

Department of Agricultural Extension

Ph.D Programme

| <i>Course No.</i> | <i>Title of the course</i> | <i>Credits</i> |
|--------------------------------|---|----------------|
| 1st Semester | | |
| EXT-701 | Advances in Agricultural Extension | 2+1 |
| EXT-702 | Advanced Design and Techniques in Social Science Research | 2+1 |
| EXT-703 | Advances in Training Technology | 2+1 |
| EXT-704 | Organizational Development | 2+1 |
| EXT-705 | Advanced Instructional Technologies | 2+1 |
| 2nd Semester | | |
| EXT-751 | Theory Construction in Social Sciences | 2+0 |
| EXT-752 | Advanced Management Techniques | 2+1 |
| EXT-753 | Media Management | 2+1 |
| EXT-754 | Transfer of Technology in Agriculture | 2+1 |
| EXT-799 | Seminar-I | 1+0 |
| 3rd Semester | | |
| EXT-849 | Seminar-II | 0+1 |
| 4th Semester | | |
| | Nil | |
| 5th Semester | | |
| | Nil | |
| 6th Semester | | |
| EXT-999 | Seminar-III | 1+0 |
| EXT-1000 | Doctoral Research | 0+45 |

EXT 701 Advances in Agricultural Extension 2 + 1

UNIT I: Approaches of Agricultural Extension: A critically 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, Kissan Call Centers.

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. Learning from food and nutritional security and bio-diversity projects and programmes.

EXT 702 Advanced Designs and Techniques in Social Science Research 2 + 1

UNIT I: Scaling Technique – meaning, principles, steps and quality, techniques of attitude scale construction – Paired comparison, equal appearing intervals, successive intervals, summated ratings, sociogram 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 behavior research – data collection and evaluation. Impact analysis, e-date 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.

EXT 703 Advances in Training Technologies 2 + 1

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.

EXT 704 Organizational Developments

2 + 1

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 behavior – alienation and work – work motivation – communication and interpersonal behavior – organization communication – leadership behavior – 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 – divisionalization – Project organization – matrix organization – free form organization – top management structure.

UNIT IV: Individual behavior in organization. Fundamentals of human relations and organizational behavior, groups and teams – organizational culture and performance. Dynamics of organization behavior – leadership conflict situations and inter group behavior – organizational 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 behavior at work in an organization. Conflicts and their management in an organization. Comparative study of functional and non-functional organizations and drawing factors for organizational effectiveness.

EXT 705 Advanced Institutional Technologies 2 + 1

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.

EXT 751 Theory Construction in Social Sciences 2 + 0

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.

EXT 752 Advanced Management Techniques 2 + 1

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 course objective (MBO) : Elements of the MBO system. The Process of MBO. Making MBO effective. Evaluation of the MBO system – strengths and weakness. 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 course objective 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.

EXT 753 Media Management

2 +1

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 article – 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 of editing & proof reading the farm news for news papers – different types of intro and leads. Exercise of writing for radio, TV, preparation of story board for farm video production – script writing for radio and TV 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.

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.
