

4 Agricultural Extension

TRIMESTER WISE DISTRIBUTION OF COURSES

I TRIMESTER

		L	P
PGS 502	TECHNICAL WRITING AND COMMUNICATION SKILLS	1	1
PGS 505	AGRICULTURAL RESEARCH, RESEARCH ETHICS AND RURAL DEVELOPMENT PROGRAMMES	1	-
AG EXT 501	FUNDAMENTALS OF EXTENSION EDUCATION AND EXTENSION PROGRAMMES	3	1
AG EXT 503	FUNDAMENTALS OF PSYCHOLOGY	2	1
AG EXT 551	FUNDAMENTALS OF COMMUNICATION	3	1
AG EXT 553	DIFFUSION AND ADOPTION OF INNOVATIONS	2	1
AG EXT 557	TRAINING FOR HUMAN RESOURCE DEVELOPMENT	3	1
AG EXT 601	ADVANCES IN AGRICULTURAL EXTENSION	3	1
AG EXT 602	MONITORING, EVALUATION AND IMPACT ASSESSMENT TECHNIQUES	3	1
AG EXT 604	ADVANCED MANAGEMENT TECHNIQUES	2	1
AG EXT 605	DEVELOPMENT COMMUNICATION	2	1
AG EXT 691	SEMINAR	1	

II TRIMESTER

AGR 008	ON FARM EDUCATION AND VISITS TO DIFFERENT INSTITUTIONS	-	2
PGS 502	TECHNICAL WRITING AND COMMUNICATION SKILLS	1	1
PGS 505	AGRICULTURAL RESEARCH, RESEARCH ETHICS AND RURAL DEVELOPMENT PROGRAMMES	1	-
AG EXT 502	RURAL SOCIOLOGY AND DYNAMICS OF PLANNED CHANGE	3	1
AG EXT 505	E- EXTENSION	2	1
AG EXT 509	PARTICIPATORY METHODS FOR TECHNOLOGY DEVELOPMENT AND TRANSFER	2	1
AG EXT 552	EXTENSION METHODS AND COMMUNICATION TECHNOLOGY	3	1
AG EXT 556	ORGANIZATIONAL BEHAVIOUR	2	1
AG EXT 559	METHODS OF SOCIAL RESEARCH	3	1
AG EXT 603	VISUAL AND GRAPHIC COMMUNICATION	1	2
AG EXT 691	SEMINAR	1	-

III TRIMESTER

AGR 015	BASICS OF EXTENSION EDUCATION	1	1
PGS 502	TECHNICAL WRITING AND COMMUNICATION SKILLS	1	1
PGS 505	AGRICULTURAL RESEARCH, RESEARCH ETHICS AND RURAL DEVELOPMENT PROGRAMMES	1	-
AG EXT 504	DIGITAL PHOTOGRAPHY	1	2
AG EXT 510	GENDER SENSITIZATION FOR DEVELOPMENT	1	1
AG EXT 511	PERSPECTIVES OF DISTANCE EDUCATION	1	1
AG EXT 512	MARKET-LED EXTENSION MANAGEMENT	1	1
AG EXT 554	AGRICULTURAL JOURNALISM	3	1
AG EXT 555	FUNDAMENTALS OF MANAGEMENT IN EXTENSION	2	1
AG EXT 558	ENTREPRENEURSHIP DEVELOPMENT	2	2
AG EXT 606	TECHNIQUES OF MEASUREMENT IN BEHAVIOURAL SCIENCES	3	1
AG EXT 691	SEMINAR	1	-

Core Courses

M.Sc.: AG EXT 501, AG EXT 502, AG EXT 505, AG EXT 553, AG EXT 555 and AG EXT 559

Ph.D.: AG EXT 512, AG EXT 556, AG EXT 601, AG EXT 602 and AG EXT 606

AGRICULTURAL EXTENSION

Major Fields : Agricultural Extension

Agricultural Communication

Agricultural Management

Minor Fields : Ph.D. student shall take two minors (9 credits of course work in each) from any of the other fields outside his/her own.

M.Sc. student shall take one minor (9 credits of course work) from any of the other fields outside his/her own.

The total minimum credit requirement of course work for M.Sc./Ph.D. in Agricultural Extension is 55 / 45 including Minor field(s).

DESCRIPTION OF COURSES

AGR 008 ON FARM EDUCATION AND VISITS TO DIFFERENT INSTITUTIONS

(0L+2P) II

Objective

The objective of this course is to acquaint remedial class students about socio-economic profile of farm families, identifying the village problems and preparation of action plan to solve them. The students will be also visiting KVKs, ICAR Institutes, SAUs and some agripreneurs to know their role in research, extension and development.

Theory

UNIT I

On farm education: Analysis of socio-economic profiles of rural families and their farming situations, determination and prioritization of village problems, formulation of objectives, preparation of action plan, Orientation of IARI TOT and KVK activities, Educational Tour, Visit to different ICAR institutes and SAUs for orientation in agricultural research, education and extension programmes, Visit to IARI Regional stations, Understanding agro-ecological situation of the country.

AGR 015 BASICS OF EXTENSION EDUCATION

(1L+1P) III

Objective

The course is intended to orient the remedial class students with the concept of extension education and its importance in agriculture development, important extension programmes, fundamentals of communication, rural sociology and extension teaching methods.

Theory

UNIT I

Concepts and characteristics of education process, objectives, philosophy and principles of extension education, historical development of extension education and community development in India. Ongoing agricultural extension programmes at National level, KVK, IVLP, Kisan Call Centre, Front line Demonstration and ATMA.

UNIT II

Basic principles of teaching-learning process. Extension teaching methods. Audio-visual aids – preparation and use of posters, charts, flash cards, and flannel graphs, Handling of audio-visual equipment and projectors.

UNIT III

Concept of rural sociology, social institutions, exposure to village institutions, rural value systems, culture, norms, process of socialization

UNIT IV

Concept and elements of communication, Media of Communication – mass, group, interpersonal and traditional.

Practicals

Preparation and use of visual aids – posters, charts, flash cards, flannel graphs etc., preparation of slides using powerpoint, handling of audio-visual equipments, effective presentation, exposure to village institutions, KVK, ATIC, Extension projects and Community Development Block Organisations, experimental exercise.

Suggested Readings

Van Den Ban, A.W. and Hawkins, H.S. 1998. *Agricultural Extension*. 2nd Ed. CBS.

Dahama, O.P. and Bhatnagar, O.P. 2005. *Education and Communication for Development*. Oxford & IBH.

Rivera, W.H. 1987. *Agricultural Extension Worldwide: Issues, Practices and Emerging Priorities*. CroomHelm, London

Swanson, B.E. (Eds) 1994. *Agricultural Extension: A Reference Manual*. Second Eds. Rome, FAO.

Adams, M.E. 1982. *Agricultural Extension in Developing Countries*. Burnt Mill (Essex): London

PGS 502 TECHNICAL WRITING AND COMMUNICATION SKILLS (1L + 1P) I, II, III

Objective

This course is intended to expose the students about the basics skills needed for writing, reporting scientific data in the form of reports, research papers, manuals etc., and develop skill in preparing appropriate graphics to be used in such documents and presentations.

Theory

UNIT I

Basics of writing, writing style, art of clear writing: Readability and comprehension testing procedures, Principles of technical writing, purpose of technical reports, Preparing a documentation plan, Understanding information types, Gathering the data, Analyzing and sorting the results, Outlining the report

UNIT II

Use of charts, graphs, tables, diagrams and photographs, scientific photography, Graphic formats, typology, Presentation of scientific data, general and exact data, Editing, Proof reading, Bibliography

UNIT III

Role of visuals in Communication; Characteristics of visuals, functions of visuals and graphics; Theories of visual perception; Classification of visuals, visual formats, Selection of visuals, Preparing lecture slides – content, limitation and layout; its utility in preparing presentations for research papers and other publications, Public speaking.

Practicals

Writing technical reports, research papers, preparing graphics, preparing computer based presentations.

Suggested Readings

Day, Robert A. and Gastel, Barbara 2006. How to Write and Publish a Scientific Paper. 6th Edition, Cambridge University Press, U.K.

Matthews, Janice R. and Matthews, Robert W. 2008. Successful Scientific Writing. 3rd Edition, Cambridge University Press, U.K.

Turk, Christopher and Kirkman, John 1994. Effective Writing. Second Edition, E&FN Spon, London

James W.B., Richard B.L., Fried F. Harcleroad. 1952. A.V. Instructional Material & Methods. McGraw Hill.

Lucas, S.E. 2007. The Art of Public Speaking, 10th Edition; New York: McGraw-Hill.

PGS 505 AGRICULTURAL RESEARCH, RESEARCH ETHICS AND RURAL DEVELOPMENT PROGRAMMES (1L+0P) I, II, III

Objective

The course intends to sensitize the scholars about the basic issues related with agricultural research, ethics in research as well as rural development. The scholars will be also educated about principles and philosophy of rural development and motivated towards practising and promoting ethics in research and developmental endeavours.

Theory

UNIT I

History of agriculture in brief; Agricultural Research System - NARS and CGIAR; Agricultural Revolutions; Food and Livelihood Security; Climate Change - Mitigation and Adaptation;

UNIT II

Principles and foundations of research ethics; Publishing and Authorship, Plagiarism, Intellectual Property Rights and Policy, Researchers' responsibilities, Research participants' rights- consent, Privacy and confidentiality; Interviewing ethics; Agricultural research and bioethics; Incentives, Regulation and Activism for ethics; Ethics in agriculture-social contract, socio-economic issues, environment etc; Indigenous knowledge and benefit sharing.

UNIT III

Ethics and development; Process and outcome of development; Vulnerable groups; Social justice and Equity; Gender sensitivity; Principles, policies and strategies for rural development, Overview of rural development programmes in India; Panchayati Raj Institution; Role of voluntary and non-governmental organisations in rural development.

Suggested Readings

- Thompson, P. 1997. *The spirit of the soil: Agriculture and environmental ethics*. New York: Routledge Press.
- Gadgil, M. and Guha, R. 1995. *Ecology and equity. The use and abuse of nature in contemporary India*. New Delhi: Penguin Books.
- Ableman, M. 2005. *Fields of plenty: A farmer's journey in search of real food and the people who produce it*. San Francisco: Chronicle Books.
- Agarwal, A. 2005. *Environmentality: Technologies of government and the making of subjects*. Durham, NC: Duke University Press.
- Minakshi Bhardwaj, Fumi Maekawa, Yuki Niimura, Darryl RJ Macer*. 1999. *Ethics in Food and Agriculture: Views from FAO*.
- Rivera, Roberto and David Borasky 2009. *Research Ethics Training Curriculum, Family Health International*. P.O. Box 13950 Research Triangle Park, NC27709. USA
- Jain, L.C., Krishnamurthy, B.V. and Tripathi, P.M. 1986. *Grass without roots under Government Auspices*. Sage Publications, New Delhi
- Singh, Kartar 2001. *Rural Development – Principles, Policies and Management*. Sage Publications, New Delhi.

AG EXT 501 FUNDAMENTALS OF EXTENSION EDUCATION AND EXTENSION PROGRAMMES (3L + 1P) I

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 extension system worldwide and new dimensions of Agricultural Extension in India.

Theory

UNIT I

Origin and growth of extension in India and World, Meaning and aims of education and their implication to extension education, andragogy and pedagogy, Principles and theories of adult learning, Concepts, meaning and objectives of extension education, Analysis of various definitions of extension education, Conceptual and philosophical similarities and differences between extension education and extension work, community development, TOT, Role of extension in agricultural development.

UNIT II

A brief history of development of Agricultural Extension System (AES) in India, Early efforts of community development in India/Pioneering extension efforts and their implications in Indian Agricultural Extension, Reorganized extension system (T&V system), Community Development Programme and National Extension Service, Approaches of rural development, Poverty Alleviation Programmes, Employment Generation Programmes, Women Development Programmes.

UNIT III

Agricultural Extension System of the following countries with brief history, approaches, organizational structure, linkage with research and extension methods used. Africa: Kenya, Zambia, Ethiopia, Tanzania Asia: China, India, Indonesia, Japan, and Sri Lanka Europe: Netherlands, Denmark, and United Kingdom Latin America: Brazil and Mexico North America: USA, The Near East: Egypt and Israel. Extension System in SAARC Countries. Successful extension approaches, brief account of methodology and reasons for success; FAO small farmers development projects: Masagana 99 Programme of Philippines; BIMAS programme of Indonesia; Social laboratory Experience of Philippines; and building self-help groups for extension in Philippines; Micro-finance in Bangladesh.

UNIT IV

Overview of reforms in extension, Analysis of different approaches, Systems and models of Extension, Farmers participatory approaches, Farmers' First and Farmers Last model, Farming system research and extension, Introduction to participatory techniques (RRA, PRA, PLA), Front line extension projects of ICAR, Extension role of SAUs and ICAR institutes. Innovations in extension, NATP, IVLP, TAR, ATMA, ATIC, Farmer Field School; Importance, principles and process in developing sound extension programmes; Need assessment and People's participation in extension programmes; Critical analysis of various agricultural and rural development programmes; Programmes for gender empowerment, Self Help Group approach for rural development.

Practicals

Analysing the organisational set up and functions of the Directorate of Extension, MOA, Extension Division of ICAR, Directorate of Extension, SAU, KVK, Corporate /Private / NGO, Experience in Technology Assessment, FSR, PRA techniques.

Suggested Readings

- Ganesan, R., Iqbal, I.M. and Anandaraja, N. 2003. *Reaching the Unreached: Basics of Extension Education*. Associated Publishing Co.
- Jalihai, K.A. and Veerabhadraiah, V. 2007. *Fundamentals of Extension Education and Management in Extension*. Concept Publ.
- Ray, G.L. 2006. *Extension Communication and Management*. Kalyani Publ.
- Van Den Ban, A.W. and Hawkins, H.S. 1998. *Agricultural Extension*. 2nd Ed. CBS.

AG EXT 502 RURAL SOCIOLOGY AND DYNAMICS OF PLANNED CHANGE (3L+1P) II

Objectives

The course is intended to orient the students with the basics of sociological principles and group dynamics for bringing planned change in a community. Understanding of rural society, values

and culture will entail better planning for extension change programmes. Besides, the students will be learning about group dynamics approach to bring about planned changes in rural community.

Theory

UNIT I

Rural Sociology and extension education—its significance for social researchers. Basic Concepts in Sociology – society, social structure, community, social institution, culture, social change, cultural change, social system, social process, social values, norms, folkways, mores, customs; cultural relativism, cultural integration, cultural lag, acculturation; Family, Kin and Clan – its relationship with group behaviour and rural development; Social Stratification : class and caste system, their impact on rural development.

UNIT II

Groups – concept, development and norms, process of group formation and mobilization. Self Help Groups for development, Group Dynamics – Concept, theories and impact on rural community, transactional analysis and interaction analysis T-group and L group, Group behaviour and patterns of action – some Indian experiences.

UNIT III

Leadership – concept, types and range of leadership behaviour and principles of leadership in community development work; Values, Folkways, Norms, Mores, Social Sanctions etc., Social Process and Social Interaction – Concepts, types, Competition, Conflict, Cooperation Accommodation and Assimilation, and change in social process due to developmental programmes.

UNIT IV

Dynamics of change – concept, types and importance in rural community, people's institutions for development; Typology of change- planned, indoctrinational, technocratic, coercive, emulative, etc; Theories of social change – Immanency, Functionalism, Economic, Technological, Historical, Ideological, Evolutionary and Field Theory; Factors affecting change under rural settings; Stimulants and Barriers to change. Social Capital, Collectivism- Interdependence in larger groups, conformity and functional analysis of roles.

Practicals

Visit to a village to study rural institutions. Preparation of a social map of a village with the help of villagers. Focus group discussions to identify stimulants and barriers to changes existing in rural community, Exercises on transactional analysis, interaction analysis and mobilizing groups; Exercises on small group interaction i.e., T group and laboratory training method.

Suggested Readings

McIver Robert and Charles Page 1949. Society: An Introductory Analysis, McMillan Co., New York.

Lippit, R., Watson, J. and Westley, B. 1970. The Dynamics of Planned Change, Harcourt, Brace, & World, New York.

Singh, Yogendra 1988. Modernisation of Indian Tradition. Rawat Publications, Jaipur.

Dipankar, Gupta 1994. Social Stratification. Oxford University Press, Delhi

Desai, A.R. 1994. State and Repression Culture – A study of Gujarat. Popular Prakashan, Bombay.

Objective

The course is intended to orient students with the applied aspects of psychology which are essential for extension professionals to enhance their understanding of human behaviour. It will equip them with the knowledge and skills to work effectively with rural people.

Theory

UNIT I

Psychology as a science and its importance in extension education, Perception- nature, selectivity & laws, importance of perception in extension work, Attitude- meaning, characteristics, studying attitudes of farmers in field situations, formation of stereotypes and prejudices and factors in attitude change.

UNIT II

Motivation- nature, characteristics and types of motives, techniques of motivating farm people, Emotion- its nature, types of emotional response, theories of emotion, self-motivation; harnessing emotions productively, empathy, reading emotions, role of emotion in regulating human behaviour, Psychosocial distress and coping mechanisms in farming situations.

UNIT III

Learning- indicators, principles and theories of learning and experiential learning. Personality - individual differences and theories of personality, Multiple Intelligences- IQ, emotional intelligence, social intelligence, managing emotions; relationship between IQ and EQ, handling relationships; social skills. Defence mechanisms- types and importance.

UNIT IV

Psychological dimensions of poverty and deprivation- self esteem, cognitive processes of deprived groups, motivational consequences, aspiration, achievement, aggression, attribution and coping with poverty; helplessness and powerlessness studies.

Practicals

Measuring motivation- TAT, sentence completion, etc., Exercise on Emotional Quotient. Role Play – Emotional Self-Management. Visit to Psychology Department of Delhi University/ JNU/ ICSSR. Knowing self and knowing others. Experiential Learning Exercise

Suggested Readings

- Morgan, Clifford T., Richard, A. King, John, K. Weiss, John Schopler 1986. Introduction to Psychology. (7th Edn.) McGraw Hill, International Edition, Psychology Series, Singapore.
- Misra, Girishwar (ed.) 1990. Applied Social Psychology in India. Sage Publication, New Delhi.
- Gerow, Josh R., Thomas, Bothen Jerry D. 1989. Fundamentals of Psychology. Scott, Foresman and Company, Illinois
- Beck C. Robert 1986. Applying Psychology: Understanding People. Prentice Hall, Englewood Cliffs, New Jersey.
- Mohanty, A.K. and Mishra, Girishwar (ed.) 2000. Psychology of Poverty and Disadvantage, Concept Publishing Company, New Delhi-110059.

Objective

The students need to have knowledge and skill to communicate with visuals. The knowledge and understanding of photography is essential in designing of messages and for preparing other communication materials used for extension work and scientific report writing. Documenting of research and extension activities, post intervention development monitoring are important areas where photography is extensively used. Students orientation in photography will improve the extension work they execute.

Theory

UNIT I

Basic Science of Photography; Camera: Evolution, its components, functions, uses and accessories, Digital Camera, its difference with conventional film camera; Lenses: Photographic lenses, Lens aberrations, Resolving power, Type of lenses, their application. Exposure: Light intensity and film speed, Exposure controls, Effect of aperture and shutter speed, over, correct and under exposures. Exposure meters

UNIT II

Light: Fundamentals, Lighting techniques, daylight and artificial light, creating different photographic setups to suit scientific samples; Depth of field: Sharpness, Variables controlling Depth of Field, Influence of aperture and shutter speed in picture making. Picture: Elements of a picture, Photographic composition, Forms, Feelings, Balance, Cohesion and aesthetics.

UNIT III

Electronic imaging: Digital photography, Photographing with digital cameras and its controls, capturing digital images using scanners and Digital Image Processing, Controlling brightness and contrast; Controlling tones dodging and burning tools; Colour controls -using hue, saturation and variations;

UNIT IV

Output: intricacies of printing digital images, Computer printing and photographic paper printing; Output for on-screen presentations and for web pages; Preparing lecture slides - content limitation and layout; its utility in preparing presentations for research papers and other publications; Applications: In Agriculture, Scientific Photography, Communication, Scientific presentation and Extension work.

Practicals

Using Digital Camera and learning to use its functions. Application of different lenses. Lighting techniques. Creating photographic set-ups to suit different scientific samples. Image corrections and enhancement with image editing software. Use of Photographs in presentation slides – maintaining aspect ratio, content limitation and layout.

Suggested Readings

Longford, Michael 1986. Basic Photography, Focal Press

Longford, Michael 1989. Advanced Pictography, Focal Press

Watts. HJ. and Attridge, G.G. 1977. Basic Photo Science, Focal Press

Arnold, C.R, Rolls, PJ. and Stewart, J.C.J. 1971. Applied Photography, Focal Press

Blaker. Alfred A. (1989). Handbook for Scientific Photography, Focal Press, 1989

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.

Practicals

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. and Schware, R. 2000. *Information and Communication Technology in Development-Cases from India*. Sage Publ.

Meera, S.N. 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.

AG EXT 509 PARTICIPATORY METHODS FOR TECHNOLOGY DEVELOPMENT AND TRANSFER**(2L+1P) II****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.

Practicals

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, M.M. 2006. Participatory Planning and Project Management in Extension Science. Agrotech Publ. Academy.

Mukharjee, N. 2002. Participatory Learning and Action. Concept Publ. Co.

Singh, B.K. 2008. PRA/PLA and Participatory Training. Adhyayan Publ. & Distr.

Somesh Kumar. 2002. Methods for Community Participation. Vistaar Publ.

AG EXT 510 GENDER SENSITIZATION FOR DEVELOPMENT

(1L+1P) III

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.

Practicals

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. and Grover, D. 2002. *Empowerment of Women*. Agrotech Publ. Academy.
- Porter, F., Smyth, I. and Sweetman, C. 1999. *Gender Works: Oxfarm Experience in Policy and Practice*. Oxfarm Publ.
- Raj, M.K. 1998. *Gender Population and Development*. Oxford Univ. Press.
- Sahoo, R.K. and Tripathy, S.N. 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.

AG EXT 511 PERSPECTIVES OF DISTANCE EDUCATION

(1L+1P) III

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, 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.

Practicals

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, M.V. 2001. *Towards Better Practices in Distance Education*. Kanishka Publ.
- More, M.G. 2003. *Hand Book of Distance Education*. Lawrence Erlbaum Associates Publ.
- Panda, S. 2003. *Planning & Management in Distance Education*. Kogan Page Publ.
- Pathak, C.K. 2003. *Distance Education: Prospects and Constraints*. Rajat Publ.
- Sharma, D.C. 2005. *Management of Distance Education*. Anmol Publ.
- Sharma, M. 2006. *Distance Education: Concepts and Principles*. Kanishka Publ.

AG EXT 512 MARKET-LED EXTENSION MANAGEMENT

(1L+1P) III

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; Future trading of agricultural commodities.

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.

Practicals

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, F.M.H. and Krisnamurthy, J. 2007. Market Led Extension Dimensions and Tools. Agro Tech Publ. Academy.
- Rajmanohar, T.P. and Kumaravel, K. S. 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.

AG EXT 551 FUNDAMENTALS OF COMMUNICATION

(3L+1P) I

Objective

In this course, students will learn about the concept, meaning and process of communication and elements of communication, models, theories and modern media of communication.

Theory

UNIT I

Meaning and nature of communication, Why study communication, Defining communication, Communication process, Nature of communication, Purpose of communication, Levels of communication, language, words and meaning, levels and degree of abstraction, Benefits of language, hidden meaning-Non verbal communication, Communicator, Role of communicator in Extension Education, Communication behaviour

UNIT II

Key communicator, Communication skills, Fidelity of communication, Communication competence and empathy, Communication effectiveness, Credibility, Improving oral and written communication, Selection effectiveness, Credibility, Improving oral and written communication, Audience or Receivers, Feedback, Barriers in Communication, Message - meaning and dimensions of message, characteristics of good message, message treatment and effectiveness – distortion of message., Channels of communication, meaning, dimensions, classification, Communication and social change, Homophily-Heterophily, Social network, Traditional media, Mass media of communication

UNIT III

Theories and models of communication, Intrapersonal, Interpersonal and Mass Media, Effect of media mix for rural people, computer technology and its implication. Modern communication media – modern ICT tools such as video, internet, electronic video, tele-text, teleconferencing, mobile technology, computer assisted instruction, Communicating with farmers and farm women in villages.

Practicals

Exercises in written and oral communication, Exercises on Communication Planning, Communicating with farmers and farm women in villages

Suggested Reading

Ray, G.L. 2006. Extension Communication and Management. Kalyani Publ.

Rayudu, C.S. 2002. Communication. Himalaya Publ. House.

Sandhu, A.S. 2004. Textbook on Agricultural Communication Process and Methods. Oxford & IBH.

AG EXT 552 EXTENSION METHODS AND COMMUNICATION TECHNOLOGY

(3L+1P) II

Objective

This course is intended to expose the students to the extension education process, teaching and learning, extension methods, its classification and usage. The course also covers the Audio-visual aid used in communication, their features, selection and preparing communication material and low cost instructional aid.

Theory

UNIT I

Concepts and characteristics of education process, extension teaching and learning, Basic principles and management of learning, Course outline, Lesson plans for theory and practicals. Teaching and learning styles, theories of learning, Cognitive levels, Experiential Learning – simulation exercises, practising an experiential lecturette; Instruction system design and methods, Instructional Course Objective. Effective instructional modes for science; Evaluating teaching effectiveness; Non-directive teaching methods for team effort and creativity;

UNIT II

Extension methods; classification, features and methodology, Role of media and audio-visual aids in making extension teaching effective; Appraisal of teacher performance, Review of research in instructional technology.

UNIT III

Communication technology and Media materials: Classification, uses, Media Planning – Essential & Optional characteristics, system approach; principles of selecting effective combinations of extension teaching methods, media; Cost benefit analysis of communication media, Concepts in instructional technology Methodological issues in communication research. Media-mix and multimedia presentation; Principles of production of different projected and non-projected media. Innovative instructional aid. Computer assisted instruction. Programmed instruction technique. Team teaching. E-learning

Practicals

Practising farm and home visits, method demonstration; Preparing, pre-testing of audio and video materials and modules; Handling and maintenance of audio-visual equipment and projectors, PC and peripherals, photography, reprography, 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

Suggested Readings

Grover, I., Kaushik, S., Yadav, L. and Varma, S.K. 2002. Communication and Instructional Technology. Agrotech Publ. Academy.

Ray, G.L. 2006. Extension Communication and Management. Kalyani Publ.

Rayudu, C. S. 2002. Communication. Himalaya Publ. House.

Sandhu, A.S. 2004. Textbook on Agricultural Communication Process and Methods. Oxford & IBH.

AG EXT 553 DIFFUSION AND ADOPTION OF INNOVATIONS

(2L+1P) I

Objective

The course intends to provide understanding of traditions and limitations in diffusion research; conceptual framework of diffusion research paradigm; models of innovation decision making process and socio-economic and cultural dynamics involved in diffusion and adoption of innovations. The course will lead to development of insight and skills among the learners for making interventions for diffusion of innovations in a social system and also to take up adoption research studies.

Theory

UNIT I

Introduction to the field: Concept of diffusion, Elements of diffusion, traditions of research on diffusion, Typology of diffusion research, Contributions and short comings of diffusion research.

UNIT II

The generation of innovations: The innovation development process, tracing the innovation-development process, converting research into practice; The adoption process: The concept and stages, shades of agreement. The neglected element – the need, dynamic nature of stages, covert and overt processes at stages, the innovation-decision process – a critical appraisal of the new formulation; Decision making – meaning, theories, process, steps, factors influencing decision – making

UNIT III

Adopter categories: Innovativeness and adopter categories, adopter categories as ideal types, characteristics of adopter categories, predicting innovativeness, Simulation of innovation diffusion; Perceived attributes of innovations and their rate of adoption; Attributes rating of current farm and home practices, Shades of proposals on attributes, factors influencing rate of adoption.

UNIT IV

The diffusion effect and the concept of over adoption; Opinion leadership and multi-step flow of innovation: Concepts of homophily and heterophily and their influence on flow of innovations, measuring opinion leadership, characteristics of opinion leaders; Monomorphic and polymorphic opinion leadership; Type of innovation – decisions: Optional, collective, authority and contingent innovation decisions; Consequences of innovations: Desirable or undesirable, direct or indirect, anticipated or unanticipated consequences;

Practicals

Content analysis of recent adoption studies, Field visit to study recently diffused innovations; Case studies in process of adoption of innovations at individual, community and Organization levels, Assessment of farmers' perceived attributes of innovations, Identification of adopter categories and their characteristics in changing agricultural scenario, Identification of opinion leaders in a social system, Study of factors/ determinants of innovation diffusion and adoption, rate of adoption, presentation of reports on adoption and diffusion of innovations.

Suggested Readings

- Rogers, E.M. and F.F. Shoemaker. 1962. Communication of Innovations: a Cross- Cultural Approach. Free Press, New York
- Rogers, E.M. 2003. Diffusion of Innovations. Free Press, New York
- Rogers, E.M. 1958. Categorising the Adopters of Agricultural Practices. Rural Sociology. 23(4):346-354
- Singhal, A. and Dearling, J.M. 2006. Communication of Innovations. Sage publications. New Delhi
- Lionberger, H.F. 1960. Adoption of New Ideas and Practices. The Iowa State University Press, Iowa

AG EXT 554 AGRICULTURAL JOURNALISM

(3L+1P) III

Objective

This course is intended to expose the students to journalism, concept, history, relevance of journalism in disseminating farm information to the stakeholders. Basic skills required for writing news and feature articles and finding out the readability of such articles, editing, layout, designing and printing are covered in the course. The students can also learn the process of creating TV and radio programmes.

Theory

UNIT I

Journalism – Concept, Theories scope; Agricultural Journalism as means of mass communication, Its form and role in rural development Opportunities, strengths and limitations; Farm Journalism – meaning and development in farm journalism in India, Problems with farm journalism,

UNIT II

Basics of Writing – News stories, feature articles, magazine articles, farm bulletins and folders; Techniques of collection of materials for news story and feature articles, Success stories, writing style of success stories, Techniques of collecting material for news stories and feature articles, Art of clear writing: Readability and comprehension testing procedures;

UNIT III

Photo Journalism; communicating with pictures; Radio and TV journalism: Techniques of writing scripts for radio and TV; Agricultural advertisements: Dynamics, types, storyboard, designing aids, Promoting agricultural products in rural areas; Fundamentals of layout and design; Research in agricultural journalism and applications, Printing methods & processes of printing different extension publications, budgeting for printing jobs. Techniques in book publishing, Techniques of editing and proof reading; Interface with editors of journals and magazines

Practicals

Processes of printing extension literature, News collection & Interview, Writing for farm magazines & folders, Designing cover page of magazines and folders, Visits to printing press.

Suggested Readings

Shrivastava, K.M. 1995. News Writing for Radio and TV. Sterling Publ. Sinha KK. 2001. Business Communications. Galgotia Publ.

Mehta, D.S. 1992. Mass Communication and Journalism in India. Allied Publ.

D'Souza, Y.K. 1998. Principles and Ethics of Journalism and Mass Communication. Commonwealth Publ.

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

Chatterjee, P.C. 1991. Broadcasting in India. Sage Publ.

AG EXT 555 FUNDAMENTALS OF MANAGEMENT IN EXTENSION

(2L+1P) III

Objective

The major objective of these courses develop basic managerial skills needed in managing extension organization. To help the students to understand and analyse different projects to management theory. To gain knowledge and insight including tools and techniques needed for planning, decision making, directing, controlling and budgeting.

Theory

UNIT I

Nature and scope of management with special reference to agricultural institutions, Administration vs. Management, principles, functions and concepts of management, Theories of management: various approaches – classical theories – features of bureaucracy – administrative theory and scientific management – neo-classical theories :the human relations movement – modern theory –Systems approach to study organizations – Contingency or situations approach, Basic management issues in an extension organizations, Qualities and skills of a manager, roles of effective managers, Professional manager – styles and strategies;

UNIT II

Planning – various tools and techniques for planning, planning for future, system approach to the planning process, Decision making – steps, tools and limitations, Organizing-basic elements, process and methods in organization. Organisational structure and types of organisational structures, Project organization, Matrix organization, free form organization, top management structure, Concepts of authority and responsibility, Span of management, Centralisation and decentralization, line and staff organization, signs of a poor organization, Departmentation, basic factors to be considered for grouping of activities, Service units – placement, Coordination – concept, need, types and techniques, Delegating – meaning, nature, need, principles and limits

UNIT III

Staffing, need and importance, manpower planning, recruitment, selection, placement and orientation, training and development, Performance appraisal, meaning, concept, methods, Directing, nature, ways of giving direction, Consultative direction – merits and demerits. Techniques of direction. Leadership – concept, characteristics, functions, different approaches and theories of leadership, leadership styles. Managing work motivation, different theories and approaches of motivation, Supervision – meaning, qualities and functions of supervision, essentials of effective supervision. Groups and committees, characteristics of organisational groups, team building and conflict management, Organizational Communication, concept, process, types, net works, Barriers to communication; Controlling, concept, types, methods and designing control systems, Budgeting, purpose, types of budgets, budgeting process. Auditing, internal and external, Staffing – Human resource management, HRM process, recruitment, selection, placement and orientation, Training and Development, Performance appraisal, meaning, concept and methods, Problems of agricultural management in India, Organizational climate- concept and ways to improve climate of development organisations, Recent advances in management of agricultural research and development organisations;

Practicals

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

- Stoner, J.A.F. and Freeman, R.D. 2007. Management ,Sixth Edition, Prentice Hall of India, New Delhi.
- Buford, J.A., Bedeian, A.G. and Lindner, J.R. 1995. Management in Extension, Ohio State University : Columbus.
- Davar, R.S. 1998. Creative Leadership. UBS Publisher's Distributors Ltd., New Delhi.
- Feldman, D. 2002. The servant – leader, www.greenleaf.org.au/TheServantLeader.htm
- Fiedler, F.E. 1967. A Theory of leadership effectiveness, New York, Mc Graw Hill.
- Filley, A.C. 1978. The Complete Manager, Champaign, IL: Research Press.
- Luthans, F. 2001. Organisational Behavior, Seventh Edition, Mc Graw – Hill. New Delhi.
- Page, D. 1996. Servant – leadership as a way of life at Trinsty Western University.
- Pareek, Udai and Rao, T.V. 1982. Developing Motivation through Experiencing. Oxford & IBH Publishing Company: New Delhi.
- Peters, T.J. and Waterman Jr., R.H. 1982. In search of excellence: Lessons from America's Best-run companies, Warner Book. New York.

Objective

To understand and develop skills related to organisational behaviour related to cognitive processes, management of organization for high performance and organization climate. To experience the students to make a critical assessment of different organizational behavioural processes such as perspectives, attitudes, motivation, crop process, communication process, development of tools, decision making, job designing and goal setting leadership, conflict management and organizational climate. To facilitate experiential learning of major behavioural processes such as motivation, leadership, team building, etc. through simulation games and experiential exercises which will help the students to have internal realization.

Theory

UNIT I

Introduction to organisational behaviour, Environmental context of organisational behaviour- information technology and globalisation- reward system.

UNIT II

Cognitive Processes – Perception, Attitudes and values, Motivation and performance, satisfaction and stress; Interpersonal and Group Process: Communication - interpersonal communication – Interpersonal feedback. Groups and teams - Formation and development of groups, team building and collaborative process. Decision making- decision making process, participatory decision making, problem solving techniques, creativity and creative thinking;

UNIT III

Managing the organisation for high performance: Job-design and goal setting, Management for work motivation, Leadership- leadership processes, theories and approaches, leadership styles, Management of conflicts; Change proneness and resistance to change.

UNIT IV

Organizational climate; Organizational development- concept of and process of OD, different interventions for organisational development;

Practicals

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 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

- Bass, B.M. 1985. *Leadership and Performance Beyond Expectations*. New York: Free Press.
- Burns, J.M. 1978. *Leadership*. Harper and Row, New York.
- Blake, Robert, R. and Mouton, Jane, S. 1985. *The Managerial Grid III: The key to leadership Excellence* (Houston: Gulf).
- Luthans F. 2001. *Organizational Behaviour*. McGraw Hill, New Delhi.

- Shaun T & Jackson T. 2003. *The Essence of Organizational Behaviour*. Practice Hall of India. New Delhi.
- Pareek, U., Rao, T. V., and Pestonjee, D.M. 1981. *Behavioural Processes in Organisations*, Oxford & IBH Publishing Company, New Delhi.
- Pareek, Udai and Rao, T.V. 1982. *Developing Motivation through Experiencing*. Oxford & IBH Publishing Company: New Delhi.

AG EXT 557 TRAINING FOR HUMAN RESOURCE DEVELOPMENT

(3L+1P) I

Objective

The course contemplates to acquaint the students with conceptual understanding of Training Vs education and different types and models of training. Further how an effective training programme could be organized and the approach of experiential learning could be integrated therein shall be another focus of the course. Besides, students will also be exposed to different training modules to be devised for different clientele and all possible dimensions of Human Resource management in relation to training will be covered.

Theory

UNIT I

Training and Education – Concept, meaning and relationship, factors affecting training, Types of training, current trends in training – organizational development approach; Paradigm shift in training-learning scenario; Training Process - different phases of training; Conceptual models of training;

UNIT II

Designing an effective training session – the semantics involved; Openness in training transactions – managing dilemmas, ambivalence and conflicts and confusion (for both trainers and trainees). Experiential learning through simulation games, Training Methods, their importance and classifications. Uses and limitations of case study, role play, lectures, programmed instruction, group discussion, brain storming, field methods, transactional analysis, business games etc., Participatory training methods,

UNIT III

Training strategy and designs, Training need assessment, characteristics of good training programme, Exercises on developing training design, training curriculum and training programme; Training programme for different clientele; Training Modules for extension personnel, farmers, farm women and youth empowerment, Training modules for Krishi Vigyan Kendras, and SAU/ICAR staff, Trainers' training, Training Evaluation and follow up – methods and strategy;

UNIT IV

Effective management of human resources – selection, induction, performance appraisal, working climate, changing roles etc.; Human Resource management: Collective bargaining, Negotiation skills; Human Resource Accounting (HRA Training structures and facilities available for human resource development. Visit to training institutions for sharing experiences. Research studies on training of extension.

Practicals

Designing participatory training sessions through simulations and experiential learning, 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 Counselling and Conducting experiential learning sessions. Training evaluation - Techniques of Knowledge, Skill & Attitude evaluation. Visit to training institutions and study of training technologies followed. Techniques of Agro-ecosystem Analysis, Rapid Rural Appraisal, Participatory Rural Appraisal.

Suggested Readings

- Mishra, D.C. 1990. New Direction in Extension Training: A Conceptual Framework. Published by Directorate of extension, GOI, New Delhi, P:237.
- Lynton, Rolf P. and Udai Pareek 1990. Training for Development (Second edition). Vistaar Publication, New Delhi, P: 333.
- Wilson, Joe B. 1994. Applying Successful Training Techniques: A Practical Guide to Coaching and Facilitating Skills. Richard Chang Associate, Inc Publication Division, Irvin, CA 92714, P:105.
- Lynton, Rolf P. and Udai Pareek 2000. Training for organizational Transformation. Part 2: For Trainer, Consultant and Principals. Sage Publication, New Delhi/Thousand Oaks/London, P: 413.
- Singh, R.P., Anita Jhamtani and Prem Lata Singh. 1996. Training Organization: A Hand Book. Jain Brothers, New Delhi, P:261.

AG EXT 558 ENTREPRENEURSHIP DEVELOPMENT

(2L+2P) III

Objectives

The course is intended to orient the students with need for entrepreneurship development in agriculture in the present times of decreased landholding and increased competitiveness faced by farmers in the markets. It will equip the students with knowledge and skills to motivate rural people to take up agri-entrprises.

Theory

UNIT I

Concept and theory of Development, Self Employment; Concept, need, approaches, theories scope and prospects of Entrepreneurship Development; Entrepreneurship in Agriculture, Concept, characteristics, Nature and importance for sustainable Livelihoods. Agro-industries, scope, constraints and strategy; Approach and Experiences in Entrepreneurial Development in India and other Developing Countries;

UNIT II

Entrepreneurship Development Cycle and process, Training for Entrepreneurship Development; Training development professionals; Development of Entrepreneurial Characteristics and Motives, Motivation Theories; Arousal of Motivation, Achievement Motivation Syndrome; Simulation games and exercises for developing entrepreneurial competencies – risk taking, self efficacy, creativity, achievement planning, influencing process, problem solving; Entrepreneurship Development among youth and women, Empowerment of women entrepreneurs; Policy approaches for women entrepreneurship development; Identification of potential entrepreneurs.

UNIT III

Stages of establishing enterprise, Business Planning: Need & Scope for Business Plan, Project Designing and Planning: Government Policies & Programmes, Support & Service Organizations, Understanding Market Needs, Identifying Business Opportunities, Product Identification, Market Survey and Demand Analysis; Development of business plan; Project feasibility Report preparation, Project Appraisal techniques – economic, financial, technical, and social; Micro enterprises – Profitable agri enterprises in India – Agro Processing, KVIC industries.

UNIT IV

Enterprise launching, Planning Resourcing; Enterprise Management, Management skills, Production management, Financial management, Marketing Strategy – pricing, costing, break-even analysis, Accounts and book keeping; Growth, Survival and Sustainance; Marketing for enterprises – Concept, planning for marketing, target marketing, Competition, market survey and strategies, Product sales and promotion Studies on Entrepreneurship Development in Agriculture.

Practicals

EMT lab – Achievement Motivation, Risk Taking, Understanding Strengths and Blocks, Achievement Planning and Syndrome. 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.

Suggested Readings

Akhouri, M.M.P., Misra, S.P. and Sengupta, Rita 1985. Trainers manual, NIESBUD.

Kilby Peter (ed) 1971. Entrepreneurship Development.

Shane, Scott “A General Theory of Entrepreneurship: the Individual-Opportunity Nexus”, Edward Elgar, 2003.

V.G.Patel Entrepreneurship Development Programme in India and its Relevance to Developing Countries.

Hisrich, 2001. ‘Entrepreneurship’, Tata McGraw Hill, New Delhi,

P.C.Jain (ed.), 1999. ‘Handbook for New Entrepreneurs’, EDII, Oxford University Press, New Delhi.

Vasant Desai, 2007. Entrepreneurship-principles and practices, Thomson publications.

AG EXT 559 METHODS OF SOCIAL RESEARCH

(3L+1P) II

Objective

The major objective of the course is to promote objectivity and empiricism in conducting research and to develop the competencies in learners about various research methods and designs. The course will enrich the knowledge and skills in formulation of research problems and hypotheses, development of projects, application of SPSS package for computation, research report preparation and evaluation.

Theory

UNIT I

Science and scientific approach, meaning, importance, Characteristics of social research, Problems of objectivity, Science and values, Theory and facts –Different types of social research, Historical, Descriptive, experimental, Review of literature – Need, Search Procedure, Sources of literature, Planning the review work, Elements of Scientific methods:-Selection and formulation of problem, Objectives – Meaning, types and criteria for judging the objectives. Concept- meaning and its role. Hypothesis: Nature, type and its testing. Types of variables-constitutive operational definitions of constructs and variables.

UNIT II

Measurement: General theory of measurement-postulates of measurement, levels of measurement, Reliability: types of reliability, methods of testing reliability - Importance of reliability: Validity: Types of validity-a variance definition of validity-the variance relation of validity and -the variance relation of validity and reliability, factors influencing validity. Methods of observation and data collection:- Interviews and Interview schedules, Questionnaires – Meaning, difference between schedule and questionnaire, types of questions to be used, pre – testing of the questionnaires or schedules and advantages and limitations. Projective methods- Content analysis- 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. Rating scales – Meaning, types, limits in construction, advantages and limitations in its use, Sociometry, The semantic differential, Use of documents records-and indices.

UNIT III

Design of social research: Meaning, purpose and principles (MAXMINCON) of research design; experimental and Ex-post-facto approaches, Faulty designs, criteria of research design. General designs of research: Different types of basic, experimental designs- Variants of basic experimental designs- Simple randomized subject design- Factorial design. Types of research: Ex-post facto research, Action research methodology- Participatory research. Recent advances in social research methodology, theory building.

UNIT IV

Sample and procedure of sampling, Advances in collection of data, Principles of analysis and interpretation, Use of computers in social science research; Data treatment by computer and use of SPSS for analysis of data, interpretation, Preparation of Research Report- style manuals-format of research report- the thesis or dissertation

Practicals

Formulation and statement of research problem, operationalisation of concepts. Development and testing of data collection instrument, Testing the reliability and validity of the instruments. techniques of interviewing, Hands on experience in data analysis with SPSS, tabulation, analysis, interpretation and report writing and presentation, Critical evaluation of research papers & thesis and their presentation.

Suggested Readings

Kerlinger, F.N.1973. Foundations of Behavioural Research. Surjeet Publications. Delhi.

Singleton, R.A. (Jr) and Straits, B.C. 2005. Approaches to Social Research. Oxford University Press. New York.

- Blalock, H.M. and Blalock, A.B. 1968. Methodology in Social Research. Mc.Graw-Hill Book Company, New York.
- Young, P.V. and Calvin, F. Schmid. 1994. Scientific Social Surveys and Research. Prentice-Hall of India Private Limited, New Delhi.
- Goode, W.J. and Hatt, P.K. 1952. Methods in Social research. McGraw-Hill Book Company, INC ; New York and Kogakusha Company, Ltd. Tokyo.

AG EXT 601 ADVANCES IN AGRICULTURAL EXTENSION

(3L+1P) I

Objective

To help the students to critically analyse different approaches in models of agricultural extension including the application of agricultural knowledge and information system in improving extension practices. To gain knowledge and insight into the recent developments in extension such as cyber extension, alternative of financing extension, private/public partnership and privatization of extension, implications of WTO for extension services. To make a service of different contemporary of issues in extension related to rural poverty, environmental protection, diversity, biotechnology and GM crops.

Theory

UNIT I

Approaches of agricultural extension: critical analysis of different approaches of agricultural extension, Extension programmes of corporate sector, the concept importance and implications of livelihood extension. Technology base of agricultural extension : Importance and relevance of indigenous knowledge system, identification and documentation of ITK, integration of ITK system with formation research.

UNIT II

Cyber Extension - concept, national and international cases of extension projects using ICT and their impact of agricultural extension, Alternative methods of financing agricultural extension - scope, limitations, experience and cases. Research - Extension -Farmer - Market linkage: importance, scope, implications etc., Farmer - led extension. Farm Field School, Public - Private Partnership: meaning, models, identification of various areas for partnership, a critical analysis of extension pluralism, Stakeholder's analysis in extension. Mainstreaming gender in Extension - issues and prospects; Economics of agricultural extension: National investments in agricultural extension, impacts of agricultural extension, privatization of agricultural extension – scope,

UNIT III

Implications of WTO - AOA for extension services, re-orientation of extension services for agri-business and marketing activities limitations and experiences and cases; Implications of WTO - AOA for extension services, Intellectual Property Rights (IPRs) and implications for extension, re-orientation of extension services for agri-business and marketing activities, GOI-NGO collaboration to improve efficiency of extension.

UNIT IV

Agricultural Knowledge and Information System (AKIS), concept, targeting of AKIS, Significance of theories of social learning for extension practice.

UNIT V

Extension and contemporary issues: rural poverty, environmental protection of farm and home, bio-diversity, sustainable development, food and nutritional security, recent advances in

biotechnology and GM crops, adoption and diffusion of Bt cotton. Extension Reforms in India - Decentralized decision making, Bottom up planning, Farming system and situation based extension delivery system, Extension delivery through Commodity Interest Groups.

Practicals

Analysis of ITK system, cases on integration of ITK and formal research system, Recent extension reforms in India – an analysis of growth and development of ATMAs, Extension delivery through community based organisations, Organization innovations in Extension, a critical analysis of village knowledge and resource centres, kisan call centres and ICAR extension system- KVKs, ATIC, IVLP etc.

Suggested Readings

- Leeuwis, C. 2004. Communication for Rural Innovation-Rethinking Agricultural Extension, Third Edition, Blackwell Science.
- Saravanan, R. 2008. Agricultural Extension- Worldwide Innovations, New India Publishing Company, New Delhi.
- Leeuwis, C. and Pyburn, R. 2002. Wheel barrows full of frogs-Social learning in Rural Resource Management, Koninklijke, Van Gorcum, The Netherlands.
- Roling Niels 1988. Extension Science-Information System in Agricultural Development, Press Syndicate of University of Cambridge, Cambridge.

AG EXT 602 MONITORING, EVALUATION AND IMPACT ASSESSMENT TECHNIQUES (3L+1P) I

Objective

The course intends to orient the learners towards the importance, issues, concepts and methods of monitoring, evaluation and impact assessment. The course will equip them with theoretical as well as analytical understanding and conducting monitoring, evaluation and impact assessment of extension programmes/ development projects.

Theory

UNIT I

Definition of Monitoring, Objectives, tools, methods and approaches of monitoring; Major Components of project Monitoring: Special Diagnostic studies, Project Completion report, Project sustainability. Monitoring Standards: Past quality or performance, the quality of other systems, desired quality, Professional standards, the quality required, Planning targets and Optimal quality; Usefulness of monitoring: role of project Completion Reports in Monitoring (PCRs); New Approaches to participatory impact Monitoring: Participatory Monitoring: Project Management in Practice; Tips for monitoring and evaluation.

UNIT II

Concepts and models of programme evaluation; Difference between monitoring and evaluation; Types of Evaluation: Objective Oriented, Management Oriented; Context Evaluation, Input evaluation, Process Evaluation, Product Evaluation, Consumer oriented evaluation, Expertise Oriented Evaluation, Adversary Oriented Evaluation, Naturalistic and Principal oriented

evaluation, goal free evaluation and meta evaluation; Major activities involved in conducting evaluation; Evaluation Standards: Utility Standards, Feasibility Standards, Propriety standards and Accuracy standards; Development of evaluation plan; Tools and techniques in evaluation; Dealing with political, ethical and interpersonal aspects of evaluation. Reporting and using evaluation information; Meta Evaluation.

UNIT III

Concepts and processes in impact assessment; Domains of impact assessment- Technical, socio-cultural, economic, institutional, environmental, human, periodic-short and long term; Levels of impact assessment; Approaches in developmental projects; Criteria and indicators: typologies and properties of indicators –goodness and exactness; internal and external validity, specificity, gender sensitiveness, stakeholders' orientation; Impact monitoring- concept, purpose and methods; Impact evaluation.

UNIT IV

Designs in impact assessment; Participatory need and stakeholders' perception assessment; Quantitative and qualitative techniques for impact assessment, Social impact analysis; Economic impact analysis cost- benefit analysis, social-cost benefit analysis, partial budget analysis; Environmental impact analysis; Institutional impact analysis; Sustainability analysis; Concepts in livelihood and social vulnerability, adaptation and mitigation; Framework and qualitative and quantitative and tools for livelihood analysis, assessment of social vulnerability and adaptive capacities of communities; tools for farming system and gender analysis. Stakeholders' analysis; Human impact assessment; Case study; Policy implications of impact assessment;

Practicals

Development of Monitoring and Evaluation framework; Field studies for identification and ranking of criteria/indicators for impact assessment, Development and analysis of cases in evaluation and impact assessment.

Suggested Readings

- Becker, H.A. and Frank Vanclay. 2003. *The International Handbook of Social Impact Assessment: Conceptual and Methodological Advances*. Edward Elgar, UK.
- Rossi, P.H. and Howard, Freeman. 2002. *Evaluation- a systematic Approach*. Sage Publications, New Delhi.
- Cracknel, B.E. 2000. *Evaluating Development Aid*. Sage Publications. New Delhi.
- Byrn, D. *et.al*. 1962. *Evaluation in Extension*. USDA.
- Cook, T.D. and Charles, S. Reichardt. 1979. *Qualitative and Quantitative Methods in Evaluation research*. Sage Publications, New Delhi.

AG EXT 603 VISUAL AND GRAPHIC COMMUNICATION

(1L+2P) II

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 in Communication; Characteristics of visuals, functions of visuals and graphics; Theories of visual perception; Classification of visuals, visual formats, Selection of visuals; Graphic formats & Devices, typography, Presentation of scientific data, general and exact data; Preparing lecture slides – content, limitation and layout; its utility in preparing presentations for research papers and other publications

UNIT II

Principles of production of visuals, low-cost visuals, photographs, reprographic visuals, Pre-testing and evaluation of visuals. Designing message for visuals; Designing & layout of visual elements, balancing

UNIT III

PC based visuals, and digitized video materials in multi-media production; Designing visuals for print and TV/ video media; Publishing e-books, audio-visual slideshow presentations through VCD/DVD player. Scanning: scanners, scanning reflective and transparent original, resolution and output, post scanning image controls; Output: intricacies of printing digital images, laser printing, inkjet printing and photographic paper printing; Output for on-screen presentations and for web pages

Practicals

Preparation of low-cost visuals (projected & non-projected); Designing & Layout of visuals for Charts, posters, headliners etc., Generating computer – aided presentation graphics, preparation of visuals.

Suggested Readings

Willem Zip. 1994. Improving the Transfer and Use of Agricultural Information - A Guide to Information Technology. The World Bank, Washington.

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

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

James, W.B., Richard B.L., Fried F. Harclerod. 1952. A.V. Instructional Material & Methods. McGraw Hill.

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

AG EXT 604 ADVANCED MANAGEMENT TECHNIQUES

(2L+1P) I

Objective

The course is intended to expose the students to the advanced management techniques. Besides, the students will also be developing management competencies in the practical classes.

Theory

UNIT I

Forecasting Techniques: qualitative and judgmental methods, Technological forecasting- the Delphi methods, scenario construction. Management Information System (MIS): basic concepts, types of information needed at various levels, designs 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, process, making MBO effective, evaluation of the MBO system—strengths and weaknesses.

UNIT III

Managerial communication, Transactional Analysis (TA): ego states, transactions, inter relationships, strokes, stamps. Managing Organizational Stress: sources, effects of stress, coping mechanisms and managing stress. Team Building Processes: types of teams, steps in teamwork, facilitators and barriers to effective team performance. Collaboration and competition. Building and maintaining relationships, nature of prejudice, Conflict management, Motivation and performance, Performance appraisal, Creativity, Decision-making. Logical framework approach for planning and evaluation

UNIT IV

Decision Support Systems (DSSs), Basic information about Artificial Intelligence (AI) and Expert Systems (ESs), their applications in an extension system.

Practicals

Exercises on forecasting techniques, Management Information System (MIS), Management by Objectives (MBO) and Transactional Analysis (TA), Team building processes, skills in coping with organizational stress, Creativity and Logical Framework Approach (LFA)

Suggested Readings

Edward de Bona 1990. Six Thinking Hats, Penguin Books.

Koontz and Harold Weihrich Heniz 2004. Essentials of management. Tata McGraw- Hill publishing Company Ltd.

Amstrong Michael 2006. Human Resource Management Practice. Kogan Page.

Rao, T.V. 2008. Performance Management and Appraisal Systems. Response Books

Pareck Udai 2008. Understanding Organizational Behaviour. Oxford University Press

AG EXT 605 DEVELOPMENT COMMUNICATION

(2L+1P) I

Objective

This course is intended to give the students an exposure to the concept of development communication and related issues like skills pertaining process of agricultural development, communication media and communication technology and networking mechanisms among various development agencies both at operational level and field level.

UNIT I

Concept and components of development; Theories of development and development communication; Approaches and development of communication media for development communication; Conceptual differences/similarities between development communication and development support communication;

UNIT II

Development communicators: characteristics and role demands; Process skills pertaining to process of agricultural development; communication media and technology; Networking mechanisms among various development agencies both at operational level and field level; Experiences generated from application of media for promoting development: case studies; participatory approach to integrated media development in extension and development projects

UNIT III

Developing information support for development communication projects; formulating and conducting development communication projects in India; Conventional mass media and traditional media used in development communication; Determinants of communication effectiveness of development projects. Critical evaluation of communication media and technology in development communication;

Practicals

Developing agricultural communication projects; Visits to mass media organizations engaged in development communication; Formulating communication plans and strategy; Cost benefit analysis of media use in development.

Suggested Readings

- Melkote Srinivas R. 1991. Communication for Development in the Third World: Theory and Practice. Sage Publications, New Delhi
- Ray, G.L. 2006. Extension Communication and Management. Kalyani Publ.
- Rayudu, C.S. 2002. Communication. Himalaya Publ. House.
- Samanta, R.K. 1990. Development Communication for Agriculture. B. R. Publishing Corporation, New Delhi
- Sandhu, A.S. 2004. Textbook on Agricultural Communication Process and Methods. Oxford & IBH.

AG EXT 606 TECHNIQUES OF MEASUREMENT IN BEHAVIOURAL SCIENCES

(3L+1P) III

Objective

The course aims at development of conceptual understanding of psychometrics and its application in constructions of scales for measuring psychological characteristics/traits. The learners will be exposed to various methods of scale construction, scalogram analysis and testing the reliability and validity of scales. It is also intended to orient the learners towards other psychometric methods like Q-sort, semantic differential and rating scales besides multivariate techniques.

Theory

UNIT I

Role of measurement in Social Sciences; Levels of measurement; Theory of Scale development; Process and techniques of scale construction; Types of scales in social Research;

UNIT II

Scale Construction Methods: Paired Comparison Technique, Equal Appearing Interval, Successive Interval, Summated Rating; Scalogram Analysis; Scale Discrimination Techniques; Multi-dimensional scaling technique; Concept and application of H-technique and W-technique in scale construction; Development of knowledge test, Reliability and Validity of Scales.

UNIT III

Projective and non-projective techniques; Q-Sort Technique, Semantic Differential Technique; Case analysis; Use of multivariate analytical tools in extension research; Meta Analysis; Critical Incident Technique; Content analysis; Sociometry; Practicing participatory tools and techniques Utilization of these techniques in Extension Research; Advantages and limitations of these techniques.

UNIT IV

Concepts and approaches in theory construction in extension science, Testing of theory.

Practicals

Using different types of scales and techniques in the field and laboratory situation; Critical study of the scales constructed and used in Extension Education research; Development of attitude scales and knowledge tests; Testing reliability and validity of scales; Case analysis; use of various techniques (Q-sort, semantic differential, Content analysis., critical incident, project and non-projective tools and participatory tools) in field conditions.

Suggested Readings

- Edwards, A.L. 1957. Techniques of Attitude Scale Construction. Vakils, Feffer and Simons Private Limited, Bombay, India
- Guilford, J.P. 1987. Psychometric Methods. Tata McGraw Hills Inc. New york
- Dunn-Rankin, Peter, Gerald A. Knezek, Susan R. Wallace and Shuquiang Zhang. 2004. Scaling Methods. Psychological Press.
- Irvine, S.H. and Patrick C. Kylonen. 2002. Item Generation for Test Development. Routledge.
- Thissen, David and Howard Wainer. 2001. Test Scoring. Routldge.