

**AGRICULTURAL EXTENSION  
Course Structure – at a Glance**

| <b>CODE</b> | <b>COURSE TITLE</b>  | <b>CREDITS</b> |
|-------------|--|----------------|
| EXT 501*    | DEVELOPMENT PERSPECTIVES OF<br>EXTENSION EDUCATION               | 1+1            |
| EXT 502*    | DEVELOPMENT COMMUNICATION AND<br>INFORMATION MANAGEMENT          | 2+1            |
| EXT 503*    | DIFFUSION AND ADOPTION OF INNOVATIONS                            | 2+1            |
| EXT 504*    | RESEARCH METHODS IN BEHAVIORAL SCIENCES                          | 2+1            |
| EXT 505*    | e-EXTENSION  | 2+1            |
| EXT 506*    | ENTREPRENEURSHIP DEVELOPMENT AND<br>MANAGEMENT IN EXTENSION      | 2+1            |
| EXT 507*    | HUMAN RESOURCE DEVELOPMENT                                       | 2+1            |
| EXT 508     | VISUAL COMMUNICATION   | 2+1            |
| EXT 509     | PARTICIPATORY METHODS FOR TECHNOLOGY<br>DEVELOPMENT AND TRANSFER | 1+1            |
| EXT 510     | GENDER SENSITIZATION FOR DEVELOPMENT                             | 1+1            |
| EXT 511     | PERSPECTIVES OF DISTANCE EDUCATION                               | 1+1            |
| EXT 512     | MARKET-LED EXTENSION MANAGEMENT                                  | 1+1            |
| EXT 591     | MASTER'S SEMINAR   | 1+0            |
| EXT 599     | MASTER'S RESEARCH  | 20             |
| EXT 601**   | ADVANCES IN AGRICULTURAL EXTENSION                               | 2+1            |
| EXT 602**   | ADVANCED DESIGN AND TECHNIQUES IN<br>SOCIAL SCIENCE RESEARCH     | 2+1            |
| EXT 603**   | ADVANCES IN TRAINING TECHNOLOGY                                  | 2+1            |
| EXT 604**   | ORGANIZATIONAL DEVELOPMENT                                       | 2+1            |
| EXT 605**   | ADVANCED INSTRUCTIONAL TECHNOLOGY                                | 2+1            |
| EXT 606     | THEORY CONSTRUCTION IN SOCIAL SCIENCES                           | 2+0            |
| EXT 607     | ADVANCED MANAGEMENT TECHNIQUES                                   | 2+1            |
| EXT 608     | MEDIA MANAGEMENT   | 2+1            |

| CODE    | COURSE TITLE                          | CREDITS |
|---------|---------------------------------------|---------|
| EXT 609 | TRANSFER OF TECHNOLOGY IN AGRICULTURE | 2+1     |
| EXT 691 | DOCTORAL SEMINAR I                    | 1+0     |
| EXT 692 | DOCTORAL SEMINAR II                   | 1+0     |
| EXT 699 | DOCTORAL RESEARCH                     | 45      |

\* Compulsory for Master's programme;

\*\* Compulsory for Doctoral programme

**Minor Departments** **9**

Agronomy

Agricultural Economics

Seed Science & Technology

Plant Pathology

Entomology

**Supporting Departments** **5**

Statistics & Mathematics

**Non credit compulsory courses**

| CODE                  | COURSE TITLE   | CREDITS |
|-----------------------|--|---------|
| PGS 501               | LIBRARY AND INFORMATION SERVICES   | 0+1     |
| PGS 502               | TECHNICAL WRITING AND COMMUNICATION SKILLS                                 | 0+1     |
| PGS 503<br>(e-course) | INTELLECTUAL PROPERTY AND<br>ITS MANAGEMENT IN AGRICULTURE                 | 1+0     |
| PGS 504               | BASIC CONCEPTS IN LABORATORY TECHNIQUES                                    | 0+1     |
| PGS 505<br>(e-course) | AGRICULTURAL RESEARCH, RESEARCH<br>ETHICS AND RURAL DEVELOPMENT PROGRAMMES | 1+0     |
| PGS 506<br>(e-course) | DISASTER MANAGEMENT  | 1+0     |

## Course contents

**EXT 501                      DEVELOPMENT PERSPECTIVES OF EXTENSION                      1+1**  
**EDUCATION**

### Objective

The course is intended to orient the students with the concept of extension education and its importance in Agriculture development and also to expose the students with various Rural development programmes aimed at poverty alleviation and to increase employment opportunities and their analysis. Besides, the students will be learning about the new innovations being brought into the Agricultural Extension in India.

### Theory

#### UNIT I

Extension Education – Meaning, objectives, concepts, principles and philosophy, critical analysis of definitions – Extension Education as a Profession – Adult Education and Distance Education.

#### UNIT II

Pioneering Extension efforts and their implications in Indian Agricultural Extension – Analysis of Extension systems of ICAR and SAU – State Departments Extension system and NGOs – Role of Extension in Agricultural University.

#### UNIT III

Poverty Alleviation Programmes – SGSY, SGRY, PMGSY, DPAP, DDP, CAPART – Employment Generation Programmes – NREGP, Women Development Programmes – ICDS, MSY, RMK, Problems in Rural Development.

#### UNIT IV

Current Approaches in Extension: Decentralised Decision Making, Bottom up Planning, Farming System Approach, Farming Situation Based Extension, Market – Led – Extension, Farm Field School, ATIC, Kisan Call Centres, NAIP.

### Practical

Visit to Gram Panchayat to study on-going Rural Development Programmes, Visit to KVK, NGO and Extension centers of State Agricultural University and State Departments, Bottom up planning, Report preparation and presentations.

### Suggested Readings

Chandrakandan KM, Senthil Kumar & Swatilaxmi. PS. 2005. *Extension Education What? And What Not ?* RBSA Publ.

Gallagher K. 1999. *Farmers Field School (FFS) – A Group Extension Process based on Non-Formal Education Methods*. Global EPM Facility, FAO.

Ganesan R, Iqbal IM & Anandaraja N. 2003. *Reaching the Unreached: Basics of Extension Education*. Associated Publishing Co.

Jalihah KA & Veerabhadraiah V. 2007. *Fundamentals of Extension Education and Management in Extension*. Concept Publ.

Khan PM. 2002. *Textbook of Extension Education*. Himalaya Publ.

Ray GL. 2006. *Extension Communication and Management*. Kalyani Publ. Van Den

Ban AW & Hawkins HS. 1998. *Agricultural Extension* .2nd Ed. CBS. Viswanathan M.

1994. *Women in Agriculture and Rural Development*. Printwell Publ.

**EXT 502**

**DEVELOPMENT COMMUNICATION AND  
INFORMATION MANAGEMENT**

**2+1**

**Objective**

In this course, students will learn about the concept, meaning and process of communication and various methods and modern media of communication. Besides, the students will also learn the information management and journalistic writing of various information materials and also study their readability.

**Theory**

**UNIT I**

Communication process – concept, elements and their characteristics – Models and theories of communication – Communication skills– fidelity of communication, communication competence and empathy, communication effectiveness and credibility, feedback in communication, social networks and Development communication – Barriers in communication, Message – Meaning, dimensions of a message, characteristics of a good message, Message treatment and effectiveness, distortion of message.

**UNIT II**

Methods of communication – Meaning and functions, classification. Forms of communication – Oral and written communication, Non-verbal communication, interpersonal communication, organizational communication. Key communicators – Meaning, characteristics and their role in development.

**UNIT III**

Media in communication – Role of mass media in dissemination of farm technology, Effect of media mix for Rural People. Modern communication media – Electronic video, Tele Text, Tele conference, Computer Assisted Instruction, Computer technology and its implications.

**UNIT IV**

Agricultural Journalism as a means of mass communication, Its form and role in rural development, Basics of writing – News stories, feature articles, magazine articles, farm bulletins and folders. Techniques of collection of materials for news stories and feature articles; Rewriting Art of clear writing, Readability and comprehension testing procedures; photo journalism, communicating with pictures, Radio and TV Journalism, Techniques of writing scripts for Radio and TV.

**PRACTICAL**

Identification of key communicators and communication networks in a selected village Simulated exercise on distortion of messages at different levels of communication Visit to extension organization to study the organizational communication Exercise on Writing for Print Media –

Writing News Exercise on Writing for Print Media – Success Stories Writing Feature articles for different topics related to Agriculture and allied fields Visit to AIR and TV centre Exercise on Script writing for Radio, Exercise on Script writing for TV, Exercise on Readability and comprehension testing procedures Participation and Interaction through Video conference Exercise on Computer Assisted Instruction Developing communication Strategy for diffusion of modern farm technology in villages

### **Suggested Readings**

- Dahama OP & Bhatnagar OP. 2005. *Education and Communication for Development*. Oxford & IBH.
- Grover I, Kaushik S, Yadav L & Varma SK. 2002. *Communication and Instructional Technology*. Agrotech Publ. Academy.
- Jana BL & Mitra KP. 2005. *Farm Journalism*. Agrotech Publ. Academy.
- Ray GL. 2006. *Extension Communication and Management*. Kalyani Publ.
- Rayudu CS.2002. *Communication*. Himalaya Publ. House.
- Reddy AA. 1987. *Extension Education*. Sree Lakshmi Press, Bapatla.
- Sandhu AS. 2004. *Textbook on Agricultural Communication Process and Methods*. Oxford & IBH.

**EXT 503**

**DIFFUSION AND ADOPTION OF INNOVATIONS**

**2+1**

### **Objective**

The students will learn how the agricultural innovations spread among the farmers in the society by getting into the insights of diffusion concept and adoption process, stages of adoption and innovation decision process, adopter categories and their characteristics, opinion leaders and their characteristics, attributes of innovations, and factors influencing adoption. In addition, the students would be learning various concepts related to diffusion and adoption of innovations.

### **Theory**

#### **UNIT I**

Diffusion – concept and meaning, elements; traditions of research on diffusion; the generation of innovations; innovation-development process; tracing the innovation-development process, converting research into practice.

#### **UNIT II**

The adoption process- concept and stages, dynamic nature of stages, covert and overt processes at stages, the innovation-decision process – a critical appraisal of the new formulation.

#### **UNIT III**

Adopter categories – Innovativeness and adopter categories, adopter categories as ideal types, characteristics of adopter categories; Perceived attributes of Innovation and their rate of adoption, factors influencing rate of adoption.

#### **UNIT IV**

Diffusion effect and concept of over adoption, opinion leadership measurement and

characteristics of opinion leaders, monomorphic and polymorphic opinion leadership, multi-step flow of innovation; concepts of homophily and heterophily and their influence on flow of innovations; Types of innovation-decisions – Optional, Collective and Authority and contingent innovation decisions; Consequences of Innovation-Decisions – Desirable or Undesirable, direct or indirect, anticipated or unanticipated consequences; Decision making – meaning, theories, process, steps, factors influencing decision – making.

### **Practical**

Case studies in individual and community adoption process, content analysis of adoption studies, Identification of adopter categories on a selected technology, study of attributes of current farm technologies, Identification of opinion leaders, Sources of information at different stages of adoption on a selected technology, study of factors increasing or retarding the rate of adoption, presentation of reports on adoption and diffusion of innovations.

### **Suggested Readings**

Dasgupta. 1989. *Diffusion Agricultural Innovations in Village India*. Wiley Eastern.

Jalihal KA & Veerabhadraiah V. 2007. *Fundamentals of Extension Education and Management in Extension*. Concept Publ. Co.

Ray GL. 2005. *Extension Communication and Management*. Kalyani Publ.

Reddy AA. 1987. *Extension Education*. Sree Lakshmi Press, Bapatla.

Rogers EM. 2003. *Diffusion of Innovations*. 5th Ed. The Free Press, New York.

**EXT 504**

**RESEARCH METHODS IN BEHAVIOURAL SCIENCE**

**2+1**

### **Objective**

This course is designed with a view to provide knowledge and skills in methods of behavioural sciences research and student will learn the Statistical Package for Social Sciences ( SPSS) for choosing appropriate statistics for data analysis.

### **Theory**

#### **UNIT I**

Research – Meaning, importance, characteristics. Behavioural sciences research – Meaning, concept and problems in behavioural sciences research. Types and methods of Research – Fundamental, Applied and Action research, Exploratory, Descriptive, Diagnostic, Evaluative, Experimental, Analytical, Historical, Survey and Case Study. Review of literature – Need, Search Procedure, Sources of literature, Planning the review work. Research problem – Selection and Formulation of research problem and guiding principles in the choice of research problem, Factors and criteria in selection of research problem, Statement of research problem and development of theoretical orientation of the research problem.

#### **UNIT II**

Objectives – Meaning, types and criteria for judging the objectives. Concept and Construct – Meaning, role of concepts in research and Conceptual frame work development in research. Variable – Meaning, types and their role in research. Definition – Meaning, characteristics of workable definitions, types and their role in research. Hypothesis – Meaning, importance and functions of hypothesis in research, Types of hypothesis, linkages, sources, problems in formulation and criteria for judging a workable hypothesis.

Measurement – Meaning, postulates and levels of measurement, Use of appropriate statistics at different levels of measurement, criteria for judging the measuring instrument and importance of measurement in research. Validity – Meaning and methods of testing. Reliability – Meaning and methods of testing. Sampling – Universe, Sample and Sampling-Meaning, basis for sampling, advantages and limitations, size and factors affecting the size of the sample and sampling errors – Methods of elimination and minimizing, Maximinicon Principle, Sampling – Types of sampling and sampling procedures.

### **UNIT III**

Research Designs – Meaning, purpose and criteria for research design, Types, advantages and limitations of each design. Experimental design – Advantages and limitations. Data Collection devices - Interview – Meaning, purpose, types, techniques of interviewing and advantages and limitations. Enquiry forms and Schedules – Meaning, types of questions used, steps in construction and advantages and limitations in its use. Questionnaires – Meaning, difference between schedule and questionnaire, types of questions to be used, pre – testing of the questionnaires or schedules and advantages and limitations. Check lists – Meaning, steps in construction, advantages and limitations in its use. Rating scales – Meaning, types, limits in construction, advantages and limitations in its use. Observation – Meaning, types, tips in observation, advantages and limitations in its use. Case studies – Meaning, types, steps in conducting, advantages and limitations in its use. Social survey – Meaning, objectives, types and steps in conducting, advantages and limitations.

### **UNIT IV**

Data processing – Meaning, coding, preparation of master code sheet, analysis and tabulation of data, Statistical Package for Social Sciences ( SPSS) choosing appropriate statistics for data analysis based on the level of measurement of variables. Report writing – Meaning, guidelines to be followed in scientific report writing, References in reporting.

### **Practical**

Selection and formulation of research problem - Formulation of objectives and hypothesis- Selection of variables based on objectives-Developing the conceptual framework of research. Operationally defining the selected variables-Development of data collection devices.-Testing the validity and reliability of the data collection instruments.- Pre-testing of the data collection instrument-Techniques of interviewing and collection of data using the data collection instruments-Data processing, hands on experiences on SPSS, coding, tabulation and analysis. Formulation of secondary tables based on objectives of research.Writing report, Writing of thesis and research articles-Presentation of reports.

### **Suggested Readings**

- Chandrakandan K, Venkatapirabu J, Sekar V & Anand Kumar V. 2000. *Tests and Measurements in Social Research*. APH Publ.
- Kerlinger FN. 1973. *Foundations of Behavioural Research*. Holt Rhinehart.
- Kothari CR.1984. *Research Methodology, Methods and Techniques*. Chaitanya Publ. House, Allahabad.
- Krishnaswami OR & Ranganatham M. 2005. *Methodology of Research in Social Sciences*. Himalaya Publ. House.
- Mulay S & Sabaratnam VE.1983. *Research Methods in Extension Education*. Manasavan, New Delhi

- Ranjit Kumar. 1999. *Research Methodology - A Step by Step Guide for Beginners*. Sage Publ.
- Ray GL & Sagar Mondal. 1999. *Research methods in Social Sciences and Extension Education*. Naya Prakash, Calcutta
- Wilkinson TS & Bhandarkar PC. 1993. *Methodology and Techniques of Social Research*. Himalaya Publ.Home.

**EXT 505**

**e - EXTENSION**

**2+1**

### **Objective**

Students will gain knowledge and skills in understanding the concepts of Information and communication technologies and how these ICT tools can be used for Agricultural Extension. Besides, he studies various ICT projects which are successful in delivering the services to the clientele fulfilling the objective of Transfer of Technology i.e. Reaching the unreached.

### **Theory**

#### **UNIT I**

ICTs- Concept, definition, tools and application in extension education. Reorganizing the extension efforts using ICTs, advantages, limitations and opportunities.

#### **UNIT II**

ICTs projects, case studies in India and developing world. Different approaches (models) to ICTs. ICT use in field of extension- Expert systems on selected crops and enterprises; Self learning CDs on package of practices, diseases and pest management, Agricultural web sites and portals related crop production and marketing etc.

#### **UNIT III**

Community Radio, Web, Tele, and Video conferencing. Computer Aided Extension. Knowledge management, Information kiosks, Multimedia. Online, Offline Extension. Tools- Mobile technologies, e-learning concepts.

#### **UNIT IV**

ICT Extension approaches-pre-requisites, information and science needs of farming community. Need integration. Human resource information. Intermediaries. Basic e-extension training issues. ICT enabled extension pluralism. Emerging issues in ICT.

### **Practical**

Agril.content analysis of ICT Projects. Handling of ICT tools. Designing extension content. Online extension service. Project work on ICT enabled extension. Creation of extension blogs. Visit to ICT extension projects.

### **Suggested Readings**

- Batnakar S & Schware R. 2000. *Information and Communication Technology in Development- Cases from India*. Sage Publ.
- Meera SN. 2008. *ICTs in Agricultural Extension: Tactical to Practical*. Ganga-Kaveri Publ. House. JangamWadiMath, Varanasi.
- Willem Zip. 1994. *Improving the Transfer and Use of Agricultural Information - A Guide to Information Technology*. The World Bank, Washington.



**Objective**

The first part of the course is intended to provide overall picture of planning and development of enterprises for extending sustainable livelihoods for rural people. The second part of the course is structured to help the students to gain knowledge and skills in different concepts and techniques of management in extension organizations.

**Theory****UNIT I**

Entrepreneurship – Concept, characteristics, Approaches, Theories, Need for enterprises development. Agri – entrepreneurship – Concept, characteristics, Nature and importance for sustainable Livelihoods. Traits of entrepreneurs – Risk taking, Leadership, Decision making, Planning, Organising, Coordinating and Marketing, Types of Entrepreneurs. Stages of establishing enterprise – Identification of sound enterprise, steps to be considered in setting up an enterprise, feasibility report, product selection, risk and market analysis, legal requirements. Project Management and Appraisal – Market, Technical, Financial, Social Appraisal of Projects.

**UNIT II**

Micro enterprises – Profitable Agri enterprises in India – Agro Processing, KVIC industries. Micro financing – meaning, Sources of Finance, Banks, Small scale industries development organizations. Marketing for enterprises – Concept, planning for marketing, target marketing, Competition, market survey and strategies, Product sales and promotion. Gender issues in entrepreneurship development – Understanding gender and subordination of women, Gender as a development tool, Policy approaches for women entrepreneurship development. Success and Failure stories for enterprises – Issues relating to success and failure of enterprises – Personal, Production, Finance, Social, Marketing.

**UNIT III**

Management – Meaning, concept, nature and importance, Approaches to management, Levels of management, Qualities and skills of a manager. Extension Management – Meaning, Concept, Importance, Principles of management, Classification of Functions of Management. Planning – Concept, Nature, Importance, Types, Making planning effective. Change Management – factors, process and procedures. Decision making – Concept, Types of decisions, Styles and techniques of decision making, Steps in DM Process, Guidelines for making effective decisions. Organizing – Meaning of Organization, Concept, Principles, Organizational Structure, Span of Management, Departmentalization, Authority and responsibility, Delegation and decentralization, line and staff relations.

**UNIT IV**

Coordination – Concept, Need, Types, Techniques of Coordination. Interpersonal relations in the organization. Staffing – Need and importance, Manpower planning, Recruitment, Selection, Placement and Orientation, Training and Development – Performance appraisal – Meaning, Concept, Methods. Direction – Concept, Principles, Requirements of effective direction, Giving orders, Techniques of direction. Leadership – Concept, Characteristics, Functions, Approaches to leadership, Leadership styles. Organizational Communication – Concept, Process, Types, Net Works, Barriers to Communication. Managing work motivation

– Concept, Motivation and Performance, Approaches to motivation. Supervision – Meaning, Responsibilities, Qualities and functions of supervision, Essentials of effective supervision. Managerial Control – Nature, Process, Types, Techniques of Control, Budgeting, Observation, PERT and CPM, MIS.

### **Practical**

Field visit to Successful enterprises-Study of Characteristics of Successful entrepreneurs Development of Project Proposal -Case Studies of Success / Failure enterprises-Exercise on Market Survey-Field visit to Financial institutions-Simulated exercise to understand management process-Field visit to extension organizations to understand the functions of management - Group exercise on development of short term and long term plan-Simulated exercise on techniques of decision making-Designing organizational structure -Group activity on leadership development skills.

### **Suggested Readings**

Gupta CB. 2001. *Management Theory and Practice*. Sultan Chand & Sons.

Indu Grover. 2008. *Handbook on Empowerment and Entrepreneurship*. Agrotech Public Academy.

Khanka SS. 1999. *Entrepreneurial Development*. S. Chand & Co.

Singh D. 1995. *Effective Managerial Leadership*. Deep & Deep Publ.

Tripathi PC & Reddy PN. 1991. *Principles of Management*. Tata McGraw Hill.

Vasanta Desai. 1997. *Small Scale Industries and Entrepreneurship*. Himalaya Publ. House.

**EXT 507**

**HUMAN RESOURCE DEVELOPMENT (HRD)**

**2+1**

### **Objective**

To orient the students about key concepts, importance, scope & conceptual frame work, growth & development of Human Resource Development, Subsystems of Human Resource Development for extension organization and process of HRD.

### **Theory**

#### **UNIT I**

Human Resource Development – Definition, Meaning, Importance, Scope and Need for HRD; Conceptual frame work, inter disciplinary approach, function systems and case studies in HRD; HRD Interventions – Different Experiences; Selection, Development & Growth-Selection, Recruitment, Induction Staff Training and Development, Career planning; Social and Organizational Culture: Indian environment perspective on cultural process and social structure, society in transition; Organizational and Managerial values and ethics, organizational commitment ; Motivation productivity - job description – analysis and evaluation; Performance Appraisal.

#### **UNIT II**

Human Resource management: Collective bargaining, Negotiation skills; Human Resource Accounting (HRA): What is HRA? Why HRA? Information Management for HRA and Measurement in HRA; Intra personal processes: Collective behaviour, learning, and perception ; Stress and coping mechanisms; Inter-Personal Process, Helping Process –

communication and Feedback and interpersonal styles; Group & Inter group process: group information and group processes; Organizational communication, Team building Process and functioning, Conflict management, Collaboration and Competition; HRD & Supervisors: Task Analysis; Capacity Building – Counseling and Mentoring; Role of a Professional Manager: Task of Professional Manager – Responsibility of Professional Manager; Managerial skills and Soft Skills required for Extension workers; Decision Making: Decision Making models, Management by Objectives; Behavioural Dynamics :Leadership styles – Group dynamics.

### **UNIT III**

Training – Meaning, determining training need and development strategies – Training types, models, methods and evaluation; Facilities for training – Trainers training – techniques for trainees participation; Research studies in training extension personnel; Main issues in HRD: HRD culture and climate – organizing for HRD – emerging trends and Prospective.

#### **Practical**

Visit to different training organizations to review on going activities & facilities; Analysis of Training methods followed by training institutions for farmers and extension workers Studies on evaluation of training programmes; Study of HRD in organization in terms of performance, organizational development, employees welfare and improving quality of work life and Human resource information, Presentation of reports.

#### **Suggested Readings**

- Agochiya D. 2002. *Every Trainer's Handbook*. Sage Publ.
- David Gross. 1997. *Human Resource Management - The Basics*. TR Publ.
- Davis Keth & Newston W John 1989. *Human Behaviour at Work*. 8th Ed. McGraw-Hill.
- Hersey Paul & Balanchard H Kenneth. 1992. *Management of Organizational Behaviour Utilizing Human Resource*. 5th Ed. Prentice-Hall of India.
- Koontz Harold & Weihhrich Heinz 1990. *Essentials of Management*. 5th Ed. McGraw-Hill.
- Lynton RP & Pareek U. 1993. *Training for Development*. DB.
- Taraporewale Sons & Co.
- Punna Rao P & Sudarshan Reddy M. 2001. *Human Resource Development Mechanisms for Extension Organization*. Kalyani Publ.
- Rao TV. 2003. *Readings in Human Resource Development*. Oxford Publ. Co.
- Silberman Mel. 1995. *Active Training*. Press Johnston Publ. Co., New Delhi.
- Singh RP. 2000. *Management of Training Programmes*. Anmol Publ.
- Subba Rao P. 2005. *Management & Organizational Behaviour*. Himalaya Publ. House.
- Sundaram RM, Gupta V, George SS. 2006. *Case Studies in Human Resource Management*. ICFAI, Hyderabad.
- Tripati & Reddy. 2004. *Principles of Management*. Tata McGraw-Hill.
- Wayne MR & Robert MN. 2005. *Human Resource Management*. International Ed. Pearson Prentice Hall.

**EXT 508**

**VISUAL COMMUNICATION**

**2+1**

**Objective**

This course is intended to give a clear perspective about the importance of visuals and graphics in communication. The course starts with the delineating about the characteristics of visuals and graphics followed by its main functions, theories of visual perception and its classification and selection. Further, the course deals with the designing the message, graphic formats and devices and presentation of data. It makes the students to understand, prepare and present the scientific data effectively by using low cost visuals. The course also exposes the students to various Digitized video material in multimedia and also enable to design visuals for print, TV and know-how about scanning of visuals.

**Theory**

**UNIT I**

Role of visuals & graphics in Communication. Characteristics of visuals & graphics. Functions of visuals and graphics. Theories of visual perception. Classification and selection of visuals. Concepts of multimedia in communication Basics of computers in relation to visuals, Modes of presentation of visuals in computers

**UNIT II**

Designing message for visuals, Graphic formats and devices. Presentation of Scientific data. Principles and production of low cost visuals.

**UNIT III**

Photographs- reprographic visuals. PC based visuals. Digitized video material in multimedia production. Designing visuals for print and TV and video.

**UNIT IV**

Pre-testing and evaluation of visuals. Scanning of visuals.

**Practicals**

Preparation of low cost projected and Non-Projected visuals. Designing and layout of charts, posters, flash cards etc. Power point presentations. Generating computer aided presentation graphics. Scanning and evaluation of visuals.

**Suggested Readings**

Bhatia A. 2005. *Visual Communication*. Rajat Publications, New Delhi.

Edgar Dale 1970. *Audio Visual methods in Teaching*. Holt, Rinehart & Winston.

James WB, Richard BL, Fried F Harclerod. 1952. *A.V. Instructional Material & Methods*. Mc.Graw Hill.

Reddy YN. 1998. *Audio Visual Aids in Teaching, Training and Extension*. Haritha Publ. House, Hyderabad.

**EXT 509**

**PARTICIPATORY METHODS FOR TECHNOLOGY  
DEVELOPMENT AND TRANSFER**

**1+1**

**Objective**

This course is intended to orient the students with the key concepts, principles process of different participatory approaches for technology development and transfer and also to expose the students with various participatory tools and techniques like space related, time related, relation oriented methods. Besides the students will be learning the preparation of action plans, participatory monitoring and evaluation.

## Theory

### UNIT I

Participatory extension – Importance, key features, principles and process of participatory approaches; Different participatory approaches (RRA, PRA, PLA, AEA, PALM, PAR, PAME, ESRE, FPR) and successful models.

### UNIT II

Participatory tools and techniques. Space Related Methods : village map (social & resource), mobility services and opportunities map and transect; Time related methods : time line, trend analysis, seasonal diagram. Daily activity schedule, dream map; Relation oriented methods : cause and effect diagram (problem tree), impact – diagram, well being ranking method, Venn diagram, matrix ranking, livelihood analysis.

### UNIT III

Preparation of action plans, concept and action plan preparation; Participatory technology development and dissemination; Participatory planning and management, phases and steps in planning and implementation aspects; Process monitoring, participatory evaluation.

## Practical

Simulated exercises on space related methods, time related method and relation oriented methods; Documentation of PTD and dissemination; Preparation of action plan; Participatory monitoring and evaluation of developmental programmes.

## Suggested Readings

- Adhikary. 2006. *Participatory Planning and Project Management in Extension Science*. Agrotech Publ. Academy.
- Mukharjee N. 2002. *Participatory Learning and Action*. Concept Publ. Co.
- Singh BK. 2008. *PRA/PLA and Participatory Training*. Adhyayan Publ. & Distr.
- Somesh Kumar. 2002. *Methods for Community Participation*. Vistaar Publ.

**EXT 510**

**GENDER SENSITIZATION FOR DEVELOPMENT**

**1+1**

## Objective

In this course the students will learn about an overview of the concept of gender and gender balance on development and develop skills of identifying gender roles, rights, responsibilities and relationships on development. Besides the students will also learn the attitudinal change to internalize gender equity concerns as fundamental human rights and also enhance the capability for identifying and analyzing gender issues in agriculture and allied sectors.

## Theory

### UNIT I

Gender concepts, issues and challenges in development; Gender roles, gender balance, status, need and scope; Gender analysis tools and techniques.

### UNIT II

National policy for empowerment of women since independence; Developmental programmes for women; Gender mainstreaming in agriculture and allied sectors –need and relevance; Gender budgeting – A tool for empowering women.

### UNIT III

Women empowerment –Dimensions; Women empowerment through SHG approach; Women entrepreneurship and its role in economic development; Public Private Partnership for the economic empowerment of women; Building rural institution for women empowerment; Women human rights ; Action plans for gender mainstreaming.

#### Practical

Visits to rural institutions of women for studying in the rural institutions engaged in Women empowerment; Visits to entrepreneurial unit of women for studying the ways and means of establishing entrepreneurship units for Women and their development and also SWOT analysis of the Unit; Visit to Center for women development - NIRD to study the different activities related to projects and research on gender; Visit to gender cell, Office of the Commissioner and Director of Agriculture, Hyderabad, to study the mainstreaming of gender concerns and gender budget of the department.

#### Suggested Readings

Grover I & Grover D. 2002. *Empowerment of Women*. Agrotech Publ. Academy.

Porter F, Smyth I & Sweetman C.1999. *Gender Works: Oxfarm Experience in Policy and Practice*. Oxfarm Publ.

Raj MK. 1998. *Gender Population and Development*. Oxford Univ. Press.

Sahoo RK & Tripathy SN. 2006. *SHG and Women Empowerment*. Anmol Publ.

Sinha K. 2000. *Empowerment of Women in South Asia*. Association of Management Development Institution in South Asia, Hyderabad.

Thakur Joshi S. 1999. *Women and Development*. Mittal Publ.

Vishwanathan M. 1994. *Women in Agriculture & RD*. Rupa Books.

**EXT 511**

**PERSPECTIVES OF DISTANCE EDUCATION**

**1+1**

#### Objective

The course is intended to orient the students with the concept of Distance Education, Characteristics of Distance Education, Evolution, Methods of Distance Education, Different Approaches in Planning Distance Education, Educational Technology in Distance Education, Management of Resources for distance education, Strategies for maximizing the reach and programme evaluation and quality assessment.

#### Theory

##### UNIT I

Distance Education – Introduction Meaning, Concept, Philosophy and its work ethics, characteristics of Distance Education – Evolution and Historical view of Distance Education – Theory Methodology, and Epistemology. Dimensions of Distance Education, Scope and difficulties. Open Education – Non-formal Education, Continuing Education, Education by correspondence.

##### UNIT II

Forms and systems of Distance and Open Education, Modes of Teaching and Learning in Distance Education, Methods of Distance Education, Significance of Distance Education in Teacher Education.

### **UNIT III**

Planning Distance Education – A Systems Approach Student Learning – Course Planning, The target groups – Barriers to learning in Distance Education – Planning and Management of Networked Learning.

### **UNIT IV**

Educational Technology in Distance Education Application of information and Educational Technologies in Distance Education, Development of Course and Course material, Management of resources, processes, Forms of Instructional material in Distance Education and Media Development and Production in Distance Education - Video Classroom Strategy in Distance Education – Strategies for maximizing the reach – services to students, programme Evaluation - performance indicators and Quality Assessment.

### **Practical**

Visit to the University which is implementing the Distance Education Programmes. Detailed Study of their programme in relation to Educational Technology, Methodology, Curriculum Development, Evaluation and Assessment. Exercise on development of curriculum for Distance Education exclusively for farming community.

### **Suggested Readings**

Holmberg B. 1995. *Theory and Practice of Distance Education*. Routledge Publ..

Lakshmi Reddy MV. 2001. *Towards Better Practices in Distance Education*. Kanishka Publ.

More MG. 2003. *Hand Book of Distance Education*. Lawrence Erlbaum Associates Publ.

Panda.S. 2003. *Planning & Management in Distance Education*. Kogan Page Publ.

Pathak CK. 2003. *Distance Education: Prospects and Constraints*. Rajat Publ.

Sharma DC. 2005. *Management of Distance Education*. Anmol Publ.

Sharma M. 2006. *Distance Education: Concepts and Principles*. Kanishka Publ.

## **EXT 512**

## **MARKET LED EXTENSION MANAGEMENT**

**1+1**

### **Objective**

The student will learn the significance of post harvest management & value addition in present market environment and the challenges and future strategy for market led extension management. Also identifies the information sources and develop strategy for market intelligence and the marketing infrastructure, multilevel marketing and linkages for market led extension. In addition the students would be learning the public private partnerships for market led extension management, the features of contract farming, WTO its implications on agriculture and Understanding the role of IT for market intelligence.

### **Theory**

#### **UNIT I**

Agricultural extension at cross roads; Changing scenario of agricultural extension at the national level; Market led extension – emerging perspectives; Market led extension – issues and challenges; Dimensions of market led extension.

## **UNIT II**

Agricultural marketing an overview; Development of a marketing plan, pricing concepts and pricing strategy; Consumer behaviour; Marketing communication and promotional strategies; The marketing research process; Agricultural trade liberalization and its impact; International marketing opportunities; Implications of AOA, TRIPS and IPRs agreements on agriculture; Agreement on SPS and TBT - an over view; Commodity features marketing.

## **UNIT III**

Public private linkages in market led extension; Role of SHG in market led extension; Contract farming – a viable approach to meet market challenges; IT enabled approaches for market led extension and communication; Weather service and crop modeling – An effective tool in market led extension.

### **Practical**

Identification and analysis of different marketing sources for agricultural commodities. Development of strategy for an effective market intelligence system; Development of suitable marketing plan to suite rural situation; Visit to APEDA, Rythu Bazaars to study the processes and procedures related to market-led extension.

### **Suggested Readings**

Kaleel FMH & Krisnamurthy J. 2007. *Market Led Extension Dimensions and Tools*. Agro Tech Publ. Academy.

Rajmanohar TP & Kumaravel KS. 2006. *Contract Farming in India*. ICFAI Univ. Press, Hyderabad.

Subbalakshmi V. 2005. *Globalization - Indian Experience*. ICFAI Univ. Press, Hyderabad.

Suresh K. 2005. *Rural Markets - Emerging Opportunities*. ICFAI Univ. Press, Hyderabad

**EXT 601**

**ADVANCES IN AGRICULTURAL EXTENSION**

**2+1**

### **Objective**

By the End of the course student will be able to Critically analyze different Agricultural Extension approaches Understand Agricultural Knowledge Information System (AKISs) ITK Understand Advances in Extension - Cyber extension, ICT enabled extension services; Market Led Extension, Public Private Partnership, Mainstreaming gender in extension organizational Innovations. Visualize implications of WTO - AOA and develop extension strategies. Understand extension reforms and Farmer Field Schools Decentralized Decision Making, bottom up planning, ATMA, FSBE & CIGs etc., ATIC, IVLP & Kisan Call Centres

### **Theory**

#### **UNIT I**

Approaches of Agricultural Extension: A critical analysis of different approaches of agricultural extension. Importance and relevance of indigenous knowledge system, identification and documentation of ITK, Integration of ITK system in research formulation, Concept of Agricultural Knowledge and Information System, Training of Stakeholders of AKIS.



## UNIT II

Cyber Extension - Concept of cyber extension, national and international cases of extension projects using ICT and their impact of agricultural extension, alternative methods of financing agricultural extension - Scope, limitations and experience and cases. Research - Extension -Farmer - Market linkage: Importance, Scope, Implications etc., Market - Led Extension, Farmer - Led Extension, Concept of Farm Field School, Farm School, Public - Private Partnership: Meaning, Models, Identification of various areas for partnership. Stakeholder's analysis in Extension. Main streaming gender in Extension - Issues and Prospects.

## UNIT III

Implications of WTO - AOA for extension services, re-orientation of extension services for agri-business and marketing activities, GOI-NGO collaboration to improve efficiency of extension.

## UNIT IV

Extension and contemporary issues: Extension and issues related to rural poverty. Privatization of Extension. Intellectual Property Rights (IPRs). Extension Reforms in India - Decentralized decision making, Bottom up planning, Farming System and Situation based Extension Delivery System, Extension delivery through Commodity Interest Groups. Organization innovations in Extension - ATIC, IVLP, Kisan Call Centres.

### Practical

Analysis of ITK systems, cases on integration of ITK and formal research system, Analysis of cases on cyber extension and privatization of extension. Analysis of ATMA and SREP. Practicing bottom up planning. Visit to Public-Private -Farmer partnership. Learnings from Food and Nutritional Security and bio-diversity Projects and Programmes.

### Suggested Readings

- Bagchi J. 2007. *Agriculture and WTO Opportunity for India*. Sanskruti. Chambers R, Pacy A & Thrupp LA. 1989. *Farmers First*. Intermediate Technology Publ.
- Crouch BR & Chamala S. 1981. *Extension Education and Rural Development*. Macmillan.
- John KC, Sharma DK, Rajan CS & Singh C. 1997. *Farmers Participation in Agricultural Research and Extension Systems*. MANAGE, Concept Publ. Co.
- Khan PM. 2002. *Text Book of Extension Education*. Himanshu Publ.
- Narasaiah ML. 2005. *Agricultural Development and World Trade Organization*. Discovery Publ.
- Talwar S. 2007. *WTO Intellectual Property Rights*. Serials Publ.
- Van den Ban BW & Hawkins BS. 1998. *Agricultural Extension*. S.K. Jain Publ.
- Venkaiah S. 2001. *New Dimensions of Extension Education*. Anmol Publ.

EXT 602

## ADVANCED DESIGNS AND TECHNIQUES IN SOCIAL SCIENCE RESEARCH

2+1

### Objective

By the End of the course student will be able to z Develop & Standardize Attitude scale using different techniques of attitude scale construction. z Develop skills of using Projected & Semi Projected & Critical Incident techniques, Computer Package analysis and PRA Tools in Extension Research.

## Theory

### UNIT I

Scaling technique - meaning, types, principles, steps and quality, techniques of attitude scale construction - Paired comparison, Equal appearing intervals, Successive Intervals, Summated ratings, Scalogram analysis, Scale discrimination technique, Reliability and Validity of Scales. Sociometrics, content analysis, case studies, Q-sort techniques, Semantic different technique.

### UNIT II

Projective and Semi projective techniques, Critical incident techniques, Computer packages for analysis - usage in Extension Research. Knowledge scale measurement. Participatory tools and techniques in behaviour Research - Data collection and Evaluation. Impact analysis, e-data collection and information analysis.

### Practical

Practice in constructing a scale and use of scale in various situations. Reliability and validity of the scales developed, Application of Semi Projective and Projective techniques. Content analysis, case studies. Practicing participatory tools and techniques. Hands on experience on Computer Preparation and Data Collection instruments, review of previous studies.

### Suggested Readings

Burns RB. 2000. *Introduction to Research Methods*. Sage Publ.

Chandrakandan K & Karthikeyan C. 2004. *Behavioral Research Methodology*. Classical Publ.

Daivadeenam P. 2002. *Research Methodology in Extension Education*. Agro-Tech Publ. Academy.

Kerlinger N Fred. 2002. *Foundations of Behavioural Research*. Surjeet Publ.

Kothari CR. 2000. *Research Methodology Methods & Techniques*. 2nd Ed. Wishwa Prakasham.

Ray GL & Mondal S. 1999. *Research Methods in Social Science and Extension Education*. Naya Prokash.

Roger L & Domino WSK. 1980. *Research Methods*. Prentice Hall.

Sadhu AM & Singh A. 2003 *Research Methodology in Social Science*. Himalaya Publ. House.

Sarantakos S. 1998. *Social Research*. 2nd Ed. Macmillan.

Sinha SC & Dhiman AK. 2002. *Research Methodology*. ESS Publ.

Verma RK & Verma G. 2002. *Research Methodology*. Commonwealth Publ.

Walizer MH & Panl L. 2002. *Research Methods & Analysis; Searching for Relationships*. Wiemil Harper & Row.

Wilkinson TS & Bhandarkar PL. 2002. *Methodology and Techniques of Social Research*. Himalaya Publ. House.

**EXT 603**

**ADVANCES IN TRAINING TECHNOLOGY**

**2+1**

### Objective

By the end of the Course student will be able to Plan and design a training programme Plan & Develop effective training sessions Manage difficult situations while organizing training programmes Use different advanced participatory training methods

## Theory

### UNIT I

Paradigm shift in training - learning scenario, Training Approaches - Experiential learning - laboratory - organization development (system) approaches; Training Design, Designing an effective training programme, Harmonizing training needs, Course Objective, content and methods.

### UNIT II

Designing an effective training session - the semantics involved, Designing experiential training sessions, simulation exercises, and openness in training transaction - managing dilemmas, ambivalence and conflicts and confusion (for both trainers and trainees).

### UNIT III

Recent Training Techniques for understanding and facilitation team building, group dynamics, motivation and empowerment, laboratory methods: micro-lab process work, and sensitivity training, Psychological instruments as training tools: TAT, Inventories, Cases, etc.

### UNIT IV

Participatory Training Techniques - Lecture, Brainstorming, Group discussion and Training Games. Role Play, Psycho-drama, Coaching, Counseling, etc., Trainer's roles and dilemmas, Factors Effecting Training Effectiveness and Training Evaluation.

## Practical

Techniques of participatory training need assessment. Formulation of Course Objective, design of training programmes. Simulation exercises. Participatory training methods - Role Play & Brainstorming, Group discussion and Counseling and Conducting experiential learning sessions. Training evaluation - Techniques of Knowledge, Skill & Attitude evaluation. Visit to training institutions and study of training technologies followed.

## Suggested Readings

- Agochiya D. 2002. *Every Trainer's Handbook*. Sage Publ.
- Alan B & Calardy 2004. *Five Case Studies in Management Training*. Jaico Publ.
- Kumar A. 2000. *Management Training Process*. Anmol Publ.
- Leslie Rae. 1998. *Techniques of Training*. Jaico Publ.
- Lynton RP & Pareek U. 1999. *Training for Development*. 2nd Ed. Vistar Publ.
- Reid MA. 1997. *Training Interventions, Managing Employee Development*. Jaico. Publ.
- Samanta RK. 1993. *Training Methods for Management and Development*. M.D. Publ.
- Sethy ED. 2003. *A Practical Hand Book on Training*. Anmol Publ.

**EXT 604**

**ORGANIZATIONAL DEVELOPMENT**

**2+1**

## Objective

By the end of the course student will be able to Understand & Study the Organization in terms of types, Characteristics, Needs, Motives, Organization behaviour, Organization Communication, Organization development and Individual behaviour in organization. To analyse the factors

effecting organizational effectiveness and distinguish between functional and non functional organization.

## **Theory**

### **UNIT I**

Introduction to organizations: Concept and Characteristics of organizations, Organizational Behaviour - Context and concept - levels of organizations - formal and informal organizations, Theories of organizations: Nature of organizational theory - classical theories - features of Bureaucracy - administrative theory and Scientific management - Neo-classical theories - the human relations movement - modern theory.

### **UNIT II**

Systems approach to study organization needs and motives - Attitude, values and ethical behaviour - alienation and work - work motivation - communication and interpersonal behaviour - organization communication - leadership behaviour - decision making, problem solving techniques - organizational climate - change proneness and resistance to change, Organizational change, Organizational structure - Process in organizing - Dimension of Motivation Climate.

### **UNIT III**

Departmentation - Span of Management - Delegation of authority - Centralization and decentralization - line and staff organization - functional organization - divisionalisation - Project organization - Matrix organization - free form organization - top management structure.

### **UNIT IV**

Individual behaviour in organization. Fundamentals of Human relations and Organizational behaviour, Groups and teams - Organisational culture and performance. Dynamics of Organization behaviour - leadership conflict situations and inter group behavior- Organisational Development - Factors effecting organization effectiveness. Creativity, leadership, motivation and organization development.

## **Practical**

Analysis of organization in terms of process - attitudes and values, motivation, leadership. Simulation exercises on problem-solving - Study of organizational climate in different organizations. Study of organizational structure of development departments, Study of departmentalization, span of control delegation of authority, decisions making patterns, Study of individual and group behaviour at work in an organization. Conflicts and their management in an organization. Comparative study of functional and non-functional organisations and drawing factors for organizational effectiveness.

## **Suggested Readings**

Ancona, Kochaw, Scully, Van Maanen, Westney 1999. *Organizational Behaviour and Processes*. South Western College Publ., New York.

Banerjee M. 1984. *Organizational Behaviour*. Allied Publ.

Deka GC. 1999. *Organizational Behaviour - A Conceptual Application Approach*. Kanishka Publ.

Dwivedi RS. 2006. *Human Relations and Organization Behaviour- A Global Perspective*. 5th Ed. Macmillan.

- Kumar A. 2000. *Organizational Behaviour Theory and Practice*. Anmol Publ.
- Luthans F. 1998. *Organizational Behavior*. Tata McGraw Hill.
- Luthans F. 2001. *Organizational Behaviour*. McGraw Hill.
- Newstrom JW & Davis K. 1997. *Human Behaviour at Work*. Tata McGraw Hill.
- Robbins SP. 2007. *Organizational Behaviour*. Prentice Hall.
- Shaun T & Jackson T. 2003. *The Essence of Organizational Behaviour*. Practice Hall of India.
- Stephen RR. 1999. *Organizational Behaviour*. 5th Ed. Practice Hall of India.

**EXT 605**

**ADVANCED INSTRUCTIONAL TECHNOLOGY**

**2+1**

**Objective**

By the end of the course student will be able to Understand Agricultural Education Scenario in the country and Curriculum development process Plan & Prepare and present course outline, Lesson Plan & Skill plan Develop appropriate Teaching & Learning Styles Use innovative instructional aids & methods

**Theory**

**UNIT I**

Concepts in Instructional Technology, Scope of Instructional Technology. History of agricultural education in India. Guidelines for curriculum development in Agricultural Universities. Curriculum design development.

**UNIT II**

Course outline, Lesson plans for theory and practicals. Teaching and learning styles. Theories of learning. Cognitive levels. Instructional Course Objective. Motivation of students.

**UNIT III**

Instructional Methods. Experiential learning cycle. Innovative Instructional Aids. Computer Assisted Instruction. Programmed instruction technique. Team Teaching. E-Learning, Art of Effective Communication. Distance education. Student evaluation - Question Bank. Appraisal of Teacher Performance. Review of research in Instructional Technology.

**Practical**

Formulation of instructional Course Objective. Development and presentation of course outlines. Preparation & presentation of lesson plans for theory & practical with CAI design. Preparation of innovative low cost instructional aids. Development of model question bank. Preparation of schedule for teacher evaluation. Visit to Distance Education centre. Study of research reviews and Presentation of reports.

**Suggested Readings**

- Agarwal JC. 2007. *Essentials of Educational Technology Innovations in Teaching – Learning*. 2nd Ed. Vikas Publ. House.
- Agarwal R. 2000. *Educational Technology and Conceptual understanding*. Anmol Publ.
- Dayal BK. 2005. *Educational Planning and Development*. Dominant Publ.
- Grover I, Kaushik S, Yadav L & Varma SK. 2002. *Communication and Instructional Technology*. Agro Tech Publ. Academy.
- Jacobsen D, Eggen P & Kauchak D. 1985. *Methods for Teaching - A Skills Approach*. 2nd Ed. Charles E. Merrill Publ.

Joyee B & Well M. 1980. *Models of Teaching*. 2nd Ed. Prentice Hall.  
Khan PM. 2002. *Text Book of Extension Education*. Himanshu Publ.  
Rush N. 1987. *Technology Based Learning - Selected Readings*. London Publ. Co., New York.  
Tara Chand 1999. *Educational Technology*. Anmol Publ.

**EXT 606                      THEORY CONSTRUCTIONS IN SOCIAL SCIENCES                      2+0**

**Objective**

By the end of the course student will be able to develop skills of theory building and scientific application of theoretical concept in Social Sciences by applying appropriate statistical tests.

**Theory**

**UNIT I**

Importance of theory constructions in social science. Theory: Meaning, elements, Ideal Criteria, Functions, Types. Definitions: Meaning, types and Rules. Generalizations: Meaning, Classification. Relationship: Meaning Types.

**UNIT II**

Terminologies used in theory constructions: Axiom, Postulate, Proposition, Theorem, Fact, Concept, Construct, Probability and Measurement Basic Derived. Steps in theory building - Axiomatic Techniques, Historical approaches. Scientific application Theoretical concept in Social Sciences. Test of Theory: Applying appropriate statistical tests.

**Suggested Readings**

Blalock HM. *Theory Construction: Form verbal to Mathematical Formulations*. Prentice Hall.  
Dubin R. *Theory Building*. The Free Press, New York.  
Gibbs JP. *Sociological Theory Construction*. The Dryden Press, Illionis.  
Hage J. *Techniques and Problems of Theory Constructions in Sociology*.  
John Wiley & Sons  
Stinchombe AL. *Construction of Sociological Theories*. Harcourt, Brace & World.  
Wionton CA. *Theory and Measurement in Sociology*. John Wiley & Sons.

**EXT 607                      ADVANCED MANAGEMENT TECHNIQUES                      2+1**

**Objective**

By the end of the course student will be able to Develop understanding on concept of MIS, its scope in Agriculture Extension Organization. Understand, Develop and Evaluate the MBO System To cope up with stress, Resolve conflicts and develop effective inter personal communication skills using Transactional analysis. To plan & use, DSS, AI, ES, PERT, CPM

**Theory**

**UNIT I**

Management Information System (MIS): Basic concepts, types of information needed at various levels, design of MIS in an agricultural extension organization. Scope for computerization, system alternatives and Evaluation. Implementation, operation and maintenance of the system.

**UNIT II**

Management By Objectives (MBO): Elements of the MBO system. The Process of MBO. Making MBO effective. Evaluation of the MBO system - strengths and weaknesses. Transactional Analysis (TA): Ego states, transactions, inter relationships, strokes, stamps.

### **UNIT III**

Managing Organizational Stress: Sources of stress in organization, effect of stress. Coping mechanisms and managing stress, Stress management, Team Building Process: Types of teams. Steps in teamwork, Facilitators and barriers to effective relationships, nature of prejudice, tips in reducing interpersonal conflicts, inter-group conflict, resolving techniques. Conflict management, tips in reducing interpersonal conflicts.

### **UNIT IV**

Decision Support Systems (DSSs): Basic information about Artificial Intelligence (AI) Expert System (ESs), their future applications in extension system. Forecasting techniques - time series analysis and Delphi, decision making and talent management PERT, CPM techniques and Time management.

### **Practical**

Managements Information system, in research & development organizations. Study of Management By Objectives in an organization. Transactional Analysis, exercises on Team building process, coping skills with organizational stress, exercises on Decision Support Systems (DSSs). Practicals exercise on forecasting techniques, Visit to Management organizations.

### **Suggested Readings**

- Chaudhary AK. 1999. *Encyclopedia of Management Information System*. Vols. I, II. Anmol Publ.
- Hari Gopal K. 1995. *Conflict Management - Managing Interpersonal Conflict*. Oxford & IBH.
- James O'Brien 1999. *Management Information System*. Tata McGraw-Hill.
- Koontz H & Welrich H. 2004. *Essentials of Management*. 5th Ed. Tata. McGraw- Hill.
- Lauden & Laudan 2003. *Management Information System*. Pearson Edu.
- Maheswari BL. 1980. *Organizational Decision Styles & Orgul Effectiveness*. Vikas Publ.
- McGrath SJEH. 2007. *Basic Management Skills for All*. 7th Ed. Prentice Hall of India.
- West JD & Leevy FK. 1998. *A Management Guide to PERT / CPM with GERT / PDM / DCPM and Other Networks*. Prentice Hall of India.

**EXT 608**

**MEDIA MANAGEMENT**

**2+1**

### **Objective**

To familiarize the students with the working of print, electronic, New Media & Traditional folk media. To develop working skills needed for Print, Radio and T.V. Journalism to reach farming community. To develop in students an understanding on Mass Communication Process and Media Management its impact on the society. To develop writing skills for different media.

### **Theory**

#### **UNIT I**

Media Management – Introduction, Definition, Principles and Significance of Management. Media Ownership patterns in India – Proprietorship, Partnership, private Ltd, Public companies, Trusts, Co-operatives, Religious Institutions (Societies) & Franchisees (Chains). Marketing Function – Product, Price, and Placement & Promotions.

## **UNIT II**

Mass Communication – Meaning, Concept, Definition and Theories of Mass Communication. The Mass Media – History, functions, uses and Theories of Media. Journalism – Meaning, definition, Scope, functions and different types of Journalism. Journalism as communication tool. Farm Journalism – meaning and Developments in Farm Journalism in India. Different problems with Farm Journalism. Print Media – History, the role of the press, news, Types of News, electronics of News and Sources of News, the making of newspaper & magazines, press codes and ethics, Media Laws. News story – Principles of writing, structure a news story,

procedure in writing the news story and the elements of style. Success stories & feature articles – writing for success & feature articles, Types of Feature articles. Information materials – Types of information materials and user. Techniques in book Publishing. Editing – Principles, Tools & Techniques and art of Proof Reading – Techniques, Measuring Readability of writing.

## **UNIT III**

Electronic Media-Role and Importance of Radio -History, Radio Role in TOT, writing and presentation techniques, Different Programmes of Farm Broadcast, developing content for farm broadcast, Role of FM Radio in Agriculture, Ethics of Broad casting, Broadcasting Policy and code. Community Radio – Concept, meaning, role in TOT, Cases of Community radio. Television – History - Role in TOT , Fundamentals of Television Production, Techniques of Script writing for TV, Visual Thinking, language & Style, Farm Telecast programmes, cable and satellite TV and their impact, Ethics of Telecasting, policy and code. Video Production Technology – Potential and its utilization, Typology of farm Video production, Types of Video Production and equipment used in the production, Procedure or Technique of video production. Cassette Technology – Role in TOT, Techniques of production of cassettes for the farming community. Traditional Media – Role of Folk Media in TOT and integration with electronic media.

## **UNIT IV**

Advances in communication Technology – Management of Agricultural Information System (MAIS). Use of computers in Agriculture – Application of IT in Agriculture. Use of Modern Communication Medium- Electronic Video, Teletext, tele conference, Computer assisted instruction, Video conferencing, - Features, Advantages, Limitations and risk factor involved in New Media. Designing and developing of communication and media strategy for developmental programmes. Online journalism scope & importance.

### **Practical**

Exercise on Writing for Print Media – Writing News / Success Stories / Feature articles for different topics related to Agriculture & allied fields. Exercise on editing & proof reading the Farm News for News papers – different types of intro and leads. Exercise on Writing for Radio, TV, Preparation of story board for farm Video Production – Script writing for Radio and T.V. Visit to media management organizations for studying the principles, procedures and processes in managing the media. Participation and Interaction through video conference. Developing communication & Media Strategy for selected developmental programme / activity.

### **Suggested Readings**

Bhaskaran C, Prakash R & Kishore Kumar N. 2008. *Farm Journalism in Media Management*. Agro-Tech Publ. Academy.



- Chatterjee PC. 1991. *Broadcasting in India*. Sage Publ.
- Chiranjeev A. 1999. *Electronic Media Management*. Authors Press.
- D'Souza YK. 1998. *Principles and Ethics of Journalism and Mass Communication*. Commonwealth Publ.
- Defleur ML & Dennis EE. 2001. *Understanding Mass Communications*. Goyalsaab Publ.
- Jain SC. 2006. *International Marketing Management*. CBS Publ.
- Keval J Kumar. 2004. *Mass Communication in India*. Jaico Publ.
- Malhan PN. 2004. *Communication Media: Yesterday, Today and Tomorrow*. Directorate of Publication Division, New Delhi.
- Mehta DS. 1992. *Mass Communication and Journalism in India*. Allied Publ.
- Panigrahy D. 1993. *Media Management in India*. P. K. Biswasroy (Ed.). Kanishka Publ.
- Shrivastava KM. 1995. *News Writing for Radio and TV*. Sterling Publ.
- Sinha KK. 2001. *Business Communications*. Galgotia Publ.

**EXT 609                      TRANSFER OF TECHNOLOGY IN AGRICULTURE                      2+1**

**Objective**

By the end of the Course student will be able to Develop thorough understanding on different systems of Technology Transfer Develop appropriate communication & Media Strategy suitable to the System of Technology Transfer Analyse the constraints in Systems of Technology Transfer Technology and Suggest suitable Strategies.

**Theory**

**UNIT I**

Technology - Meaning and Concepts - Appropriate technology, transfer of technology - meaning and concepts. Systems of transfer of technology - Knowledge Generating System (KGS) - Knowledge Disseminating System (KDS) - Knowledge Consuming System (KCS) - Input Supplying Agencies System (ISAS).

**UNIT II**

Appropriateness of communication media in the system of technology transfer. New communication strategy for transfer and adoption of Agricultural technology. Extension training in transfer of technology.

**UNIT III**

Analysis. Constraints in Transfer of Technology, agencies or departments involved in TOT. Extension professional in TOT. Attributes of Technology and its Relation in TOT process. TOT to resource poor farmers. Role of Key communicators or local leaders in TOT. Private and Public partnership in TOT.

**Practical**

Analysis of Transferred technology. Analysis of knowledge generation and consuming systems. Formulation of communication strategies, Study of attributes of selected fast spreading technologies and slow technologies, study of constraints in TOT, visit to TOT centres of ICAR and SAU, Identification of key communicators, Case studies of Public-Private Partnerships, Visits to the print and electronic media centres to study their role in TOT.

## **Suggested Readings**

Chaturvedi TN. 1982. *Transfer of Technology among Developing Countries; Need for Strengthening Cooperation*. Gitanjali Publ. House.

Dunn DD. 1978. *Appropriate Technology With a Human Face*. Macmillan Press.

Kapoor SK, Roy PB & Roy AK. 1980. *Role of Information Centres in Technology Transfer*. IASLIC, Kolakata.

Lekhi RK. 1984. *Technological Revolution in Agriculture*. Classical Publ. Co.

Singh SN. 1991. *Transfer of Technology to Small Farmers; An Analysis of Constraints and Experience*. Concept Publ. Co.

Wallender HW. 1980. *Technology Transfer of Management in the Developing Countries*. Ballinger Publ. Co., Cambridge.

## **List of Journals**

Agricultural Extension Review

European Journal of Agricultural Education and Extension

Indian Journal of Social Work

International Journal of Business and Globalization

International Journal of Sustainable Development

Journal of Extension

Journal of Asia Entrepreneurship and Sustainability

Journal of Environmental Extension

Journal of Extension Education

Journal of International Agriculture and Extension Education

Journal of Rural Development

British Journal of Educational Technology

Economic and Political Weekly

Indian Economic Panorama

Indian Journal of Adult Education

Indian Journal of Extension Education

Indian Journal of Human Development

Indian Journal of Open Learning

Indian Journal of Social Development

Indian Journal of Training and Development

Indian Social Science Review

Journal of Extension System

Journal of Development Studies

Journal of Educational Planning and Administration

Journal of Educational Psychology

Journal of Environmental Studies and Policy

Journal of Sustainable Agriculture

The Journal of Entrepreneurship

## **e- Resources**

[www.pearsoned.com](http://www.pearsoned.com) (Pearson Education Publication)  
[www.mcgraw-hill.com](http://www.mcgraw-hill.com) (McGraw-Hill Publishing Company)  
[www.oup.com](http://www.oup.com) (Oxford University Press)  
[www.emeraldinsight.com](http://www.emeraldinsight.com) (Emerald Group Publishing)  
[www.sagepub.com](http://www.sagepub.com) (Sage publications)  
[www.macmillanindia.com](http://www.macmillanindia.com) (Macmillan Publishing)  
[www.krishiworld.com](http://www.krishiworld.com) (Agriculture Portal)  
[www.aiaee.org](http://www.aiaee.org) (The Association for International Agricultural and Extension Education)  
[www.geogate.org](http://www.geogate.org) (Agriculture Portal)  
[www.icar.org.in](http://www.icar.org.in) (Indian Council of Agricultural Research)  
[www.manage.gov.in](http://www.manage.gov.in) (National Institute of Agricultural Extension)

## **Suggested Broad Topics for Master's and Doctoral Research**

Agricultural communication  
Agricultural Journalism  
Agriculture Education  
Agro Forestry Extension  
Banking & Credit  
Commercialization and Diversification in Agriculture  
Vegetables  
Horticulture  
Agri. tourism  
Floriculture  
Mushroom cultivation  
Bee Keeping  
Organic Farming  
Cropping System/Farming System  
Diffusion and Adoption Dry  
Farming Technology  
Entrepreneurship Development  
Extension Administration and Management  
Extension Methods and techniques  
Extension Trainings  
Extension Management and Sustainable Agricultural Development  
Indigenous Practices  
Rural Organization and Institutions  
Scientific Productivity and Human Resource Development  
Youth/Women Development  
Social Marketing