Programme code  GECO 21
Programme name  M.B.A. (Agri.Business)

Programme Outcomes
Any post graduate from the Faculty of Agriculture will

**PO1.** have core knowledge leading to awareness on advancements in the field of agriculture and horticulture including crop production, soil fertility, crop protection, crop improvement, microbiology, bio technology, agricultural extension and economics.

**PO2.** have basic understanding and skill on experimental tools in biological sciences, analytical techniques for plant and soil samples, microbial technologies, biotechnological tools, breeding methods, statistical tools & analysis, research data computation, etc, required for higher learning, research and development.

**PO3.** be mastering the modern agronomic techniques of crop production, water, soil & nutrient management, plant protection with respect to insect pest and plant diseases, crop improvement and ecosystem restoration.

**PO4.** will be able to design and execute individual research project, write concise & persuasive research articles and communicate effectively with their scientific colleagues, farmers and the general public.

**PO5.** be able to communicate research and educational materials properly and competently and

**PO6.** be able to address complex problems taking into account related ethical, social, legal, economic, and environmental issues.

Programme Specific Outcomes

**PSO1.** The M.B.A (Agribusiness) programme will prepare the students to meet the challenges of the dynamic business environment by imparting pragmatic managerial skills which are incorporated in the curriculum.

**PSO2.** This will help the Agri management graduates to have an edge over the regular management graduates in their corporate business performance.

**PSO3.** This programme will also motivate the Agri business graduates to take up self employment ventures as successful entrepreneurs.

**PSO4.** This programme will kindle the student’s aptitude for novel and futuristic research thus they will imbibe the passion for pursuing Ph.D. whereby their prospects for recruitment as teaching faculties (Assistant Professors) will become bright.
## Major - 21 Credits

<table>
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<th>Course No.</th>
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## Electives - 8 Credits

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## Supporting Courses - 5 Credits

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## Seminar/In-plant Training/Study Tour/Project - 21 Credits

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## Non Credit Compulsory Courses 8+4 = 12

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* Non Credit Compulsory Courses
ABM 611 Principles of Management and Organizational Behaviour (2+0)

Learning Objectives
- To make the students understand the basic management concepts
- To identify the role of management practices in agri business
- To acquaint the learner with meaning and concepts of organizational behaviour

Theory

Unit-I: Basics in management

Unit-II: Management functions

Unit-III: Basic organizational behaviour

Unit-IV: Motivation and leadership
Motivation - types of motivation - theories of motivation - applications of motivation. Transactional analysis - interpersonal relations - understanding determinants and developing leadership styles and influence process. Leadership theories - types of leaders - effective leader. Group dynamics - types of groups - group formation - group decision making - team building.

Unit-V: Organizational culture
Organizational culture or climate - concepts, dimensions, ethos, determinants. Organizational conflicts - concepts, sources, implications and management. Organizational changes - types, resistances to change - role of change agents - organizational effectiveness - achieving organizational effectiveness.

Theory schedule
1. Nature, scope and significance of management
2. Evolution of management thought
3. Approaches to management
4. Functions of a manager
5. Planning - types, steps, process, strategies, policies
6. MBO, strategic planning process, SWOT analysis
7. Organizing - structure and process, line staff, authority and responsibility
8. Staffing - selection process
9. Span of control - delegation
10. Directing - training, communication and motivation
11. Controlling - significance, process, techniques
12. Standards and benchmarks, management audits
14. Evolution and historical background of organizational behaviour
15. Models of organizational behaviour
16. Foundations of individual behaviour - diversity

17. Mid semester examination
18. Micro organizational behaviour
19. Personality, self-concept, self-esteem and self-efficacy
20. Attitudes, perception, power - types and structures
21. Motivation - types of motivation
22. Theories of motivation
23. Applications of motivation
24. Transactional analysis
25. Interpersonal relations—understanding, determinants and developing leadership styles and influence process
26. Leadership theories
27. Types of leaders and effective leader
28. Group dynamics - types of groups, group formation
29. Group decision making, team building
30. Organizational culture or climate - concepts
31. Dimensions, ethos, determinants of organizational culture
32. Organizational conflicts - concepts, sources, implications and management
33. Organizational changes - types, resistances to change, role of change agents
34. Organizational effectiveness - achieving organizational effectiveness

Course outcome

At the end of the course students will be able to

1. Understand the current developments in management practices.
2. Identify and apply appropriate management techniques for managing contemporary organization.
3. Know how managers align the planning process with mission and vision.
4. Discuss organizational process from different theoretical perspectives.
5. Understand organizational conflicts and identify the way to achieve organizational effectiveness.

Reference books


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Learning Objective
- To equip the students with the basic micro and macro-economic concepts
- To explain theories with special reference to agri-business
- To develop analytical skills of the students in solving agri-business problems

Theory

Unit-I: Managerial economics - introduction
Scope of managerial economics - objectives of the firm and basic economic principles - mathematical concepts used in managerial economics.

Unit-II: Demand analysis
Indifference curve - consumer’s surplus. Demand analysis - meaning, types - determinants of demand - demand function - demand elasticity - demand forecasting techniques.

Unit-III: Production, cost concepts and supply functions
Diminishing marginal returns - profit maximization - production functions - least cost input combination - factor productivities and returns to scale. Cost concepts - cost output relationship - short and long run supply functions.

Unit-IV: Market structure and pricing analysis

Unit-V: Macroeconomic concepts related to agri-business

Theory schedule
1. Scope of managerial economics
2. Objectives of the firm and basic economic principles
3. Mathematical concepts used in managerial economics
4. Indifference curve - consumer’s surplus
5. Demand analysis - meaning, types
6. Determinants of demand
7. Demand function
8. Demand elasticity
9. Demand forecasting techniques
10. Diminishing marginal returns
11. Profit maximisation
12. Production functions
13. Least - cost input combination
14. Factor productivities and returns to scale
15. Cost concepts
16. Cost-output relationship
17. Mid semester examination
18. Short and long run supply functions
19. Pricing - determinants of price
20. Pricing under different market structures
21. Pricing of joint products - pricing methods in practice
22. Barriers entry - strategic versus structural, switching costs
23. Network effects - capital requirements
24. Learning curve - control of resources
25. Legal barriers - patents, copyrights, trademarks, licenses.
26. Competitive advantage - positioning strategy - cartels - welfare cost of monopoly
27. Government policies and pricing
28. The national income - circular flow of income
29. Consumption - investment and saving
30. Money - functions
31. Demand and supply
32. Inflation - economic growth
33. Business cycles and business policies
34. Business decisions under uncertainty

Course outcome

At the end of the course students will be able to

1. Understand the roles of managers in firm.
2. Analyze the demand and supply conditions.
3. Design competition strategies, including costing, pricing, product differentiation and market environment.
4. Analyse the decisions which are taken under different marketing structure.
5. Analyse the real world business problems with a systematic theoretical frame work.

Reference books


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ABM 613 Human Resource Management (2+0)

Learning Objective

- To expose the learner to the field of human resource management
- To provide focus on human resource practices and their utility for managers

Theory

Unit-I: Introduction to human resource management

Introduction to human resource management - human resource planning - nature and significance - job analysis, job description, job specification, job enlargement, job enrichment, job rotation, job evaluation.

Unit-II: Recruitment and selection


Unit-III: Performance appraisal

Performance appraisal - significance and methods - compensation management - wage and salary administration - wage fixation, fringe benefits, incentive payment, bonus and profit sharing - 360 degree appraisal.

Unit-IV: Industrial relations

Industrial relations - role and status of trade unions - collective bargaining - worker’s participation in management - career planning and employee retention - employee security.

Unit-V: Employee welfare measures


Current streams of thought

Theory schedule

1. Introduction to human resource management
2. Human resource planning - nature and significance
3. Job analysis - job description
4. Job specification - job enlargement
5. Job enrichment - job rotation - job evaluation
6. Recruitment and selection process - induction
7. Training and human resource development - nature, significance, process and techniques
8. Strategic human resource management - process and technique
9. Internal mobility including transfers, promotions, employee separation
10. Building employee commitment
11. Promotion from within sources - induction
12. Performance appraisal - significance and methods
13. Compensation management
14. Wage and salary administration
15. Wage fixation - fringe benefits
16. Incentive payment, bonus
17. Mid semester examination
18. Profit sharing
19. 360 degree appraisal
20. Industrial relations
21. Role and status of trade unions
22. Collective bargaining
23. Worker’s participation in management
24. Career planning
25. Employee retention
26. Employee security
27. Quality of work life
28. Employee welfare measures
29. Disputes and grievance handling procedures
30. Arbitration and adjudication
31. Health and safety of human resource
32. Human resource accounting
33. Human resources outsourcing
34. Talent management

Course outcome

At the end of the course students will be able to

1. Understand the importance of human resources and their effective management in organization.
2. Identify the current practice of recruitment.
3. Demonstrate the different performance measuring techniques.
4. Understand role and status of trade unions.
5. Identify various welfare measures taken by agro industries for the benefit of their workers.

Reference books

6. www.ximb.ac.in/library/e-Resources1.html
7. www.hrmguide.com
8. www.humanresources.about.com
9. www.managementhelp.org/hr_mgmnt/hr_mgmnt.htm
ABM 614 Production and Material Management (1+1)

Learning Objective
- To expose the learner to the field of production and material management
- To impart knowledge of the basic concepts
- To explain tools and functions of production and material management

Theory

Unit-I : Introduction - production management
Production management - meaning, nature and scope - historical evolution - process planning - plant capacity - product design and development - make or buy decisions - use of cross over chart for selection processes - plant location - factors - multipract plant location decision.

Unit-II : Production planning

Unit-III : Maintenance management
Maintenance management - objectives, types, maintenance schedule. Quality control - purpose - sampling by variables and attributes - work study - methods - work environment industrial safety - purpose of time study - stop watch time study.

Unit-IV : Material management

Unit-V : Inventory management
Inventory management - inventory models - control techniques - location of warehouses - stores - procedures - inspection - safety management - issues and reorders checking. Current streams of thought

Practical
Plant layout - types, factors - visit to an industrial plant - exercises on production management - case analysis on production management - exercise on production planning - control - case analysis on production planning - control - exercises on PERT - exercises on CPM - exercises on quality control - exercises on inventory management - vendor rating - EOQ - control systems - visit to organizations - presentation of case analysis.

Theory schedule
1. Production management - meaning, nature and scope - historical evolution
2. Process planning - plant capacity - product design and development
3. Make or buy decisions - use of cross over chart for selection processes
4. Plant location - factors - multipract plant location decision
5. Productivity variables and productivity measurement - production planning - types of plans - sales forecasting - economic batch quantity
7. Maintenance management - objectives, types, maintenance schedule
8. Quality control - purpose - sampling by variables and attributes - work study - methods - work environment industrial safety - purpose of time study - stop watch time study
9. Mid semester examinations
10. Nature and scope of material management
11. Determinants of right materials – forecasting
12. Purchase management - value analysis - purchase negotiations - vendor rating
13. Costing and storing of materials
14. Procurement methods and process technique
15. Indenting - planning - codification - quality specification - TQM, ISO standards and their importance - introduction to re-engineering, value engineering
16. Inventory management - inventory models - control techniques
17. Location of warehouse - stores - procedures - inspection - safety management - issues and reorders checking
Practical schedule
1. Plant layout - types - factors
2. Visit to an industrial plants
3. Case study on product planning
4. Exercises on production management
5. Case analysis on production management
6. Exercise on production planning
7. Case analysis on production planning - control
8. Exercises on PERT
9. Exercises on CPM
10. Exercises on quality control
11. Exercises on quality control (contd.)
12. Exercises on inventory management I - vendor rating
13. Exercises on inventory management II - EOQ
14. Exercises on inventory management III - control systems
15. Visit to organization related to agribusiness
16. Visit to organization related to agribusiness
17. Presentation of case analysis

Course outcome
At the end of the course students will be able to

1. Identify the scope for integrating materials management function over the logistics and supply chain operations.
2. Analyze the materials in storage, handling, Packaging, Shipping distribution and standardizing.
3. Identify various purchasing method and inventory controlling techniques
4. Analyse the materials in storage, handling, packing, shipping distributing and standardizing.
5. Identify various purchasing method and inventory controlling techniques.

Reference books

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Learning Objectives

- To develop an understanding of research methodology
- To understand process and techniques of research

Theory

Unit-I: Research process

Meaning, types, and process of research - research methodology in management - exploratory, descriptive, experimental, diagnostic method - problem formulation, setting of objectives, formulation of hypotheses.

Unit-II: Data collection

Scales of measurement - nominal, ordinal, interval, ratio, likert scale and other scales - primary and secondary data - sources of data - instruments of data collection - data editing - classification - coding - validation - tabulation - presentation - analysis.

Unit-III: Sampling procedure

Concept of sampling, Sampling design - probability and non-probability sampling techniques including simple random sampling, stratified sampling, multi-stage sampling, systematic sampling, purposive sampling, quota sampling, judgment sampling, and convenience sampling - sample size determination - sampling and non-sampling errors.

Unit-IV: Tools of analysis

Role and uses of quantitative techniques in business decision making - use of equations - use of determinants and matrices in business decisions - frequency distribution - measures of central tendency - measures of variation - skewness and kurtosis - simple, partial, and multiple correlation - rank correlation - simple and multiple regression - discriminant and dummy variable analysis.

Unit-V: Report writing


Practical


Theory schedule

1. Meaning, types, and process of research - research methodology in management - exploratory, descriptive, experimental, diagnostic methods
2. Problem formulation - setting of objectives, formulation of hypotheses
3. Scales of measurement - nominal, ordinal, interval, ratio - likert scale and other scales
4. Primary and secondary data - sources of data - instruments of data collection
5. Data editing, classification, coding, validation, tabulation, presentation, analysis
6. Concept of sampling - sampling design - probability and non-probability sampling techniques including simple random sampling, stratified sampling
7. Multi-stage sampling, systematic sampling, purposive sampling, quota sampling, judgment sampling, and convenience sampling
8. Sample size determination, sampling and non-sampling errors
9. Mid semester examination
10. Role and uses of quantitative techniques in business decision making - use of equations
11. Use of determinants and matrices in business decisions
12. Frequency distribution, measures of central tendency
13. Measures of variation, skewness and kurtosis, simple, partial, and multiple correlation, rank correlation
14. Simple and multiple regression, discriminant and dummy variable analysis
15. Index numbers, hypothesis testing, ANOVA
16. Factor analysis, cluster analysis, conjoint analysis, multi-dimensional analysis etc
17. Report writing: types of report, essentials and contents of good report writing
Practical schedule

1. Exercises in problem identification
2. Project proposals - contents and scope
3. Formulation of objective and hypotheses
4. Assessment of data needs - sources of data - methods of collection of data
5. Methods of sampling - criteria to choose
6. Discussion on sampling under different situations - scaling techniques
7. Measurement of scales
8. Preparation of interview schedule
9. Field testing
10. Methods of conducting survey
11. Exercises on coding, editing, tabulation and validation of data
12. Preparing of data entry into computer
13. Hypothesis testing
14. Parametric tests
15. Non-parametric tests
16. Exercises on format for thesis / report writing
17. Presentation of the results

Course outcome

At the end of the course students will be able to

1. Grasp the significance of literature study, case study and structured surveys in agri-business research.
2. Know the different methods to collect data and coding of data.
3. Determine the appropriate sample size and sampling methods.
4. Select the variable related to research problem and to analyse using econometric methods.
5. Test the hypothesis and write the research report.

Reference books


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Learning Objective

- To impart the students an understanding of concepts
- To identify various policies, strategies and decisions relating to agricultural marketing management

Theory

Unit-I: Introduction to marketing management

Unit-II: Customer behaviour and competitive strategies

Unit-III: Product management

Unit-IV: Pricing policies and promotional management
Pricing policies and practices for agribusiness - determinants of price - objectives of pricing policies and pricing methods. Marketing communication - objectives, factors. Promotional management - advertising, planning and execution - sales promotion, grading and standardization.

Unit-V: Distribution management
Distribution management - storage, warehousing and transportation management for agricultural products - marketing agencies/intermediaries - roles and functions. Distribution channels involved in agribusiness. Current streams of thought

Theory schedule

1. Meaning and scope - agricultural marketing and economic development
2. Agricultural market structure - meaning, components
3. Dynamics of market structure
4. Marketing strategy - meaning and significance, formulation of marketing strategy
5. Agribusiness marketing environment
6. Design of marketing mix
7. Market segmentation and targeting
8. Determinants of consumer's behaviour
9. Building customer value, satisfaction and loyalty
10. Consumer behaviour - meaning, factors influencing consumer behaviour
11. Stimuli response model
12. Organizational buying - participants, process, managing business to business customer relationships
13. Identifying and analyzing competition
14. Benchmarking and competitive strategies
15. Brand management - strategy, extensions and portfolio
16. Product management
17. Mid semester examination
18. Product management process - decisions
19. New product development
20. Significance and classification of new product
21. Stages and estimation of demand of new product
22. Product life cycle
23. Pricing policies and practices for agribusiness
24. Determinants of price
25. Objectives of pricing policies and methods
26. Marketing communication - objectives, factors
27. Promotional management - concepts
28. Advertising, planning and execution
29. Sales promotion, grading and standardization
30. Distribution management
31. Storage and warehousing management for agricultural products
32. Transportation management for agricultural products
33. Marketing agencies/intermediaries - roles and functions
34. Distribution channels involved in agribusiness

Course outcome

At the end of the course students will be able to

1. Formulate a marketing plan.
2. Construct strategies for the efficient distribution of agricultural products and services by knowing consumer behaviour.
3. Determine strategies for developing new products and services that are consistent with evolving market needs.
4. Evaluate results of marketing activities.
5. Analyse various channels involved in agribusiness for effective distribution of goods.

Reference books

Learning Objective

- To expose the learner to the concept and methods of management accounting
- To understand techniques, uses and applications of management accounting

Theory

Unit-I: Financial accounting


Unit-II: Journal entry

The double entry system - its meaning and scope - the journal - cash book - ledger - trial balance - trading account - profit and loss account - balance sheet - entries and adjustments of different heads in different books and accounts. Introduction to company accounts.

Unit-III: Management accounting


Unit-IV: Cost accounting


Unit-V: Budgeting

Responsibility accounting - its meaning and significance - cost profit and investment centers - accounting for price level changes - concepts - CPP and CCA methods. Budget and budgetary control - its meaning, uses and limitations - budgeting and profit planning - different types of budgets and their preparations - sales budget, purchase budget, production budget, cash budget, flexible budget, master budget, zero based budgeting. Current streams of thought

Practical


Theory schedule

1. Financial accounting - meaning, need, principles
2. Concepts and conventions - branches of accounting - internal and external users of accounting
3. Advantages and limitations of financial accounting - accounting standards
4. The double entry system - its meaning and scope - the journal - cash book - ledger
5. Trial balance - trading account - profit and loss account - balance sheet
6. Entries and adjustments of different heads in different books and accounts
7. Introduction to company accounts - managing accounting - meaning, functions, scope, utility
8. Limitations and tools of management accounting
9. Mid semester examination
10. Analysis of financial statements - ratios - comparative and common size statements - cash flow analysis - funds flow analysis - management audit and financial audit
11. Cost accounting - nature, significance of cost accounting - classification of cost - costing for material - labour and overheads
12. Marginal costing - break even analysis - cost volume profit analysis - its significance, uses and limitations
13. Standard costing - its meaning, uses and limitations - determination of standard cost, variance analysis - material, labour and overhead
14. Responsibility accounting - its meaning and significance - cost, profit and investment centers - accounting for price level changes
15. Concepts - CPP and CCA methods - budget and budgetary control - its meaning, uses and limitations
16. Budgeting and profit planning - different types of budgets and their preparations
17. Sales budget - purchase budget - production budget - cash budget - flexible budget - master budget - zero based budgeting

**Practical schedule**
1. Preparation of journal, ledger, day book
2. Preparation of balance sheet
3. Financial ratio analysis
4. Income statement
5. Depreciation methods
6. Comparative statement
7. Trend analysis
8. Percentage analysis
9. Standard costing
10. Variance analysis
11. Break-even analysis
12. Analysis of case studies
13. Cash budget analysis
14. Portfolio management
15. Investment analysis
16. Capital market operations analysis
17. Case studies

**Course outcome**

At the end of the course students will be able to

1. Understand principles of financial accounting.
2. Differentiate various investment, transactions and performance measurements.
3. Know the role and management audit and financial audit in management accounting.
4. Know the basics and significant of cost accounting techniques.
5. Prepare budget efficiently and measure performance by analyzing standards costs.

**Reference books**
7. [www.referenceforbusiness.com](http://www.referenceforbusiness.com)
8. [http://ocw.mit.edu/courses/economics](http://ocw.mit.edu/courses/economics)
9. [https://www.msu.edu/course/ECO/855](https://www.msu.edu/course/ECO/855)
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Learning Objective
- To provide the students a thorough understanding on agricultural project selection, formulation
- To explain financial feasibility analysis, monitoring
- To understand evaluation techniques with special reference to agriculture business sector

Theory

Unit-I: Agricultural projects - introduction
- Project - definition - agricultural projects - project preparation and analysis - project cycle - identification, formulation, appraisal, implementation and evaluation - criteria for selection of agricultural projects.

Unit-II: Project identification and formulation
- Project identification - entrepreneurs area of interest - background, land, building, water, investment. Sources of projects - resources - own and institutional. Enterprise - project cost, break even point, infrastructure, machinery, power, water, manpower requirement. Procedures for preparation of project proposal on crops, dairy, poultry, horticulture crops, forest, fisheries - data requirements and their format.

Unit-III: Project appraisal
- Project appraisal - meaning and scope - types of project appraisal - technical, commercial, financial, economic and management appraisal - methodological issues in financial and economic evaluation of projects - measuring intangible costs and benefits - social cost and benefits analysis - choice among mutually exclusive projects.

Unit-IV: Project monitoring and evaluation

Unit-V: Project management
- Project management - project ranking - preparation of case studies - review of world bank aided projects - planning and preparation of macro level projects - irrigation, power, agricultural credit, input supply, cropping systems, animal husbandry, plantations, forestry, fisheries and agro-processing units.

Current streams of thought

Practical

Theory schedule
1. Project - definition - agricultural projects - project preparation and analysis
2. Project cycle - identification, formulation, appraisal, implementation and evaluation - criteria for selection of agricultural projects
3. Project identification - entrepreneurs area of interest - background, land, building, water, investment
4. Sources of projects - resources - own and institutional
5. Enterprise - project cost, break even point, infrastructure, machinery, power, water, manpower requirement
6. Procedures for preparation of project proposal on crops, dairy, poultry, horticulture crops, forest, fisheries - data requirements and their format
7. Project appraisal - meaning and scope - types of project appraisal - technical, commercial, financial, economic and management appraisal
8. Methodological issues in financial and economic evaluation of projects
9. Mid semester examination
10. Measuring intangible costs and benefits
11. Methods of project monitoring and evaluation
12. Cash flow analysis and discounting procedures - use of decision criteria NPV, BCR, Pay back period and IRR in decision making
13. Network techniques - PERT, CPM and crash programme methods
14. SWOT techniques
15. Analyzing risk in agricultural projects
16. Project management - project ranking - preparation of case studies
17. Review of world bank aided projects - planning and preparation of macro level projects - irrigation, power, agricultural credit, input supply, cropping systems, animal husbandry, plantations, forestry, fisheries and agro-processing units

**Practical schedule**
1. Developing skills in identification of agricultural development projects
2. Formulation of projects
3. Appraisal of project using undiscounted and discounted techniques
4. Review of world bank aided projects
5. Market feasibility of the projects
6. Use of sensitivity analysis
7. Selection methods among mutually exclusive projects
8. Repayment methods in project
9. Discussion of agricultural development projects - case studies
10. Social cost benefit analysis
11. Developing network techniques for project management
12. Use of management tools in project monitoring
13. Analyzing risk in projects
14. Project evaluation - project ranking
15. Macro level agricultural development projects
16. Agro processing projects
17. Project presentation

**Course outcome**

At the end of the course students will be able to

1. Know the scope, cost, timing and quality of the project.
2. Identify project goals, constraints and resources requirements in consultation with stakeholders.
3. Understand social cost and benefit analysis and the make choice among mutually exclusive projects.
4. Evaluate the projects using programming techniques.
5. Apply project management practices to meet the needs of state holders from multiple sectors of the economy.

**Reference books**
6. www.edc-iitd.org
7. www.ediindia.org
8. www.projectmanagement.com
9. www.projectsccenter.com

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Learning Objective
- To impart knowledge regarding various aspects of financial management for agribusiness
- To explain the functions of financial institutions

Theory
Unit-I: Introduction to financial management
Importance, need and scope of financial management - classification of credit - credit needs in changing agriculture scenario - finance functions - investment financing - balance sheet - income statement - cash flow statement for agribusiness.

Unit-II: Financial planning
Financial planning and control - assessment of financial requirement of an agribusiness unit. Leverage - concept of leverage, financial and operating leverage - factor affecting capital structure - features of an optimal capital structure.

Unit-III: Working capital management
Working capital management - concept and components of working capital - need for working capital in agribusiness - management of cash and accounts receivables - inventory for agribusiness.

Unit-IV: Capital budgeting
Capital budgeting - steps and concept of capital budgeting - appraisal criteria - payback period, average rate of return, net present value, benefit-cost ratio and internal rate of return - sensitivity analysis.

Unit-V: Agribusiness finance system
Agribusiness financing system in India - functioning of cooperative credit institutions, commercial banks, regional rural banks, NABARD, agro-industries corporation, etc in agribusiness financing. Current streams of thought

Theory schedule
1. Importance, need and scope of financial management
2. Classification of credit
3. Credit needs in changing agriculture scenario
4. Finance functions
5. Investment financing
6. Balance sheet for agribusiness
7. Income statement for agribusiness
8. Cash flow statement for agribusiness
9. Financial planning and control
10. Assessment of financial requirement of an agribusiness unit
11. Leverage - concept of leverage
12. Financial leverage - operating leverage
13. Factor affecting capital structure
14. Features of an optimal capital structure
15. Working capital management
16. Concept and components of working capital
17. Mid semester examination
18. Need for working capital in agribusiness
19. Management of cash - accounts receivables
20. Inventory for agribusiness
21. Capital budgeting
22. Steps and concept of capital budgeting
23. Appraisal criteria
24. Payback period, average rate of return
25. Net present value
26. Benefit-cost ratio
27. Sensitivity analysis
28. Agribusiness financing system in India
29. Internal rate of return
30. Functioning of cooperative credit institutions
31. Commercial banks in agribusiness financing
32. Regional rural banks in agribusiness financing
33. NABARD in agribusiness financing
34. Agro-Industries Corporation in agribusiness financing
Course outcome

At the end of the course students will be able to

1. Grasp the significance of common investment criteria and project cash flows.
2. Know capital investments decision and financial policies to business valuations
3. Analyze working capital and inventory for agri business.
4. Identify relevant cash flows for capital budgeting projects and apply various methods to analyze projects.
5. Understand the functions of various financing institutions and analyse financing system in agribusiness sectors.

Reference books

6. www.logisticsmgmt.com
7. www.managementhelp.org

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ABM 625 Operations Research (1+1)

Learning Objectives
• To acquaint the learner with the applications of operations research techniques
• To understand the use of these techniques in solving business problems

Theory
Unit-I : Linear programming
Linear programming - objective, assumptions, formulation of linear programming problems - graphical method - simplex method - applications of operations research in functional areas of management.

Unit-II : Transportation and assignment problem

Unit-III : Waiting line models
Waiting line problem - characteristics of a waiting line system - single channel model - multiple channel model - constant service time model - finite population model - sequencing and replacement models.

Unit-IV : Decision making under risk
Decision making under risk and uncertainties - decision problem - maximax criterion - maximin criterion - minimax regret criterion - laplace criterion - pay off tables - decision trees - expected value of perfect information - decision making environment.

Unit-V : Game theory
Game theory - two person zero sum game - competitive situations - characteristics competitive games simulation - network analysis - PERT and CPM.

Current streams of thought
Practical

Theory schedule
1. Linear programming - objective, assumptions
2. Formulation of linear programming problems - graphical method - simplex method
3. Applications of operations research in functional areas of management
4. Transportation problem - formulation
5. Initial basics feasible solution - degeneracy in transportation problem
6. Assignment problem - formulation algorithm
7. Routing problems - sequencing problems
8. Waiting line problem - characteristics of a waiting line system, single channel model - multiple channel model
9. Mid semester examination
10. Constant service time model - finite population model
11. Sequencing and replacement models
12. Decision making under risk and uncertainties - decision problem - maximax criterion - maximin criterion
13. Minimax regret criterion - laplace criterion - pay off tables - decision trees - expected value of perfect Information, decision making - environment
14. Game theory - introduction - two person zero sum games
15. Competitive situations and characteristics of competitive games simulation
16. Net work analysis - basic components - rules
17. Critical Path Method (CPM), Project Evaluation Review Technique (PERT), time calculations in net work problems
Practical schedule
1. Linear programming problems - formulation
2. Graphical solution - simplex method
3. Artificial variable technique - problem of degeneracy
4. Concept of duality - formulation of primal - dual problems
5. Dual simplex method - revised simplex method
6. Transportation problem - formulation
7. Initial basic feasible solution and optimal solution
8. Degeneracy in transportation problem
9. Assignment problem
10. Routing problems - sequencing problems
11. Waiting line problem - single channel model - multiple channel model
12. Constant service time model - finite population model
13. Sequencing and replacement models
14. Game theory - two person zero sum games
15. Problem solving in game theory using saddle points and dominance property
16. Net work problems - Critical Path Method (CPM)
17. Project Evaluation Review Technique (PERT) - time calculations

Course outcome

At the end of the course students will be able to

1. Construct linear programming models for shortest path, maximum flow, minimum cost flow, transshipment problems.
2. Solve the problems using special solutions algorithms.
3. Set up decision models and use some solutions methods for nonlinear optimization problems.
5. Use game theories in solving agri business problems.

Reference books

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ABM 626 Agri Business Environment, Business Law and Policy (1+0)

Learning Objectives

- To expose learners to the environment in which the agribusiness is conducted
- To explain ethical issues and laws affecting business
- To understand micro and macro environmental forces and their impact on agribusiness

Unit-I : Agri business environment

Role of agriculture in Indian economy - problems and policy changes in India relating to farm supplies - farm production - agro processing and agricultural marketing.

Unit-II : Agri business sector

Structure of agriculture - linkages among sub sectors of the agribusiness sector - economic reforms in Indian agriculture - impact of liberalization, privatization and globalization on agri business sector.

Unit-III : Agri business policy

Agribusiness policies - concept and formulation - new dimensions in agri business environment and policy - public distribution systems and other policies.

Unit-IV : Introduction to India business law


Unit-V : Legal acts


Theory schedule

1. Role of agriculture in Indian economy
2. Problems and policy changes in India relating to farm supplies and farm production
3. Problems and policy changes in India relating to agro processing and agricultural marketing
4. Structure of agriculture - linkages among sub-sectors of the agribusiness sector
5. Economic reforms in Indian agriculture - impact of liberalization, privatization and globalization on agri business sector
6. New dimensions in agri business environment and policy
7. Public distribution systems and other policies
8. Introduction to Indian legal system
9. Mid semester examination
11. Types of contract - essentials of a valid contract acceptance
12. Capacity to contract - free consent - performance of contract
13. Companies act 1956 incorporation - sale of goods act and commencement of business
14. Types of companies - management - winding of companies
15. Negotiable instruments act - essential commodities act
16. APMC act - consumer protection act
17. RTI act - MRTP act - major provisions and implications - factory act - labour laws - industrial dispute act - law of insurance

Course outcome

At the end of the course students will be able to

1. Understand the general legal boundaries.
2. Identify legal issues that impact financial and other risks effecting business.
3. Identify and interpret sources of law effecting business.
4. Analyse the relevant case law for the purpose of finding legal precedents.
5. Analyse the legal issues affecting business.
Reference books
6. www.taxinfo.com www.mca.gov.in
7. www.laws4india.com
8. www.indialaw.com
Learning Objective

- To introduce the students to the concepts and processes of agricultural supply chain management
- To understand supply chain drivers, network designs
- To explain demand forecasting, inventory planning, sourcing decisions and IT enablement of supply chain

Theory

Unit-I : Concept of supply chain management


Unit-II : Demand management in supply chain

Demand management in supply chain - types of demand, demand planning and forecasting - operations management in supply chain - basic principles of manufacturing management.

Unit-III : Procurement management in supply chain

Procurement management in agri. supply chain. Purchasing Cycle - types of purchases - contract/corporate farming - classification of purchases: Goods or services. Traditional inventory management - material requirements planning, Just in Time (JIT), Vendor Managed Inventory (VMI).

Unit-IV : Logistic management in supply chain


Unit-V : Information technologies


Theory schedule

1. Supply chain - changing business environment - supply chain management - present need
2. Conceptual model of supply chain management
3. Evolution of supply chain management
4. Supply chain management approach - traditional agri. supply chain management approach
5. Modern supply chain management approach
6. Elements in supply chain management
7. Demand management in supply chain
8. Types of demand, demand planning and forecasting
9. Operations management in supply chain
10. Basic principles of manufacturing management
11. Procurement management in agri. supply chain - purchasing cycle
12. Types of purchases
13. Contract/corporate farming
14. Classification of purchases: goods or services
15. Traditional inventory management
16. Material requirements planning
17. Mid semester examination
18. Just in Time (JIT)
19. Vendor Managed Inventory (VMI)
20. Logistics management
21. History and evolution of logistics
22. Elements of logistics management
23. Distribution management, distribution strategies
24. Pool distribution
25. Transportation management
26. Fleet management
27. Service innovation - warehousing - packaging for logistics
28. Third-party logistics (TPL/3PL) - GPS technology
29. Concept of information technology - IT application in supply chain management
30. Advanced planning and scheduling
31. SCM in electronic business
32. Role of knowledge in supply chain management
33. Performance measurement and controls in agriculture - supply chain management
34. Benchmarking: introduction, concept and forms of benchmarking

Course outcome

At the end of the course students will be able to

1. Understand fundamental supply chain management concepts, analyse and improve supply chain processes.
2. Understand basic principles of operations management in supply chain.
3. Apply logistic and purchasing concepts to improve supply chain operations.
4. Construct the supply chain management technique with corporate goals and strategies.
5. Apply information technology in supply chain management.

Reference books

6. www.logisticsonline.com
7. www.supplychainmarket.com

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Learning Objective
- To acquaint the students with the basic principles of farm management
- To analyse farm resources having alternatives within the framework of resource restrictions

Theory
Unit-I: Scope of farm business management
Nature, scope, characteristics and role of farm business management - farm management decisions - farm management problems.

Unit-II: Principles of farm management

Unit-III: Tools of farm management
Tools of farm management and farm business analysis - valuation of farm assets - depreciation - net worth statement - income statement - cash flow statement. Farm planning and budgeting - enterprises budgeting - partial budgeting - complete budgeting - steps in whole farm planning and budgeting. Farm records and accounts - types and problems in farm records and accounts.

Unit-IV: Management of farm resources
Management of farm resources - land, labour, farm machinery, farm building, etc. Farm efficiency measures - physical efficiency, financial efficiency measures - break even point analysis.

Unit-V: Risk and uncertainty
Risk and uncertainty in farming - sources of uncertainty in farming, management strategy to counteract uncertainty and decision making process in farm business management under risk and uncertainty. Current streams of thought

Theory schedule
1. Nature, scope, characteristics and role of farm business management
2. Farm management decisions
3. Farm management problems
4. Principles of farm management decisions
5. Principle of variable proportion
6. Cost principle
7. Principle of factor substitution
8. Law of equi-marginal returns
9. Opportunity cost principle
10. Time comparison principle
11. Principle of comparative advantage
12. Tools of farm management and farm business analysis
13. Valuation of farm assets
14. Depreciation methods
15. Networth statement
16. Income statement
17. Mid semester examination
18. Cashflow statement
19. Farm planning and budgeting
20. Enterprises budgeting
21. Partial budgeting
22. Complete budgeting
23. Steps in whole farm planning and budgeting
24. Farm records and accounts
25. Types and problems in farm records and accounts
26. Management of farm resources
27. Land, labour, farm machinery, farm building, etc
28. Farm efficiency measures
29. Physical and financial efficiency measures
30. Break even point analysis
31. Risk and uncertainty in farming
32. Sources of uncertainty in farming
33. Management strategy to counteract uncertainty
34. Decision making process in farm business management under risk and uncertainty
Course outcome

At the end of the course students will be able to

1. Understand the farm management problems for taking decisions.
2. Gain the knowledge about principle of farm management.
3. Select of tools of farm management for various problems related to farm.
4. Identify the way to use farm resources efficiently.
5. Manage of farm resources under risk and uncertainty.

Reference books


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Learning Objectives

- To provide knowledge to students on the theory of sales management
- To identify practices of sales promotion and product management in agri-business

Theory

Unit-I: Introduction to sales management

- Selling and marketing - selling and advertising - sales objectives - functions of sales management - duties and responsibilities of sales manager. Salesmanship - art, science and profession - types of salesmanship - advantages and limitations of salesmanship - qualities of a good salesman.

Unit-II: Sales management functions, selling process

- Sales management - functions - sales planning, sales policy - sales organization - structuring and managing sales force - designing sales territories - fixing sales quota - controlling and motivating sales force. Selling processes - sizing up customers - AIDAS formula - sales promotion techniques - dealer and consumer promotion.

Unit-III: Training of salesman and methods of appraisal


Unit-IV: Distribution channels and marketing risk


Unit-V: Distribution environment - intermediaries

- Distribution environment - competitors, extensive distribution - franchise selling, Public distribution - its special features. Distribution intermediates - their role and importance - types of intermediates - wholesaler and retailers - kinds of retailers - small scale and large scale retailers. Other intermediaries - brokers, commission agents, dealers, sole selling agents. Current streams of thought

Theory schedule

1. Selling and marketing - selling and advertising - sales objectives
2. Functions of sales management - duties and responsibilities of sales manager
3. Salesmanship - art, science and profession, types of salesmanship
4. Advantages and limitations of salesmanship - qualities of a good salesman
5. Sales management - functions - sales planning, sales policy
6. Sales organization, structuring and managing sales force
7. Designing sales territories - fixing sales quota, controlling and motivating sales force
8. Selling processes - sizing up customers - AIDAS formula
9. Sales promotion techniques - dealer and consumer promotion
10. Recruitment and selection of sales force
11. The need for sales - selection process
12. Training of salesman - importance, objectives, methods of training
13. Supervision of salesman - executive sales training programme
14. Appraising salesman's performance - methods of appraisal
15. Indices of salesman's performance
16. Compensation of sales force - principles of compensation to salesman
17. Mid semester examination
18. Methods of compensation - additional compensator scheme
19. Physical distribution - meaning - distribution mix - role of distribution in marketing
20. Transport - kinds, functions, advantages and limitations
21. Managing transport - criteria for selecting good transport
22. The channels of distribution - its importance
23. Selection of right channel
24. Types of channels - dealer network
Course outcome

At the end of the course students will be able to

1. Understand the roles and responsibilities of the sales managers.
2. Manage and enhance the sales force productivity and performance.
3. Know the methods to train sales force for an effective sales strategy.
4. Design and implement distribution channel strategy.
5. Manage the channels efficiently and effectively under different business environment.

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Learning Objective

- To make the students understand the concept of entrepreneurship development skills for agri business
- To explain its application

Theory

Unit-I: Concept of entrepreneurship development


Unit-II: Classification of entrepreneurship

Types of entrepreneurship - food processing - export oriented units - agri inputs - organic product entrepreneurship - service entrepreneurs - certification entrepreneurs - clearing and forwarding entrepreneurs - machinery manufacturers.

Unit-III: Significance of entrepreneurship


Unit-IV: Business plan preparation

Developing effective business plans - procedural steps in setting up of an industry. Business feasibility analysis - techno, economic, financial and social cost benefit analysis. Network analysis - PERT and CPM.

Unit-V: Government schemes and social entrepreneurship

Government schemes and incentives for promotion of entrepreneurship - institutional support to business entrepreneurs - business incubation and entrepreneurship. Social entrepreneurship - concept and opportunities. Current streams of thought

Theory schedule

1. Introduction to agri business
2. Entrepreneur - qualities of entrepreneurs
3. Entrepreneurial process
4. Entrepreneurial competencies and orientation
5. Innovation levels, types, process and drivers to improve the innovation competencies
6. Identification of business opportunities
7. Guidelines for starting farm enterprises
8. Types of entrepreneurship
9. Food processing
10. Export oriented units
11. Agri inputs entrepreneurship
12. Organic product entrepreneurship
13. Service entrepreneur
14. Certification entrepreneurs
15. Clearing and forwarding entrepreneurs
16. Machinery manufacturers
17. Mid semester examination
18. Entrepreneurship - significance of entrepreneurship in economic development
19. Entrepreneurship development programs
20. Role of various institutions in developing entrepreneurship
21. Life cycles of new businesses
22. Environmental factors affecting success of a new business
23. Reasons for the failure and visible problems of business
24. Developing effective business plans
25. Procedural steps in setting up of an industry
26. Business feasibility analysis
27. Techno, economic, financial and feasibility analysis
28. Social cost benefit analysis
29. Network analysis - PERT and CPM
30. Government schemes and incentives for promotion of entrepreneurship - I
31. Government schemes and incentives for promotion of entrepreneurship - II
32. Institutional support to business entrepreneurs
Course outcome

At the end of the course students will be able to

1. Understand basic concepts in entrepreneurship developments.
2. Identify different type of entrepreneurship related agri business sector.
3. Assess opportunities and constraints for new business ideas.
4. Understand the systemic process to select and screen a business idea.
5. Discuss various schemes implemented by government for promotion of entrepreneurship.

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ABM 712 E2 Rural and Service Marketing (2+0)

Learning Objectives

- To develop an understanding on the issues in rural markets and marketing environment
- To analyse consumer behaviour, distribution channels and marketing strategies

Theory

Unit-I: Overview of rural marketing

- Concept and scope of rural marketing - nature and characteristics of rural markets - potential of rural markets in India - rural communication and distribution.

Unit-II: Factors affecting rural marketing

- Environmental factors, socio-cultural, economic, demographic, technological and other environmental factors affecting rural marketing.

Unit-III: Consumer's behaviour

- Rural consumer’s behaviour - behaviour of rural consumers and farmers - buyer characteristics and buying behaviour. Rural Vs urban markets - customer relationship management - rural market research - implications of rural market research.

Unit-IV: Rural marketing strategy

- Rural marketing strategy - marketing of consumer durable and non-durable goods - services in the rural markets with special reference to product planning - product mix - pricing policy and pricing strategy - distribution strategy.

Unit-V: Promotion strategy

- Promotion and communication strategy - media planning - planning of distribution channels - organizing personal selling in rural market in India - innovations in rural marketing. Current streams of thought

Theory schedule

1. Concept and scope of rural marketing
2. Nature of rural markets
3. Characteristics of rural markets
4. Potential of rural markets in India
5. Rural communication and distribution
6. Environmental factors affecting rural marketing
7. Socio-cultural factors affecting rural marketing
8. Economic factors affecting rural marketing
9. Demographic factors affecting rural marketing
10. Technological factors affecting rural marketing
11. Other environmental factors affecting rural marketing
12. Rural consumer’s behaviour
13. Behaviour of rural consumers
14. Behaviour of rural farmers
15. Buyer characteristics and buying behaviour
16. Rural Vs urban markets
17. Mid semester examination
18. Customer relationship management
19. Rural market research
20. Implication of rural market research
21. Rural marketing strategy
22. Marketing of consumer durable goods
23. Marketing of non-durable goods
24. Marketing of services in the rural markets with special reference to product planning
25. Product mix
26. Pricing policy and pricing strategy
27. Distribution strategy
28. Promotion strategy
29. Communication strategy
30. Media planning
31. Planning of distribution channels
32. Organizing personal selling in rural market in India
33. Innovations in rural marketing - I
Course outcome

At the end of the course students will be able to

1. Gain conceptual knowledge about rural marketing.
2. Understand the rural market distribution and factors affecting it.
3. Know about the consumer behavior and trend in rural marketing.
4. Know in detail about the service sector and apply the 7P’s of service marketing.
5. Identify recent innovations in rural marketing.

Reference books

7. http://www.slideshare.net/
10. http://www.bms.co.in/rural-marketing-notes/

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Learning Objectives

- To assist the students in understanding the structure and working of food marketing system in India
- To examine how the system affects farmers, consumers and middlemen
- To illustrate the response of this dynamic marketing system to technological, socio-cultural, political and economic forces over time

Theory

Unit-I: International food market

Introduction to international food market - India’s competitive position in the world food trade - foreign investment in global food industry - retail management and food retailing - the nature of change in retailing - organized retailing in India - retailing and understanding food preferences of Indian consumers - food consumption and expenditure pattern - demographic and psychographic factors affecting food pattern of Indian consumer.

Unit-II: Value chain

Value chain in food retailing - principal trends in food wholesaling and retailing - the changing nature of food stores - various retailing formats - competition and pricing in food retailing - market implications of new retail developments - value chain and value additions across the chain in food retail - food service marketing.

Unit-III: Pricing strategies

4 P’s in food retail management - brand management in retailing - merchandise pricing - pricing strategies used in conventional and non-conventional food retailing - public distribution system - promotion mix for food retailing - management of sales promotion and publicity - advertisement strategies for food retailers.

Unit-IV: Retail operations

Managing retail operations - managing retailers’ finance - merchandise buying and handling - merchandise pricing - logistics - procurement of food products and handling transportation of food products.

Unit-V: Retail selling

Retail sales management types of retail selling - salesperson selection - salesperson training - evaluation and monitoring - customer relationship management - managing human resources in retailing - legal and ethical issues in retailing. Current streams of thought

Theory schedule

1. Introduction to international food market
2. India’s competitive position in world food trade
3. Foreign investment in global food industry
4. Retail management and food retailing
5. The nature of change in retailing
6. Organized retailing in India
7. Retailing and understanding food preferences of Indian consumers
8. Food consumption and expenditure pattern
9. Demographic and psychographic factor affecting food pattern of Indian consumer
10. Value chain in food retailing
11. Principal trends in food wholesaling and retailing
12. The changing nature of food stores
13. Various retailing formats
14. Competition and pricing in food retailing
15. Market implications of new retail developments
16. Value chain and value additions across the chain in food retail
17. Mid semester examination
18. Food service marketing
19. 4 P’s in food retail management
20. Brand management in retailing
21. Merchandise pricing, pricing strategies used in conventional and non-conventional food retailing
22. Public distribution system
23. Promotion mix for food retailing
24. Management of sales promotion and publicity
25. Advertisement strategies for food retailers
26. Managing retail operations and retailers’ finance
27. Merchandise buying and handling, merchandise pricing
28. Logistics, procurement of food products and handling transportation of food products
29. Retail sales management
30. Types of retail selling
31. Salesperson selection, training, evaluation and monitoring
32. Customer relationship management
33. Managing human resources in retailing
34. Legal and ethical issues in retailing

Course outcome

At the end of the course students will be able to

1. Understand the concepts of effective retailing.
2. Know the recent trends in retailing.
3. Possess the knowledge of pricing strategies in retail marketing.
4. Manage the various retail operations like finance, handling, buying, transportation etc.,
5. Understand customers relationship management and legal and ethical issues in retailing.

Reference books

6. www.fssai.in
8. www.qcin.org

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Learning Objective

• To provide the students a thorough knowledge on the principles of insurance
• To understand practices of risk management in agri business
• To analyse various insurance policies and schemes available for agri business

Theory

Unit-I: Concept of risk and insurance
The concept of risk - kinds and classification of risks - assessment - the concept of insurance - types of general insurance, agriculture, fire, marine, engineering - insurance of property. Insurance professionals and intermediaries.

Unit-II: Principles of insurance

Unit-III: Agricultural insurance

Unit-IV: Basics in risk management
Risk and uncertainty - acceptable risks versus unacceptable risks - classification of risk - the cost of risk - handling risks. The scope and objective of risk management - measurement of risk and adjustment to risk - linear programming and marginal analysis - MOTAD - personal risk management.

Unit-V: Techniques of risk management

Current streams of thought

Theory schedule

1. Concept of risk in the context of agri business
2. Kinds and classification of risk - risk assessment
3. The concept of insurance
4. Types of general insurance - agriculture
5. General insurance - fire, marine, engineering insurance of property
6. Insurance professionals and intermediaries
7. Basic principles of insurance - utmost good faith - insurable interest - material facts
8. Economic principles of - sharing - subrogation - contribution
9. Legal principles of insurance
10. The Indian contract act 1872 - nomination and assignment
11. Financial principles - premium funds - investments
12. Agricultural situation in India
13. Types of agricultural insurance - scope and practices
14. Problems in crop insurance and remedies
15. Crop insurance in other countries
16. Cattle insurance policy - valuation of cattle loans assessment - settlement of claims
17. Mid semester examination
18. Poultry insurance - valuation - loss assessment - settlement
19. Insurance for sericulture, apiculture
20. Insurance for shrimp culture
21. Insurance for plantations
22. Insurance for bio - gas, pump sets and other miscellaneous insurance
23. Basics in risks and uncertainty
24. Acceptable risks versus unacceptable risks
25. Classification of risks relevant to agri business
26. The cost of risks and handling of risk
27. The scope and objective of risk management, measurement and adjustment to risk
28. Linear programming and marginal analysis
29. MOTAD
30. Personal risk management
31. Risk identification - risk evaluation - statistical methods and probability
32. Decision taken under conditions of risks and uncertainty
33. Risk avoidance - risk reduction and loss control - insurance - benefits and limitations
34. Partial insurance - risk management and corporate objectives

Course outcome

At the end of the course students will be able to

1. Demonstrate a working knowledge of the procedures associated with risk management.
2. Perform risk management review for individuals and organizations.
3. Evaluate the use of insurance contracts.
4. Understand the scope and objective of risk management
5. Take decisions under risky situation using various risk management techniques.

Reference books


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Learning Objectives
- To make the students proficient in written as well as oral communication
- To understand business related communication aspects

Theory

Unit - I : Communication - introduction
Introduction to communication - communication process - barriers to communication - effective communication. Communication in organisations - downward - upward - horizontal - static vs dynamic communication.

Unit - II : Types of communication
Non-verbal communication - communication through clothes / colours / space / symbol - body language and etiquettes - interpersonal communication - self-concept and communication - assertive communication.

Unit - III : Business writing

Unit - IV : Meetings
Meetings - planning for meeting - tips for chairing, opening - progress and ending - behaviour of ordinary members - the character of business meeting - energies for meetings - group discussions - brain storming sessions and presentations.

Unit - V : Personal communication

Current streams of thought

Theory schedule
1. Introduction to communication
2. Communication process
3. Barriers to communication
4. Effective communication
5. Communication in organizations
6. Downward, upward, horizontal, static Vs dynamic communication
7. Types of communication - non-verbal communication
8. Communication through clothes / colours / space / symbol
9. Body language and etiquettes
10. Interpersonal communication
11. Self-concept and communication
12. Assertive communication
13. Types of business writing
14. News letters, reports
15. Folders, fact sheets
16. Press release
17. Mid semester examination
18. Readership and writing style
19. Human aspects of writing
20. Meetings - planning for meeting
21. Tips for chairing, opening, progress and ending
22. Behaviour of ordinary members
23. The character of business meeting
24. Energies for meetings
25. Group discussions
26. Brain storming sessions
27. Presentations
28. Handling personal communication
29. Letters, dictation, reading, problem solving
30. listening skills
31. Self-talk
32. Self-reflection
33. Steps to personal creativity
34. Public speaking
Course outcome

At the end of the course students will be able to

1. Understand the ethical, international, social and professional constraints.
2. Understand the current resources for locating secondary information.
3. Understand the strategies of effective primary data gathering.
4. Develop professional work habits, including those necessary for effective collaboration and cooperation with others.
5. Handle personal communication ways.

Reference books


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ABM 713 E3 Management of Agricultural Input Marketing (2+0)

Learning Objectives
- To impart the students an understanding of different marketing concept
- To have a clear understanding of marketing system in context of agricultural inputs

Theory

Unit-I : Agricultural input marketing
Agricultural input marketing - meaning and importance - management of distribution channels for agricultural input marketing. Agricultural Inputs and their types - farm and non-farm - role of cooperatives, public and private sectors in agricultural input marketing.

Unit-II : Seed marketing
Seed - Importance of seed input - types of seeds - hybrid, high yielding and quality seeds - demand for and supply of seeds - seed marketing channels - pricing - export and import of seeds - role of NSC and State Seed Corporation.

Unit-III : Fertilizer Marketing
Chemical fertilizer - 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 public, private and cooperative sector in fertilizer marketing.

Unit-IV : Plant protection chemicals and fuel marketing
Plant protection chemicals - production, export/import - consumption, marketing system - marketing channels - electricity/diesel oil - marketing and distribution system - pricing of electricity for agriculture use - subsidy on electricity.

Unit-V : Farm machinery marketing
Farm machinery - production, supply, demand - marketing and distribution channels of farm machines - agro-industries corporations and marketing of farm machines / implements / equipments.

Current streams of thought

Theory schedule
1. Agricultural input marketing - meaning and importance
2. Management of distribution channels for agricultural input marketing
3. Agricultural inputs and their types - farm and non-farm inputs
4. Role of cooperatives in agri input marketing
5. Role of public sectors in agri input marketing
6. Role of private sectors in agri input marketing
7. Seed - importance of seed input
8. Types of seeds - hybrid, high yielding and quality seeds
9. Demand for and supply of seeds
10. Seed marketing channels
11. Pricing of seeds
12. Export and import of seeds
13. Role of NSC and state seed corporation
14. Chemical fertilizers - production
15. Export-import of chemical fertilizers
16. Supply of chemical fertilizers
17. Mid semester examination
18. Demand/consumption of fertilizers
19. Prices and pricing policy of fertilizers
20. Subsidies on fertilizers
21. Marketing system - marketing channels
22. Problems in distribution of fertilizers
23. Role of public, private and cooperative sector in fertilizer marketing
24. Plant protection chemicals - production
25. Export/import of plant protection chemicals
26. Consumption of plant protection chemicals
27. Marketing system - marketing channels in PPC
28. Electricity/diesel oil - marketing and distribution system
29. Pricing of electricity for agriculture use
30. Subsidy on electricity
31. Farm machinery - production, supply, demand
32. Marketing and distribution channels of farm machines
33. Agro-industries corporations
34. Marketing of farm machines / implements / equipments
Course outcome

At the end of the course students will be able to

1. Understand the distribution channels of input marketing.
2. Gain the knowledge about seed and fertilizer marketing.
3. Analyse subsidy on fertilizers and problems in its distribution.
4. Understand the pattern of production of plant protection chemicals.
5. Manage distribution channels of farm machinery.

Reference books

Learning Objective
- To impart knowledge to the students on international trade in agriculture
- To understand various provisions under WTO in the new trade regime

Theory
Unit-I: WTO and agriculture
International trade - basic concepts - WTO and its implications for Indian economy in general and agriculture sector in particular.

Unit-II: Trade agreements
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 - CDMs and carbon trade.

Unit-III: Foreign trade
Importance of foreign trade for developing economy - absolute and comparative advantage - foreign trade of India.

Unit-IV: Foreign trade policy
Composition of India's foreign trade policy - India's balance of payments - interregional Vs international trade - tariffs and trade control - exchange rates - the foreign trade multiplier.

Unit-V: Export procedures
Foreign demand - supply side analysis - opportunity cost - trade and factor prices - implications for developing countries - market entry methods - export procedures and documentations. Current streams of thought

Theory schedule
1. International trade - basic concepts
2. WTO and its implications for Indian economy in general
3. Impact of WTO on agriculture sector
4. TRIPS
5. TRIMS
6. Quotas - anti dumping duties
7. Quantitative restrictions on trade
8. Qualitative restrictions on trade
9. Tariff measures
10. Non-tariff measures
11. Trade liberalization
12. Subsidies in trade
13. Green and red boxes
15. CDMs and carbon trade
16. Importance of foreign trade for developing economy

17. Mid semester examination
18. Absolute and comparative advantage
19. Foreign trade of India
20. Composition of India’s foreign trade policy
21. India’s balance of payments
22. Inter regional Vs international trade
23. Tariffs and trade control
24. Exchange rates
25. The foreign trade multiplier
26. Foreign demand
27. Supply side analysis
28. Opportunity cost
29. Trade prices
30. Factor prices
31. Implications for developing countries
32. Market entry methods
33. Export procedures
34. Documentations
Course outcome

At the end of the course students will be able to

1. Understand basic concepts of international trade.
2. Compare the relationship between trade, investment and economic growth
3. Identify empirical tests of trade models.
4. Analyse foreign trade policy related to agri business sector.
5. Understand export procedure and way to improve the share of agri in total export.

Reference books

Learning Objectives
- To provide a basic understanding on the mechanics and value of futures markets for speculators and hedgers
- To understand price risk management activities of agribusiness firms

Theory
Unit-I: Commodity markets
History and evolution of commodity markets - terms and concept - spot, forward and futures markets - factors influencing spot and future markets. Speculatory mechanism in commodity futures.

Unit-II: Trading strategies
Transaction and settlement - delivery mechanism - role of different agents - trading strategies - potential impact of interest rate. Foreign exchange - FDI in commodity markets.

Unit-III: Risks in commodity trading
Risks in commodity trading - importance and need for risk management measures - managing market price risk - hedging, speculation, arbitrage, swaps - pricing and their features.

Unit-IV: Commodity exchanger
Importance of global and Indian commodity exchanges - contracts traded - special features - regulation of Indian commodity exchanges - FMC and its role.

Unit-V: Technical analysis
Fundamental Vs technical analysis - construction and interpretation of charts and chart patterns for analyzing the market trend - market indicators - back testing. Introduction to technical analysis software - analyzing trading pattern of different commodity groups. Current streams of thought

Theory schedule
1. History and evolution of commodity markets
2. Terms and concept
3. Spot markets
4. Forward and future markets
5. Factors influencing spot markets
6. Factors influencing future markets
7. Speculatory mechanism in commodity futures
8. Transaction and settlement
9. Delivery mechanism
10. Role of different agents in trading
11. Trading strategies
12. Potential impact of interest rate
13. Foreign exchange
14. FDI in commodity markets
15. Risks in commodity trading
16. Importance and need for risk management measures
17. Mid semester examination
18. Managing market price risk
19. Hedging, speculation
20. Arbitrage, swaps
21. Pricing and their features
22. Importance of global commodity exchanges
23. Importance of Indian commodity exchanges
24. Contracts traded
25. Special features
26. Regulation of Indian commodity exchanges
27. FMC and its role
28. Fundamental Vs technical analysis
29. Construction and interpretation of charts
30. Chart patterns for analyzing the market trend
31. Market indicators
32. Back testing
33. Introduction to technical analysis software
34. Analyzing trading pattern of different commodity groups
Course outcome

At the end of the course students will be able to

1. Understand the speculator mechanism of commodity markets.
2. Gain the knowledge about trading strategies.
3. Manage market price under risks.
4. Understand the importance of global and Indian commodity exchange.
5. Do technical analysis of trading pattern of commodity groups.

Reference books

Learning Objective
• To enable the students to acquire an overview of the different aspects of capital and commodity trading
• To teach the fundamentals and other factors related to capital market instruments and commodities as well as their prices

Theory
Unit-I: Introduction to capital markets
The basic investment portfolio theory and models - stock exchange and stock trading regulator, securities, participants issue of shares - Initial Public Offering (IPO) and FPO - foreign capital issuance - introduction to secondary markets - products in secondary markets.

Unit-II: Debt investments
Debt investments - derivatives, depository, corporate actions. Index - its calculations, clearing, settlement and redressal, concepts and modes of analysis - ratio analysis.

Unit-III: Introduction to commodity markets
History and evolution of commodity markets - spot, forward and futures market - options, derivative markets - managing market price risk. Hedging, speculation, arbitrage, swaps - concepts of open interest, close out - mark to market practice - margins and its types, strategies using options to hedge risks.

Unit-IV: Commodity exchange regulation
Important global and Indian commodity exchanges - regulation of Indian commodity exchanges - sources of commodity market information - Forward Market Commission (FMC) and its role - Multi Commodity Exchange (MCX) - National Multi Commodity Exchange (NMCE) - National Commodity and Derivatives Exchange Limited (NCDEX) - Risk in commodity trading - importance and need for risk management measures.

Unit-V: Fundamental and technical analysis
Fundamental analysis - demand and supply, trade volume of capital market instruments and commodities - technical analysis - chart reading - candle stick charts (Doji, Marbozu, Hammer) - pie charts, line charts, bar charts, histogram, moving averages, exponential, simple weighted average.

Current streams of thought
Theory schedule
1. The basic investment portfolio theory
2. The basic investment models
3. Stock exchange and stock trading regulator, securities, participants issue of shares
4. Initial Public Offering (IPO) and FPO
5. Foreign capital issuance
6. Introduction to secondary markets
7. Products in secondary markets
8. Debt investments
9. Derivatives, depository, corporate actions, index - its calculations, clearing, settlement and redressal
10. Concepts and modes of analysis
11. Ratio analysis
12. History and evolution of commodity markets
13. Spot, forward and futures market
14. Options, derivative markets, managing market price risk
15. Hedging, speculation, arbitrage, swaps
16. Concepts of open interest, close out
17. Mid-semester examination
18. Mark to market practice
19. Margins and its types
20. Strategies using options to hedge risks.
21. Important global and Indian commodity exchanges
22. Regulation of Indian commodity exchanges
23. Sources of commodity market information
24. Forward Market Commission (FMC) and its role
25. Multi Commodity Exchange (MCX)
27. National Commodity and Derivatives Exchange Limited (NCDEX)
28. Risk in commodity trading
29. Importance and need for risk management measures
30. Fundamental Analysis of demand and supply
31. Trade volume of capital market instruments and commodities
32. Technical analysis chart reading, candle stick charts (Doji, Marbozu, Hammer)
33. Pie charts, line charts, bar charts
34. Histogram, moving averages, exponential, simple weighted average

**Course outcome**

At the end of the course students will be able to

1. Understand the fundamentals of capital and commodity markets.
2. Gain knowledge about debt investment.
3. Manage market price risk in commodity market.
4. Manage commodity exchange understanding risk in trade.
5. Analyse capital market technically using different tools.

**Reference books**

6. [www.ncdex.com](http://www.ncdex.com)
7. [www.moneycontrol.com](http://www.moneycontrol.com)
8. [www.commodityonline.com](http://www.commodityonline.com)
STA 613 Statistics for Business Management (2+1)

Learning Objective

- To make the students conversant about the applications of statistics in agri business analysis
- To understand various methods of analysis and interpretation

Theory

Unit - I: Sampling and data collection

- Basic concepts - unit and frame, population and sample - sampling and complete enumeration - probability and non-probability sampling - sampling and non-sampling errors - measurement and control of non-sampling errors. Simple random sampling (SRS) - with and without replacement - Systematic sampling - Stratified random sampling - stratification - cluster sampling - determination of sample size. Collection of data - primary and secondary - methods of collection - drafting questionnaire - sources of data - editing - classification and tabulation of data - diagrammatic and graphical representation.

Unit - II: Theories of distributions


Unit - III: Correlation and regression


Unit - IV: Tests of significance

- Test of significance - basic ideas - Type I error, Type II error - test of significance based on small sample - ‘t’ test - testing the significance of single mean - testing the significance of two means for independent samples and paired samples. Large sample tests - testing the significance single mean, two means. Test for regression coefficient - Chi square - test for homogeneity of variance. Goodness of fit tests - ‘F’ test- one way ANOVA and two way ANOVA.

Unit - V: Nonparametric tests and time series models

- Non parametric tests (Distribution free tests) - advantages - disadvantages - run test - test for randomness - median test - sign test - Mann Whitney U test for two samples - Kolmogrov - Smirnov one sample and two sample test, Kruskal - Walli’s test - Chi-square. Introduction to time series models - AR - MA - ARMA models - forecasting using SPSS.

Practical


Theory schedule
2. Basic concepts - unit and frame, population and sample - sampling and complete enumeration
3. Probability and non-probability sampling - sampling and non-sampling errors - measurement and control of non-sampling errors
4. Simple random sampling (SRS) - with and without replacement
5. Systematic sampling - Stratified random sampling - stratification - cluster sampling - determination of sample size
6. Collection of data - primary and secondary
7. Methods of collection - drafting questionnaire
8. Sources of data - editing - classification and tabulation of data
9. Diagrammatic and graphical representation
10. Measures of central value
11. Measures of dispersion
12. Methods of studying variation
13. Binomial distribution - poisson distribution
14. Normal distribution - their applications
15. Simple correlation - meaning - assumptions - positive and negative correlation

16. Mid semester examinations
17. Scatter diagram - computation of correlation coefficient
18. Properties, testing and interpretation of correlation coefficient
19. Coefficient of determination
20. Regression theory - simple linear regression - meaning, assumptions
21. Fitting of simple linear regression - properties of regression coefficients
22. Interpretation of regression coefficients and intercept
23. Multiple linear regression - assumptions - standardized and partial regression coefficients
24. Fitting of multiple linear regression equation - interpretation of regression coefficients
25. Multiple correlation - coefficient of multiple determination ($R^2$) - interpretation
26. Test of significance - basic ideas - Type I error, Type II error - test of significance based on small sample - ‘t’ test - testing the significance of single mean
27. Testing the significance of two means for independent samples and paired samples
28. Large sample tests - testing the significance single mean, two means
29. Test for regression coefficient - Chi square - test for homogeneity of variance
30. Goodness of fit tests - ‘F’ test- one way ANOVA and two way ANOVA
31. Non-parametric tests (Distribution/free/tests) - advantages - disadvantages
32. Run test - test for randomness - median test - sign test
33. Mann - Whitney U test for two samples - Kolmogrov - Smirnov one sample and two sample test, Kruskal - Walli’s test - chi-square
34. Introduction to time series models - AR, MA, ARMA models - forecasting using SPSS.

Practical schedule
1. Simple random sample - selection - estimation
2. Determination of sample size in simple random sampling
3. Systematic sampling - stratified random sampling
4. Cluster sampling - selection - estimation
5. Frequency distribution - graphical representation
6. Measures of central values measures of dispersions
7. Applications of binomial distribution
8. Poisson distribution and normal distribution
9. Problems in correlation and regression analysis
10. Partial correlation
11. Multiple correlation and multiple regression
12. Rank correlation coefficient
13. Tests of significance for small and large samples and problems
14. Non-parametric tests
15. Time series analysis - AR, MA and ARMA Models
16. Forecasting using SPSS
17. LIMDEP

Reference books
Learning Objective

- To provide the usage of various statistical packages
- To analyse agricultural research data

Practical


Course outcome

At the end of the course students will be able to

1. Use various statistical packages.
2. Identify the variables and models
3. Interpret the results.

Reference books


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Learning Objective

- To provide the use of the statistical package
- To understand analytical techniques

Practical


Practical schedule

1. Use of SPSS / equivalent for frequency distribution
2. Summarization and tabulation of data
3. F test
4. Correlation, pearson correlation, spearman correlation
5. ANOVA, ANCOVA
6. Regression - simple, multiple linear regression, estimation of regression by OLS and MLE method
7. Logit, probit, stepwise regression
8. Coefficient of determination
9. Kolmogorov - Smirnov test
10. Wilcoxon signed rank test, Mann - Whitney U test
11. Kruskal - Wallis, McNemar's test
12. Discriminant analysis
13. Fitting of discriminant functions
14. Identification of important variables
15. Factor analysis. Principal component analysis
16. Obtaining principal component
17. Time series data AR, MA, ARIMA models

Course outcome

At the end of the course students will be able to

1. Identify the methods to collect data.
2. To do different econometric analysis.
3. Forecast economic variables using AR, MA, and ARIMA models.

Reference books

1. SPSS User’s guide and User’s manual.

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PGS 715 Intellectual Property and its Management in Agriculture (1+0) (e-course)

Learning Objectives
- To create awareness about intellectual property rights in agriculture
- To explain management of patents, trademark, geographical indications, copy rights, designs, plant variety protection and biodiversity protection
- To understand marketing and commercialization of intellectual properties

Theory

Unit - I: World trade organization - introduction
World Trade Organization - Agreement on Agriculture (AoA) and Intellectual Property Rights (IPR) - importance of intellectual property management - IPR and economic growth - IPR and bio diversity - major areas of concern in intellectual property management - technology transfer and commercialization - forms of different intellectual properties generated by agricultural research.

Unit - II: Patent document
Discovery versus invention - patentability of biological inventions - procedure for patent protection - preparatory work - record keeping, writing a patent document, filing the patent document - types of patent application - patent application under the Patent Cooperation Treaty (PCT).

Unit - III: Plant genetic resources
Plant genetic resources - importance and conservation - sui generic system - plant varieties protection and farmers’ rights act - registration of extinct varieties - registration and protection of new varieties / hybrids / essentially derived varieties - dispute prevention and settlement - farmers’ rights.

Unit - IV: Trademark
Trademark - geographical indications of goods and commodities - copy rights - designs - biodiversity protection.

Unit - V: Benefit sharing
Procedures for commercialization of technology - valuation, costs and pricing of technology - licensing and implementation of intellectual properties - procedures for commercialization - exclusive and non exclusive marketing rights - research exemption and benefit sharing.

Current streams of thought

Theory schedule
1. World Trade Organization - Agreement on Agriculture (AoA) and Intellectual Property Rights (IPR)
2. Importance of intellectual property management - IPR and economic growth - IPR and bio diversity
3. Major areas of concern in Intellectual property management - technology transfer and commercialization
4. Forms of different intellectual properties generated by agricultural research
5. Discovery versus invention patentability of biological inventions
6. Procedure for patent protection
7. Preparatory work - record keeping, writing a patent document, filing the patent document
8. Types of patent application - patent application under the Patent Cooperation Treaty (PCT)
9. Mid semester examination
10. Plant genetic resources - importance and conservation
11. Sui generic system - plant varieties protection and farmers’ rights act - registration of extinct varieties
12. Registration and protection of new varieties / hybrids / essentially derived varieties - dispute prevention and settlement - farmers’ rights
13. Trade mark - geographical indications of goods and commodities - copy rights - designs
14. Biodiversity protection
15. Procedures for commercialization of technology - valuation, costs and pricing of technology
16. Licensing and implementation of intellectual properties - procedures for commercialization
17. Exclusive and non exclusive marketing rights - research exemption and benefit sharing
Course outcome

At the end of the course students will be able to

1. Understand the concepts in international trade.
2. Understand the procedure to obtain patent rights.
3. Identify the way to commercialize intellectual properties

Reference books


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