

**MBA**  
**(AGRIBUSINESS MANAGEMENT)**

## List of courses – MBA (ABM) Programme

### Core Courses

S. No	Course Number	Course Title
1.	ABM 501	Principles of Management and Organizational Behaviour
2.	ABM 502	Agribusiness Environment & Policy
3.	ABM 503	Managerial Economics
4.	ABM 504	Managerial Accounting & Control
5.	ABM 505	Communication for Management and Business
6.	ABM 506	Business Laws & Ethics
7.	ABM 507	Marketing Management
8.	ABM 508	Human Resource Management
9.	ABM 509	Financial Management
10.	ABM 510	Production and Operations Management
11.	ABM 511	Research Methodology and Business Management
12.	ABM 512	Project Management & Entrepreneurship Development

### List of Basic Supporting Courses

S. No	Course Number	Course Title
1.	ABM 513	Computers for Managers
2.	ABM 514	Management Information System
3.	ABM 515	Operations Research

### List of Elective Courses

Sl. No	Course Number	Course Title
1.	ABM 516	Rural Marketing
2.	ABM 517	Advertising and Sales Promotions Management
3.	ABM 518	Food Technology and Processing Management
4.	ABM 519	Agri Financial Markets
5.	ABM 520	Management of Agro Chemical Industry
6.	ABM 521	Farm business Management
7.	ABM 522	Seed Production Technology and Management
8.	ABM 523	Technology Management for Livestock Products
9.	ABM 524	Fruit Production and Post Harvest Management
10.	ABM 525	Farm Power and Machinery Management
11.	ABM 526	International Trade and Sustainability Governance

12.	ABM 527	Banking for Agribusiness and Rural Development
13.	ABM 528	Security Analysis and Portfolio Management
14.	ABM 529	Food Retail Management
15.	ABM 530	Management of Agricultural Input Marketing
16.	ABM 531	Seed Business Management
17.	ABM 532	Agricultural Supply Chain Management
18.	ABM 533	Strategic Management
19.	ABM 534	Poultry and Hatchery Management
20.	ABM 535	Management of Floriculture and Landscaping

### **Compulsory Non Credit Courses**

<b>Sl. No</b>	<b>Course Number</b>	<b>Course Title</b>
1.	PGS 501	Library and Information Services
2.	PGS 502	Technical Writing and Communication Skills
3.	PGS 503	Intellectual Property and its Management in Agriculture (e-course)
4.	PGS 504	Basic Concepts in Laboratory Techniques
5.	PGS 505	Agriculture Research, Research Ethics and Rural Development Programmes
6.	PGS 506	Disaster Management (e-course)

## **Description of Courses**

**ABM 501            Principles of Management and Organizational Behaviour    3(2+1)**

### **Objective**

To acquaint the learner with meaning and concepts of management and organizational behaviour. Focus will be on understanding the concepts, processes, significance, and role of management and organizational behaviour.

### **Contents**

#### **UNIT – I**

Nature, Scope and Significance of Management, Evolution of Management Thought, Approaches to Management, Functions of a Manager, Planning -Types, Steps, Course Objective, Process, Strategies, Policies, MBO, Strategic Planning Process, SWOT analysis, Organizing – Structure & Process, Line Staff, Authority & responsibility.

#### **UNIT – II**

Staffing – Selection process, Directing – Training, Communication & motivation, Controlling- Significance, Process, Techniques, Standards & Benchmarks, Management Audit.

#### **UNIT – III**

Nature, Scope and Significance of Organizational Behavior; Evolution and Historical Background of Organizational Behavior; Models of Organizational Behaviour, Foundations of individual behaviour, Diversity, Micro Organizational Behavior - Personality, Self-concept, Self-esteem and Self-Efficacy; Attitudes, Perception, Power – types & structures.

#### **UNIT – IV**

Motivation- Types of motivation. Theories of motivation, Applications of motivation. Transactional analysis-Johari window-self fulfilling prophecy, Interpersonal relations- understanding, determinants, and developing; Leadership styles and influence process; Leadership theories; types of leaders, and effective leader; Group Dynamics-, types of groups, group formation, Group Decision Making, Team Building.

## **UNIT – V**

Organizational culture or climate-concept, dimensions, ethos, determinants; organizational conflicts-concepts, sources, implications, and management; organizational changes - types, resistances to change, role of change agents.

### **Practicals**

1. Studying three latest agriproducts introduced in the market and their consumer satisfying potential.
2. Case study to analyze managerial levels and the link between line and staff managers.
3. Case study to apply various theories of management.
4. SWOT analysis of students and an organization.
5. Case study on authority and responsibility.
6. Study of human resource staffing and training pattern of an organization.
7. Role plays to understand barriers and break down in communication and the methods to overcome them.
8. Visit to an organization to understand various controlling systems.
9. Exercises to notice the perception differences between individuals.
10. Case study on motivation.
11. Role play on transactional analysis.
12. Simulation exercises on group dynamics.
13. Case study on organizational culture.
14. Case study on organizational conflicts.
15. Case study on organizational change.
16. Role play by students on conflicts.

### **Suggested Readings**

Fred Luthans 1998. *Organizational Behavior*. Tata McGraw Hill.

Harold Koontz & Keing Weighrlich. *Essentials of Management*. McGraw Hill.

John W Newstrom & Keith Davis. 1997. *Human Behaviour at Work*. Tata McGraw.

Robert C Appleby. 1997. *Modern Business Administration*. Macmillan India.

Stephen P Robbins 2007. *Organizational Behaviour*. Prentice Hall.

Stoner James AF. 2005. *Management*. Pearson Edu.

**ABM 502**

**Agribusiness Environment and Policy**

**3(2+1)**

**Objective**

To expose learners to the environment in which the agri-business is conducted. Focus will be on understanding micro and macro environmental forces and their impact on agri-business.

**Contents**

**UNIT – I**

Role of agriculture in Indian economy; problems and policy changes relating to farm supplies, farm production, agro processing, agricultural marketing, agricultural finance etc. in the country.

**UNIT – II**

Structure of Agriculture - Linkages among sub-sectors of the Agribusiness sector; economic reforms and Indian agriculture; impact of liberalization, privatization and globalization on Agri business sector.

**UNIT – III**

Emerging trends in production, processing, marketing and exports; policy controls and regulations relating to the industrial sector with specific reference to agro-industries.

**UNIT – IV**

Agribusiness policies- concept and formulation; and new dimensions in Agri business environment and policy.

**UNIT – V**

Agricultural price and marketing policies; public distribution system and other policies.

**Practicals**

1. SWOT analysis of a firm for business policy formulation
2. Economic forecast with regard to GDP growth rate, PCI, investments, output etc.
3. Case study on privatization of public sector unit and its analysis
4. Case study of a sick firm and identification of courses of sickness and curative measures

5. Mckinsey's agenda for India's economic reform-Analysis of recommendations and implications
6. Case study and analysis of entrepreneurial failure due to environmental factors
7. Case study and analysis of ethical issues involved by the firm in a business environment
8. Case study and analysis of implication of social activists groups on business firms
9. Comparison and analysis of the summary of balance of payments for past 2 years
10. Analysis of the latest five year plan with regard to allocations and growth
11. Study and analysis of price trends in India
12. Study and analysis of trends in monetary policy tools like CRR, SLR, discount rate etc.
13. Study and analysis of trends in the MSP of major Agril. Commodities
14. Study and analysis of trends in procurement, supply and food subsidy under public distribution system
15. Case study and analysis of social responsibilities of a business
16. Study of emerging capital market structures in India

### **Suggested Readings**

Adhikary M. 1986. *Economic Environment of Business*. S. Chand & Sons.  
 Aswathappa K. 1997. *Essentials of Business Environment*. Himalaya Publ.  
 Francis Cherunilam 2003. *Business Environment*. Himalaya Publ.  
 Agarwal Raj, 2001, *Business Environment*, Excel Books, New Delhi

**ABM 503**

**Managerial Economics**

**3(2+1)**

### **Objective**

To familiarize the students with the fundamental economic concepts and principles in the context of managerial decision making.

### **Contents**

#### **UNIT – I**

Scope of managerial economics, objective of the firm and basic economic principles; mathematical concepts used in managerial economics.

#### **UNIT – II**

Demand analysis - meaning, types and determinants of demand; demand function; demand elasticity; demand forecasting-need and techniques.

### **UNIT – III**

Production, cost and supply analysis- production function, least-cost input combination, factor productivities and returns to scale, cost concepts, cost-output relationship, short and long-run supply functions.

### **UNIT – IV**

Pricing-determinants of price - pricing under different market structures, pricing of joint products, pricing methods in practice, government policies and pricing.

### **UNIT – V**

The national income; circular flow of income: consumption, investment and saving: money-functions, demand & supply; inflation; economic growth; business cycles and business policies; business decisions under uncertainty.

### **Practicals**

1. Problems on Discounting Principle
- 2&3. Calculation of Elasticity of demand (price, cross and promotional)
4. Exercise on Concept of Total, Average and Marginal Revenue
- 5&6. Estimating Demand forecast (Different methods)
7. Calculation of Output elasticity
8. Problems on Isoquants and MPP
9. Calculating Least Cost Combination
10. Computation of costs.
11. Price and output determination under perfect competition
- 12&13. Working out Break even analysis (safety margin, target profit, change in price, change in cost, make or buy decisions, expand capacity or not)
14. Evaluation of Expected rate of net profit
- 15&16. Case Studies and discussions.

### **Suggested Readings**

- Baumol WJ. 1980. *Economic Theory and Operations Analysis*. Prentice Hall of India.
- Craig PH & Chris LW. 1996. *Managerial Economics*. Prentice Hall of India.
- Dernberg TF. et. al. 1986. *Macro Economics: Concepts, Theories and Policies*. McGraw Hill.
- Dwivedi DN. 2002. *Managerial Economics*. Vikash Publ.
- Gupta GS. 1997. *Managerial Economics*. Tata McGraw Hill.
- Koutsoyiannis A. 1989. *Modern Micro Economics*. Mac Millan Press.



**Objective**

The objective of this course is to expose the learner to the concept and methods of financial and management accounting. Focus will be on understanding techniques, uses and applications of financial and management accounting.

**Contents****UNIT – I**

Financial Accounting- Meaning, Need, Concepts and Conventions; Branches of Accounting, Internal and External Users of Accounting, Advantages and Limitations of Financial Accounting, Accounting Standards.

**UNIT – II**

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 of Company Accounts.

**UNIT – III**

Managing Accounting-Meaning, Functions, Scope, Utility, Limitations and Tools of Management Accounting, Analysis of Financial Statements-Ratios, Comparative and Common Size Statements, Cash Flow and Funds Flow Analysis, Management Audit and Financial Audit

**UNIT – IV**

Cost Accounting – Nature, Course Objective, Significance of Cost Accounting; Classification of Cost, Costing for Material, Labour, and Overheads; Marginal Costing and Cost Volume Profit Analysis- Its Significance, Uses and Limitations; Standard Costing – Its Meaning, Uses and Limitations; Determination of Standard Cost, Variance Analysis- Material, Labour and Overhead.

**UNIT – V**

Responsibility Accounting- Its Meaning and Significance, Cost, Profit and Investment Centres, 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.

## **Practicals:**

1. Exercise on recording, journalizing and ledger books
2. Preparation and analysis of trial balance for rectification of errors
3. Preparation and analysis of trading and profit and loss account
4. Presentation and analysis of balance sheet
5. Issue of bad debts (how capital is affected with Net profit or Net loss)
6. Preparation and analysis of A/Es
7. Statement on final accounts (ST investment, LT investment, goodwill, patents, copyright)
8. Preparation of accounting equation (capital + liabilities = cash + assets)
9. Preparing financial statement and ratio analysis
10. Preparation and analysis of cash flow statement
11. Preparation and analysis of funds flow statement
12. Solving problems on C-V-P analysis, computation of BEP
13. Calculation of variance (material variance, labour and overhead)
14. Preparation of cost sheet
- 15 & 16. Preparation of Master Budget

## **Suggested Readings**

Horngren. 2008. *Introduction to Financial Accounting*. 8th Ed. Pearson Edu.

Khan MY & Jain PK. 2004. *Management Accounting*. Tata McGraw Hill.

Maheshwari SN & Maheshwari SK. 2003. *Financial Accounting*. 3rd Ed. Vikas Publ. House.

**ABM 505**

**Communication for Management and Business**

**3(2+1)**

## **Objective**

The course aims to make students proficient in written as well oral communication. The focus will be on business related communication.

## **Contents**

### **UNIT – I**

Introduction to communication, Communication process, Barriers to Communication, Effective Communication, types of communication in organisations viz. Downward, Upward, Horizontal, Static Vs dynamic.

## **UNIT – II**

Non-Verbal Communication, Communication through clothes/ colours /space/ symbol, Body language and etiquettes, Interpersonal Communication, Self-concept and communication, Assertive Communication.

## **UNIT – III**

Types of Business Writing viz, News letters, Reports, Folders, Fact Sheets, Press release; Readership and writing style - human aspects of writing.

## **UNIT – IV**

Meetings - Planning for meeting, tips for chairing, opening, progress & ending, Behavior of ordinary members, the character of business meeting, Energies for meetings, Group discussions, brain storming sessions and presentations.

## **UNIT – V**

Handling personal communication - Letters, dictation, reading, problem solving, listening skills, self-talk, self - reflection, steps to personal creativity, public speaking.

### **Practicals**

1. Collecting an article and identifying the type of write ups – Descriptive, Narrative, Expository, Argumentative, Reflective, Persuasive, Interpretative
2. Writing business letters for different purposes
  - a. for placing an order
  - b. requesting the higher-ups for a facility or a machine
3. Writing internal business memos for different purposes
4. Writing letters – to apply for a job, seeking some information from an organization
5. Project Work on collecting annual report, a brochure and a circular from any organization
6. Studying the above for their content and presentation
7. Group presentations with 3-4 students in a group on a topic of interest, while rest of the class observes and comments on the presentation skills, body language and content of the presentations
8. Exercises in reading written speeches with right stress, timing and intonation - Reading out the contents of an article, story or a work of fiction before audience
9. Exercises in public speaking – One minute extempore talk by each student on a topic of interest
10. Role Play – mock interviews

11. Role Reversal – Students as interviewers and interviewees
12. Group Discussions on latest topics and critical analyses of each session of discussion
13. Preparation of a Press Invitation and a Press Release for media to an organizational event
14. Demonstration of E-mails, creation of an account, writing the subject tag, content, attaching a document and sending an informal e-mail
15. Writing formal letters through e-mails and sending them
16. Games and Role plays in Management

### **Suggested Readings**

Bovee. 2008. *Business Communication Today*. 7th Ed. Pearson Edu.  
Brown L. 2006. *Communication Facts and Ideas in Business*. Prentice Hall.  
Lesikar. 2004. *Basic Business Communication*. McGraw Hill.  
Ramchandran KK, Lakshmi KK & Karthik KK. 2007. *Business Communication*. Macmillan.

**ABM 506**

**Business Laws and Ethics**

**3(2+1)**

### **Objective**

The objective of this course is to expose the learner to various ethical issues and laws affecting business. Focus will be on understanding provisions of various business laws and also ethical practices to conduct the business properly.

### **Contents**

#### **UNIT – I**

Introduction to Indian legal system, The Indian Contract Act-1872: Contract- meaning, nature, significance, types of contract, essentials of a valid contract, offer and acceptance, capacity to contract, free consent, performance of contract.

#### **UNIT – II**

Companies Act-1956: incorporation, commencement of business, types of companies, management, winding of companies, Negotiable Instruments Act.

#### **UNIT – III**

Essential Commodities Act, APMC Act, Consumer Protection Act, RTI Act, MRTP Act- major provisions and implications.

## **UNIT – IV**

Factory Act, Labour laws, Industrial dispute Act.

## **UNIT – V**

Nature and importance of ethics and moral standards; corporations and social responsibilities, scope and purpose of business ethics; Ethics in business functional areas; industrial espionage; solving ethical problems; governance mechanism.

### **Practicals**

Case problems-Study of the case, making observations and substantiating with relevant legal provisions.

1. Void contracts (void ab initio)
2. Valid Contract (Compliance of all elements of contract)
3. Voidable Contract
4. Contract act, 1872
5. Capacity to contract
6. Sale and agreement to sell under sale of goods act
7. Sale of goods act referring to the provisions of implied condition as to title to the goods
8. Ascertained and specific goods
9. Implied warranty
10. Clause of memorandum of association and also doctrine of constructive notice and ultra vires
11. Provision of the companies act, 1956 as to formation and commencement of business
12. Companies act, 1956 as to requisites of a valid meeting
13. Corporate governance and ethics in corporate entities
14. Corporate social responsibility
15. Ethics in business in functional areas upholding corporate goals and the corporate philosophy
16. Ethics and moral standards and spiritual quotient

### **Suggested Readings**

Gulshan SS & Kapoor GK. 2003. *Business Law including Company Law*.  
10th Ed. New Age Publ.

Kapoor ND. 2005. *Business Law*. S. Chand & Sons.

Tulsain PC. 2006 *Business Law*. Tata McGraw Hill.

Tuteja SK. 2005. *Business Law for Managers*. S. Chand & Sons.

**ABM 507**

**Marketing Management**

**3(2+1)**

### **Objective**

The objective of this course is to develop an understanding of the field of marketing. The focus will be on imparting knowledge of the basic concepts, tools, and functions of marketing.

### **Contents**

#### **UNIT – I**

The Concept of Marketing Management; Marketing Environment; Marketing Mix, Strategic Marketing, Market Segmentation, Targeting, and Positioning; Buyer Behavior, Marketing Information System, Marketing Organization and Control

#### **UNIT – II**

Marketing potential and forecasting, Classification of Products; Product Life Cycle; New Product Development; Product Line and Product Mix; Branding, Packaging and labeling.

#### **UNIT – III**

Factors affecting prices; Pricing Policies and Strategies; Pricing Methods.

#### **UNIT – IV**

Types of Distribution Channels; Functions of Channel Members; Channel Management Decisions.

#### **UNIT – V**

Promotion Mix; Introduction to Advertising, Personal Selling, Sales Promotion, Publicity and Public Relations. and Direct marketing, managing integrated marketing promotion, Customer Relationship Management.

### **Practicals (Case Studies and Activities)**

1. Marketing Planning- (BCG and GE approach)
2. Market Segmentation
3. Market Research Process

4. Product Lifecycle
5. Branding
6. Pricing methods
7. Developing an Advertisement
8. Estimation of sales force requirement
9. Distribution channels
10. Food Retailing
11. Corporate Social Responsibility
12. SWOT Analysis of firm
13. Conflict Management
14. Instrumentation in Marketing Research
- 15&16. Visit to Agribusiness firms and study of the marketing process

### **Suggested Readings**

- Brassington 1997. *Marketing Management*. Pitman Publ. House.
- Kotler P. 2002. *Marketing Management – Analysis, Planning, Implementation and Control*. Pearson Edu.
- McCarthy 2003. *Marketing Management*. Tata McGraw-Hill.
- Saxena R. 2002. *Marketing Management*. Mc Graw Hill.
- Stanton WJ, Etzel MJ & Walker BJ. 1996. *Fundamentals of Marketing*. McGraw-Hill.

**ABM 508**

**Human Resource Management**

**3(2+1)**

### **Objective**

The objective of this course is to expose the learner to the field of human resource management. The focus will be on human resource practices and their utility for managers.

### **Contents**

#### **UNIT – I**

Introduction to Human Resources 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 Process, Induction, Training and Human Resource Development- Nature, Significance, Process and Techniques, Internal mobility including Transfers, Promotions, employee separation.

### **UNIT – III**

Performance Appraisal – Significance and methods, Compensation management, Wage and Salary Administration - Course Objective; Wage Fixation; Fringe Benefits, Incentive Payment, bonus, and Profit Sharing.

### **UNIT –IV**

Industrial Relations-Role and Status of Trade Unions; Collective Bargaining; Worker's Participation in Management, Career planning and employee retention.

### **UNIT – V**

Quality of work life, employee welfare measure, Disputes and grievance Handling Procedures; Arbitration and Adjudication; Health and Safety of Human Resources; Human Resources accounting, Human Resources outsourcing.

### **Practicals**

1. Case study on significance of Human Resource Management
2. Development of a model job analysis chart
3. Development of a model application blank
4. Case study on training and development
5. Role play on conducting interviews
6. Developing performance appraisal format
7. Case study on compensation management
8. Case study on collective bargaining
9. Developing a data base of major trade unions in India and their philosophy
10. Interviewing employees of an organization to find out the fringe benefits offered to them
11. Development of job description and job specification charts for a specific job by interviewing an employee of any organization
12. Case study on industrial relations
13. Development of a self-appraisal format
14. Case study on career planning
15. Case study on transfers, promotions, employee separation
16. Developing a HR policy for an hypothetical firm



## **Suggested Readings**

Ashwathapa K. 1997. *Human Resource Management*. Tata McGraw. Flippo EB. 1984. *Personnel, Management*. McGraw-Hill.

Garry D. 2001. *Human Resource Management*. 7th Ed. Prentice-Hall of India.

Mamoria CB. 1996. *Personnel Management*. Himalaya Publ. House.

Subba Rao P. 2004. *Essentials of Human Resource Management and Industrial Relations*. Himalaya Publ. House.

Venkantavatnam CS & Srivastav BK. 1991. *Personnel Management and Human Resources*. Tata McGraw-Hill.

**ABM 509**

**Financial Management**

**3(2+1)**

## **Objective**

The course aims to make students proficient in concepts and techniques of financial management. Focus will be on developing understanding of the application of Financial and investment decisions.

## **Contents**

### **UNIT – I**

Introduction to Financial Management, Its meaning and functions, Interface of financial management with other functional areas of a business. Financial Statements and Analysis - Proforma Balance Sheet and Income Statements, ratio, time series, common size and Du-Pont analysis.

### **UNIT – II**

Capital Structure, Determinants of size and composition of Capital Structure, Capital Structure Theories; Long term financing and Cost of Capital.

### **UNIT – III**

Working Capital Management, Determinants of Size and Composition of Working Capital, Cash and receivables management, Working Capital Management Theories, Financing of Working Capital.

## **UNIT – IV**

Financial planning and Forecasting, Financial planning for Mergers & Acquisition, Capital Budgeting, Undiscounted and Discounted cash flow methods of Investment Appraisal; Hybrid finance and lease finance.

## **UNIT –V**

Business Financing System in India, Money and Capital Markets, Regional and All - India Financial Institutions; Venture Capital financing and its stages, micro finance and International financial management.

### **Practicals**

1. Problems on ratio analysis
2. Problems on du-pont analysis
3. Problems on operating leverage, financial leverage and combined leverage
4. Problems on net income approach and net operating income approach
- 5 & 6. Problems on calculating cost of capital
7. Problems on determining capital structure
8. Case study on long-term financing
9. Problems on working capital management
10. Problems on management of cash
11. Problems on receivables management
12. Case study on working capital management
13. Problems on capital budgeting-undiscounted techniques
14. Problems on capital budgeting-discounted techniques
15. Problems on Hybrid financing instruments
16. Problems/exercises on foreign exchange rates

## **Suggested Readings**

Chandra P. 2000. *Financial Management*. Tata McGraw Hill.

Khan MY & Jain PK. 2004. *Financial Management: Text, Problems and Cases*. Tata McGraw Hill.

Pandey IM. 1997. *Financial Management*. Vikas Publ.

Ramachandran N & Kakani RK. 2005. *Financial Accounting for Management*. Tata McGraw Hill.

Van Horne JC. 1997. *Financial Management and Policy*. Prentice Hall.

**ABM 510**

**Production and Operations Management**

**3(2+1)**

### **Objective**

The objective of this course is to expose the learner to the field of production and operations management. The focus will be on imparting knowledge of the basic concepts, tools, and functions of production management.

### **Contents**

#### **UNIT – I**

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 and Analysis.

#### **UNIT – II**

Productivity Variables and Productivity Measurement, Production Planning and Control, Mass Production, Batch Production, Job Order Manufacturing, Product Selection, Product Design and Development, Process Selection, Capacity Planning.

#### **UNIT – III**

Scheduling, Maintenance Management Concepts, Work Study, Method Study, Work Measurement, Work Sampling, Work Environment, Industrial Safety,

#### **UNIT – IV**

An Overview of Material Management, Determination of Material Requirement, Purchase Management, Store Management, Logistics Management, Material Planning and Inventory Management, JIT, Safety Management .

## **UNIT – V**

Quality Assurance, Accepting Sampling, Statistical Process Control, Total Quality Management, ISO standards and their Importance, Introduction to re-engineering, value engineering.

### **Practicals**

#### **Case Studies, Discussions & Presentation on**

1&2. Plant Location

3&4. Inventory Management

5. Plant Layout

6. Productivity Planning

7. Maintenance Planning

8. Work Study

9. Stores Location and Layout

10. Stores Management

11. Logistic Management

12. Quality Management

13. Business Process Reengineering

14. Material Handling

15&16. Value Engineering

### **Suggested Readings**

Adam & Ebert. 2006. Production and Operations Management: Concepts,

Models and Behaviour. 5th Ed. Prentice Hall of India.

Buffa ES. 2008. Modern Production/Operations Management. Wiley India.

Stevenson WJ. 2005. Operations Management. Tata McGraw Hill.

**ABM 511**

**Research Methodology in Business Management**

**3(2+1)**

### **Objective**

The objective of this course is to develop an understanding of research methodology. The focus will be on process and techniques of research.

## **Contents**

### **UNIT – I**

Meaning, Types and process of research; Research methodology in management- Exploratory, Descriptive, Experimental, Diagnostic, Problem formulation, Setting of objective, Formulation of hypotheses.

### **UNIT – II**

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**

Concept of Sampling, 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**

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**

Index Numbers, Hypothesis testing, ANOVA, Factor analysis, cluster analysis, conjoint analysis, multi-dimensional analysis etc, Report writing: Types of report, essentials and contents of good report writing.

### **Practicals**

1. Identification of the market research problem
2. Developing suitable research design
3. Environmental analysis of the industry using secondary data
4. Focus group discussion on the certain product issues
5. Construction of a semantic differential scale to find out the importance of various attributes of a product
6. Conducting a indepth interview to obtain views on a particular product

7. Outlining a suitable Likert scale to examine the corporate image of an institution measured by its location, no. of branches, timings, service quality, behaviour of staff etc.
8. Designing a sampling scheme
9. Preparation of questionnaire for collecting information on specific problem
10. Conducting appropriate test of significance for the given data of the products
11. Observation study on the buying behaviour of people in rythu bazaar
12. Analysis of the data using measures of central tendency and its interpretation
13. Analysis of data using measures of variation
14. Analysis of data using correlation and regression
15. Construction of index numbers and factor analysis
16. Report writing and presentation

### **Suggested Readings**

- Cooper DR & Schindler PS. 2006. *Marketing Research Concepts and Cases*. Tata McGraw Hill.
- Green PE, Tull DS & Albaum G. 1998. *Research for Marketing Decisions*. Prentice Hall of India.
- Kothari CR. 1989. *Research Methodology*. Wiley Eastern.
- Wilkinson & Bhandarker 1989. *Research Methods in Social Sciences*. Himalaya Publ. House.

**ABM 512                      Project Management and Entrepreneurship Development                      3(2+1)**

### **Objective**

The objective of this course is to expose the learner to the fields of project management and entrepreneurship development. Focus will be to train the students to develop new projects and encouraging them to start their own ventures.

### **Contents**

#### **UNIT – I**

Concept, Characteristics of projects, Types of projects, Project identification, and Project's life cycle.

#### **UNIT – II**

Project feasibility- Market feasibility, Technical feasibility, Financial feasibility, and economic feasibility, Social cost-Benefit analysis, Project risk analysis.

### **UNIT – III**

Network Methods: Meaning, Network Analysis, Requirements for Network Analysis, Critical Path Method (CPM), Programme Evaluation and Review Technique (PERT), Project scheduling and resource allocation.

### **UNIT – IV**

Financial appraisal/evaluation techniques- Discounted/Non-Discounted cash flows; Net present values, Profitability index, Internal rate of returns; Cost benefits ratio; Accounting rate of return, Pay back period, Project implementation; Cost over run, Project control and information system.

### **UNIT – V**

Entrepreneurship, Significance of entrepreneurship in economic development, qualities of entrepreneur, entrepreneurship development programs and role of various institutions in developing entrepreneurship, life cycles of new business, environmental factors affecting success of a new business, reasons for the failure and visible problems for business, Developing effective business plans, Procedural steps in setting up of an industry.

### **Practicals**

1. The SICOM cycle of project identification
2. Case study on project planning
3. Construction and evaluation of the projects using rating index
4. Critical path analysis using PERT and CPM
5. Preparing a checklist for considering locational factor of an enterprise/project
6. Working out the various financial ratios in project management
7. Designing an activity bar chart
8. Financial appraisal/evaluation techniques-undiscounted
9. Financial appraisal/evaluation techniques-discounted
10. Different approaches of project control
- 11&12. Visit and study of small scale industries supporting and funding organizations
- 13&14. Visit to Agribusiness enterprise
15. Case study and analysis of sick agribusiness enterprise
16. Developing a comprehensive plan for starting a new small scale enterprise

## **Suggested Readings**

Chandra P. 2005. *Project Management*. Tata McGraw Hill.

Gopal Krishan P & Nagarajan K. 2005. *Project Management*. New Age.

Hisrich RD & Peters MP. 2002. *Entrepreneurship*. Tata McGraw Hill.

Kaplan JM. 2003. *Patterns of Entrepreneurship*. John Wiley & Sons.

Nandan H. 2007. *Fundamentals of Entrepreneurship Management*. Prentice Hall.

Ramamoorthy VE. 2005. *Textbook of Project Management*. MacMillan.

**ABM 513**

**Computers for Managers**

**3(2+1)**

### **Objective**

The course objective is to acquaint the students with the knowledge and use of computers and simple applications of computers in managerial decisions. Effort will also be made to provide them an orientation about the increasing role of computers in corporate/business world.

### **Contents**

#### **UNIT – I**

Concept of Computers- Brief History of Computers, Generation and Its Evolution, Characteristics of Computers, Hardware and Software, introduction to computer languages, Main Areas of Computers and their Applications; Types of Computers – Analog, Digital, Hybrid, General Purpose and Special Purpose Computers, Micro Computers, Mini-Computers, Main-frame Computers, and Super Computers.

#### **UNIT – II**

Input-Output Devices, Storage Units ( Disks, CD-ROM, DVD-ROM, Blue Ray Disk and tapes), Memory Types ( Cache, RAM, ROM), Memory Units, Generation and types of Microprocessor.

#### **UNIT – III**

Data and Information – Data Definition, Data Processing Systems, Data Type Numeric, Alphabetic, Audio, Graphic, and Video and Their Presentation; Data Processing- Introduction to Data Processing, Computer as a Tool For Data Processing, Data Processing Cycle, Data Processing Techniques, Data Analysis, Data Inputs and Outputs, Data Processing Management, Data Security.

#### **UNIT – IV**

Introduction to Operating Systems, MS Windows, and UNIX, MS Office (MS Word, MS Power Point, MS Excel, MS-Access and use of various management software's Like SPSS.



## UNIT IV

Introduction to LAN, WAN, MAN, internet and search engines; Introduction to agri-portals like agriwatch.com, agmarknet.nic.in, echaupal.com

### Practicals

1. Exercise to perform mail-merge in Ms-Word.
- 2&3. Exercise to format the data with following parameters.
  - a. Alignment – Justify
  - b. Font – Arial Narrow
  - c. Font Size – 11
  - d. Before spacing – 3 pt
  - e. After spacing – 3 pt
  - f. Line spacing – 1.5 pt
4. Exercise to track the changes in the document.
5. Exercise to insert chart in Ms-Excel worksheet.
6. Exercise to insert pivot table in Ms-Excel Worksheet.
7. Exercise to use ten functions in Ms-Excel.
8. Exercise to perform following.
  - a. Goal Seek
  - b. Data Validation
  - c. Formula Auditing
9. Exercise to format the data using conditional formatting in Ms-Excel worksheet.
10. Exercise to design Power-point slides.
11. Exercise to create table in design view.
12. Exercise to create table using wizard.
13. Exercise to create query using wizard.
14. Exercise to create form using wizard.
15. Exercise to create report using wizard.
16. Exercise to create labels using wizard.

### Suggested Readings

Lucas. 2004. *Information Technology for Management*. McGraw Hill.

Norton P. 1998. *Introduction to Computers*. 2nd Ed. Tata McGraw Hill.

Rajaraman V. 2006. *Introduction to Information Technology*. Prentice Hall of India.

**ABM 514**

**Management Information Systems**

**3(2+1)**

**Objective**

The objective of this course is to develop an understanding and utility of MIS. The focus will be on imparting knowledge of the basic concepts, development, functions and usage of MIS.

**Contents**

**UNIT – I**

The concept of MIS – Definition, importance, Course Objective, prerequisites, advantages and challenges; Information Needs of organization, MIS and Decision – Making.

**UNIT – II**

Types/Classification of Information System for organizations – Office Automation Systems, Transaction Processing Systems, Decision Support System, Executive Support System, Knowledge Based Expert System.

**UNIT – III**

Applications of MIS in the areas of Human Resource Management, Financial Management, Production/Operations Management, Materials Management, Marketing Management.

**UNIT – IV**

Development of MIS for an organization – The concept and stages of System Development Life Cycle.

**UNIT – V**

Information Technology– concept, applications, advantages and prerequisites, Choice of Information Technology, Social and Legal Dimension of IT.

**Practicals**

1. Discussing Phases about SDLC
2. Preparation of Systems Requirement Specification.
3. Preparation of System Design Specification.
4. Preparation of Test Design Document.
5. Designing Data Flow Diagram for a given problem.

6. Designing Data Flow Diagram for a given problem.
7. Designing E-R Diagram for a given problem.
8. Designing E-R Diagram for a given problem.
9. Preparing Decision tables for a given problem.
10. Preparing Decision tree for a given problem.
11. Designing Forms for a given problem.
12. Designing Reports for a given problem.
13. Preparing Sequence Diagram for a given problem.
14. Case study about Personal Information system.
15. Case study about Decision Support System.
16. Case Study about Management Information System.

### **Suggested Readings**

James O'Brien 1999. *Management Information System*. Tata McGraw-Hill.

Lauden & Laudon. 2003. *Management Information System*. Pearson Edu.

**ABM 515**

**Operations Research**

**3(2+1)**

### **Objective**

The objective of this course is to acquaint the learner with the applications of some important Operations Research techniques. Focus will be on understanding the use of these techniques in solving business problems.

### **Contents**

#### **UNIT – I**

Linear Programming: Objective, Assumptions, Formulation of Linear Programming Problem, Graphic Method, Simplex method, Transportation and Assignment Problems.

#### **UNIT – II**

Inventory control Models: Costs Involved in Inventory Management, Types of Inventory, Economic Order Quantity (EOQ) Model, Continuous Review (Q) System, Periodic Review (P) System, Hybrid System, Simulation.

### **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 and uncertainties, Decision problem, Maximax Criterion, Maximin Criterion, Minimax Regret Criterion, Laplace Criterion, Pay off Tables, Decision Trees, Expected Value of perfect Information.

### **UNIT – V**

Game Theory - Two -Person Zero-Sum Game, Simulation, Network analysis – PERT & CPM.

### **Practicals**

1. Problems in linear programming-formulation of the problem
2. Problems in linear programming-graphic method
3. Problems in linear programming-simplex method
4. Problems in transportation model-determining basic feasible solution
5. Problems in transportation model-determining optimal solution
6. Problems in assignment model
7. Problems in inventory control-EOQ
8. Problems in inventory control-periodic review approach
9. Problems in queuing models
10. Problems in decision making under risk and uncertainty
11. Problems in EVPI
12. Problems in decision trees
13. Problems in game theory-Graphical method
14. Problems in game theory-Algebraic method
15. Problems in construction of project networks
16. Problems in PERT and CPM

### **Suggested Readings**

Cook TM & Russell RA. 1989. *Introduction to Management Science*. Prentice Hall.

Taha HA. 2005. *Operations Research - An Introduction*. Prentice Hall.

Vohra ND. 2006. *Quantitative Techniques in Management*. McGraw Hill.

Wagner HM. 2005. *Principles of Operation Research*. Prentice Hall.

**PGS 501 (e-course)**

**Library and Information Services**

**1(0+1)**

**Objective**

To equip the library users with skills to trace information from libraries efficiently, to apprise them of information and knowledge resources, to carry out literature survey, to formulate information search strategies, and to use modern tools (Internet, OPAC, search engines etc.) of information search.

**Practical**

Introduction to library and its services; Role of libraries in education, research and technology transfer; Classification systems and organization of library; Sources of information- Primary Sources, Secondary Sources and Tertiary Sources; Intricacies of abstracting and indexing services (Science Citation Index, Biological Abstracts, Chemical Abstracts, CABI Abstracts, etc.); Tracing information from reference sources; Literature survey; Citation techniques/Preparation of bibliography; Use of CD-ROM Databases, Online Public Access Catalogue and other computerized library services; Use of Internet including search engines and its resources; e resources access methods.

**PGS 502**

**Technical Writing and Communications Skills**

**1(0+1)**

**Objective**

To equip the students/scholars with skills to write dissertations, research papers, etc.  
To equip the students/scholars with skills to communicate and articulate in English (verbal as well as writing).

**Practical**

**Technical Writing** - Various forms of scientific writings- theses, technical papers, reviews, manuals, etc; Various parts of thesis and research communications (title page, authorship contents page, preface, introduction, review of literature, material and methods, experimental results and discussion); Writing of abstracts, summaries, précis, citations etc.; commonly used abbreviations in the theses and research communications; illustrations, photographs and drawings with suitable captions; pagination, numbering of tables and illustrations; Writing of numbers and dates in scientific write-ups; Editing and proof-reading; Writing of a review article.

**Communication Skills** - Grammar (Tenses, parts of speech, clauses, punctuation marks); Error analysis (Common errors); Concord; Collocation; Phonetic symbols and transcription; Accentual

pattern: Weak forms in connected speech: Participation in group discussion: Facing an interview; presentation of scientific papers.

### **Suggested Readings**

*Chicago Manual of Style*. 14th Ed. 1996. Prentice Hall of India.

*Collins' Cobuild English Dictionary*. 1995. Harper Collins.

Gordon HM & Walter JA. 1970. *Technical Writing*. 3rd Ed. Holt, Rinehart & Winston.

Hornby AS. 2000. *Comp. Oxford Advanced Learner's Dictionary of Current English*. 6th Ed. Oxford University Press.

James HS. 1994. *Handbook for Technical Writing*. NTC Business Books.

Joseph G. 2000. *MLA Handbook for Writers of Research Papers*. 5th Ed. Affiliated East-West Press.

Mohan K. 2005. *Speaking English Effectively*. MacMillan India.

Richard WS. 1969. *Technical Writing*. Barnes & Noble.

Robert C. (Ed.). 2005. *Spoken English: Flourish Your Language*. Abhishek.

Sethi J & Dhamija PV. 2004. *Course in Phonetics and Spoken English*. 2<sup>nd</sup> Ed. Prentice Hall of India.

Wren PC & Martin H. 2006. *High School English Grammar and Composition*. S. Chand & Co.

**PGS 503 (e-Course) -**

**Intellectual Property and its  
Management in Agriculture**

**1(1+0)**

### **Objective**

The main objective of this course is to equip students and stakeholders with knowledge of intellectual property rights (IPR) related protection systems, their significance and use of IPR as a tool for wealth and value creation in a knowledge-based economy.

### **Practical**

Historical perspectives and need for the introduction of Intellectual Property Right regime; TRIPs and various provisions in TRIPs Agreement; Intellectual Property and Intellectual Property Rights (IPR), benefits of securing IPRs; Indian Legislations for the protection of various types of Intellectual Properties; Fundamentals of patents, copyrights, geographical indications, designs and layout, trade secrets and traditional knowledge, trademarks, protection of plant varieties and farmers' rights and biodiversity protection; Protectable subject matters, protection in biotechnology, protection of other biological materials, ownership and period of protection; National Biodiversity protection initiatives; Convention on Biological Diversity; International Treaty on Plant Genetic Resources for Food and Agriculture; Licensing of

technologies, Material transfer agreements, Research collaboration Agreement, License Agreement.

### **Suggested Readings**

Erbisch FH & Maredia K.1998. *Intellectual Property Rights in Agricultural Biotechnology*. CABI.

Ganguli P. 2001. *Intellectual Property Rights: Unleashing Knowledge Economy*. McGraw-Hill.

*Intellectual Property Rights: Key to New Wealth Generation*. 2001. NRDC

& Aesthetic Technologies. Ministry of Agriculture, Government of India. 2004. *State of Indian Farmer*. Vol. V. *Technology Generation and IPR Issues*. Academic Foundation.

Rothschild M & Scott N. (Ed.). 2003. *Intellectual Property Rights in Animal Breeding and Genetics*. CABI.

Saha R. (Ed.). 2006. *Intellectual Property Rights in NAM and Other Developing Countries: A Compendium on Law and Policies*. Daya Publ. House.

*The Indian Acts - Patents Act, 1970 and amendments; Design Act, 2000;*

*Trademarks Act, 1999; The Copyright Act, 1957 and amendments; Layout*

*Design Act, 2000; PPV and FR Act 2001, and Rules 2003; National Biological Diversity Act, 2003.*

**PGS 504**

**Basic Concepts in Laboratory Techniques**

**1(0+1)**

### **Objective**

To acquaint the students about the basics of commonly used techniques in laboratory.

### **Practical**

Safety measures while in Lab; Handling of chemical substances; Use of burettes, pipettes, measuring cylinders, flasks, separatory funnel, condensers, micropipettes and vaccumets; washing, drying and sterilization of glassware; Drying of solvents/chemicals. Weighing and preparation of solutions of different strengths and their dilution; Handling techniques of solutions; Preparation of different agro-chemical doses in field and pot applications; Preparation of solutions of acids; Neutralisation of acid and bases; Preparation of buffers of different strengths and pH values. Use and handling of microscope, laminar flow, vacuum pumps, viscometer, thermometer, magnetic stirrer, micro-ovens, incubators, sandbath, waterbath, oilbath; Electric wiring and earthing. Preparation of media and methods of sterilization; Seed

viability testing, testing of pollen viability; Tissue culture of crop plants; Description of flowering plants in botanical terms in relation to taxonomy

### **Suggested Readings**

Furr AK. 2000. *CRC Hand Book of Laboratory Safety*. CRC Press.

Gabb MH & Latchem WE. 1968. *A Handbook of Laboratory Solutions*. Chemical Publ. Co.

**PGS 505 (e-Course) - Agricultural Research, Research Ethics and Rural Development Programmes 1(1+0)**

### **Objective**

To enlighten the students about the organization and functioning of agricultural research systems at national and international levels, research ethics, and rural development programmes and policies of Government.

### **Theory**

#### **UNIT – I**

History of agriculture in brief; Global agricultural research system: need, scope, opportunities; Role in promoting food security, reducing poverty and protecting the environment; National Agricultural Research Systems (NARS) and Regional Agricultural Research Institutions; Consultative Group on International Agricultural Research (CGIAR): International Agricultural Research Centers (IARC), partnership with NARS, role as a partner in the global agricultural research system, strengthening capacities at national and regional levels; International fellowships for scientific mobility.

#### **UNIT – II**

Research ethics: research integrity, research safety in laboratories, welfare of animals used in research, computer ethics, standards and problems in research ethics.

#### **UNIT – III**

Concept and connotations of rural development, rural development policies and strategies. Rural development programmes: Community Development Programme, Intensive Agricultural District Programme, Special group – Area Specific Programme, Integrated Rural Development Programme (IRDP) Panchayati Raj Institutions, Co-operatives, Voluntary Agencies/Non-Governmental Organisations. Critical evaluation of rural development policies and programmes. Constraints in implementation of rural policies and programmes.



## **Suggested Readings**

Bhalla GS & Singh G. 2001. *Indian Agriculture - Four Decades of Development*. Sage Publ.

Punia MS. *Manual on International Research and Research Ethics*. CCS, Haryana Agricultural University, Hisar.

Rao BSV. 2007. *Rural Development Strategies and Role of Institutions - Issues, Innovations and Initiatives*. Mittal Publ.

Singh K.. 1998. *Rural Development - Principles, Policies and Management*. Sage Publ.

**PGS 506 (e-Course)**

**Disaster Management**

**1(1+0)**

### **Objectives**

To introduce learners to the key concepts and practices of natural disaster management; to equip them to conduct thorough assessment of hazards, and risks vulnerability; and capacity building.

### **Theory**

#### **UNIT –I**

Natural Disasters- Meaning and nature of natural disasters, their types and effects. Floods, Drought, Cyclone, Earthquakes, Landslides, Avalanches, Volcanic eruptions, Heat and cold Waves, Climatic Change: Global warming, Sea Level rise, Ozone Depletion

#### **UNIT – II**

Man Made Disasters- Nuclear disasters, chemical disasters, biological disasters, building fire, coal fire, forest fire. Oil fire, air pollution, water pollution, deforestation, Industrial wastewater pollution, road accidents, rail accidents, air accidents, sea accidents.

#### **UNIT – III**

Disaster Management- Efforts to mitigate natural disasters at national and global levels. International Strategy for Disaster reduction. Concept of disaster management, national disaster management framework; financial arrangements; role of NGOs, Community-based organizations, and media. Central, State, District and local Administration; Armed forces in Disaster response; Disaster response: Police and other organizations.

## **Suggested Readings**

Gupta HK. 2003. *Disaster Management*. Indian National Science Academy. Orient Blackswan.

Hodgkinson PE & Stewart M. 1991. *Coping with Catastrophe: A Handbook of Disaster Management*. Routledge.

Sharma VK. 2001. *Disaster Management*. National Centre for Disaster Management, India.

**Objective**

To impart knowledge about various promotion tools and their role and impact

**Contents****UNIT – I**

Concept and Nature of Advertising: Evolution, nature of advertising scope, objectives, and importance of advertising. Advertising - Changing Concepts,: Role of advertising in a developing economy. Types of advertising: consumer, institutional, retail trade and professional. Economic and Social Implication of Advertising: Economic Effects of Advertising, Explicit role of advertising indirect role of advertising, criticism of advertising, social issues in advertising controversial effects of advertising.

**UNIT – II**

Advertising in Marketing Mix: The marketing mix concept, communication concept, the primacy of product, packaging trademarks, channels of distribution. Effects of Advertising: Production, market, consumers, business cycles industrial growth, Agriculture growth, and growth of National Income. Media Decisions: Role of media, media strategy, print media, broadcasting media, other advertising media, media related decisions.

**UNIT – III**

Advertising Messages: Communication objectives, Creative strategy, Images and Symbols, Headlines and Visualization, Promotion copy, Visual communications, Print message, Radio message, Television message. Creative Execution and Judgement: Creative process, Copy writing, Copy research, Motivational approaches and appeals, Candidness and creativity. Advertising Agency Functions and Coordination: Evolution of advertising agency, A consultant's, role, Functions of an advertising agency, considerations in agency selection, Coordination with the agency.

**UNIT – IV**

Advertising budget: Nature of advertising budget, Advertising appropriation, Allocating advertising budget, Retail advertising budget. Evaluation of Advertising Effectiveness: Advertising objectives and plans, Areas of assessment of effectiveness, Pre-Placement evaluation of advertising, Post-testing, Interpretation of research findings. Future of Advertising in India: Advertising in the market place, Advertising in non-business areas, Industrial advertising, Rural advertising.

**UNIT –V**

Sales Promotion: Concept, Significance, Forms, Sales promotion programmes, Sales promotion strategies, Retail merchandising techniques. Personal Selling: Historical perspectives, Role and

significance, Qualities of sales force, Personal selling process, Types of personal selling. Sales Management: Meaning, Objectives, Planning, Recruitment and Selection, Training, Organizing, Supervision, Compensating, Co-ordination and control. Public Relations: Public relations and publicity, Publicity messages and vehicles, Publicity plans, Publicity organization, Evaluating publicity results.

### **Practicals**

16 practicals which include visits to firms, relevant case studies, market surveys, roleplays and other magt activities as identified by the course-in-charge.

### **Suggested Readings**

Patil J S K. 2000. Salesmanship and publicity, Sultan Chand and Sons

Manendra Mohan 2005. Advertising Management Concept and Cases-,Tata McGraw Hill

Aker A. Dvid & Myers G. John. 2006. Advertising Management. Prentice Hall of India.

Chunnawala. 2008. Advertising Theory and Practices. Himalaya Publishing House.

**ABM 518                      Food Technology and Processing Management                      3(2+1)**

### **Objective**

The objective of this course is to acquaint the students with different food processing techniques and their management.

### **Contents**

#### **UNIT – I**

Present status of food industry in India; Organization in food industry; Introduction to operations of food industry; Deteriorative factors and hazards during processing, Storage, Handling and distribution.

#### **UNIT – II**

Basic principles of food processing and food preservation by manipulation of parameters and factors and application of energy, Radiations, Chemicals and biotechnological agents; Packaging of foods.

#### **UNIT – III**

Analysis of costs in food organization; Risk management; Laws and regulations related to food industry and food production and marketing; Quality management – Quality standards, PFA, ISO, etc.

## **UNIT – IV**

Case studies on project formulation in various types of food industries – Milk and dairy products, Cereal milling, Oil – Seed and pulse milling, Sugarcane milling, Honey production, Banking, Confectionery, oil and fat processing, Fruits and vegetable storage and handling, Processing of fruits and vegetables, Egg, Poultry, Fish and meat handling and processing, etc.

### **Practicals**

16 practicals which include visits to firms, relevant case studies, market surveys, roleplays and other magt activities as identified by the course-in-charge.

### **Suggested Readings**

Acharya S S & Agarwal N L. 2004. Agricultural Marketing in India. Oxford & IBH.

Early R. 1995. Guide to Quality Management Systems for Food Industries. Blackie.

Jelen P. 1985. Introduction to Food Processing. Reston Publishing.

Potly V H & Mulky M J. 1993. Food Processing. Oxford & IBH.

## **ABM 519**

## **Agricultural Financial Markets**

**3(2+1)**

### **Objective**

To promote, develop and disseminate understanding, awareness and skill sets in the financial sector.

### **Contents**

#### **UNIT – I**

Overview of Agricultural Financial Markets Definition, evolution of agricultural financial markets, their need and benefits, their organization, their reach and scope, the risk profile of agriculture industry, policies and regulation.

#### **UNIT – II**

Financing the supply chain Challenges and risks in financing supply chain, analysis of finance needs of various operators and operations/activities in modern agricultural supply chain, the gaps or deficiencies in present systems of financing.

#### **UNIT – III**

Products and Services Outline of various modern financial markets and their products and services, structures financing, their need and benefits, their scope and reach, details of

organization, functions and operations of financial markets, regulatory mechanism, visits to the financial markets, simulated trading.

#### **UNIT – IV**

Regulation and future development. Recent developments, BASEL II and implications on agricultural financing, the growing use and popularity of structures and collateralized financing, their growing reach and impact on future agriculture.

#### **UNIT – V**

Developmental needs to meet the challenges of the 21<sup>st</sup> century, domain expertise training and capacity building.

#### **Practicals**

16 practicals which include visits to firms, relevant case studies, market surveys, roleplays and other magt activities as identified by the course-in-charge.

#### **Suggested Readings**

Khan M Y. 2002. Indian Financial System. Tata Mc Graw-Hill

Bole L M. 1999. Financial Institutions and Markets. Tata Mc Graw-Hill

Ajay Shah, Susan Thomas and Michael Gorham 2009. Indian's Financial Markets. The Elsevier and IIT Stuart Center for Financial Markets Press.

**ABM 526                      International Trade and Sustainability Governance                      3(2+1)**

#### **Objective**

To impart knowledge to the students about international trade in agriculture and various provisions under WTO in the new trade regime.

#### **Contents**

#### **UNIT – I**

International trade – Basic concepts, WTO and its implications for Indian economy in general and agriculture sector in particular.

#### **UNIT – II**

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**

Importance of foreign trade for developing economy; Absolute and comparative advantage, foreign trade of India.

### **UNIT – IV**

Composition of India's foreign trade policy; India' balance of payments; Inter regional Vs international trade; Tariffs and trade control; Exchange rate; The foreign trade multiplier.

### **UNIT – V**

Foreign demand, Supply side analysis, Opportunity cost, Trade and factor prices, Implications for developing countries, Market entry methods, Export procedures & documentations.

### **Practicals**

16 practicals which include visits to firms, relevant case studies, market surveys, roleplays and other magt activities as identified by the course-in-charge.

### **Suggested Readings**

Chadha G K. 2003. WTO and Indian Economy. Deep & Deep.

Economic Survey of India. Ministry of Finance, Govt. of India. (Various Issues)

HAU 2003. Refresher Course on Technological Interventions to Face WTO Challenges.

AAREM & HRD CCS HAU Hisar. Indian Journal of Agricultural Economics.

Vasisht A K & Singh Alka. 2003. WTO and New International Trade Regime – Implication for Indian Agriculture. Advance Publ. Concept.

**ABM 527**

**Banking For Agribusiness and Rural Development**

**3(2+1)**

### **Objective:**

To impart knowledge to the students on the various functions of Banks and their role in providing finance to Agribusiness and Rural Development.

### **Contents**

#### **UNIT –I**

Banking structure in India-Nationalization of Banks-Reserve bank of India-its role and functions-Emergence of institutional credit delivery mechanism for Agribusiness.

## **UNIT – II**

Cooperatives-its role and functions-Cooperative credit organizations-SCB-DCCBs-PACs-CLDB-PLDBs-single window system-LAMPS-FSS.

## **UNIT – III**

Commercial banks-priority sector lending-DIR scheme-lead bank scheme-service area approach-RRB's-village adoption scheme-crop loans scheme.

## **UNIT – IV**

NABARD-functions and role-refinancing schemes of NABARD-self help groups-micro finance-kisan credit cards.

## **UNIT – V**

Agriculture insurance in India-financial institutions and schemes for financing agribusiness enterprises-agriclinics-agribusiness centres.

### **Practicals**

16 practicals which include visits to firms, relevant case studies, market surveys, roleplays and other magt activities as identified by the course-in-charge.

### **Suggested Readings**

Prabhakar K & Rajkumar. 2006. Agricultural Finance in India. New Century Publications, New Delhi.

S. Subba Reddy and P. Raghuram 1996. Agricultural Finance and Management. Oxford and IBH Publishing Co. Pvt. Ltd., New Delhi

Misra and Puri. 2008. Indian Economy- -Himalaya Publishing house

**ABM 529**

**Food Retail Management**

**3(2+1)**

### **Objective**

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

## **Contents**

### **UNIT – I**

Introduction to International Food market, India's Competitive Position in World Food Trade, Foreign Investment in Global Food Industry, Retail management and Food Retailing, The Nature of Change in Retailing, Organized Retailing in India, E-retailing and Understanding food preference of Indian Consumer, Food consumption and Expenditure pattern, Demographic and Psychographic factors affecting Food Pattern of India Consumer.

### **UNIT – II**

Value Chain in Food Retailing, Principal trends in food wholesaling and retailing, Food wholesaling, Food 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**

Four P's in Food Retail Management, Brand Management in Retailing, Merchandise pricing, Pricing Strategies used in conventional and nonconventional food retailing, Public distribution system, Promotion mix for food retailing, Management of sales promotion and Publicity, Advertisement Strategies for food retailers.

### **UNIT – IV**

Managing Retail Operations, Managing Retailers' Finances, Merchandise buying and handling, Merchandise Pricing, Logistics, procurement of Food products and Handling Transportation of Food Products.

### **UNIT – V**

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.

### **Practicals**

16 practicals which include visits to firms, relevant case studies, market surveys, roleplays and other magt activities as identified by the course-in-charge.

### **Suggested Readings**

Berman & Evans. 2008. Retail Management: A Strategic Approach. 10<sup>th</sup> Ed. Prentice Hall of India.

Cox. 2006. Retailing: An Introduction. 5<sup>th</sup> Ed. Pearson Edu.

Levy M & Weitz B W. 2004. Retailing Management. 5<sup>th</sup> Ed. McGraw Hill.



**Objective**

The objective of this course is to give the students an understanding of different marketing concept and marketing system in context of agricultural inputs.

**Contents****UNIT – I**

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 cooperative, Public and private sectors in Agri-Input marketing.

**UNIT – II**

Seed – Importance of seed input; Types of seeds – Hybrid, High yielding and quality seeds; Demand and supply of seeds; Seed marketing channels, Pricing, Export – Import of seeds; Role of NSC and State Seed Corporation.

**UNIT – III**

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.

**UNIT – IV**

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 – Production, Supply, Demand, Marketing and distribution channels of farm machines; Agro – industries Corporation and Marketing of Farm Machines/ Implements/ Equipments.

**Practicals**

16 practicals which include visits to firms, relevant case studies, market surveys, roleplays and other magt activities as identified by the course-in-charge.

## **Suggested Readings**

Acharya S S & Agarwal N L. 2004. Agricultural Marketing in India. 4<sup>th</sup> Ed. Oxford & IBH.

Broadway A C & Broadway Arif A. 2003. A Text Book of Agri-Business Management. Kalyani.

Singh A K & Pandey S. 2005. Rural Marketing. New Age.

Singh Sukhpal 2004. Rural Marketing –Focus on Agricultural Inputs. Vikas Publ. House.

**ABM 532**

**Agri Supply Chain Management**

**3(2+1)**

### **Objective**

The course introduces students to the concepts and processes of agricultural supply chain management, framework for structuring supply chain drivers; network designs, demand forecasting, inventory planning, sourcing decisions and IT enablement of supply chain.

### **Contents**

#### **UNIT – I**

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.

#### **UNIT – II**

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 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**

Logistics management; History and Evolution of Logistics; Elements of Logistics Management; Distribution Management, Distribution Strategies; Pool Distribution; Transportation Management; Fleet Management; Service Innovation; Warehousing; Packaging for Logistics, Third-Party Logistics (TPL/3PL); GPS Technology.

#### **UNIT – V**

Concept of Information Technology: IT Application in SCM; Advanced Planning and Scheduling; SCM in Electronic Business; Role of Knowledge in SCM; Performance

Measurement and Controls in Agri. Supply Chain Management – Benchmarking: introduction, concept and forms of Benchmarking.

### **Practicals**

16 practicals which include visits to firms, relevant case studies, market surveys, roleplays and other magt activities as identified by the course-in-charge.

### **Suggested Readings**

Altekar R V. 2006. Supply Chain Management: Concepts and Cases. Prentice Hall of India.

Monczka R, Trent R & Handfield R. 2002. Purchasing and Supply Chain Management. Thomas Asia.

Van Weele A J. 2000. Purchasing and Supply Chain Management Analysis, Planning and Practice. Vikas Publ. House.

**ABM 533**

**Strategic Management**

**3(2+1)**

### **Objective**

To provide students with the knowledge to take strategic decisions in business

### **Contents**

#### **UNIT – I**

The concept of Strategic Management, features & models of strategic decisions. Strategic process, levels of strategy. The importance of strategic management. The company and its strategists and their personal values. Mission, Goals, Objectives.

#### **UNIT – II**

External appraisal- Environment, Threat, Opportunity profile-strategy formulation for analysis of competition. Internal appraisal- Self Advantage Profile (SAP) core competencies-synergy & capability profile-value change-strategic intent & stretch.

#### **UNIT – III**

Tools & Techniques for strategic alternatives analysis –BEP analysis, BCG analysis, GE Model analysis, Experience curve, Technology S-curve.

## **UNIT – IV**

Strategic alternatives-Generic strategies of Michael Porter; growth, expansion, diversification, stability, defensive, turn around, mergers, acquisitions and takeovers, joint ventures, international business strategies.

## **UNIT – V**

Competitive strategies for Fragmented Industries, Emerging Industries, Declining Industries. Implementation of strategy-organizing, acquisition and development of resources.

### **Practicals**

16 practicals which include visits to firms, relevant case studies, market surveys, roleplays and other magt activities as identified by the course-in-charge.

### **Suggested Readings**

Srivastava R.M. 2006. Management Policy & Strategic Management (Concepts, Skills and Practices), Himalaya Publishing House.

Fred. R. David 2005. Strategic Management-Concepts & cases. Prentice Hall, International Inc.

Jauch & Gluce. 2006. Strategic Management & Business Policy. Mc. Graw Hill Book Co.

John A. Pearce II and Robinson Jr 2008. Strategic Management,. All India Traveling Book Seller.

**ABM 534**

**Poultry and Hatchery Management**

**3(2+1)**

### **Objective**

The course provides an insight into the importance of management in poultry industry, managing a poultry and hatchery enterprise, planning production of poultry products, financial, personnel and marketing management.

### **Contents**

#### **UNIT – I**

Poultry and hatchery industry; Role of management in poultry industry.

#### **UNIT – II**

Planning and establishing a poultry and hatchery unit-Location, Size and construction; Farm and hatchery equipments and physical facilities; Organizing and managing a poultry farm and hatchery.

### **UNIT – III**

Incubation and hatching; Production of quality chicks and eggs; Factors affecting hatchability; Bio-security and hatchery sanitation; Handling of hatching eggs; Maintaining chick quality – Chick grading, Sexing, Packing, Dispatch, Transportation and chick delivery.

### **UNIT – IV**

Franchise hatcheries; Custom hatching; Brooding; Growing and laying management; Crisis management; Industrial breeding, Feeding, Housing and disease management; Waste Management; Record management; Cost accounting and budgetary control.

### **UNIT – V**

Risks and insurance; Personal management-Labour relations including wages and salaries, Job evaluation and employee appraisal; Marketing management – Direct sale and sale through franchisees/ agents, Advertisement, Sale and after sale services, Other innovative sales strategies.

### **Practicals**

16 practicals which include visits to firms, relevant case studies, market surveys, roleplays and other magt activities as identified by the course-in-charge.

### **Suggested Readings**

Sharma R P, Chatterjee R N, Rama Rao S V and Sharma S R 2008. Poultry Production in India.

Indian Council of Agricultural Research.

James Dryden. 2008. Poultry Breeding and Management. Crawford Press.

Jadha V. 2007. Handbook of Poultry Production and Management. Jaypee Publisher.

**ABM 516**

**Rural Marketing**

**3(2+1)**

### **Objective**

The objective of this course is to develop understanding regarding issues in rural markets like marketing environment, consumer behavior, distribution channels, marketing strategies, etc.

### **Contents**

#### **UNIT – I**

Concept and scope of rural marketing, Nature and characteristics of rural markets, Potential of rural markets in India, Rural communication and distribution.

## **UNIT – II**

Environmental factors – Socio – cultural, Economic, Demographic, Technological and other environmental factors affecting rural marketing.

## **UNIT – III**

Rural consumer's behavior – Behaviour of rural consumers and farmers; Buyer characteristics and buying behavior; Rural v/s urban markets, Customer relationship management, Rural market research.

## **UNIT – IV**

Rural marketing strategy – Marketing of consumer durable and Non-Durable goods and services in the rural markets with special reference to product planning; Product mix, Pricing objective, Pricing policy and pricing strategy, Distribution strategy.

## **UNIT – V**

Promotion and communication strategy – Media planning, Planning of distribution channels,

## **Practicals**

16 practicals which include visits to firms, relevant case studies, market surveys, roleplays and other magt activities as identified by the course-in-charge.

## **Suggested Readings**

Krishnammacharyulu C & Ramakrishna L. 2002. Rural Marketing. Pearson Edu.

Ramaswamy V S & Namakumari S. 2006. Marketing Management. 3<sup>rd</sup> Ed. MacMillan Publ.

Singh A K & Pandey S. 2005. Rural Marketing. New Age.

Singh Sukhpal. 2004. Rural Marketing. Vikas Publ. House.

## **ABM 520 – Management of Agro Chemical Industry 3(2+1)**

## **Objective**

To familiarize the students with the agrochemicals, their structure, classification and development and also how to manage the agro-chemical industries.

## **Contents**

## **UNIT – I**

Agro – chemicals: Definition and classification; Basic knowledge of agrochemicals; Role and status of Agro – Chemical industry in India; Pesticides – Classification and Introduction, knowledge of different pesticides.

## **UNIT – II**

Insecticides – Definition and classification based on (a) Mode of Entry (b) Mode of Action and (c) Chemical Structure with example; Insecticidal formulation; Preliminary knowledge of mode of action of insecticides; Knowledge of plant protection equipments.

## **UNIT – III**

Fungicides – Classification and preliminary knowledge of commonly used fungicides; Biomagnifications of pesticides and pesticidal pollution.

## **UNIT – IV**

Introductory knowledge about development of Agro – Chemicals; Insecticidal poisoning, symptoms and treatment; Main features of Insecticide Act.

## **UNIT – V**

Directorate of Plant Protection, Quarantine and Storage – A brief account of its organizational set up and functions, IPM Concept – Bio-pesticides – Plant products.

## **Practicals**

16 practicals which include visits to firms, relevant case studies, market surveys, roleplays and other magt activities as identified by the course-in-charge.

## **Suggested Readings**

Dhaliwal G S, Singh R & Chhillar B S. 2006. Essentials of Agricultural Entomology. Kalyani.

Hayes W T & Laws E T. 1991. Hand Book of Pesticides. Academic Press.

Matsumura F. 1985. Toxicology of Insecticides. 2<sup>nd</sup> Ed. Plenum Publ.

Rajeev K & Mukherjee R. C. 1996. Role of Plant Quarantine in IPM. Aditya Books.

**ABM 521**

**Farmbusiness Management**

**3(2+1)**

## **Objective**

To acquaint the students with the basic principles of farm management dealing with the analysis of farm resources having alternatives with the framework of resource restrictions.

## **Contents**

### **UNIT – I**

Nature, Scope, Characteristics and role of farm business management; Farm management decisions; Farm management problems.

## **UNIT – II**

Principles of farm management decisions – Principle of variable proportion, Cost principle, principle of factor substitution, Law of Equi-Marginal returns, Opportunity cost principle, Etc.

## **UNIT – III**

Tools of farm management and farm business analysis – Farm planning and budgeting; Farm records and accounts, Types and problems in farm records and accounts, Net worth statement, Farm efficiency measures.

## **UNIT – IV**

Management of farm resources – Land, Labour, Farm machinery, Farm building, Etc.

## **UNIT – V**

Risk and uncertainty in farming – Sources of uncertainty in farming, Management strategy to counteract uncertainty and decision making process in farm business management under risks and uncertainty.

### **Practicals**

16 practicals which include visits to farms, relevant case studies, market surveys, roleplays and other magt activities as identified by the course-in-charge.

### **Suggested Readings**

Heady E O & Jensen H. 1960. Farm Management Economics. Prentice Hall.

Johi S S & Kapoor T R. 1973. Fundamentals of Farm Business Management. Kalyani Publ.

Kahlon A S. & Singh K. 1992. Economics of Farm Management in India. Allied Publ.

Panda S C. 2007. Farm Management & Agricultural Marketing. Kalyani Publ.

**ABM 522**

**Seed Production Technology and Management**

**3(2+1)**

### **Objective**

To appraise students regarding principles and efficient management of seed production technology.



## **Contents**

### **UNIT – I**

Seed Technology – Role of Seed Technology, Its objective and goals, Seed Industry in India, National Seed Corporation – Tarai Seed Development Corporation, State Seed Corporations, National Seed Project and State Farms and their role.

### **UNIT – II**

Development and Management of Seed Programmes – Seed Village Concept, Basic Strategy of Seed Production, Planning and Organization of Seed Programme; Types of Seed Programme – Nucleus seed, Breeders seed, Foundation seed and Certified seed etc.

### **UNIT – III**

Maintenance of genetic purity – Minimum seed certification standard and Management of breeders & Nucleus seed; Management of seed testing laboratory and research and development.

### **UNIT – IV**

Management of seed processing plant, Seed storage management; Seed packaging and handling.

### **UNIT – V**

Seed Marketing; GM Crop seed, IPR, PBR, Patents and related issues and their impact on developing countries; Statutory intervention in the seed industry; Seed legislation and seed law enforcement, Seed act; Orientation and visit to seed production farms, Seed processing Units, NSC, RSSC, RSSCA and seed testing laboratories.

### **Practicals**

16 practicals which include visits to firms, relevant case studies, market surveys, roleplays and other magt activities as identified by the course-in-charge.

### **Suggested Readings**

Agarwal R L. 1997. Seed Technology. Oxford & IBH.

Desai B B, Katecha P M & Salunkhe D K. 1997. Seed Handbook: Biology, Production, Processing and Storage. Marcel Dekker.

Kelly, A. 1988. Seed Production of Agricultural Crops. Longman.

McDonald M B Jr. & Copeland L O. 1997. Seed Production: Principles and Practices. Chapman & Hall.

Thompson J R. 1979. An Introduction to Seed Technology. Leonard Hill.

**Objective**

To impart knowledge on management of livestock products, product development, quality control, preservation and marketing strategies for livestock products.

**Contents****UNIT – I**

Present status of livestock products industry in India – Dairy, Meat, Poultry, Skin, Hides, Wool, Etc; Dairy Products – Manufacturing technologies of various dairy products and by- Product utilization.

**UNIT – II**

Meat and Poultry Products – Manufacturing technologies of meat and meat products, Egg and poultry products; Production processing and utilization of wool and animal by – Products.

**UNIT – III**

Plant Management – Production planning and control needs and techniques of production control, Packing, Preservation and storage system for livestock products; Transportation system for domestic market and international markets.

**UNIT – IV**

Quality control measures during storage and transit; extent of losses during storage and transport, Management measures to minimize the loss.

**UNIT – V**

Marketing and distribution of animal products; Quality standard for various products; Environmental and legal issues involved.

**Practicals**

16 practicals which include visits to firms, relevant case studies, market surveys, roleplays and other magt activities as identified by the course-in-charge.

**Suggested Readings**

Forrest J C. 1975. Principles of Meat Science. Freeman Publ.

Gracey 1999. Thorntons Meat Hygiene. W B Saunders.

Mountney G J. Poultry Products Technology. 2<sup>nd</sup> Ed. AVI Publ.

Ockerman & Hansen. 2002. Animal Byproducts Processing and Utilization. CRC Publ.

Pearson A M & Gillett T A. 1996. Processed Meat. 3<sup>rd</sup> Ed. Chapman & Hall.

Robertson G L. 1993. Food Packaging Principles of Practices. Marcel Dekker.



## **Suggested Readings**

Chadha K L & Pareek O P. 1993. Advances in Horticulture. Vols. I-IV. Malhotra Publ. House.

Kader A A. 1992. Post – harvest Technology of Horticultural Crops. Univ. of California. Div. of Agri. & Natural Resources.

**ABM 525**

**Farm Power and Machinery Management**

**3(2+1)**

### **Objective**

To acquaint the students with the farm mechanization status in the country and various techniques for farm machinery management and marketing.

### **Contents**

#### **UNIT – I**

Various sources of farm power, their availability and utilization; Objective, Importance and present status, Level and the scope of farm mechanization.

#### **UNIT – II**

Tractor and power tillage industry – Model, Make, Capacity, Production, Present status and future prospects; Concept of zero tillage.

#### **UNIT – III**

Farm machinery selection for different size of farm size and for different Agro-Climatic conditions; Scheduling of farm operations for higher efficiencies, Indices of machine performance.

#### **UNIT – IV**

Cost analysis of operations using different implements, Economic performance of machines, Optimization of tractor implements system and transport of farm produce.

#### **UNIT – V**

Agricultural equipments industry – Their production, Marketing and constraints; Establishment of agricultural engineering enterprises, Agro service centers, Etc.

### **Practicals**

16 practicals which include visits to firms, relevant case studies, market surveys, roleplays and other magt activities as identified by the course-in-charge.

## **Suggested Readings**

Carville L A. 1980. Selecting Farm Machinery. Louisiana Coop. Extn. Service Publ.

FAO 1984. Agricultural Engineering in Development: Selection of Mechanization. Agric. Service Bull.

Hunt D. 1977. Farm Power and Machinery Management. Iowa State Univ. Press.

Waters W K. 1980. Farm Machinery Management Guide. Pennsylvania Agric. Extn. Service Spl. Circular No. 1992.

**ABM 528**

**Security Analysis and Portfolio Management**

**3(2+1)**

### **Objective**

To give an overall view of investment management and analysis.

### **Contents**

#### **UNIT – I**

The investment management process. Ethics in investment management. Portfolio theory measuring expected returns and risk of a portfolio of assets.

#### **UNIT – II**

Capital market theory and capital asset pricing theory - Capital asset pricing model - Test of CAPM

#### **UNIT – III**

Equity analysis and portfolio management-active and passive strategies-market efficiency. Stock market index.

#### **UNIT – IV**

Fixed income analysis and portfolio management-bond pricing and bond price volatility. Factors affecting bond yields. Interest rate futures and options, using swaps, caps, and floors in investment management.

#### **UNIT – V**

Asset allocation and performance evaluation-asset allocation, measuring performance, evaluating performance.

### **Practicals**

16 practicals which include visits to firms, relevant case studies, market surveys, roleplays and other magt activities as identified by the course-in-charge.

### **Suggested Readings**

Francis J C. 1988. Management of Instruments (, Mc Graw Hill, New York)

William F. Sharpe, Gordon J. Alexander and Jeffery V. Bailey 1995. Investments, Prentice Hall

Donald E. Fisher and Ronald J. Jordan 1987. Security Analysis and Portfolio Management  
Prentice Hall

**ABM 531**

**Feed Business Management**

**3(2+1)**

### **Objective**

To acquaint the students with the role and importance of feed industry and the production of feed for livestock and poultry.

### **Contents**

#### **UNIT – I**

Present status of feed resources; Gap between demand and availability of nutrients; Status of feed industry in India and world, Constraints in the development of Indian feed industry.

#### **UNIT – II**

Nutrients requirements of livestock and poultry; Feed stuff and their origin; Scientific storage of feeds and feed ingredients; Protection of protein and fat.

#### **UNIT – III**

Processing of feeds, Layout and design of feed plants, Feed plant management; Feed preparation for fish and pet animals, Specialty feeds.

#### **UNIT – IV**

Importance and preparation of mineral mixture; Feed Additives and supplements, Feed mixing, Principles of mixing and compounding of feeds; Improving the feeding value of poor quality roughages.

#### **UNIT – V**

Distribution channels, Regulations relating to manufacture and sale of feed stuffs.

## **Practicals**

16 practicals which include visits to firms, relevant case studies, market surveys, roleplays and other magt activities as identified by the course-in-charge.

## **Suggested Readings**

Gohl B O. 1981. Tropical Feeds. FAO.

McEllihner Robert R. 1994. Feed Manufacturing Technology. American Feed Industry Assoc.

Rajgopalan K. Feed Industry Red Book. ZMAG Publication.

Rajgopalan K. 1989. Storage Structures. Oxford & IBH.

**ABM 535**

**Management of Floriculture and Landscaping**

**3(2+1)**

### **Objective**

The objective of this course is to expose the students with floriculture technology and its Agri business implications including international trade.

### **Contents**

#### **UNIT – I**

Introduction, importance and scope of floriculture industry; Recent advances in floriculture industry.

#### **UNIT – II**

Evolution of new cultivars; And production technology of ornamental plants; Special techniques for sourcing of flowers for export.

#### **UNIT – III**

Drying and dehydration of flowers; Response of flowers to environmental conditions; Importance and scope of landscape gardening.

#### **UNIT – IV**

Style of gardening, Aesthetic and Socio-aesthetic planning of old and newly developed towns and cities; Commercial cultivation of flower crops (Rose, Jasmine gladiolus, Tuberose, marigold, Aster, Carnation, Gerbera, Mcilium Chrysanthemum; Use of plant regulators in flower production.

#### **UNIT – V**

Extraction, Purification and storage of essential oils and perfumes; Post harvest changes in cut flowers, Storage and packing of cut flowers; Determining optimum time of harvesting of flowers for export and home use.

### **Practicals**

16 practicals which include visits to farms, relevant case studies, market surveys, roleplays and other magt activities as identified by the course-in-charge.

### **Suggested Readings**

Chadha K L & Choudary B. 1999. Ornamental Horticulture in India. ICAR.  
Grindal E W. 2000. Every Day Gardening in India. D. B. Tarporevala Sons.  
Randhawa G S & Mukhopadhyay A. 1999. Floriculture in India. Allied Publ.  
Randhawa M S. 2002. Beautifying India. Raj Kamal Publ.