

# **M.Sc.(Ag.) in Agricultural Extension**

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## **COURSE STRUCTURE AND SYLLABI**

DEPARTMENT OF AGRICULTURAL EXTENSION, AGRICULTURAL ECONOMICS  
AND AGRICULTURAL STATISTICS, INSTITUTE OF AGRICULTURE (PSB),  
VISVA-BHARATI, SRINIKETAN, 731236

**COURSE STRUCTURE**  
**AGRICULTURAL EXTENSION**

<b>Course No</b>	<b>Course Title</b>	<b>Credit</b>
EXT 501*	GENESIS AND EVOLUTION OF EXTENSION CONCEPT	1+0
EXT 502	DEVELOPMENT PERSPECTIVES OF EXTENSION EDUCATION	1+1
EXT 503*	DEVELOPMENT COMMUNICATION AND INFORMATION MANAGEMENT	2+0
EXT 504	EDUCATIONAL TECHNOLOGY IN EXTENSION	1+1
EXT 505	CONCEPT OF SOCIOLOGY,S SOCIAL AND EDUCATIONAL PSYCHOLOGY RELEVANT IN EXTENSION	2+1
EXT 506*	DIFFUSION AND ADOPTION OF INNOVATIONS	1+1
EXT 507*	RESEARCH METHODS IN BEHAVIOURAL SCIENCES	2+1
EXT 508	GENDER STUDIES IN AGRICULTURAL DEVELOPMENT	2+1
EXT 509	DISTANCE EDUCATION AS EXTENSION INTERVENTION	1+1
EXT 510	TRAINING AND NETWORKING	1+1
EXT 511*	E-EXTENSION	1+1
EXT 512	ENTEPRENEURSHIP DEVELOPMENT AND MANAGEMENT	1+1
EXT 513*	CONCEPT OF ORGANIZATIONAL, HUMAN RESOURCE AND MARKETING MANAGEMENT RELEVANT TO EXTENSION	2+1
EXT 514	PROJECT MANAGEMENT- PRINCIPLES AND TECHNIQUES	1+1
EXT 515	PARTICIPATORY METHODS FOR TECHNOLOGY DEVELOPMENT AND TRANSFER	1+1
EXT516	VISUAL COMMUNICATION	2+1
EXT 517	MARKET LED EXTENSION	1+1
EXT 518	GROUP DYNAMIC AND LEADESHIP	2+1

\*Compulsory Core courses for Master's Programme

## **M.Sc.(Ag.) in Agricultural Extension**

1. A candidate completing a minimum of 55 credits (Major including core and optional -20, Minor - 09, Supporting – 05, Thesis -20 and Seminar-01), Comprehensive Examination and 6 Compulsory non credit courses is eligible to earn the degree.
2. In addition to the above a candidate may be permitted to opt for a required number of credits from Optional Major courses, Minor and Supporting courses as suggested by The Chairman of advisory committee and BOS.

### **COURSE STRUCTURE- AT A GLANCE**

#### **A. Semester wise Distribution of Major including core and optional, Minor and Supporting Courses**

Course No	Course Title	Credit
<b>Sem I</b>		
EXT 501*	Genesis and evolution of extension concept	1+0
EXT 502	Development perspectives of extension education	1+1
EXT 503*	Development communication and information management	2+0
EXT 504	Educational technology in extension	1+1
EXT 505	Concept of sociology, social and educational psychology relevant in extension	2+1
MINOR		
SUPPORTING		
<b>Sem II</b>		
EXT 506*	Diffusion and adoption of innovations	1+1
EXT 507*	Research methods in behavioural sciences	2+1
EXT 508	Gender studies in agricultural development	2+1
EXT 509	Distance education as extension intervention	1+1
EXT 510	Training and networking	1+1
EXT 518	Group Dynamics and Leadership	2+1
MINOR		
SUPPORTING		

<b>Sem III</b>		
EXT 511*	E-extension	1+1
EXT 512*	Entrepreneurship development and management	1+1
EXT 513*	Concept of organizational, human resource and marketing management relevant to extension	2+1
EXT 514	Project management- principles and techniques	1+1
EXT 515	Participatory methods for technology Development and transfer	1+1
MINOR		
SUPPORTING		
<b>Sem IV</b>		
EXT 591	Seminar	1
EXT 599	Research work	20
MINOR		
SUPPORTING		
	<b>TOTAL CREDIT IN MASTER'S PROGRAMME</b>	<b>Min. 60</b>

\*Compulsory Core courses for Master's Programme

Note:

1. The courses to be offered by the department as Major, Minor and Supporting in a particular semester are under the discretion of the BOS of the Department.
2. Distribution of Minor and Supporting courses depends upon the availability of courses offered in other departments of the Bhavana and University.

#### **B. Semester wise Distribution of Compulsory Non Credit Courses**

<b>Semester</b>	<b>Course Code</b>	<b>Course Title</b>	<b>Credit</b>
<b>I</b>	PGS 501	Library and Information Science	0+1
	PGS 502	Technical Writing and Communication Skills	0+1
<b>II</b>	PGS 503(e)	Intellectual Property and Its Management in Agriculture	1+0
	PGS 504	Basic Concepts in laboratory techniques	0+1
<b>III</b>	PGS 505(e)	Agricultural Research, Research Ethics and Rural Development	1+0
	PGS 506(e)	Disaster Management	1+0

**C. Comprehensive Examination (Compulsory Non-Credit):** One Each for Major and Minor Examinations to be completed prior to semester terminal examinations.



#### 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**

1. Chandrakandan KM, Senthil Kumar & Swatilaxmi. PS. 2005. *Extension Education What? And What Not ?* RBSA Publ.
2. Gallagher K. 1999. *Farmers Field School (FFS) – A Group Extension Process based on Non-Formal Education Methods*. Global EPM Facility, FAO.
3. Ganesan R, Iqbal IM & Anandaraja N. 2003. *Reaching the Unreached: Basics of Extension Education*. Associated Publishing Co.
4. Jalihal KA & Veerabhadraiah V. 2007. *Fundamentals of Extension Education and Management in Extension*. Concept Publ.
5. Khan PM. 2002. *Textbook of Extension Education*. Himalaya Publ.
6. Ray GL. 2006. *Extension Communication and Management*. Kalyani Publ.
7. Van Den Ban AW & Hawkins HS. 1998. *Agricultural Extension* .2nd Ed. CBS.
8. Viswanathan M. 1994. *Women in Agriculture and Rural Development*. Printwell Publ.

### **EXT 503 DEVELOPMENT COMMUNICATION AND INFORMATION MANAGEMENT**

**2+0**

#### **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.

### **Suggested Readings**

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

## **EXT 504 EDUCATIONAL TECHNOLOGY IN EXTENSION**

**1+1**

### **Theory**

#### UNIT I

Principles and psychological bases in selecting and using extension methods and audio visual aids. Development in instructional technologies - traditional and modern methods.

#### UNIT II

Writing for farm families (including Radio and Television). Preparation and production of Mass Media materials - electronic, print and visual media.

#### UNIT III

Photographic techniques - Computer Aided Instructional Technology - Information access through Internet, Interactive Video Disc (IVD) - Recent instructional technology - Teleconferencing.

### **Practical**

Practicing video technique - (including Radio, Television,) pre-production and post - production phases. Practicing projection techniques - Overhead projector, slide projector and video projector. Practice in photography and slide making. Preparation of synchronized slide stories - Acquaintance with printing techniques - traditional and modern methods (including Radio, Television). Visiting media institutions.

### **Suggested Readings**

1. Batnagar S & Schwabe R. 2000. *Information and Communication Technology in Development- Cases from India*. Sage Publ.

2. Meera SN. 2008. *ICTs in Agricultural Extension: Tactical to Practical*. Ganga-Kaveri Publ. House. JangamWadiMath, Varanasi.
3. Willem Zip. 1994. *Improving the Transfer and Use of Agricultural Information - A Guide to Information Technology*. The World Bank, Washington.

**EXT 505 CONCEPT OF SOCIOLOGY, SOCIAL AND EDUCATIONAL PSYCHOLOGY  
RELEVANT IN EXTENSION**

**2+1**

**Theory**

UNIT I

Individual and Society, Rural Sociology, concept, scope, Importance of Rural Sociology in Development Extension Work, Rural Sociology and other social sciences, Basic concepts in sociology- society, social structure, community, social organisation, social institution

UNIT II

Social Stratification- concept, status, role, rank, class structure, change in class system in rural India, class and caste system, origin, characteristics, differences between class and caste system, class and caste factor affecting rural development.

UNIT III

Groups- definition, types of groups, group dynamics. Leadership- concept, types and techniques of identifying leaders.

UNIT IV

Social change- concept, types and theories. Social control and social process.

UNIT V

Psychology as science, its scope and importance in extension education, -educational and social psychology-perception, attitude, motivation, personality, intelligence

**Practical**

Problems related to the topics mentioned in the theory syllabus

**Suggested Readings**

4. Chitambar, J.B. 1990. *Introductory Rural Sociology*. Wiley Eastern Ltd.
5. Dahama OP & Bhatnagar OP. 2005. *Education and Communication for Development*. Oxford & IBH.
6. Ray GL. 2005. *Extension Communication and Management*. Kalyani Publ.
7. Reddy AA. 1987. *Extension Education*. Sree Lakshmi Press, Bapatla.

**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**

8. Dasgupta. 1989. *Diffusion Agricultural Innovations in Village India*. Wiley Eastern.
9. Jaliyal KA & Veerabhadraiah V. 2007. *Fundamentals of Extension Education and Management in Extension*. Concept Publ. Co.
10. Ray GL. 2005. *Extension Communication and Management*. Kalyani Publ.
11. Reddy AA. 1987. *Extension Education*. Sree Lakshmi Press, Bapatla.
12. Rogers EM. 2003. *Diffusion of Innovations*. 5<sup>th</sup> Ed. The Free Press, New York.

**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, Evaluation, 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, Maximinon 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**

1. Chandrakandan K, Venkatapirabu J, Sekar V & Anand Kumar V. 2000. *Tests and Measurements in Social Research*. APH Publ.
2. Kerlinger FN. 1973. *Foundations of Behavioural Research*. Holt Rhinehart.
3. Kothari CR.1984. *Research Methodology, Methods and Techniques*. Chaitanya Publ. House.
4. Krishnaswami OR & Ranganatham M. 2005. *Methodology of Research in Social Sciences*. Himalaya Publ. House.
5. Mulay S & Sabaratnam VE.1983. *Research Methods in Extension Education*. Manasavan.
6. Ranjit Kumar. 1999. *Research Methodology - A Step by Step Guide for Beginners*. Sage Publ.
7. Ray GL & Sagar Mondal. 1999. *Research methods in Social Sciences and Extension Education*. Naya Prokash.
8. Wilkinson TS & Bhandarkar PC.1993. *Methodology and Techniques of Social Research*. Himalaya Publ.Home.

## **EXT 508 GENDER STUDIES IN AGRICULTURAL DEVELOPMENT**

**1+1**

### **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; Application of gender analysis tools in field- gender disaggregated planning for agricultural extension. 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**

1. Grover I & Grover D. 2002. *Empowerment of Women*. Agrotech Publ. Academy.
2. Porter F, Smyth I & Sweetman C.1999. *Gender Works: Oxfarm Experience in Policy and Practice*. Oxfarm Publ.
3. Raj MK. 1998. *Gender Population and Development*. Oxford Univ. Press.
4. Sahoo RK & Tripathy SN. 2006. *SHG and Women Empowerment*. Anmol Publ.

5. Sinha K. 2000. *Empowerment of Women in South Asia*. Association of
6. Management Development Institution in South Asia, Hyderabad.
7. Thakur Joshi S. 1999. *Women and Development*. Mittal Publ.
8. Vishwanathan M. 1994. *Women in Agriculture & RD*. Rupa Books.

## **EXT 509 DISTANCE EDUCATION AS EXTENSION INTERVENTION**

**1+1**

### **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. Conceptual and philosophical similarities and dissimilarities among extension education, adult education and continuing ‘distance education

#### 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 is 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**

1. Holmberg B. 1995. *Theory and Practice of Distance Education*. Routledge Publ..
2. Lakshmi Reddy MV. 2001. *Towards Better Practices in Distance Education*. Kanishka Publ.
3. More MG. 2003. *Hand Book of Distance Education*. Lawrence Erlbaum Associates Publ.
4. Panda.S. 2003. *Planning & Management in Distance Education*. Kogan Page Publ.
5. Pathak CK. 2003. *Distance Education: Prospects and Constraints*. Rajat Publ.
6. Sharma DC. 2005. *Management of Distance Education*. Anmol Publ.
7. Sharma M. 2006. *Distance Education: Concepts and Principles*. Kanishka Publ.

**EXT 510 TRAINING AND NETWORKING****1+1****Theory**UNIT I

Training – Meaning, training and human resource development- Adult learning principles-experiential learning-training process-phases of training-determining training need and development of training modules – training requirements; Training types, models, methods and evaluation; Facilities for training – Trainers training – techniques for trainees' participation; some modern training methods

UNIT II

Networking concept and typology- social networks- process of networking in extension-cases of extension network-network as capacity building intervention

**Practical**

Visit to different training organizations to review ongoing activities & facilities; Analysis of Training methods followed by training institutions for farmers and extension workers Studies on evaluation of training programmes;

Study of development networks- plan for development of an extension network of farmers groups.

**Suggested Readings**

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

**EXT 511 E- EXTENSION****1+1****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**

Agri.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**

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

## **EXT 512 ENTREPRENEURSHIP DEVELOPMENT AND MANAGEMENT IN EXTENSION**

**1+1**

### **Theory**

## UNIT I

Entrepreneurship – Concept, characteristics, Approaches, Theories, Need forenterprises 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**

1. Gupta CB. 2001. *Management Theory and Practice*. Sultan Chand & Sons.
2. Indu Grover. 2008. *Handbook on Empowerment and Entrepreneurship*. Agrotech Public Academy.
3. Khanka SS. 1999. *Entrepreneurial Development*. S. Chand & Co.
4. Singh D. 1995. *Effective Managerial Leadership*. Deep & Deep Publ.
5. Tripathi PC & Reddy PN. 1991. *Principles of Management*. Tata McGraw Hill.
6. Vasanta Desai. 1997. *Small Scale Industries and Entrepreneurship*. Himalaya Publ. House

## **EXT 513 CONCEPTS OF ORGANIZATIONAL, HUMAN RESOURCE AND MARKETING MANAGEMENT RELEVANT TO EXTENSION**

2+1

### UNIT I

Introduction to organizations: concept and properties of organizations- levels of organizations, organizational goals, formal and informal organizations.

## UNIT II

Organizational structure: concepts and functions of organizational structure, process in organizing, departmentation, span of Management, delegation of authority, centralisation and decentralisation-line and staff organization, functional organization, divisionalisation, project organization, matrix organization, free from organization, top management structure.

## UNIT III

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 IV

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 – Counselling 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

## UNIT V

Concept of market- marketing and selling, - social marketing- types of markets- agri-input marketing, components of market-market segments- marketing mix- product development-product positioning- packaging- market research

### **Practical**

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

Study Agri-input markets- visit Agri-input companies-develop a market research report of a agricultural product

### **Suggested Readings**

1. Agochiya D. 2002. *Every Trainer's Handbook*. Sage Publ.
2. David Gross. 1997. *Human Resource Management - The Basics*. TR Publ.
3. Davis Keth & Newston W John 1989. *Human Behaviour at Work*. 8th Ed. McGraw-Hill.
4. Hersey Paul & Balanchard H Kenneth. 1992. *Management of Organizational Behaviour Utilizing Human Resource*. 5th Ed. Prentice-Hall of India.
5. Knoontz Harold & Weihhrich Heinz 1990. *Essentials of Management*. 5th Ed. McGraw-Hill.

6. Lynton RP & Pareek U. 1993. *Training for Development*. DB. Taraporewale Sons & Co.
7. Punna Rao P & Sudarshan Reddy M. 2001. *Human Resource Development Mechanisms for Extension Organization*. Kalyani Publ.
8. Rao TV. 2003. *Readings in Human Resource Development*. Oxford Publ.Co.
9. Silberman Mel. 1995. *Active Training*. Press Johnston Publ. Co., New Delhi.
10. Singh RP. 2000. *Management of Training Programmes*. Anmol Publ.
11. Subba Rao P. 2005. *Management & Organizational Behaviour*. Himalaya Publ. House.
12. Sundaram RM, Gupta V, George SS. 2006. *Case Studies in Human Resource Management*. ICFAI, Hyderabad.
13. Tripathi & Reddy. 2004. *Principles of Management*. Tata McGraw-Hill.
14. Wayne MR & Robert MN. 2005. *Human Resource Management*. International Ed. Pearson Prentice Hall.

## **EXT 514 PROJECT MANAGEMENT – PRINCIPLES AND TECHNIQUES 1+1**

### UNIT I

Introduction- definitions – classifications – project risk – scope. Project management – definitions – overview – project plan – management principles applied to project management–project management life cycles

### UNIT II

Project planning – scope – problem statement – project goals – objectives – success criteria – assumptions – risks – obstacles – approval process – projects and strategic planning. Project implementation – project resource requirements – types of resources– men – materials. Project - GOPP/Log Frame analysis

### UNIT III

Project monitoring – evaluation – control – project network technique – planning for monitoring and evaluation – project audits – project management information system – project scheduling – PERT & CPM – performance Appraisal- project communication – post project reviews

### UNIT IV

Closing the project – types of project termination – strategic implications – project in trouble – termination strategies – evaluation of termination possibilities – termination procedures

### **Practical**

Study of an ongoing extension project. Development of an plan through GOPP/Log frame Work- Application of PERT & CPM in a hypothetical situation- Application of performace appraisal technique on an ongoing extension project.

### **Suggested Readings**

1. Taha, H.A., Operations Research, Prentice Hall of India
2. D P Pandey Rural Project Management, New Age International
3. N P agarwal and B K Misra Social and Quantitative aspects of Project Management, RBSA Publisher

**EXT 515 PARTICIPATORY METHODS FOR TECHNOLOGY  
DEVELOPMENT AND TRANSFER**

**1+1**

**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**

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**

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

**EXT 516 VISUAL COMMUNICATION**

**1+1**

**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.

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. Degitized 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**

1. Bhatia A. 2005. *Visual Communication*. Rajat Publications, New Delhi.
2. Edgar Dale 1970. *Audio Visual methods in Teaching*. Holt, Rinehart & Winston.  
James WB, Richard BL, Fried F Harcleroad. 1952. *A.V. Instructional Material & Methods*. Mc.Graw Hill.
3. Reddy YN. 1998. *Audio Visual Aids in Teaching, Training and Extension*. Haritha Publ. House, Hyderabad.

## **EXT 517 MARKET LED EXTENSION MANAGEMENT**

**1+1**

### **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; Contact 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**

1. Kaleel FMH & Krisnamurthy J. 2007. *Market Led Extension Dimensions and Tools*. Agro Tech Publ. Academy.
2. Rajmanohar TP & Kumaravel KS. 2006. *Contract Farming in India*. ICFAI Univ. Press, Hyderabad.
3. Subbalakshmi V. 2005. *Globalization - Indian Experience*. ICFAI Univ. Press, Hyderabad.
4. Suresh K. 2005. *Rural Markets - Emerging Opportunities*. ICFAI Univ. Press, Hyderabad

## **EXT 518 Group Dynamics and Leadership**

**2+1**

### **Theory**

#### UNIT I

Group - Concepts, Importance, classification and description. Dynamics of the group - role, function and performance, group characteristics and their effects. Group techniques. Group-based Extension- concept and cases.

Self-Help Group – concept-organization- mobilization, Microfinance-functions for empowerment.

#### UNIT II

Leaders - types of leaders, roles and functions Leadership - importance in groups and theories.. Identification, selection, training and development of local leaders. Leadership index to identify effective leaders. Review of significant research findings.

### **Practical**

Practising group techniques like forum, panel, symposium dialogue, interview, brain storming and role playing. Use of different methods of identifying village leaders – observation, sociometry, key informant technique. Indexing leaders by leadership index.

### **Suggested Readings**

1. Dahama OP & Bhatnagar OP. 2005. *Education and Communication for Development*. Oxford & IBH.
2. Reddy AA. 1987. *Extension Education*. Sree Lakshmi Press, Bapatla