

M. Sc (Ag) SYLLABUS IN AGRICULTURAL EXTENSION

Core Courses

EXT- 501: DEVELOPMENT PERSPECTIVES OF EXTENSION EDUCATION 2(1+1)

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

UNIT IV Current Approaches in Extension, Decentralized Decision Making, Bottom up Planning, Farming System Approach, Farming Situation Based Extension Market-Led – Extension, Farm Field School ATIC, Kisan Call Centers, NAIP

Practical

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

EXT-502: DEVELOPMENT COMMUNICATION AND INFORMATION MANAGEMENT 3(2+1)

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 clear writing, Readability and comprehension testing procedures; photo journalism, communicating with pictures, Radio and TV Journalism, Techniques of writing scripts for Radio and TV.

EXT- 503: DIFFUSION AND ADOPTION OF INNOVATIONS**3(2+1)****Theory**

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

UNIT II The adoption process concept ; and stages, dynamic nature of stages, convert and overt processes at stages, the innovation- decision process – a critical appraisal and 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 decision; 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 leader, Sources of information at different stages of adoption or a selected technology, study of factors increasing or retarding the rate of adoption, presentation of reports on adoption and diffusion of innovations.

EXT-504: RESEARCH METHODS IN BEHAVIOURAL SCIENCES 3(2+1)**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

Objective – 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, Used 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, Maximizing 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, step 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 limitation , Check list – Meaning, steps in construction, advantages and limitation 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 limitation.

UNIT IV

Data processing – Meaning, coding, preparation of master code sheet, analysis and tabulation of data, Statistical Package for Social Sciences (SPSS) choosing appropriate statistic 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 reliable 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. Writing report, Writing of thesis and research articles – Presentation of reports.

EXT- 505 : e-Extension

3(2+1)

Theory

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

UNIT II ICTs projects, case studies in India and developed 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.

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

Practical

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

EXT- 506: ENTREPRENEURSHIP DEVELOPMENT AND MANAGEMENT IN EXTENSION

3(2+1)

Theory

Unit I Entrepreneurship - Concept, characteristics, Approaches; Theories, Need for enterprises development. Agri- entrepreneurship – Concept, Characteristics, Nature and importance for sustaining Livelihoods. Traits of entrepreneurs- Risk taking. Leadership, Decision Farming, Planning, Organizing 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, marketing, target marketing Competition, market survey and strategies, Product sale 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 – 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 Function of management, Planning – Concept, Nature, Importance, Types, Making planning effective, Change Management – Factors, process and procedures, Decision making – Concept, Types of decision, Styles and techniques of decision making, Steps in DM Process, Guidelines for making effective decision Organizing – Meaning, of Organization, Concepts, Principles, Organizational Structure, Span of Management, Departmentalization, Authority and responsibility, Delegation ad 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 – Concepts, 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 for decision making – Designing organizational structure – Group activity on leadership development skills.

EXT- 507: Human Resource Development

3(2+1)

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. 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 Recourse Management: collective bargaining, Negotiation skills; Human Resource Accounting (HRA); what is HRA? Why HRA? Information Management for HRA and Measurement in HRA; Intra personal process; Collective behavior, learning, and perception; Stress and coping mechanisms; Inter Personal Process, Helping Process - communication and Feedback and interpersonal style; 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 skill 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 – organization for HRD – emerging trends and Prospective.

Practical

Visit to different training organization 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 HRD in organization in terms of performance, organizational development, employees welfare and improving quality of work life and Human resource information, presentation of reports.

Optional Courses

EXT-508 VISUAL COMMUNICATION 3(2+1)

Theory

UNIT I Role of visual & graphics in Communication. Characteristics of visuals & graphics. Functions of visual 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, Digitized video materials in multimedia production. Designing visuals for print and TV and video.

Practical

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

Ext-509 PARTICIPATORY METHODS FOR TECHNOLOGY DEVELOPMENT AND TRANSFER 2(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 & resources). 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 effects 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 local: Participatory monitoring and evaluation of developmental programme.

EXT- 510 GENDER SENSITIZATION FOR DEVELOPMENT**3(2+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 programme for women; Gender mainstreaming in agriculture and allied sectors – need and relevance; Gender budgeting – A tool for empowering women.

UNIT III Women empowerment – Disseminations; 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 woman empowerment; Women human rights; Action plans for gender mainstreaming.

Practical

Visits to rural institutions of women for study in the rural institutions engaged in women empowerment . visit to entrepreneurial women for studying the ways and means of establishing entrepreneurship units for women and their development and also SWOT analyses 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 to study the mainstreaming of gender concerns and gender budget of the department.

EXT- 511 PERSPECTIVES OF DISTANCE EDUCATION**(2+0)****Theory**

UNIT I Distance Education – Introduction Meaning, Concept, Philosophy and its work ethics, characteristics of Distance Education – Evaluation and Historical view of Distance Education – Theory Methodology and Epistemology. Dimensions of Distance Education, Scope and Difficulties. Open Education – Non formal Education, continuing 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 System Approach Student Learning - Course Planning. The target group – 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 source and course materials. Management of resource, 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 Programme. 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.

EXT-512 MARKET LED EXTENSION MANAGEMENT (2+0)**Theory**

UNIT I Agricultural extension at crossroads: 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 behavior; Marketing communication and promotional strategies; the marketing research process; Agricultural trade liberalization and its impact; International marketing opportunities; Implication of AOA, TRIPS and IPRs agreements on agriculture; Agreement on SPS and TBT- an overview; 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 suit rural situation; Visit to APEDA, Rythu Bazaars to study the processes and procedures related to market – led extension.

EXT-513: Multimedia and Basic Imaging Technology (1+2)**Theory****Unit I**

Concept of multimedia and basic imaging technology. Techniques of preparation of agricultural information materials – leaflet, booklet, folder, pamphlet, banners, posters, flyers, advertisements and success stories.

Unit II

Basic of digital photography. Shooting pictures, Principles, selection and editing of photographs. Writing photo features and captions.

Unit III

Basic of digital video production. Techniques of planning, production and editing. Audio & Video mixing. Desk Top Publishing.

Practical

Handling digital camera, Shooting pictures indoor and outdoor, Designing of layout and preparation of Agricultural information materials. Handling of video camera, Audio and Video mixing, Production of short video documentaries, Desk Top Publishing using software.