CENTRAL UNIVERSITY OF PUNJAB



MBA Agribusiness

Batch - 2023

Department of Applied Agriculture

Graduate Attributes

The graduates of the Master of Business Administration in Agribusiness will acquire the following:

Context of Society

The students of this programme will understand the significant role of business, management, marketing, finance, and human resource for agriculture-based business environment. There will be an understanding of the basics of business ethics, research ethics, agriculture issues, and the principles of managerial practice.

Enterprising and Knowledgeable

The programme content will train learners and develop skills of agribusiness professionals. This will enhance employability in the field of agribusiness and marketing. The programme will enable students to get adopted in the area of Agribusiness as professionals (e.g., managers, agripreneurs, industry advisors, agribusiness policy makers, etc.). The emphasis is on student-centric learning where they solve the situational based problems of the sector and discuss the new innovative solutions.

Digital and Research Methodology-based skills

The students will be able to study and learn the effective use of digital tools to support academic writing, reference management and independent study using digital resources and learning materials. The understanding of the principles of business/management research methods will help the students to explore agribusiness relevant research areas and solve grassroot and industrial issues.

Course Structure

MBA (AGRIBUSINESS)

	SEMES	TER I					
Course	Course Title	Type of	Hours			Credits	
Code	Gourse Title	Course	L	Т	P	Greats	
ABM.507	Marketing Management	Core	3	0	0	3	
ABM.508	Principles of Management and	Core	3	0	0	3	
115111.500	Organizational Behaviour	dore			O	3	
ABM.509	Managerial Economics	Core	3	0	0	3	
ABM.513	Managerial Accounting and	Core	3	0	0	3	
115111010	Financial Management				J	J	
CST.501	Computer Applications	Compulsory	3	0	0	3	
001.001	compared rependancing	Foundation				J	
STA.503	Statistics for Sciences	Compulsory	3	0	0	3	
		Foundation				-	
XXX	Individualized Education tutorial	Non-credit	0	2	0	NC	
Students nee	d to opt for any one of following Disciplin	e Elective Courses		1			
ABM.555	Agri-Supply Chain Management						
ABM.556	International Trade in Agriculture	Discipline	3	0	0	3	
ABM.576	Agricultural Input Marketing	Elective				-	
ABM.577	Management of Contract						
110141.57 /	Farming						
	Total Credits	•	21	2	0	21	

MBA (AGRIBUSINESS)

	SEMES	STER II				
Course	Course Title	Type of Course	Hours			Credits
Code			L	T	P	
ABM.524	Production and Operations Management	Core	3	0	0	3
ABM.525	Human Resource Management	Core	3	0	0	3
ABM.529	Agribusiness Environment and Policy	Core	3	0	0	3
ABM.552	Strategic Management	Core	3	0	0	3
ABM.530	Agripreneurship Development Course		2	0	0	2
XXX	Inter-Disciplinary Course	IDC	2	(0	2
ABM.514	Entrepreneurial Opportunities in Agriculture Sector (For students of other departments)	IDC	2		0	2
XXX	Individualized Education tutorial	Non-credit	0	4	0	NC
Students nee	ed to opt for any one of following Discipl	ine Elective Courses				
ABM.551 ABM.557	Operations Research Commodity Markets and Futures Trading	Discipline Elective	3	0	0	3
ABM.572	Business Laws and Ethics					
ABM.591	Rural Immersion Module	Skill Based	0	0	4	2
	Total Credits	1	19	2	4	21

MBA (AGRIBUSINESS)

SEMESTER III						
Course	Course Title	Type of Course	ŀ	lours		Credits
Code			L	T	P	
ABM.521	Business Research	Core	3	0	0	3
	Methods					-
ABM.553	Agricultural Marketing	Core	3	0	0	3
	Management					_
	Value Added Course	Elective				
XXX	value fladed dourse	Foundation	2	0	0	2
		(Value Added)				
XXX	Individualized Education	Non-credit	0	2	0	NC
	tutorial					
Students nee	d to opt for any one of following	Discipline Elective Cou	ırses			
ABM.559	Rural Marketing					
ABM.560	Project Management					
1511	Introductory Food	Discipline	3	0	0	3
ABM.561	Preservation, Safety and Quality	Elective				
	Quanty					
ABM.575	Food Retail Management					
	'	-	l	<u>.</u>	ı	
ABM.592	Summer Internship	Skill Based	0	0	12	6
ABM.600	Dissertation Part I	Skill Based	0	0	8	4
	Total Credits	•	11	2	20	21

MBA (AGRIBUSINESS)

	SEMESTER IV					
Course	Course Title	Type of Course		Hou	rs	Credits
Code	Gourse True	Type of course	L	T	P	Greates
ABM.601	Dissertation Part II	Skill Based	0	0	40	20
	Total Credits		0	0	40	20

Total Credits = 21 + 21 + 21 + 20 = 83

L = Lecture; T = Tutorial; P = Practical

Note:

- 1. The Discipline Electives will be chosen by the student among those being offered by the Department in a particular Academic Session/Semester depending upon the infrastructure and academic expertise of the faculty members available in the Department. The decision of Department regarding Electives to be final and binding to the concerned.
- 2. Rural Immersion Module has to be carried out separately during the Winter Break (After completion of First Semester)
- 3. Summer Internship has to be carried out separately during the Summer Break (After completion of Second Semester)
- 4. MOOCs may be taken up to 40% of the total credits (excluding dissertation credits). MOOC may be taken in lieu of any course but content of that course should match a minimum 70%. Mapping will be done by the department and students will be informed accordingly.

Examination pattern and evaluation for Masters' students from 2023-24 session onwards Formative Evaluation: Internal assessment shall be 25 marks using any two or more of the given methods: tests, open book examination, assignments, term paper, etc. The Midsemester test shall be descriptive type of 25 marks including short answer and essay type. The number of questions and distribution of marks shall be decided by the teachers.

Summative Evaluation: The End semester examination (50 marks) with 70% descriptive type and 30% objective type shall be conducted at the end of the semester. The objective type shall include one-word/sentence answers, fill-in the blanks, MCQs', and matching. The descriptive type shall include short answer and essay type questions. The number of questions and distribution of marks shall be decided by the teachers. Questions for exams and tests shall be designed to assess course learning outcomes along with focus on knowledge, understanding, application, analysis, synthesis, and evaluation.

The evaluation for IDC, VAC and entrepreneurship, innovation and skill development courses shall include MST (50 marks) and ESE (50 marks). The pattern of examination for both MST and ESE shall be same as ESE described above for other courses.

Evaluation of dissertation proposal in the third semester shall include 50% weightage by supervisor and 50% by HoD and senior-most faculty of the department. The evaluation of dissertation in the fourth semester shall include 50% weightage for continuous evaluation by the supervisor for regularity in work, mid-term evaluation, report of dissertation, presentation, and final viva-voce; 50% weightage based on average assessment scores by an external expert, HoD and senior-most faculty of the department. Distribution of marks is based on report of dissertation (30%), presentation (10%), and final viva-voce (10%). The external expert may attend final viva-voce through offline or online mode.

Examination pattern from 2022-23 session onwards

Core, Discipline	Elective	, and Compulsory	IDC, VAC	C, and Entrepreneurship,
Foundation Course:	S		Innovation	and Skill Development
			Courses	
	Marks	Evaluation	Marks	Evaluation
Internal	25	Various methods	-	-
Assessment				
Mid-semester test	25	Descriptive	50	Descriptive (70%)
(MST)				Objective (30%)
End-semester	50	Descriptive (70%)	50	Descriptive (70%)
exam (ESE)		Objective (30%)		Objective (30%)

Dissertation Semester)	Propos	sal (Third	Dissertation (For	urth Sem	nester)
	Mark s	Evaluation		Mark s	Evaluation
Supervisor	50	Dissertation proposal and presentation	Supervisor	50	Continuous assessment (regularity in work, mid-term evaluation) dissertation report, presentation, final vivavoce
HoD and senior-most faculty of the department	50	Dissertation proposal and presentation	External expert, HoD and senior-most faculty of the department	50	Dissertation report (30), presentation (10), final viva-voce (10)

Rural Immersion Module (Skill-based)			
	Marks	Evaluation	
Continuous Assessment	50	Reporting (10), Field Visits (40)	
Presentation	20	Presentation skills (10), Response to queries (10)	
Report	30		

Summer Internship (Skill-based)				
	Marks	Evaluation		
Continuous Assessment	50	Internship Reporting (40), Certificate (10)		
Presentation	20	Presentation skills (10), Response to queries (10)		
Report	30			

Marks for internship shall be given by the supervisor, HoD and senior-most faculty of the department.

Some Guidelines for Internal Assessment

- 1. The components/pattern of internal assessment/evaluation should be made clear to students during the semester.
- 2. The results of the internal assessment must be shown to the students.
- 3. The question papers and answers of internal assessment should be discussed in the class.
- 4. The internal assessment shall be transparent and student-friendly and free from personal bias or influence.

SEMESTER-I

Course Code: ABM.507

Course Title: Marketing Management

Total Hours - 45

L	T	P	Cr
3	0	0	3

Course Learning Outcomes (CLO):

After completion of the course, the students will be able to:

CLO1: Assess the importance of marketing, pricing, advertising, forecasting and development of new and existing products and services for the industry.

CLO2: Analyzing various alternatives at managerial roles in the industrial and corporate sector.

CLO3: Interpret the depth knowledge of branding.

Unit/ Hours	Contents	Mapping with CLO
I 11 Hours	Introduction to Marketing; Understanding the Marketing Environment; Marketing Mix; Market Segmentation, Targeting and Positioning; Consumer Behaviour; Recent trends in Marketing; Rural Marketing. Learning Activities: Case study, Group discussions, Student presentations.	CLO1
II 11 Hours	Product; Classification of Products; New Product Development; Product Life Cycle; Product Line; Product Mix; Branding, Packaging and Labelling; Pricing; Factors affecting prices; Pricing Methods. Learning Activities: Assignment on branding, Case study, Group discussions.	CLO1 CLO3
III 11 Hours	Distribution Channels; Types of Distribution Channels; Channel Management Decisions; Promotion; Promotion Mix; Advertising; Personal Selling; Sales Promotion; Publicity; Public Relations. Learning Activities: Assignment on distribution networks, Case study, Group discussions.	CLO2
IV 12 Hours	Customer Relationship Management; Marketing Information System; Marketing Research; E- Marketing (Online Marketing); Green Marketing;	CLO2

Consumerism; Ethics in Marketing.	
Learning Activities: Student presentations.	

- 1. Ghosh P. K., (2002). Industrial Marketing. Oxford University Press, New Delhi.
- 2. Kotler, P. & Keller, K., (2015) Marketing Management. *Pearson Publishers*, New Delhi.
- 3. Neelamegham, S., (1988). Marketing in India: Cases and Readings, Vikas, New Delhi.
- 4. Palmere, A., (2011). Principles of Service Marketing. Oxford University Press.
- 5. Ramaswamy, V. S. and Namakumari, S., (2002). Marketing Management, Planning and Control. Macmillan India Ltd., New Delhi.

Modes of transaction:

- Classroom lecture
- Problem solving practices
- Group discussion
- Self-learning
- Peer learning
- Games and Role plays
- Lecture-cum-demonstration
- Brainstorming
- Case study discussion and analysis

Tools used:

Course Title: Principles of Management and Organizational

Behaviour

Total Hours - 45

L	T	P	Cr
3	0	0	3

Course Learning Outcomes (CLO):

After completion of the course, the students will be able to:

CLO1: Interpret management level activities in an organised manner such as planning, directing, controlling the human and other resources in an organization.

CLO2: Assess the behavior of employees, their needs and rewards.

CLO3: Support and accomplishing the goals of both the employees & organization.

CLO4: Adapt Knowledge management and the ways to serve society under CSR.

Unit/ Hours	Contents	Mapping with CLO
I 11 Hours	Management – Nature, Scope, Significance and Functions; Management Theories; Management By Objectives (MBO); Planning; Organizing; Directing; Staffing; Controlling; Reviewing; Budgeting. Learning Activities: Role play, Case study, Group activities.	CLO1
II 11 Hours	Types of Organization; Motivation; Decision Making; Organizational Communication; Corporate Social Responsibility (CSR); Centralisation and Decentralization. Learning Activities: Discussion upon CSR initiatives adopted by different organisations, Case study.	CLO1 CLO4
III 11 Hours	Introduction to Organizational behaviour; Individual Behaviour; Personality; Perception; Values; Attitude; Emotions; Groups; Teams. Learning Activities: Exercise on team building, Case study, Group discussions.	CLO2
IV 12 Hours	Globalization; Diversity; Ethics; Organizational Culture; Managing Conflict; Negotiation skills;	CLO3

Stress Management; Power and Politics. **Learning Activities:** Student presentations, Group discussions.

Suggested Readings:

- 1. Cherunilam, F., 1993, Organisational Behaviour, Himalaya Publishing House, New Delhi.
- 2. Greenberg, J., 2013, Behavior in Organisations, PHI Learning Private Limited, New Delhi.
- 3. Harold, K. and Weirich, H.,2005, Management A Global Perspective, McGraw Hill Education, 11th edition.
- 4. John A. Wagner III, J. A. andHollenbeck, J. R., 2015, Organizational Behaviour, Routledge Taylor & Francis Group, New York.
- 5. Kolb, D., 1991, Organizational Behaviour: Practical Readings for Management, 5th Englewood Cliffs, New Jersey, PHI.
- 6. Luthans, F., 2013, Organisational Behaviour, Prentice Hall of India, 12th Edition, New Delhi.
- 7. Mainiero, L. A. and Tromley C. L., 1985, Developing Management Skill in OB, New Delhi, PHI.
- 8. Meena Sharma, 2016, Principles of Management, First Edition, Himalaya Publishing House, New Delhi.
- 9. Neck, C. P., Houghton, J.D. and Murray E.L., 2017, Organizational behavior, Sage Publication India Private Limited.
- 10. Robbins, S.P. and Vohara, N.,2011, Organisational Behaviour, Pearson Education, New Delhi.

Modes of transaction:

- Classroom lecture
- Problem solving practices
- Group discussion
- Self-learning
- Peer learning
- Games and Role plays
- Lecture-cum-demonstration
- Brainstorming
- Case study discussion and analysis

Tools used:

Course Title: Managerial Economics

Total Hours - 45

L	T	P	Cr
3	0	0	3

Course Learning Outcomes (CLO):

After completion of the course, the students will be able to:

CLO1: Identify the concepts concerned with the production, consumption, forecasting the demand & supply of the products and services.

CLO2: Analysis of various economic factors and functions.

CLO3: Formulate the business policies for industry purposes and also the course will guide in academic research.

CLO4: Calculations of various Incomes & Indexes.

Unit/ Hours	Contents	Mapping with CLO
I 12 Hours	Introduction to Micro Economics, Macro Economics and Managerial Economics - Definitions, Nature of managerial economics. Learning Activities: Peer discussion, Classroom assignments.	CLO1
II 11 Hours	Demand Analysis – Demand Schedule, Curve, Law of Demand, Exceptions to the Law of Demand, Demand Function & Elasticity of Demand, Demand Forecasting. Supply Analysis – Supply Schedule, Curve, Law of Supply, Supply Function, & Elasticity of Supply. Production Analysis – Factors of Production, Production Function, Short run - Law of Variable Proportions and Long run - Law of Returns to Scale. Learning Activities: Exercise on demand and supply forecasting, Research article reviews, Group discussion.	CLO1 CLO2
III 11 Hours	Cost Concept- Types, Function, Cost - Output Relationship in The Short Run, Cost - Output Relationship in The Long Run. Forms of Market and Price Determination under Perfect Competition, Monopoly, Monopolistic Competition and Oligopoly; Pricing Strategies. Learning Activities: Exercise on cost estimation,	CLO3

	Case study, Group discussion.	
IV 11 Hours	Macroeconomics: Meaning, nature and scope, National income: Concepts, measurement, difficulties and importance; WPI (Wholesale Price Index), CPI (Consumer Price Index); Inflation; Business cycles and business policies. Learning Activities: Student presentations.	CLO4

- 1. Barwell and Richard, 2016, Macroeconomic policy after the crash: Issues in monetary and fiscal policy, Palgrave Macmillan Publishers, New Delhi.
- 2. Chauhan, M. S., 2014, Micro Economics: A Brief Study. Global Publications, New Delhi.
- 3. D'Souza, E., 2009, Macroeconomics, Pearson Education, New Delhi.
- 4. Damodaran, S., 2007, Managerial Economics. Oxford: New Delhi.
- 5. Dwivedi, DN. 2015, Managerial Economics. 8th Edition, Vikash Publishing House, New Delhi.
- 6. Gupta G.S., 2014, Macroeconomics Theory and Applications, Tata McGraw Hill, New Delhi.
- 7. Gupta S.B., 2009, Monetary Economics: Theory, Policy and Institutions, S. Chand, New Delhi.
- 8. Shapiro, E., 2013, Macroeconomic Analysis, Galgotia, New Delhi.
- 9. Vaish, M.C., 2010, Macroeconomic Theory, Vikas Publications, New Delhi.

Modes of transaction:

- Classroom lecture
- Problem solving practices
- Group discussion
- Self-learning
- Peer learning
- Games and Role plays
- Lecture-cum-demonstration
- Brainstorming
- Case study discussion and analysis

Tools used:

Course Title: Managerial Accounting and Financial

Management
Total Hours - 45

L	T	P	Cr
3	0	0	3

Course Learning Outcomes (CLO):

After completion of the course, the students will be able to:

CLO1: Compare and contrast techniques of financial statement analysis.

CLO2: Apply budgetary control and standard costing techniques in

managerial decision making.

CLO3: Compare and contrast various financial goals.

CLO4: Examine the relevance of capital budgeting techniques.

CLO5: Evaluate the significance of working capital management.

Unit/ Hours	Contents	Mapping with CLO
I 11 Hours	Management Accounting: Meaning, Function, Scope, Utility, Limitation and Tools of Management Accounting, Relationship among various streams of accounting, Analysis of Financial Statement: Ratio Analysis, Common Size Statement, Cash Flow Statement and Fund Flow Statement. Learning Activities: Peer discussion, Classroom assignments.	CLO1
II 10 Hours	Introduction to Financial Management, Its meaning and functions, Interface of financial management with other functional areas of a business. Measures of Return and Risk. Determinants of required rate of return, Relationship between Risk and Return. Risk Analysis and its measures. Learning Activities: Exercise on demand and supply forecasting, Research article reviews, Group discussion.	CLO1
III 12 Hours	Capital Structure, Determinants of size and composition of Capital Structure, Capital Structure Theories; Long term financing and Cost of Capital. Working Capital Management, Determinants of Size and Composition of Working	CLO3 CLO4 CLO5

	Capital, Cash and receivables management, Working Capital Management Theories, Financing of Working Capital. Learning Activities: Exercise on cost estimation, Case study, Group discussion.	
IV 12 Hours	Financial planning and Forecasting, Financial planning for mergers & acquisition, Capital Budgeting, Undiscounted and Discounted cash flow methods of Investment Appraisal; - Urgency, Pay Back periods, ARR, NPA, IRR, Portfolio Analysis, B.C. Ratio, Sensitivity Analysis., Hybrid finance and lease finance. Learning Activities: Student presentations.	CLO2

- 1. Berk J., Harford J. & Marzo P.D., Fundamentals of Corporate Finance, Pearson Education, 2019 (3/e).
- 2. Garrison R.H., Noreen E., Brewer P.C., Managerial Accounting, McGraw Hill, 2016, (14/e).
- 3. Hilton R.W. & Platt D., Managerial Accounting: Creating Value in dynamic Business Environment, McGraw Hill, 2017, (10/e)
- 4. Horngreen C.T., Introduction to Management Accounting. Pearson Education, 2014 (16/e).
- 5. Khan, M.Y, Jain, P K, Management Accounting -Text Problems & Cases, Tata McGraw Hill, 2010.
- 6. Pandey, I. M. 2014, Management Accounting. Vikas Publishing House, New Delhi.
- 7. Shah P., Management Accounting, Oxford University Press, 2015 (2nd Edition)
- 8. Titman S., Keown A.J. & Martin J.D., Financial Management: Principles and Applications, Pearson Education, 2019, (13/e).

Modes of transaction:

- Classroom lecture
- Problem solving practices
- Group discussion
- Self-learning
- Peer learning
- Games and Role plays
- Lecture-cum-demonstration

- Brainstorming
- Case study discussion and analysis

Tools used:

Course Code: CST.501

Course Title: Computer Applications

Total Hours - 45

L	T	P	Cr
3	0	0	3

Course Learning Outcomes (CLO):

After completion of the course, the students will be able to:

CLO1: Use different operating system and their tools easily.

CLO2: Use word processing software, presentation software, spreadsheet

software and latex.

CLO3: Understand networking and internet concepts.

CLO4: Use computers in every field like teaching, industry and research.

Knowledge of E-commerce, digital marketing, and AI

Unit/ Hours	Contents	Mapping with CLO
I 11 Hours	Computer Fundamentals: Introduction to Computer, Computer Architecture, Input/Output Devices, Memory (Primary & Secondary), Concept of Hardware and Software, Programming Languages (Low and High level), Compiler, Interpreter, Assembler. Application Software: Use of word processing software (MS Word) for creating reports and technical papers with the help of reference managers (Mendeley), Use of statistical packages (MS Excel) for analysis & visualization of data. Learning Activities: Analysis of various tools and Case Studies	CLO1
II 11 Hours	Information Technology: Overview of IT concepts, Internet Basics, Definition and importance of cybersecurity, Introduction to cybersecurity threats and vulnerabilities, Identifying & Protecting potential cyber threats in food technology systems. Learning Activities: Assignment-based learning	CLO2 CLO3
III 11 Hours	 Data Processing: Importance and applications of data processing in food technology, Overview of data types and sources in the food industry, Introduction to software tools for data processing and analysis. Data Mining: Techniques for data collection in food technology, Data organization, storage, and retrieval, Data cleaning and pre-processing. 	CLO2

	Learning Activities: Group discussion	
IV 11 Hours	E-Commerce : Definition and scope of e-commerce, Evolution of e-commerce in the food industry, Benefits and challenges of e-commerce.	CLO4
	Digital Marketing : Search engine optimization (SEO) for food products, Social media marketing, Email marketing and newsletters, Online advertising and promotion strategies.	
	Artificial Intelligence : Introduction to AI, Need for AI, Introduction to Approaches of AI (Machine & Deep Learning) Applications of AI in Food Technology.	
	Learning Activities: Case Studies	

- 1. Sinha, P.K. Computer Fundamentals. BPB Publications.
- 2. Goel, A., Ray, S. K. 2012. Computers: Basics and Applications. Pearson Education India.
- 3. Computer Organization & Architecture –Designing & Performance, William Stallings, Prentice Hall of India.
- 4. Alfred Glkossbrenner- Internet 101 Computing MGH, 1996
- 5. Lucas. 2004. Information Technology for Managemenf. McGraw Hill.
- 6. Norton P. 1998. Introduction to Computers. 2nd Ed. Tata McGraw Hill.
- 7. Rajaraman V. 2006. Introduction to Information Technology. Prentice Hall of India.
- 8. Microsoft Office Professional 2013 Step by Step
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Modes of transaction:

- Classroom lecture
- Problem solving practices
- Group discussion
- Self-learning
- Peer learning
- Games and Role plays
- Lecture-cum-demonstration
- Brainstorming
- Case study discussion and analysis

Tools used:

Course Code: STA.503

Course Title: Statistics for Sciences

Total Hours - 30

L	T	P	Cr
3	0	0	3

Course Learning Outcomes (CLO):

After completion of the course, the students will be able to:

CLO1: The students will be able to apply statistical principles and procedures for solving business and management problems.

Unit/ Hours	Contents	Mapping with CLO
I 11 Hours	Descriptive Statistics: Meaning, need and importance of statistics. Attributes and variables. Measurement and measurement scales. Collection and tabulation of data. Diagrammatic representation of frequency distribution: histogram, frequency polygon, frequency curve, ogives, stem and leaf plot, pie chart. Learning Activities: Exercise on data collection, tabulation and presentation.	CLO1
II 11 Hours	Measures: Measures of central tendency, dispersion (including box and whisker plot), skewness and kurtosis. Linear regression and correlation (Karl Pearson's and Spearman's) and residual plots. Learning Activities: Statistical application and Testing with experimental data.	CLO1
III 11 Hours	Random variables and Distributions: Discrete and continuous random variables. Discrete Probability distributions like Binomial, Poisson and continuous distributions like Normal, F and student-t distribution. Learning Activities: Classroom exercise and discussions.	CLO1
IV 12 Hours	Differences between parametric and non- parametric statistics. Confidence interval, Errors, Levels of significance, Hypothesis testing. Parametric tests: Test for parameters of Normal population (one sample and two sample problems)	CLO1

z- test, student's t-test, F and chi-square test and Analysis of Variance (ANOVA). Non-Parametric tests: One sample: Sign test, signed rank test, Kolmogrov- Smirnov test, run test. Critical difference (CD), Least Significant Difference (LSD), Kruskal-Wallis one-way ANOVA by ranks, Friedman two-way ANOVA by ranks.

Learning Activities: Statistical application and Testing with experimental data.

Recommended Books:

- 1. P. L. Meyer, Introductory Probability and Statistical Applications, Oxford & IBH Pub, 1975.
- 2. R. V. Hogg, J. Mckean and A. Craig, Introduction to Mathematical Statistics, Macmillan Pub. Co. Inc., 1978.

Suggested Readings:

- 1. F. E. Croxton and D. J. Cowden, Applied General Statistics, 1975.
- 2. P. G. Hoel, Introduction to Mathematical Statistics, 1997.

Modes of transaction:

- Classroom lecture
- Problem solving practices
- Group discussion
- Self-learning
- Peer learning
- Games and Role plays
- Lecture-cum-demonstration
- Brainstorming
- Case study discussion and analysis

Tools used:

Course Title: Agri-Supply Chain Management

Total Hours - 45

L	T	P	Cr
3	0	0	3

Course Learning Outcomes (CLO):

After completion of the course, the students will be able to:

CLO1: Manage the flow of goods and services, process of conversion of resources and efficiently running supply to deliver products to the end-user at a low cost.

CLO2: Develop various supply chain models and their applications.

CLO3: Formulate Inventory management techniques to control the quality and minimize the cost of handling.

CLO4: Evaluate performance measurement of different methods of SCM.

Unit/ Hours	Contents	Mapping with CLO
I 10 Hours	Supply Chain: Changing Business Environment; SCM: Present Need; Conceptual Model of Supply Chain Management; Evolution of SCM; SCM Approach; Traditional Agri. Supply Chain Management Approach; Modern Supply Chain Management Approach; Elements in SCM. Learning Activities: Peer discussion, Student presentations.	CLO1
II 12 Hours	Demand Management in Supply Chain: Types of Demand, Demand Planning and Forecasting; Operations Management in Supply Chain, Basic Principles of Manufacturing Management. Procurement Management in Agri. Supply chain: Purchasing Cycle, Types of Purchases, Classification of Purchases Goods or Services, Traditional Inventory Management, Material Requirements Planning, Just in Time (JIT), Vendor Managed Inventory (VMI). Learning Activities: Exercise on demand and supply forecasting, Case study, Group discussion.	CLO2 CLO3
III 11 Hours	Logistics Management: History and Evolution of Logistics; Elements of Logistics; Management; Distribution Management, Distribution Strategies; Pool Distribution; Transportation Management;	CLO2 CLO3

	Fleet Management; Service Innovation; Warehousing; Packaging for Logistics, Third-Party Logistics (TPL/3PL); GPS Technology. Learning Activities: Case study, Group discussion.	
IV 12 Hours	Concept of Information Technology: IT Application in SCM; Advanced Planning and Scheduling; SCM in Electronic Business; Performance Measurement and Controls in Agri. Supply Chain Management- Benchmarking: introduction, concept and forms of Benchmarking. Learning Activities: Case study, Student presentations.	CLO4

- 1. Acharya, S. S., and Agarwal, N. L., 2011, Agricultural marketing in India. Oxford and IBH.
- 2. Altekar, R. V., 2006, Supply Chain Management: Concepts and Cases. PHI.
- 3. Chopra, S., Meindl, P. and Kalra, D. V., 2016, Supply chain management: Strategy, Planning, and Operation, Pearson Education India.
- 4. Monczka, R., Trent, R. and Handfield, R., 2002, Purchasing and Supply Chain Management. Thomson Asia.
- 5. Van Weele, A. J., 2000, Purchasing and Supply Chain Management Analysis, Planning and Practice, Vikas Publ. House.

Modes of transaction:

- Classroom lecture
- Problem solving practices
- Group discussion
- Self-learning
- Peer learning
- Games and Role plays
- Lecture-cum-demonstration
- Brainstorming
- Case study discussion and analysis

Tools used:

Course Title: International Trade in Agriculture

Total Hours - 45

L	T	P	Cr
3	0	0	3

Course Learning Outcomes (CLO):

After completion of the course, the students will be able to:

CLO1: Interpret international trade concepts, policies to assist them in decision making and framing strategies in their managerial roles.

CLO2: Assess functions of various agencies in international trade and their challenges which can be useful in decision making in any organization.

CLO3: Determine the demand, supply, opportunity and various cost factors of the foreign markets.

CLO4: Discuss different methods to enter the international markets based on the nature of operations.

Unit/ Hours	Contents	Mapping with CLO
I 10 Hours	International trade – basic concepts, Importance of foreign trade for developing economy; absolute and comparative advantage, foreign trade of India. WTO and its implications for Indian economy in general and agriculture sector in particular. Competitive environmental forces in global business-Political, Economic, regional economic integration, cultural and human factors Learning Activities: Peer discussion, Case study.	CLO1
II 12 Hours	TRIPS, TRIMS quotas, anti-dumping duties, quantitative and qualitative restrictions, tariff and non-tariff measures, trade liberalization, subsidies, green and red boxes, issues for negotiations in future in WTO; Countervailing Duty Measures and carbon trade, SPS Agreement. Regional economic groupings, World Financial Environments- Foreign Exchange market; International monetary system; Global Capital Market Learning Activities: Peer discussion, Student Presentations, Case study	CLO2
III 11 Hours	Composition of India's foreign trade policy; India's	CLO3

balance of payments; inter regional international trade; tariffs and trade control; exchange rate; the foreign trade multiplier, export promotion institutions with special emphasis on EPCs and commodity boards, MPEDA, APEDA and service institutes, procedures export documentations, Role of ECGC in insurance, Backward linkages towards promotion of food quality and exports in India **Learning Activities:** Case study, Research article reviews, Group discussion. IV CLO₄ Foreign demand. supply side analysis, 12 Hours opportunity cost, trade and factor prices, implications for developing countries, Issues and challenges encountered by exporters of agri- food products in meeting buyers requirement in different markets, International marketing market entry methods, international product planning, pricing, promotion, distribution, legal dimensions of international marketing, Strategy and Structure of International Business **Learning Activities:** Peer discussion, Case study, Research article reviews, Group discussion.

Suggested Readings:

- 1. Anant, K., Sundaram and Stewart, B. J., 2010, The International Business: Text and cases, PHI.
- 2. Bhalla V. K., 1993, International Economy- Liberalisation Process. Anmol, New Delhi.
- 3. Cherunilam, F., 2010, International Business-Text and Cases. PHI.
- 4. Economic Survey of India (various issues), Ministry of Finance, GOI.
- 5. Eiteman, D. K. and Stopnehill, A. L., 1986, Multinational Business Finance. Addition Wesley, New York.
- 6. Paul, J., 2013, International Business. PHI.
- 7. Subba Rao, P., 2008, International Business Text and Cases. HPH.
- 8. Woods, M., 2001, International Business. Palgrave. 9. Matthews, A. (2014). Food security and WTO domestic support disciplines post-Bali. Geneva: International Centre for Trade and Sustainable Development.

Modes of transaction:

- Classroom lecture
- Problem solving practices
- Group discussion
- Self-learning
- Peer learning
- Games and Role plays
- Lecture-cum-demonstration
- Brainstorming
- Case study discussion and analysis

Tools used:

Course Title: Agricultural Input Marketing

Total Hours - 45

L	T	P	Cr
3	0	0	3

Course Learning Outcomes (CLO):

After completion of the course, the students will be able to:

CLO1: Learn the importance of agri inputs, their marketing to support the agri industry by meeting various inputs needs to different organisations and responding to rapid changes.

CLO2: Understand the different types of agriculture input and their use.

CLO3: Understand the role of government, their policies and other agencies in this sector.

CLO4: Understand the various companies which are functioning in the agriinput sector.

Unit/ Hours	Contents	Mapping with CLO
I 10 Hours	Agricultural input marketing – meaning and importance; Management of distribution channels for agricultural input marketing; Agricultural Inputs and their types – farm and non-farm, public and private sectors in agri- input marketing. Marketing channels for different agri-inputs, Competitive marketing strategy and advancement in agricultural marketing, IPRs in agricultural inputs. Learning Activities: Case study, Group discussion, Field exercise.	CLO1
II 12 Hours	Seed- Importance of seed input; Types of seedshybrid, high yielding and quality seeds; Demand and supply of seeds; Seed marketing channels, pricing, export import of seeds; Role of National Seed Corporation and State Seed Corporation, Contemporary Promotional activities by various seed companies, Government policies and schemes regarding seed marketing for various stakeholders. Bio inputs and current scenario. Learning Activities: Exercise on seed demand and supply forecasting, Seed company and	CLO2 CLO3 CLO4

	industry analysis, Group discussion.	
III 12 Hours	Chemical Fertilizers- Production, export-import, supply of chemical fertilizers, Demand/consumption, Prices and pricing policy; subsidy on fertilizers; marketing system – marketing channels, problems in distribution; Role of IFFCO and KRIBCO in fertilizer marketing, Different government policies and schemes, Contemporary Promotional activities by various fertilizer companies. Plant Protection Chemicals- Production, export/import, consumption, and marketing system – marketing channels. Learning Activities: Visits of local fertilizer and pesticides retail shops, Fertilisers and Pesticides company and industry analysis, Group discussion.	CLO2 CLO3 CLO4
IV 11 Hours	Farm Machinery- Production, supply, demand, Marketing and distribution channels of farm machines; Agro-industries Corporation and marketing of farm machines / implements/Equipments, Various government policies and schemes. Learning Activities: Visits of local farm machinery manufacturing units, Farm machinery company and industry analysis, Group discussion, Student presentations.	CLO2 CLO3 CLO4

- 1. Acharya, S. S. and Agarwal, N. L., 2011. Agricultural Marketing in India. 4th Ed. Oxford and IBH.
- 2. Broadway A. C. and Broadway, A. A., 2003, A Text Book of Agri-Business Management. Kalyani.
- 3. Singh Sukhpal, 2004, Rural Marketing- Focus on Agricultural Inputs. Vikas Publ. House.
- 4. Singh, A. K. and Pandey, S., 2005. Rural Marketing. New Age.
- 5. Venugopal, P. and Kaundinya, R., 2014, Agri-Input Marketing in India. Sage.

Modes of transaction:

- Classroom lecture

- Problem solving practices
- Group discussion
- Self-learning
- Peer learning
- Games and Role plays
- Lecture-cum-demonstration
- Brainstorming
- Case study discussion and analysis

Tools used:

Course Title: Management of Contract Farming

Total Hours - 45

L	T	P	Cr
3	0	0	3

Course Learning Outcomes (CLO):

After completion of the course, the students will be able to:

CLO1: Assess various agreements made between a buyer and farmers and their conditions to produce the agreed quantities.

CLO2: Introduce the regulations and formalities to be followed to make contracts.

CLO3: Manage a farm through contracts and get the work done through the contract farming.

CLO4: Apply management of project and analysing the issues of farmers under the contracts.

Unit/ Hours	Contents	Mapping with CLO
I 10 Hours	Concept and Logic of Contract Farming; Contract Farming – Past and Present; Advantages and Problems of Contract Farming - Advantages for farmers, Problems faced by farmers, Advantages for sponsors, Problems faced by sponsors. Learning Activities: Peer discussion, Case study, Classroom assignments.	CLO1 CLO2
II 12 Hours	Key Preconditions for Successful Contract Farming - Profitable market, Physical and Social Environments, Government support, Inventories of preconditions, Price fixation, Quality & Quantity Defaults; Conflict/dispute resolution Learning Activities: Case study, Research article reviews, Group discussion.	CLO3
III 12 Hours	Types of Contract Farming - Centralized Model, Nucleus Estate Model, Multipartite Model, Informal Model, Intermediary Model; Contracts and their Specifications - Legal framework, Formula, Format, Specifications, Model contract farming act 2018 and New Amendments. Learning Activities: Student presentations, Case study, Group discussion.	CLO1 CLO2

Protecting the environment. Learning Activities: Student presentations.		Managing the Project - Coordinating production, managing the agronomy, Farmer-management relations; Monitoring Performance - Monitoring quality and yields, monitoring human resources, Protecting the environment. Learning Activities: Student presentations.	
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- 1. Deshpande, C. S., 2005, Contract Farming as means of Value Added Agriculture, retrieved from https://www.nabard.org/pdf/OC%2042.pdf
- 2. FAO Agricultural Services Bulletin 145, 2017, Contract farming Partnerships for growth, retrieved from http://www.fao.org/docrep/014/y0937e/y0937e00.pdf
- 3. Rehber, E., 2007, Contract Farming: Theory and Practice, Icfai University Press
- 4. Singh, S., 2005, Contract Farming for Agricultural Development Review of Theory and Practice with Special Reference to India.
- 5. Singh, S., 2005, Political Economy of Contract Farming in India, Allied Pub. Pvt. Ltd.

Modes of transaction:

- Classroom lecture
- Problem solving practices
- Group discussion
- Self-learning
- Peer learning
- Games and Role plays
- Lecture-cum-demonstration
- Brainstorming
- Case study discussion and analysis

Tools used:

SEMESTER- II

Course Code: ABM.524

Course Title: Production and Operations Management

Total Hours - 45

L	T	P	Cr
3	0	0	3

Course Learning Outcomes (CLO):

After completion of the course, the students will be able to:

CLO1: Evaluate the need for creation of goods and services.

CLO2: Measure the production process by proper planning and utilization of raw material and human efforts in an organization.

CLO3: Assess the importance of quality and inspection in production activities.

CLO4: Invent efficient management of materials in all stages of production.

Unit/ Hours	Contents	Mapping with CLO
I 11 Hours	Nature and Scope of Production and Operations Management; Its relationship with other systems in the organization; Factors Affecting System and Concept of Production and Operation Management; Facility location, Types of Manufacturing Systems and Layouts, Layout Planning. Learning Activities: Peer discussion, Classroom assignments.	CLO1
II 11 Hours	Productivity Variables and Productivity Measurement, Production Planning and Control, Mass Production, Batch Production, Job Order Manufacturing, Product Selection, Product Design and Development, Process Selection. Learning Activities: Exercise on productivity measurement, Group discussion.	CLO2
III 12 Hours	Scheduling, Maintenance Management Concepts, Work Study, Approaches to quality management, Quality control: Statistical quality control, Total Quality Management, ISO 9000 series, Six Sigma. Introduction to re-engineering, value engineering. Learning Activities: Case study, Group	CLO3

	discussion, Student presentations.	
IV 11 Hours	An Overview of Material Management, Determination of Material Requirement, Purchase Management, Store Management, Logistics management, Material Planning and Inventory management, JIT and Lean Systems. Learning Activities: Case study, Group discussion, Student presentations.	CLO4

- 1. Adam, E. Everett, Ebert J. Ronald, 2003, Production and Operations Management concept, models, and behavior. Prentice Hall of India, New Delhi.
- 2. Aswathapa, K., 2005, Production & Operations Management. Himalaya Publishing House, New Delhi.
- 3. Buffa, E. S. and Sarin, R. K., 2010, Modern Production & operation Management. Wiley India Private Limited.
- 4. Chary S. N., 2000, Production & Operations Management. Tata McGraw hills, New Delhi.
- 5. Muhlemann, A., 2009, Production and Operations Management. Pearson Education, Delhi.

Modes of transaction:

- Classroom lecture
- Problem solving practices
- Group discussion
- Self-learning
- Peer learning
- Games and Role plays
- Lecture-cum-demonstration
- Brainstorming
- Case study discussion and analysis

Tools used:

Course Title: Human Resource Management

Total Hours - 45

L	T	P	Cr
3	0	0	3

Course Learning Outcomes (CLO):

After completion of the course, the students will be able to:

CLO1: Assess effective management of people in an organization.

CLO2: Demonstrate different ways to maximize employee performance.

CLO3: Apply various recruitment & training activities in an organization.

CLO4: Analyzing the performance appraisal of employees in different

conditions.

Unit/ Hours	Contents	Mapping with CLO
I 11 Hours	Nature and Scope of HRM; Functions of HRM; Job Analysis; Job Design; Job Description; Job Evaluation. Learning Activities: Exercise on job profiles, Peer discussion, Classroom assignments.	CLO1
II 11 Hours	Human Resource Planning; Recruitment; Selection; Orientation/Induction; Training and Development; Types of Training. Learning Activities: Exercise on recruitment and selection process, Group discussion.	CLO3
III 11 Hours	Performance Appraisal; Performance Appraisal Process and Methods; Promotion; Demotion; Transfers; Absenteeism; Labour Turnover. Learning Activities: Exercise on appraisal methods, Case study, Group discussion.	CLO2
IV 12 Hours	Wages and Salary Administration; Rewards and Incentives; Internal Mobility; Labour welfare and Social Security; Health and Safety; Labour Legislations; Quality of Work Life. Learning Activities: Student presentations.	CLO4

Suggested Readings:

- 1. Aswathappa, K. and Dash, S., 2010, International Human Resource Management, Text and Cases, Mc Graw Hill, New Delhi.
- 2. Dessler, G., 2007, Human Resource Management. Prentice Hall, India Pvt. Ltd., New Delhi.

- 3. Mondy, R.W., 2006, Human Resource Management. Pearson education, New Delhi.
- 4. Rao, V. S. P., 2009, Human Resource Management-Text and Cases. Excel Books, New Delhi.

Modes of transaction:

- Classroom lecture
- Problem solving practices
- Group discussion
- Self-learning
- Peer learning
- Games and Role plays
- Lecture-cum-demonstration
- Brainstorming
- Case study discussion and analysis

Tools used:

Course Title: Agribusiness Environment and Policy

Total Hours - 45

L	T	P	Cr
3	0	0	3

Course Learning Outcomes (CLO):

After completion of the course, the students will be able to:

CLO1: Recommend reforms to make various decisions and policies for agriculture.

CLO2: Illustrate the role of agriculture in the development of the nation.

CLO3: Identify significance of food and its policies.

CLO4: Develop sustainable policies regarding food and agriculture at the

planning level.

Unit/ Hours	Contents	Mapping with CLO
I 11 Hours	Agri-business: Meaning and scope of agri-business; Changing dimension of agricultural business; Role of Agriculture Sector in Economic Development; Structure of Agriculture - Linkages among sub-sectors of the Agribusiness sector; Impact of Liberalization, Privatization and Globalization on Agri-business sector; PESTEL Analysis;	CLO1 CLO2
	Agricultural Policy and its instruments; Evolution of Indian agricultural Policy; Programmes under different Planning Periods (Five Year Plans); Revolutions related to agriculture sector. Learning Activities: Case study, Group discussion, Classroom assignments.	
II 11 Hours	Population and Food supply; Food Management Policies in India: Concept, dimension and measurement of poverty and food security, Food Security Act and Reforms in India; Food Corporation of India; Public Distribution System, Targeted Public Distribution System. Learning Activities: Student presentations, Group	CLO2
	discussion.	
III 11 Hours	Agricultural Price Policy; Reforms in Agricultural Produce Marketing Committee (APMC) Act; Agricultural	CLO3

	Marketing Infrastructure; Contract Farming; Farmer Producer Organizations. International Agricultural Trade: Agreement on Agriculture (AoA), Technical Barriers to Trade (TBT), SPS Agreement, Intellectual Property Rights (IPR) Agreement. Agricultural Credit structure in India; Agricultural Insurance; Learning Activities: Classroom exercise, Case study, Crown diagonals.	
IV 12 Hours	Policy initiatives in the Agricultural Input Sector; Agroprocessing sector: Significance and Structure. Policy initiatives in Agro-Processing Sector; Production Linked Incentive Scheme; Sustainability in food and agribusiness environment-Climate change and its impacts on agriculture and agri-food business. Alternative agricultural systems. Policy initiatives in organic farming and sustainable agricultural production. Learning Activities: Exercise on impact study, Student presentations.	CLO4

Suggested readings:

- 1. Deshpande, R.S. and Arora, S., 2010, Agrarian crisis and farmer suicides. Sage publications, Delhi.
- 2. Gupta, K. B., Siddiqui, F. and Alam, I., 2014, Rural Management, CBS Publishers and Distributors Pvt. Ltd., Delhi.
- 3. Konig, G., Da Silva, C. A. and Mhlanga, N., 2013, Enabling environments for agribusiness and agro-industries development: Regional and country perspectives, FAO, Roma (Italia).
- 4. Palanithurai, G. and Ramesh, R., 2011, Globalisation and rural development. Concept publishing company, Delhi.
- 5. Sabharwal, D., 2002, New Technology and Agrarian Change, Sanjay Publication, Delhi.
- 6. Singh, K., 2009, Rural Development: Principles, Politics and Management, Sage Publications India Pvt. Ltd., Delhi.
- 7. Stamoulis, K., & Zezza, A. (2003). A conceptual framework for national agricultural, rural development, and food security strategies and policies. Working Papers 03-17, Agricultural and Development Economics Division of the Food and Agriculture Organization of the United Nations (FAO ESA).

- 8. Clapp, J., Moseley, W. G., Burlingame, B., & Termine, P. (2022). The case for a six-dimensional food security framework. Food Policy, 106, 102164.
- 9. Government of India (2013). The National Food Security Act, 2013.

Modes of transaction:

- Classroom lecture
- Problem solving practices
- Group discussion
- Self-learning
- Peer learning
- Games and Role plays
- Lecture-cum-demonstration
- Brainstorming
- Case study discussion and analysis

Tools used:

Course Title: Strategic Management

Total Hours - 45

L	T	P	Cr
3	0	0	3

Course Learning Outcomes (CLO):

After completion of the course, the students will be able to:

CLO1: Implement of the goals of the organization, assessments of the resources and environment.

CLO2: Identify the objectives of the organization and focusing them for the long term.

CLO3: Introduce various theories of analysis of the industry and environment to make decisions in an organization.

CLO4: Evaluation of the techniques and controlling it in an effective manner for the welfare of the organization.

Unit/ Hours	Contents	Mapping with CLO
I 12 Hours	Basic concepts of strategic management- phases and benefits of strategic management, impact of globalization on strategic management, theories of organizational adaptation, basic model of strategic management. Corporate governance and social responsibility. Environmental scanning and industry analysis-analysis of task environment, Porter's approach to industry analysis, hypercompetition. Learning Activities: Case study, Group discussion, Exercise on SWOT analysis.	CLO1
II 12 Hours	Internal scanning-organizational analysis. Strategy formulation - situation analysis and business strategy including Porter's competitive strategies, cooperative strategies. Corporate strategy- directional strategies including growth, stability and retrenchment strategies, portfolio analysis, corporate parenting. Learning Activities: Exercise on strategy formulation, Case study, Group discussion.	CLO2
III 11 Hours	Functional strategy and strategic choice- core competencies, sourcing decisions, marketing, financial, operations and R&D strategy. Strategy implementation and control- developing	CLO3

	rganization structure, staffing and directing, use of nonfinancial measures for strategy implementation and control, balanced scorecard approach. Blue and Red Ocean Strategies. Learning Activities: Case study, Group discussion.	
IV 10 Hours	Evaluation and control. Strategic issues in entrepreneurial ventures and small businesses. Strategic issues in not-for-profit organizations. Learning Activities: Case study, Student presentations.	CLO4

Suggested Readings:

- 1. David, Fred R. and David, Forest R., 2017, Strategic management: Concepts and cases, Pearson Education, New Delhi.
- 2. Thompson Jr., A. A., Peteraf, M. and Gamble, J. E., 2015, Crafting and Executing Strategy. McGraw Hill, Irwin.
- 3. Gluek, W. F., 2005, Strategic management and Business Policy. New Delhi, Tata McGraw Hills
- 4. Kazmi, A., 2002, Business Policy and Strategic Management. Tata Mcgraw Hill, New Delhi.
- 5. Porter, M. E., 2008, Competitive strategy: Techniques for analyzing industries and competitors. Simon and Schuster.
- 6. Shrinivasan, R., 2012, Strategic Management: Indian Context. PHI
- 7. Stead, J. G. and Stead, E. W., 2014, Sustainable Strategic Management. Routledge Taylor & Francis Group.
- 8. Wheelen, T.L. and Hunger, J.D., 2003, Strategic Management and Business Policy. Pearson Education, (LPE), New Delhi.

Modes of transaction:

- Classroom lecture
- Problem solving practices
- Group discussion
- Self-learning
- Peer learning
- Games and Role plays
- Lecture-cum-demonstration
- Brainstorming
- Case study discussion and analysis

Tools used:

Course Title: Agripreneurship Development

Total Hours - 30

L	T	P	Cr
2	0	0	2

Course Learning Outcomes (CLO):

After completion of the course, the students will be able to:

CLO1: Understand the basic concepts of entrepreneur, entrepreneurship and its importance.

CLO2: Aware of the issues, challenges and opportunities in entrepreneurship.

CLO3: Develop capabilities of preparing proposals for starting small businesses.

CLO4: Know the availability of various institutional supports for making a new start-up.

Unit/ Hours	Contents	Mapping with CLO
I 8 Hours	Introduction to entrepreneur and entrepreneurship; Characteristics and functions of entrepreneurs; Classification of entrepreneurs; Entrepreneurial opportunities in Agriculture Sector. Learning Activities: Case study, Exercise on profiling of entrepreneurs, Peer discussion.	CLO1
II 7 Hours	Women entrepreneurship; Role of entrepreneurship in economic development; Barriers to entrepreneurship; Forms of Business Ownership. Learning Activities: Case study, Exercise on profiling of successful women entrepreneurs, Group discussion.	CLO2
III 8 Hours	Venture establishment and Management: Ideation, Business Model Design, Venture Financing, Operations management and Performance Management Learning Activities: Exercise on business plan, Case study, Group discussion, Assignments.	CLO3
IV 7 Hours	Entrepreneurial Ecosystems and their development. Business Incubation and acceleration, Government programmes for	CLO4

development of agri- entrepreneurship; Micro, Small and Medium Enterprises (MSME); Agri clinic and Agribusiness Centers Programme (ACABC); Startup India; MUDRA Yojana.

Learning Activities: Student presentations.

Suggested Readings:

- 1. Dandekar, V. M. and Sharma, V. K., 2016, Agri-Business and Entrepreneurship Development. Manglam Publications, New Delhi.
- 2. Desai, V., 2006, Entrepreneurship Development, Project formulation, Appraisal & Financing for Small Industry. Himalaya Publications, New Delhi.
- 3. Hisrich, R. D. and Peters, M. P., 2002, Entrepreneurship, Tata McGraw Hill.
- 4. Kaplan, J. M. and Warren, A. C., 2013, Patterns of Entrepreneurship Management, John Wiley & Sons; 4th revised edition.
- 5. Nandan, H., 2007, Fundamentals of Entrepreneurship Management, Prentice Hall.
- 6. Mason, C., & Brown, R. (2014). Entrepreneurial ecosystems and growth oriented entrepreneurship. Final report to OECD, Paris, 30(1), 77-102.
- 7. Reis, E. (2011). The lean startup. New York: Crown Business.

Modes of transaction:

- Classroom lecture
- Problem solving practices
- Group discussion
- Self-learning
- Peer learning
- Games and Role plays
- Lecture-cum-demonstration
- Brainstorming
- Case study discussion and analysis

Tools used:

Course Title: Entrepreneurial Opportunities in Agriculture

Sector

Total Hours - 30

L	T	P	Cr
2	0	0	2

Course Learning Outcomes (CLO):

After completion of the course, the students will be able to:

CLO1: Explore the concept of Entrepreneurship in Agricultural Sector **CLO2:** Analyse the use of Technology in Agricultural Entrepreneurship **CLO3:** Promote skill development in the field of agri- entrepreneurship

CLO4: Prepare Young Entrepreneurs for self-employment

CLO5: Develop facilities for agri - production and sale & marketing of agri-

products

Unit/ Hours	Contents	Mapping with CLO
I 8 Hours	Agricultural Commodities; Trends in Consumer Preference; Government Agencies and Private Organizations in the Agriculture, Food, and Natural Resources Industry; Agriculture's Impact on the Economy. Learning Activities: Peer discussion, Student presentations.	CLO1
II 7 Hours	Introduction to entrepreneur and entrepreneurship; Characteristics and functions of entrepreneurs; Classification of entrepreneurs; Entrepreneurial opportunities in Agriculture Sector. Learning Activities: Interaction with entrepreneurs, Live projects.	CLO1 CLO2
III 7 Hours	Women entrepreneurship; Role of entrepreneurship in economic development; Barriers to entrepreneurship; Forms of Business Ownership; Sources of innovative opportunities; Pre-feasibility study; Sources of finance; Business plan. Learning Activities: Interaction with women entrepreneurs, Survey, exercise on business plans.	CLO2 CLO3
IV	Government programmes for development of agri-	CLO4

8 Hours	entrepreneurship; Micro, Small and Medium	CLO5
	Enterprises (MSME); Agri clinic and Agribusiness	
	Centers Programme (ACABC); Startup India;	
	MUDRA Yojana.	
	Learning Activities: Student presentations.	

Suggested Readings:

- 1. Dandekar, V. M. and Sharma, V. K., 2016, Agri-Business and Entrepreneurship Development. Manglam Publications, New Delhi.
- Desai, V., 2006, Entrepreneurship Development, Project formulation, Appraisal & Financing for Small Industry. Himalaya Publications, New Delhi.
- 3. Hisrich, R. D. and Peters, M. P., 2002, Entrepreneurship, Tata McGraw Hill.
- 4. Kaplan, J. M. and Warren, A. C., 2013, Patterns of Entrepreneurship Management, John Wiley & Sons; 4th revised edition.
- 5. Nandan, H., 2007, Fundamentals of Entrepreneurship Management, Prentice Hall.

Modes of transaction:

- Classroom lecture
- Problem solving practices
- Group discussion
- Self-learning
- Peer learning
- Games and Role plays
- Lecture-cum-demonstration
- Brainstorming
- Case study discussion and analysis

Tools used:

Course Title: Operations Research

Total Hours - 45

L	T	P	Cr
3	0	0	3

Course Learning Outcomes (CLO):

After completion of the course, the students will be able to:

CLO1: Apply problem solving and decision making through the use of various mathematical tools and set day to day activities in the organization.

CLO2: Importance of various programming methods and their applications.

CLO3: Demonstrate learning simulation techniques to study the problems and settingup new models.

Unit/ Hours	Contents	Mapping with CLO
I 11 Hours	Basic concepts of Operations Research (OR), Areas of Application, Decision making using quantitative tools and techniques. Learning Activities: Exercise on historical overview of OR and mathematical modelling of realworld problems, Peer discussion.	CLO1
II 12 Hours	Linear programming (LPP) and their applications, Structure and formulations, Graphical method, Simplex method; Transportation. Learning Activities: Exercise on LPP and Balanced & Unbalanced transportation problems, Group discussion.	CLO2
III 12 Hours	Theory of Games: Two-person-zero-sum games, Pure strategies, Mixed strategies, Dominance; Queuing Theory: Basic model and characteristics, Solution and applications. Learning Activities: Classroom exercise and assignments, Group discussion.	CLO2
IV 10 Hours	Replacement models: Theory and applications, Simulation, Monte Carlo simulation models; Model formulation. Learning Activities: Classroom exercise and assignments, Group discussion.	CLO3

Suggested Readings:

- 1. Hillier, L., 2005, Operations Research: Concepts & Cases. Tata McGraw Hill, New Delhi.
- 2. Kothari, C. R., 1994, An Introduction to Operations Research. Vikas Publishing House, New Delhi.
- 3. Shenoy, G.V., 2009, Operations Research for Management. New Age Publishers: New Delhi.
- 4. Taha, H. A., 2006, Operations Research- an Introduction. Prentice Hall of India, New Delhi.
- 5. Vohra, N.D., 2009, Quantitative Techniques in Management. Tata McGraw Hill, New Delhi.

Modes of transaction:

- Classroom lecture
- Problem solving practices
- Group discussion
- Self-learning
- Peer learning
- Games and Role plays
- Lecture-cum-demonstration
- Brainstorming
- Case study discussion and analysis

Tools used:

Course Title: Commodity Markets and Futures Trading

Total Hours - 45

Ι	,	T	P	Cr
3	3	0	0	3

Course Learning Outcomes (CLO):

After completion of the course, the students will be able to:

CLO1: Determine the commodity market, concepts and terms.

CLO2: Assess functioning of the commodity market and regulations to

trade.

CLO3: Apply technological advancement in commodity trading. **CLO4:** Introduced to various agencies and settlement of contracts.

Unit/ Hours	Contents	Mapping with CLO
I 10 Hours	Introduction to commodity derivatives and price risk management in agricultural markets; organizational setup of exchanges and specifications of futures contracts in world's leading commodity exchanges. Learning Activities: Exercise on profiling of the companies, Peer discussion.	CLO1
II 12 Hours	Mechanics of futures trading; hedging price risk using futures contracts; option transaction and forward transaction – concept and mechanism, price discovery mechanism and market. Learning Activities: Case study analysis and discussion.	CLO2
III 12 Hours	Clearinghouse and margin system; clearing, settlement and delivery of contracts; Market surveillance and risk control; trading in warehouse receipts (WRs): WRs and collateralized commodity financing. Learning Activities: Exercise on warehousing system in India, Group discussion.	сгоз
IV 11 Hours	Regulation of futures and trading practices in leading national and regional exchanges in India. Learning Activities: Student presentations and Group discussion.	CLO4

Suggested Readings:

- 1. Hull, John C. 2017. Fundamentals of futures and options markets, Boston, Pearson publication.
- 2. Ram, P. V. and Bala, S. D., 2016, Strategic Financial Management. Snow White Publ.
- 3. Bomin, C. A., 1990, Agricultural Options: Trading, Risk Management and Hedging. Wiley Publ.
- 4. Gupta, S.L., 2005, Financial Derivatives. PHI.
- 5. Sridhar, A. N., 2008, Future and Options. Shroff Publishers and Distributors Pvt. Ltd.

Modes of transaction:

- Classroom lecture
- Problem solving practices
- Group discussion
- Self-learning
- Peer learning
- Games and Role plays
- Lecture-cum-demonstration
- Brainstorming
- Case study discussion and analysis

Tools used:

Course Title: Business Laws and Ethics

Total Hours - 45

L	T	P	Cr
3	0	0	3

Course Learning Outcomes (CLO):

After completion of the course, the students will be able to:

CLO1: Analyse the ethics and aspects of good business conduct.

CLO2: Explain different laws governing the business and other day to day activities which a manager should abide by in the course of conducting any business activities.

CLO3: Assess the importance of ethics and governance in the business.

CLO4: Evaluate different act and regulations to be performed in the course of business.

Unit/ Hours	Contents	Mapping with CLO
I 12 Hours	The Indian Contract Act: Essentials of a valid contract, void agreements, performance of contracts, breach of contract and its remedies, Quasi-Contracts, Sale of Goods Act1930, Indian Partnership Act 1932. Learning Activities: Student presentations, Peer discussion.	CLO1 CLO2 CLO4
II 11 Hours	Companies Act-2013: Incorporation, Commencement of Business, Memorandum and Article of Association, Doctrine of Ultra Vires, Doctrine of Indore Management, Types of companies, Management, Meetings of Company, Mismanagement, Winding-Up of company. Learning Activities: Case study analysis and discussion.	CLO1 CLO2 CLO4
III 12 Hours	Negotiable Instruments Act,1881, Consumer Protection Act, 1986, Food Safety and Standard Act 2006, Industrial Dispute Act,1947, CSR Act & provisions in India. Learning Activities: Exercise on CSR activities, Group discussion.	CLO1 CLO2 CLO4
IV 10 Hours	Nature and importance of ethics and moral standards; corporations and social	CLO3

responsibilities, scope and purpose of business ethics; Ethics in business functional areas; industrial espionage; solving ethical problems; governance mechanism.

Learning Activities: Student presentations and Group discussion.

Suggested Readings:

- 1. Andrew Lidbetter, (1999), Company Investigations and Public Law, Hart Publishing
- 2. Bangia, R. K. (2015), Indian Contract Act, Allahabad Law Agency.
- 3. Consumer Protection Act, 1986(Bare Act),2015 Professional Book Publishers.
- 4. Contract Act, 1872 (Bare Act), 2016, Universal Law Publishing
- 5. Diwan Paras (2014), Indian contract Act, Allahabad Law Agency.
- 6. Food Safety and Standard Act 2006, (Bare Act) ,2015, Professional Book Publishers.
- 7. Gulshan, S. S., 2009, Business Law. Excel Books, New Delhi.
- 8. Industrial Dispute Act,1947 (Bare Act), 2016, Universal Law Publishing.
- 9. Kapoor, N. D., 2012, Elements of Company Law. Jain Book Agency, New Delhi.
- 10. Kuchhal, M.C. and Kuchhal, V., 2013, Business Legislation for Management. Vikas Publishing House Pvt. Ltd.
- 11. Negotiable Instruments Act, 1881 (Bare Act), 2015 Universal Law Publishing.
- 12. Sale of Goods Act, 1930 (Bare Act), 2015, Professional Book Publishers.
- 13. Smith and Keenan's (2002), Company Law, Harlow: Longman.
- 14. The Indian Partnership Act, 1932(Bare Act),2016, universal law publisher.
- 15. Tulsian, P.C. and Tulsian, B., 2015, Business Law. TMH, New Delhi.

Modes of transaction:

- Classroom lecture
- Problem solving practices
- Group discussion
- Self-learning
- Peer learning
- Games and Role plays
- Lecture-cum-demonstration
- Brainstorming
- Case study discussion and analysis

Tools used:

Course Title: Rural Immersion Module

Total Weeks - 2

L	T	P	Cr
0	0	4	2

Course Learning Outcomes (CLO):

After completion of the course, the students will be able to:

CLO1: Apply their classroom learning to real-time environment.

CLO2: Assess rural environment, rural markets and identify implementation gaps and business opportunities.

CLO3: Analyse the agricultural practices adopted by the farmers in the village.

CLO4: Determine the functioning of various organizations at the grass root level and how they are helping the village for improvement of their life.

Course Introduction:

The rural immersion module (2 weeks) has been designed to provide an opportunity to the students to observe the rural lifestyle closely and understand socio-economic situations from the point of view of rural community. The students will have hands on experience about the farm management practices. During the first semester break (at the end of the first semester and start of second semester), students will have to go to the village/s and spend a fortnight with the farming community. It is expected that the students shall get exposure to various rural and agricultural practices adopted by the farmers in the village, Gram Panchayat, Cooperative Societies, NGO's, etc., The expenditure incurred during the rural immersion module will be borne by the students themselves. The students will have to submit and present a report about their learning in the village/s.

Modes of transaction/Events: 14 days activities

Day	Activity/Event			
1	Meeting and interaction with village head (Sarpanch/Mukhiya)			
2	Education facilities (School, College etc.) in the village			
3	Interaction with Agriculture officials of Krishi Vigyan			
	Kendra/Agricultural University/Agricultural Departments etc.			
4	Meeting with progressive and young farmers in the village (A			
	minimum of 5 farmers)			
5	Meeting with small, marginal and women farmers (A minimum of			
	5 farmers)			
6	Agri Input shops- Seeds, Pesticides, Fertilizers, Organic products,			
	Irrigation equipments			
7	Farm machinery used by the farmers in the village			
8	Forest department/Agro-forestry			

9	Livestock- Cow, Buffalo, Goat, Sheep, Poultry, Fishery etc.		
10	Agricultural Marketing Places- APMC/Mandi		
11	Agri-entrepreneurs- Motivational factors, cost- benefit analysis,		
	marketing activities, etc.		
12	Veterinary services in the village/Veterinary hospitals		
13	Banks/Co-operative societies- Agricultural finance, types of loans,		
	subsidy components, NABARD support, etc.		
14	Food distribution in the village, Public Distribution System, Fair		
	Price Shops/Ration Shops, Food retail outlets in the village		
	Collect certificate from village head		

Tools used:

MS Office- Word, Excel, PPT, Google drive, Videos, Pictures, Google meet, Google forms/docs, WhatsApp.

SEMESTER-III

Course Code: ABM.521

Course Title: Business Research Methods

Total Hours - 45

L	T	P	Cr
3	0	0	3

Course Learning Outcomes (CLO):

After completion of the course, the students will be able to:

CLO1: Classify research activities in a more organized and systematic

manner.

CLO2: Demonstrate various business research standards.

CLO3: Analyse guidelines for presenting different data into various forms.

CLO4: Apply all the appropriate sequential methods which will help them in

preparing research reports for academic and industrial purposes.

Unit/ Hours	Contents	Mapping with CLO
I 10 Hours	Introduction, Meaning of research; Types of research- Exploratory research, Conclusive research; The process of research; Research applications in social and business sciences; Features of a Good research study. Research Problem and Formulation of Research Hypotheses; Defining the Research problem; Research Problem: Problem identification process; Components of the research problem; Formulating the research hypothesis- Types of Research hypothesis. Learning Activities: Exercise on research problem identification, problem statement, hypothesis formation, Peer discussion.	CLO1
II 12 Hours	Research design; Nature and Classification of Research Designs; Exploratory Research Designs: Secondary Resource analysis, Case study Method, Expert opinion survey, Focus group discussions; Descriptive Research Designs: Cross-sectional studies and Longitudinal studies; Experimental Designs, Errors affecting Research Design, Classification of data; primary & secondary data; Data collection methods.	CLO2

	Learning Activities: Research article study and exercise on research design, Case study analysis and discussion.	
III 12 Hours	Measurement and Scaling; Nominal, Ordinal, Ratio/Interval scale; Single item vs Multiple Item scale, Comparative vs Non-Comparative scales, Measurement Error, Criteria for Good Measurement, Questionnaire Design, Coding-Coding Closed ended structured Questions, Coding open ended structured Questions; Classification and Tabulation of Data, Testing the hypothesis, Univariate and Bivariate Analysis of Data. Learning Activities: Field surveys, questionnaire and scale construction, Exercise on basics of data analysis, Group discussion.	CLO3
IV 11 Hours	Analysis of Variance: one-way ANOVA; two way ANOVA; Factor Analysis, Discriminant Analysis, Report Writing, Types of research reports – Brief reports and Detailed reports; Report writing: Structure of the research report- Preliminary section, Main report, Interpretations of Results and Suggested Recommendations; Report writing, Formulation rules for writing the report: Guidelines for presenting tabular data, Guidelines for visual Representations, Research Ethics. Learning Activities: Assignments on data analysis, statistical testing, Student presentations and Group discussion.	CLO4

Suggested Readings:

- 1. Anderson, 2009, Quantitative Methods in Business. Thomson Learning, Bombay.
- 2. Bhardwaj, R. S., 2000, Business Statistics. Excel Books.
- 3. Hooda. R. P., 2003, Statistics for Business and Economics, McMillan India Ltd.
- 4. Kothari C.R., 2007, Quantitative Techniques. Vikas Publishing House, New Delhi.
- 5. Levin, R.I. and Rubin, D.S., 2008, Statistics for Business. Prentice Hall of India, New Delhi.

- 6. Kumar Ranjit. 2014. Research Methodology- A Step-by-Step Guide for Beginners (4th ed.), SAGE Publications.
- 7. Saunders M., Lewis P., and Thornhill,2007. A. Research Methods for Business Students (4th ed.), Prentice Hall of India.

Modes of transaction:

- Classroom lecture
- Problem solving practices
- Group discussion
- Self-learning
- Peer learning
- Games and Role plays
- Lecture-cum-demonstration
- Brainstorming
- Case study discussion and analysis

Tools used:

Course Title: Agricultural Marketing Management

Total Hours - 45

L	T	P	Cr
3	0	0	3

Course Learning Outcomes (CLO):

After completion of the course, the students will be able to:

CLO1: Assess agricultural marketing, pricing, packaging, and development of Agri products and services.

CLO2: Categories agro industry and gives the depth knowledge of making the decisions.

CLO3: Evaluate various alternatives at managerial roles in the industrial and corporate sector.

CLO4: Elaborate various methods of value addition and its importance for Agri commodities.

Unit/ Hours	Contents	Mapping with CLO
I 11 Hours	Nature and scope of Agricultural Marketing; Differences in Marketing of Agricultural and Manufactured Goods; Importance of Agricultural Marketing; Markets and Markets Structure in Agriculture; Different types of utility; Classification of markets; Marketing Functions; Packaging. Learning Activities: Exercise on agricultural marketing system in Punjab and India, Peer discussion.	CLO1
II 11 Hours	Transportation; Grading and Standardization; Storage; Processing and Value addition; Financing for Marketing; Buying and Selling; Market information; Market intelligence. Learning Activities: Research article study on Agri market intelligence, Case study analysis and discussion.	CLO2
III 11 Hours	Market functionaries; Regulated markets; Directorate of Marketing and Inspection; Warehousing; AgMark; FSSAI; Marketable and Marketed Surplus; Price Spread; Agricultural Marketing Channels. Learning Activities: Research article review,	CLO3

	Group discussion.	
IV 12 Hours	Market integration; Commodity Futures Trading; Hedging and Speculation; Agricultural Price Policy; Minimum Support Price; Market Intervention Scheme; eNAM; Role of ICT in Agricultural Marketing; Contract Farming. Learning Activities: Student presentations and Group discussion.	

Suggested Readings:

- 1. Acharya, S. S. and Agarwal, N. L., 2020, Agricultural Marketing in India. 7th Ed. Oxford and IBH.
- 2. Kohls, R. L. and Uhj, J. N., 2005, Marketing of Agricultural Products. 9th Ed. Prentice Hall.
- 3. Kotler, P., 2002, Marketing Management Analysis, Planning, Implementation and Control. Pearson Edu.
- 4. Krishnamacharyulu, C. and Ramakrishan, L., 2002, Rural Marketing. Pearson Edu.
- 5. Ramaswamy, V. S. and Nanakumari, S., 2002, Marketing Management. 2nd Ed. Mac Millan India.

Modes of transaction:

- Classroom lecture
- Problem solving practices
- Group discussion
- Self-learning
- Peer learning
- Games and Role plays
- Lecture-cum-demonstration
- Brainstorming
- Case study discussion and analysis

Tools used:

Course Title: Rural Marketing

Total Hours - 45

L	T	P	Cr
3	0	0	3

Course Learning Outcomes (CLO):

After completion of the course, the students will be able to:

CLO1: Develop understanding regarding issues in rural markets like marketing environment, consumer behaviour, distribution channels, marketing strategies, etc.

Unit/ Hours	Contents	Mapping with CLO
I 11 Hours	Concept and scope of rural marketing, nature and characteristics of rural markets, potential of rural markets in India, rural V/S urban market. Environmental factors - socio-cultural, economic, demographic, technological and other environmental factors affecting rural marketing. Learning Activities: Local village visits and survey, Peer discussion.	CLO1
II 11 Hours	Rural consumers' behaviour - behaviour of rural consumers and farmers; buyer characteristics and buying behaviour; customer relationship management, rural market research. Learning Activities: Research article reviews, Case study analysis and discussion.	CLO1
III 11 Hours	Rural marketing strategy - Marketing of consumer durable and non-durable goods and services in the rural markets with special reference to product planning; marketing mix, product mix, pricing strategy, distribution strategy. Rural retailing and modern format stores. Learning Activities: Retail store surveys, Group discussion.	CLO1
IV 12 Hours	Promotion and communication strategy - Media planning, planning of distribution channels, and organizing personal selling in rural market in India, innovation in rural marketing.	CLO1

Learning Activities: Student presentations and Group discussion.

Suggested Readings:

- 1. Kashyap P., 2011. Rural Marketing. Pearson Education, New Delhi.
- 2. Kotler P. Keller K, Koshy A. & Jha M. 2013. Marketing Management–Analysis, Planning, Implementation and Control. Pearson Education.
- 3. Ramaswamy VS & Nanakumari S., 2002. Marketing Management. 2nd Edition, Mac Millan India.
- 4. Krishnamacharyulu & Ramakrishnan, 2010. Rural Marketing: Text and Cases. 2nd Edition Pearson Education.
- 5. Singh S., 2004. Rural Marketing: Focus on Agricultural Inputs. Vikas Publishing House.
- 6. Kumar D. and Gupta P., 2017. Rural Marketing: Challenges and Opportunities. Sage Publications.

Modes of transaction:

- Classroom lecture
- Problem solving practices
- Group discussion
- Self-learning
- Peer learning
- Games and Role plays
- Lecture-cum-demonstration
- Brainstorming
- Case study discussion and analysis

Tools used:

Course Title: Project Management

Total Hours - 45

L	T	P	Cr
3	0	0	3

Course Learning Outcomes (CLO):

After completion of the course, the students will be able to:

CLO1: Evaluate the project activities such as project planning, scheduling, executing etc.

CLO2: Demonstrate the project and completing within the specified time in any organization for academic and industrial projects.

CLO3: Develop evaluation techniques for projects.

Unit/ Hours	Contents	Mapping with CLO
I 9 Hours	Concept, Characteristics of project; Meaning of project management; Types of Projects; Project Life Cycle. Learning Activities: Case study and Group discussion.	CLO1
II 12 Hours	Project Feasibility Analysis; Market feasibility; Technical feasibility; Financial feasibility; Economic feasibility; Social Cost-Benefit Analysis; Project risk analysis. Learning Activities: Exercise on feasibility analysis, Student assignments & presentations and Group discussion.	CLO2
III 12 Hours	Network Analysis; Requirements for Network Analysis; Critical Path Method (CPM), Programme Evaluation and Review Technique (PERT), Project scheduling and resource allocation. Learning Activities: Exercise on network analysis, Student assignments & presentations and Group discussion.	СГОЗ
IV 12 Hours	Financial appraisal/evaluation techniques – Discounted and Non-discounted Cash Flows; Net Present Value (NPV), Internal Rate of Returns; Benefit-Cost Ratio; Payback Period; Project Implementation; Project Control and Information System.	CLO3

Learning Activities: Exercise on financial evaluation techniques, Student assignments & presentations and Group discussion.

Suggested Readings:

- 1. Harold Kerzner, 2017, Project Management: A Systems Approach to Planning, Scheduling and Controlling, Wiley India Pvt. Ltd. New Delhi.
- 2. Mantel, Maerdith, Shafer, Sutton and Gopalan, M. R., 2016, Project Management: Core Textbook, Wiley India Pvt. Ltd. New Delhi.
- 3. Prasanna Chandra, 2019, Projects: Planning, Analysis, Selection, Financing, Implementation and Review. McGraw Hill Publishers, New Delhi.
- 4. Russ, J. M. and Dragan Z. M., 2016, Project Management Tool Box, Wiley India Pvt. Ltd. New Delhi.
- 5. Shilpi Jauhari, Chaturvedi, S. K., 2014, Project Management, Himalaya Publishing House, Mumbai.

Modes of transaction:

- Classroom lecture
- Problem solving practices
- Group discussion
- Self-learning
- Peer learning
- Games and Role plays
- Lecture-cum-demonstration
- Brainstorming
- Case study discussion and analysis

Tools used:

Course Title: Introductory Food Preservation, Safety and

Quality

Total Hours - 45

L	T	P	C r
3	0	0	3

Course Learning Outcomes (CLO):

After completion of the course, the students will be able to:

CLO1: Implement various methods of food preservation

CLO2: Relate quality control with food safety in food industry

CLO3: Justify the need of laws applicable in food industry in India to ensure manufacture of safe of food products.

CLO4: Organize food safety management and quality control systems for audit and certification.

Unit/ Hours	Contents	Mapping with CLO
I 12 Hours	Food preservation: Definitions; Causes of deterioration of foods; Principles of Food Preservation; Traditional and modern methods of food preservation; Role of water / water activity in food preservation; Methods for determining moisture content of foods. Learning Activities: Classroom assignments, and Group discussion.	CLO1
II 11 Hours	Food safety: Definition; Need; Factors affecting biological, chemical and physical safety of foods like fruits and vegetables, grains and milk. Food-safety management: GMP; GLP; Hazard Analysis Critical Control Points. Learning Activities: Classroom assignments, and Group discussion.	CLO2
III 11 Hours	Quality control: Objectives, importance and functions of quality control; Quality attributes of foods: Size and shape; Colour and gloss; Viscosity and consistency; Texture; Taste; Objective methods for measurement of colour, texture and consistency of foods. Learning Activities: Classroom assignments, and Group discussion.	CLO3

IV	Food Laws and Standards: Importance and	CLO4
11 Hours	application of food regulatory system; Food Safety	
	and Standards Act, 2006 (transition from PFA,	
	FPO, MMPO, MFPO); AGMARK; BIS; Codex; FSSAI	
	standards for fruits, vegetables, milk, cereals and	
	pulse-products.	
	Learning Activities: Student assignments &	
	presentations and Group discussion.	

Suggested readings

- 1. A Kramer and BA Twigg, Quality Control for the Food Industry. AVI Publishing Company (1990).
- 2. K Kapiris, Food Quality. Intech Publisher (2014).
- 3. K Prabhakar, A Practical Guide to Food Laws and Regulations, Bloombury (2016).
- 4. M Clute, Food Industry Quality Control Systems. CRC Press (2017).
- 5. M Gordon, Food Safety and Quality Systems in Developing Countries (2016)
- 6. NN Potter, Food Science. CBS Publishers (2007).
- 7. N Khetarpaul, Food Analysis. Daya Publicing House (2016).
- 8. R Marsili, Flavour Fragrance and Odour Analysis. CRC Press (2012).
- 9. RC Beier, Pre-harvest and Postharvest Food Safety. Wiley India (2016).
- S Otles, Methods of Analysis of Food Components and Additives.
 CRC Press
- 11. S Sohrab, A Practical Guide for Implementation of Integrated ISO-9001 HACCP System for the Food Processing Industry. Allied Publishers Ltd. (2001).
- 12. Y Motarjemi, Food Safety Management: A practical Guide for the Food Industry. Academic Press (2014).

Modes of transaction:

- Classroom lecture
- Problem solving practices
- Group discussion
- Self-learning
- Peer learning
- Games and Role plays
- Lecture-cum-demonstration
- Brainstorming
- Case study discussion and analysis

Tools used:

Course Title: Food Retail Management

Total Hours - 45

L T P Cr 3 0 0 3

Course Learning Outcomes (CLO):

After completion of the course, the students will be able to:

CLO1: Analyse various concerns of retail business, retail marketing and operations.

CLO2: Evaluate the sale of the businesses and maintaining good customer relationship.

CLO3: Develop an understanding about retail and food retail and their pros and consequences.

CLO4: Apply different transportation modes, advertisements etc.

Unit/ Hours	Contents	Mapping with CLO
I 11 Hours	Meaning and Evolution of Retail industry in India; Role of retailing; Trends in Retailing; Emergence of organized retailing; Classification of Retail Industry; Different retail formats; E-tailing. Learning Activities: Case study and Group discussion.	CLO1
II 11 Hours	Understanding food preference of Indian Consumer; Food consumption and Expenditure pattern; Demographic and Psychographic factors affecting Food Pattern of Indian Consumer; Food wholesaling; Food retailing; The changing nature of food stores; Competition in food retailing. Learning Activities: Research articles, Case study and Group discussion.	CLO2
III 11 Hours	Value addition in food retail; Category Management; Managing Retail Store Operations: Merchandise buying and handling; Merchandise Pricing: Handling Transportation of Food Products. Learning Activities: Organized and Unorganized Retail store visits & surveys, Student assignments and Group discussion.	CLO3
IV	Salesperson selection; Salesperson training;	CLO4

12 Hours

Evaluation and Monitoring; Customer Relationship Management; Legal and Ethical issues in Retailing; Brand Management in Retailing; Promotion mix for food retailing; Management of sales promotion and Publicity; Advertisement Strategies for food retailers.

Learning Activities: Exercise on retail branding, Student presentations and Group discussion.

Suggested Readings:

- 1. Ogden, J. R. and Ogden, D. T., 2009, Integrated Retail Management. Biztantra.
- 2. Pradhan, S., 2006, Retailing Management 2E, Tata McGraw-Hill Education.
- 3. Singh, Sukhpal, 2011. Fresh food retails in India: Organisation and impacts, Allied publishers pvt. Ltd., New Delhi
- 4. Mahapatra. S, 2017. Food Retail Management, 1st Edition, Kalyani Publishers.
- 5. Berman & Evans. 2008. Retail Management: A Strategic Approach. 10th Edition. Prentice Hall of India.
- 6. Levy M &Weitz BW. 2004. Retailing Management. 5th Edition, McGraw Hill.
- 7. Zentes, J., Morschett, D., and Schramm K., Hanna, 2016. Strategic Retail Management: Text and International Cases. 3rd Edition, Springer Gabler.
- 8. Agrawal, N., Stephen S. A., 2015. Retail Supply chain Management: Quantitative Models and Empirical Studies, 2nd Revised Edition Springer.

Modes of transaction:

- Classroom lecture
- Problem solving practices
- Group discussion
- Self-learning
- Peer learning
- Games and Role plays
- Lecture-cum-demonstration
- Brainstorming
- Case study discussion and analysis

Tools used:

Course Title: Summer Internship

Total Weeks - 6 to 8

L T P Cr 0 0 12 6

Course Learning Outcomes (CLO):

After completion of the course, the students will be able to:

CLO1: Develop and refine skills, network with professionals in the field, gain confidence and gain valuable work experience.

CLO2: Understand how the organizations work, what are roles & responsibilities of various people in the organization, challenges in the organization, to do a project in real time situation.

CLO3: Develop insights into future careers available in this field.

Course Introduction:

After the end of the first year (during the summer break), students will do on or off campus and online summer internships (summer internship up to 6-8 weeks duration) with reputed Agribusiness companies. However, if the student identifies his/her own corporate links and expresses willingness to undergo summer internship in that organization, then he/she can proceed with approval of the competent authority. Most of the internships are focused on critical problems related to future business strategies of the companies. The students will have to submit and present the Summer Internship Report.

Transaction Modes: Industry interaction, Field visits, Digital marketing, Brainstorming, Group discussion, Report writing and Presentation.

Course Title: Dissertation Part I

Total Hours - 120

L	T	P	Cr
0	0	8	4

Course Learning Outcomes (CLO):

After completion of the course, the students will be able to:

CLO1: Critically analyze, interpret, synthesize existing scientific knowledge based on literature review.

CLO2: Demonstrate an understanding of the selected research problem and identify the knowledge gap.

CLO3: Formulate a hypothesis and research design.

Students will prepare a research proposal based on literature review and extensive student-mentor interactions involving discussions, meetings and presentations. Each student will submit a research/dissertation proposal of the research work planned for the MBA Agribusiness dissertation with origin of the research problem, literature review, hypothesis, objectives and methodology to carry out the planned research work, expected outcomes and bibliography.

Students will have an option to carry out dissertation work in industry, national institutes or Universities in the top 100 NIRF ranking. Group dissertation may be opted, with a group consisting of a maximum of four students. These students may work using a single approach or multidisciplinary approach. Research can be taken up in collaboration with industry or in a group from within the discipline or across the discipline.

Transactional Modes:

Group discussions and presentations; Self-Learning; Experimentation

SEMESTER- IV

Course Code: ABM.601

Course Title: Dissertation Part II

Total Hours - 600

L	T	P	Cr
0	0	40	20

Course Learning Outcomes (CLO):

After completion of the course, the students will be able to:

CLO1: Demonstrate an in-depth knowledge of scientific research pertaining to the agribusiness management.

CLO2: Demonstrate experimental/theoretical research capabilities based on rigorous hands-on training.

CLO3: Critically analyze, interpret and present the data in light of existing scientific knowledge to arrive at specific conclusions.

CLO4: Develop higher order thinking skills required for pursuing higher studies (Ph.D.)/research-oriented career options.

Students shall carry out research work / dissertation in the IV semesters under the supervisor/guide from the Department. Group dissertation may be opted, with a group consisting of a maximum of four students. Dissertations can be taken up in collaboration with industry or in a group from within the discipline or across the discipline. Students will interact with the supervisors through meetings and presentations on a regular basis. After completion of the research work, students will complete the dissertation under the guidance of the supervisor. The dissertation will include literature review, hypothesis, objectives, methodology, results, discussion, and bibliography. Dissertation will be evaluated by the Department, as per the University policy.