ICT connectivity; structure of rural markets including haats, shandies, regulated markets, and e-NAM; marketing channels, role of middlemen, and linkages for rural products including direct marketing, contract farming, and Farmer Producer Organizations (FPOs).

Unit V: Contemporary Issues and Future Prospects in Cooperatives and Rural Marketing L-9Hr

Problems and challenges in cooperatives including management inefficiencies, political interference, and financial constraints; impact of globalization, liberalization, and privatization on cooperatives; sustainability in cooperative and rural systems; emerging trends such as digital cooperatives, Agri-tech integration, mobile-based platforms, and participation in global value chains; lessons from successful cooperative and rural marketing initiatives.

Suggested Readings / Reference Books

1. Taimni, K.K., *Cooperatives in India*, National Council for Cooperative Training, 2020.
2. Kulandaiswamy, V., *Cooperative Marketing*, Rainbow Publishers, 2018.
3. Mamoria, C.B., *Agricultural Marketing in India*, Himalaya Publishing House, 2020.

4. Acharya, S.S. & Agarwal, N.L., *Agricultural Marketing in India*, Oxford & IBH, 2019.
5. Choubey, B.N., *Principles and Philosophy of Cooperatives*, S. Chand Publishing, 2017.
6. Singh, Katar & Singh, R., *Rural Development: Principles, Policies and Management*, Sage Publications, 2021.
7. Karmakar, K.G., *Rural Credit and Self Help Groups*, Sage Publications, 2016.
8. Government of India, *Annual Reports of NCDC and NABARD*.
9. Biswas, D & Chakraborty, D, *Agricultural Marketing*, Ane Books Pvt. Ltd., New Delhi, 2019

RANI RASHMONI GREEN UNIVERSITY

PGD-AMM: SECOND SEMESTER

(Effective from 2025-26)

Paper Code: PGD-AMM 203

Subject: Precision Farming and Smart Agriculture

Full Marks: 100 No. of Classes: 40 Hours Credits: 4

Course Objectives

1. To introduce the principles, techniques, and technologies of precision farming for enhanced productivity and sustainability.
2. To develop understanding of ICT tools, remote sensing, and GIS applications in agriculture.
3. To examine strategies for climate resilient smart farming.

Course Content

Unit I: Fundamentals and Scope of Precision Farming

L-8Hr

Concept, need, and importance of precision farming; evolution and scope in Indian agriculture; site-specific crop management; resource use efficiency; environmental benefits; challenges and constraints in adoption.

Unit II: Technologies for Precision Farming

L-9Hr

Global Positioning System (GPS) and Global Navigation Satellite System (GNSS); Geographic Information System (GIS); remote sensing applications in agriculture; sensors and drones for crop monitoring; variable rate technology (VRT) in irrigation, fertilization, and pesticide application.

Unit III: Protected Cultivation and Modern Techniques

L-8Hr

Protective horticulture; hydroponics, aquaponics, and aeroponics; integration of precision technologies for crop productivity and quality enhancement; practical applications in controlled environment agriculture.

Unit IV: Data Management and Decision Support Systems

L-8Hr

Management Information System (MIS) in agriculture; data collection, storage, and analysis; application of Artificial Intelligence (AI) and Machine Learning (ML) in precision farming; mobile telephony and ICT tools for agricultural information dissemination and rural marketing.

Unit V: Challenges, Policy, and Future Trends

L-7Hr

Technical barriers to small and fragmented holdings; socio-economic and infrastructural constraints; challenges in adoption of precision farming; policy framework and government initiatives; emerging trends, innovations, and future perspectives in precision agriculture.

Suggested Readings / Reference Books

1. Acharya, S.K., Sharangi, A.B., Pandit, M.K. & Datta, S. *Precision Horticulture*, Agrotech Publishing Academy, 2012.
2. Srivastava, A.K., Goel, A.K. & Singh, A., *Precision Farming in Horticulture*, CBS Publishers, 2020.
3. Gebbers, R. & Adamchuk, V.I., *Precision Agriculture Technology for Crop Farming*, Springer, 2010.
4. Kotler, P., Keller, K.L., Koshy, A. & Jha, M., *Marketing Management: A South Asian Perspective*, Pearson Education, 16th Edition, 2022.
5. Kashyap, P. & Raut, S., *The Rural Marketing Book*, Biztantra, 3rd Edition, 2013.
6. Cervera, E., *Smart Agriculture: An Approach towards Better Farming*, Nova Science Publishers, 2019.
7. Dogra, B. & Ghuman, K., *Rural Marketing: Environment, Problems and Strategies*, McGraw Hill Education, 3rd Edition, 2018.
8. Mehta, S.C., *Emerging Trends in Rural Marketing*, Himalaya Publishing House, 2020.
9. Narayanamoorthy, A., *Precision Farming in India: Challenges and Opportunities*, Rawat Publications, 2016.
10. Participatory Planning and Project Management in Extension Sciences by M M Adhikary, S K Acharya, A Sarkar & D Basu ISBN: 81-8321-021-X(ATP),2006
11. Value Addition and Quality Issues in Agriculture and Allied Areas: Techniques and Challenges M M Adhikary, S K Acharya & D Basu, ISBN: 81-8321-041-4 (ATP),2006

RANI RASHMONI GREEN UNIVERSITY

PGD-AMM: SECOND SEMESTER

(Effective from 2025-26)

Paper Code: PGD-AMM 204

Subject: Agri Finance, Insurance, and Total Quality Management

Full Marks: 100 **No. of Classes:** 40 Hours **Credits:** 4

Course Objectives

1. To introduce the principles and importance of agricultural finance for farmers, cooperatives, and agribusinesses.
2. To develop understanding of financial planning, credit management, and resource mobilization in agriculture.

3. To familiarize students with agricultural insurance schemes, risk management, and disaster mitigation strategies.
4. To enhance knowledge of Total Quality Management (TQM) principles and their application in agricultural operations and agribusiness.
5. To develop skills for implementing quality control, process improvement, and continuous performance enhancement in agricultural enterprises.
6. To examine contemporary challenges and innovations in agri-finance, insurance, and quality management practices.

Unit I: Agricultural Finance and Credit

L-8Hr

Nature and scope of agricultural finance; sources of finance including institutional lenders such as commercial banks, cooperative banks, NABARD, microfinance, and non-institutional lenders; short-term, medium-term, and long-term credit; role of financial institutions in agriculture; credit appraisal, disbursement, and recovery; financial planning for farmers and agri-entrepreneurs; credit needs of different agricultural sectors including crops, livestock, horticulture, and fisheries; concepts of working capital and term loans; credit management and monitoring; emerging trends in digital lending platforms and Agri-fintech solutions.

Unit II: Risk Management in Agriculture

L-8Hr

Identification and analysis of agricultural risks including production, market, and financial risks; financial instruments for risk mitigation such as hedging, forward contracts, and crop futures; government support schemes including Kisan Credit Card, interest subvention, and crop loan programs; role of Agri-tech in predictive analytics, early warning systems, and credit assessment; disaster mitigation strategies; integration of modern technologies for risk management and decision-making.

Unit III: Agricultural Insurance

L-8Hr

Principles and importance of agricultural insurance; types of insurance including crop insurance, livestock insurance, and weather-based insurance; risk pooling and premium determination; government-sponsored schemes such as Pradhan Mantri Fasal Bima Yojana (PMFBY) and Livestock Insurance Scheme; claim settlement procedures and grievance redressal; role of InsurTech including satellite imagery, drones, IoT sensors, and mobile platforms; insurance as a tool to reduce vulnerability and ensure financial security for farmers.

Unit IV: Introduction to Total Quality Management (TQM)

L-8Hr

Concepts, principles, and philosophy of TQM; evolution of quality management in agriculture and agribusiness; role of leadership, organizational culture, and employee engagement in quality improvement; quality planning, assurance, and control; ISO standards and certifications relevant to agricultural products including ISO 22000 and HACCP; benchmarking, continuous improvement, lean principles, and their applications in agricultural operations.

Unit V: Tools, Implementation, and Contemporary Issues in Total Quality Management **L-8Hr**

Quality control tools including Pareto analysis, cause-and-effect diagrams, control charts, histograms, process mapping, and standard operating procedures; statistical quality control, Six Sigma methodology, and lean management principles; application of TQM in supply chain management,

post-harvest handling, and agro-processing units; role of technology and innovation including Agri-tech and InsurTech in monitoring and enhancing quality; strategies for implementation, monitoring quality performance, customer satisfaction, sustainability, ethical considerations, and case studies of successful agribusiness quality initiatives.

Suggested Readings / Reference Books

1. Sidhu, H.S., Agricultural Finance, Kalyani Publishers, 2021.
2. Mishra, S., Agricultural Credit and Rural Finance, Agrotech Publishing, 2020.
3. Ghosh, S., Agricultural Insurance and Risk Management, Himalaya Publishing House, 2021.
4. Dale, B.G., Total Quality Management, Pearson Education, 5th Edition, 2020.
5. Evans, J.R., & Lindsay, W.M., Managing for Quality and Performance Excellence, Cengage, 11th Edition, 2021.
6. NABARD, Annual Reports on Agricultural Finance, NABARD Publication, 2022.
7. Biswas, D., Agri-Finance, Risk and Quality Management, Himalaya Publishing House, 2020.
8. ISO Guidelines for Agricultural and Food Products, International Organization for Standardization, 2021.

RANI RASHMONI GREEN UNIVERSITY

PGD-AMM: SECOND SEMESTER

(Effective from 2025-26)

Paper Code: PGD-AMM 205

Subject: Innovation and Rural Leadership

Full Marks: 100 **No. of Classes:** 40 Hours **Credits:** 4

Course Objectives

1. To introduce the concepts, importance, and scope of innovation in agriculture and rural development.
2. To develop an understanding of rural leadership, its types, and its role in community empowerment.
3. To familiarize students with techniques of creativity, problem-solving, and entrepreneurial thinking in rural contexts.
4. To enhance skills in project planning, change management, and mobilization of rural resources.
5. To examine the role of social, political, and institutional factors in promoting rural leadership and innovation.
6. To develop the ability to design and implement innovative initiatives for sustainable rural development.

Course Content

Unit I: Introduction to Innovation in Agriculture and Rural Development

L-8Hr

Concept and significance of innovation in agriculture and rural development; types of innovation including technological, process, product, and social; diffusion of innovation and adoption process in rural communities; role of government, NGOs, and agribusinesses in promoting innovation; challenges in implementing innovative practices in rural areas.

Unit II: Creativity and Problem-Solving Techniques

L-7Hr

Importance of creativity in agricultural and rural entrepreneurship; techniques to enhance creative thinking such as brainstorming, lateral thinking, mind mapping, and design thinking; problem identification and analysis; innovative approaches to overcome challenges in rural development and agribusiness.

Unit III: Rural Leadership Concepts and Theories

L-8Hr

Definition and significance of rural leadership; characteristics and types of leaders in rural contexts; leadership theories including trait, behavioural, contingency, transformational, and situational approaches; role of leadership in motivating and mobilizing rural communities; ethical and inclusive leadership practices; integration of leadership with social innovation initiatives.

Unit IV: Community Mobilization and Participatory Approaches

L-8Hr

Techniques of community mobilization, participatory rural appraisal (PRA), and stakeholder engagement; building trust and collaboration among rural groups; fostering collective decision-making and problem-solving; strategies for empowering farmers, women, and youth; role of leadership in facilitating social innovation; use of digital tools and knowledge networks to support participatory approaches.

Unit V: Innovation Management in Rural Enterprises and Contemporary Issues

L-8Hr

Planning, designing, and implementing innovative projects in rural areas; project management tools and techniques; resource mobilization and utilization; monitoring, evaluation, and scaling up of successful innovations; integrating technology, sustainability, and market-oriented solutions for rural development; contemporary challenges and opportunities in fostering rural leadership and innovation; case studies of successful rural leaders, social entrepreneurs, and innovative community projects; lessons for replication and sustainability.

Suggested Readings / Reference Books

1. Drucker, P.F., Innovation and Entrepreneurship, Harper Business, 2020.
2. Kumar, S., Rural Leadership and Development, Agrotech Publishing, 2021.
3. Tiwari, R., Innovation Management in Agriculture, Rawat Publications, 2020.
4. Biswas, D., Rural Leadership and Social Innovation, Himalaya Publishing House, 2019.
5. Luthans, F., Organizational Behavior, McGraw Hill Education, 13th Edition, 2021.
6. Kotler, P., Keller, K.L., Marketing Management for Rural Enterprises, Pearson, 16th Edition, 2022.
7. FAO, Innovation in Agriculture and Rural Development, FAO Publications, 2021.
8. Tripathi, P.C., & Reddy, P.N., Principles of Management, McGraw Hill Education, 2020.

RANI RASHMONI GREEN UNIVERSITY

PGD-AMM: SECOND SEMESTER

(Effective from 2025–26)

Paper Code: PGD-AMM 206

Subject: Summer Internship and Viva -Voce

Full Marks: 100

No. of Classes: 40 Hours

Credits: 4

Course Objectives of Summer Internship

1. To enhance and improve the skill set and knowledge of management students.
2. To boost students' performance and help them achieve their career objectives.
3. To provide the best way for students to gain mastery in their field of study.
4. To build confidence among students through practical learning.
5. To equip students with the latest techniques, skills, and methodologies.
6. To develop a strong foundation for long-term career growth.
7. To transform students into professionals in their specialized area by the end of the training.

Note:

'Summer Internship Project' will be of 4-weeks duration and the period to be decided by the Department, preferably during the months of April every year. Students are supposed to prepare a project report and the project topic will be decided mutually between students and industry concerned and the project will be monitored by the internal faculty members. The project report will be evaluated by the internal and external examiners. The students need to submit two hard copies of the report.

Course Objectives of Viva Voce

1. The main objective of the project presentation and viva is to evaluate the training performance of the students.
2. It helps to assess whether the students have gained practical knowledge from the training they have undergone.
3. Students are required to present a report before the examiners.
4. The presentation and viva serve as a tool for evaluation of both theoretical understanding and practical exposure.

Note:

Students are supposed to present their project report (through Power Point) before the internal and external examiners followed by viva-voce. 50 marks will be assigned for project report and 50 will be assigned for Viva Voce.