### VETERINARY AND ANIMAL HUSBANDRY EXTENSION

#### Course Structure - at a Glance

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VETERINARY AND ANIMAL HUSBANDRY EXTENSION

Course Contents

AHE 601: FUNDAMENTALS OF VETERINARY AND ANIMAL HUSBANDRY EXTENSION 2+1

Objective: To acquaint the students with the genesis, development and present status of animal husbandry extension and linkages among departments and various institutions.

Theory

UNIT I
Concept, philosophy, principles, genesis, growth and scope of extension education.

UNIT II
Earlier extension efforts and their implications. Emerging issues, problems and challenges of animal husbandry extension education.

UNIT III
Extension approaches of State and Central Governments, ICAR, SVUs/SAUs, NGOs and other organizations in delivery of animal husbandry and veterinary services.

UNIT IV
Linkages between researcher-extension agent-livestock farmer-industry in the generation, dissemination and utilization of animal husbandry practices.

Practical

Study of the organizational set-up and functioning of State Animal Husbandry Department and dairy/rural development agencies.
Study of indigenous technical know-how about animal husbandry practices in villages.

Suggested Readings


AHE 602: COMMUNICATION FOR LIVESTOCK DEVELOPMENT 1+1

Objective: To acquaint the students with concept and models of communication and to improve their communication skills.

Theory

UNIT I
Communication - meaning, concept, purpose and process.

UNIT II
Models and theories of communication. Types of communication-intrapersonal, interpersonal, verbal and non-verbal. Criteria of effective communication, Determinants of communication - Empathy, credibility, fidelity, distortion, feed back and barriers to communication.

UNIT III
Group and mass communication. Modern communication technologies. Key communicators and their role in animal husbandry development.

Practical

Suggested Readings

AHE 603: DIFFUSION AND ADOPTION OF ANIMAL HUSBANDRY PRACTICES 2+1

Objective: To sensitize the students towards technology generation, dissemination and its adoption through effective communication.

Theory

UNIT I

UNIT II

UNIT III
Role of change agents in transfer of technology. Diffusion studies in veterinary extension. Role of communication in diffusion and adoption process.

Practical
Study of selected animal husbandry innovations - the adoption and non-adoption of various practices. Reasons for adoption and non-adoption of innovations.

Suggested Readings
AHE 604: EXTENSION TECHNIQUES AND AUDIO VISUAL AIDS 2+1

Objective: To train the students about various techniques/methods for transfer of animal husbandry technologies through suitable audio-visual aids.

Theory

UNIT I

UNIT II
Extension approaches in livestock development- individual, group and mass approach (electronic and non electronic). Relative merits and demerits of different teaching methods in animal husbandry extension.

UNIT III
Audio-visual aids- classification, use and evaluation. Selection criteria of audio-visual aids.

UNIT IV
Multi-media projection and computer aided teaching aids for animal husbandry extension.

UNIT V
Selection of different extension methods for dissemination of animal husbandry technologies and media-mix.

Practical
Preparation and presentation of various audio-visual aids. Use of different teaching methods in field situations. Review of research studies in teaching methods and A.V. aids.

Suggested Readings

AHE 605: ANIMAL HUSBANDRY PROGRAMME PLANNING AND EVALUATION 2+1

Objective: To expose the students on planning, formulation, implementation and evaluation of various animal husbandry development programmes.

Theory

UNIT I
Importance of programme planning in veterinary and animal husbandry extension. Objectives, principles and steps in programme planning process. Role of animal husbandry extension agencies, local leaders, livestock owners and institutions in planning and implementation of need-based veterinary extension programmes.

UNIT II
Genesis, nature and principles of planning. Planning Commission and its role. Five Year Plans with reference to animal husbandry development. Organizational structure for planning at different levels.

UNIT III
Concept, principles, types and methods of evaluation. Importance of monitoring various livestock development programmes.
UNIT IV

Needs assessment- meaning, importance, classification and steps. Concept of FSR, Participatory Approaches- Rapid Rural Appraisal (RRA) and Participatory Rural Appraisal (PRA)

UNIT V


Practical

Preparation of livestock development plan for a village. Developing instruments for monitoring and evaluation of on-going development programme at village level (Logical Frame Work ). Exercises on Participatory approaches (RRA,PRA, Case study, Problem Based Learning).

Suggested Readings


AHE 606: RESEARCH METHODOLOGY IN VETERINARY AND ANIMAL HUSBANDRY EXTENSION

Objective: To apprise the students about the selection criteria of research problem, variables, research design, sampling techniques, data collection procedure and report writing in the field of animal husbandry extension.

Theory

UNIT I

Concept, nature and scope of research in social sciences. Types of research- fundamental, applied and action research, experimental and non-experimental research. Variables, types and their measurement. Selection and formulation of research problem. Hypothesis- importance, selection criteria (quality of workable hypothesis), formulation and testing of hypothesis.

UNIT II

Measurement and levels of measurement; Research designs- exploratory, experimental, and ex-post-facto research design. Action research. Sampling methods-probability and non-probability sampling. Sources of errors.

UNIT III

Methods of data collection- survey method, observation method, interview/questionnaire method, case study, content analysis, sociometry and projective techniques. Action research. Reliability and validity of measurements.

UNIT IV


Practical

Selecting a research problem and working it out with all the steps; report writing and presentation of the report.

Suggested Readings


Kerlinger FN. 1994. *Foundations of Behavioural Researches*. Holt,


**AHE 607: SOCIAL PSYCHOLOGY AND GROUP DYNAMICS**

**Objective**: To acquaint the students with the structure and functioning of social groups and socio-psychological aspects in interacting with livestock farmers.

**Theory**

**UNIT I**

Meaning, scope and importance of psychology in animal husbandry extension work. Orientation of psychology.

**UNIT II**

Perception- nature, laws and selectivity in perception, factors in perception, importance of perception in extension work. Attitude- nature, theories, measurement and change of attitude towards livestock owners, formation of stereo types and prejudice, factors in attitude change.

**UNIT III**

Motivation- nature, characteristics, theories, types and techniques of motivating farm people. Emotion- nature, types of emotional response, theories and role of emotion in regulating the human behaviour. Learning-principles, theories of learning and experiential learnings

**UNIT IV**

Intelligence- nature, theories and measurement. Personality- nature, traits, types, biological and socio-cultural determinants of personality. Group and individual behaviour.

**UNIT V**

Concept and types of groups; Typology and importance in rural development; Group structures - attraction, coalition, communication and power; Processes in group development and group identity; Factors affecting group performance; Conflicts in groups; Group belongingness.

**Practical**

Study of structure and functioning of selected Self Help Groups (SHGs), factors influencing the success/ failure of SHGs, Milk Cooperative Societies.

**Suggested Readings**


AHE 608: ANIMAL HUSBANDRY DEVELOPMENT PROGRAMMES  1+0

Objective: To make the students aware of livestock development programmes launched by various agencies.

Theory

UNIT I
Concept of development, social and economic development; Historical overview on Rural Development in India

UNIT II
Ongoing Animal Husbandry Development Programmes - NPCBB, PM assistance livestock development programme, rural development programmes with special reference to livestock- SGSY, EGS

UNIT III

UNIT IV
Understanding the functioning of livestock development institutions - DRDA, NABARD, Insurance Companies, NGOs.

Suggested Readings

The World Bank.


AHE 609: DEVELOPMENTS IN THE CONCEPT OF EXTENSION  1+0

Objective: To acquaint the students with the recent development in extension.

Theory

UNIT I
Important concepts in extension science; various schools of thought; Systems concept in extension.

UNIT II
Changing approaches - Farmer participatory approaches; Global concepts of extension as applied to Indian Context.

UNIT III

UNIT IV
Various stake holders in Livestock development; stakeholder analysis, problem tree

Suggested Readings


AHE 610: HUMAN RESOURCE MANAGEMENT IN ANIMAL HUSBANDRY SECTOR

Objective: To expose the students in human resource management techniques and dealing with the hierarchical and organizational problems.

Theory

UNIT I

UNIT II
Training - models, methods, identification of training needs, training evaluation and developing strategies for human resource development in animal husbandry sector.

UNIT III
Supervision - meaning, process and techniques. Work motivation, job efficiency and job satisfaction.

UNIT IV
Organizational communication, Organizational climate, Conflict management.

UNIT V
Personnel management in animal husbandry organizations and disaster management.

Practical
Training needs assessment, development of training module, organization, evaluation of a training programme

Suggested Readings

AHE 611: GENDER AND LIVESTOCK DEVELOPMENT

Objective: To acquaint the students with the concept of gender, its importance in livestock development, livestock development polices and programmes of the government to empower women.

Theory

UNIT I

UNIT II
Policies and programmes in livestock for empowering women, Composition of livestock sector- dairying and poultry sector, Women entrepreneurship in livestock, Institutional structure in livestock production, processing and marketing- co-operatives, contract farming and SHGs, Case studies- success and failures- from the state, country and other countries.

UNIT III

Globalization and livestock development - opportunities and challenges, WTO- need for quality standards in livestock production-assurance and safety measures- SWOT analysis, Extension techniques for livestock development, Group project work- livestock feasibility report/live-in situation report.

Suggested readings


AHE 612 INFORMATION AND COMMUNICATION TECHNOLOGY IN LIVESTOCK DEVELOPMENT 1+1

Objective: To apprise the students about information system, networking and use of various ICT tools.

UNIT I

ICT - concept, importance and types of tools; Development and application of ICT tools including information kiosks, E-learning

UNIT II

Concept of information system and networking, component of information system, information resources, sharing and networking. Types of net work - PAN, LAN, WAN, Internet, AGRINET, AKIS, Indian National Agricultural Research database.

UNIT III

ICT programmes in livestock development, Problems and prospects of ICTs in livestock development, Digitisation, Simulation models.

Practical

Study of various ICT tools in livestock development.

Suggested Readings


AHE 701: ORGANIZATIONAL MANAGEMENT 3+0

Objective: To acquaint the students with the general administration, management and motivational techniques for organizational change and development.
Theory

UNIT I
Concept, approaches and functions of management. Principles and process of organization, hierarchy of organization, departmentalisation. Authority and responsibility. Components of individual behaviour in organization. Organizational climate, decision making by consensus and participation by subordinates.

UNIT II
Motivation- nature and significance, motivational process, theories of motivation with respect to animal husbandry work. Importance of human needs, priority of needs, Managing work motivation.

UNIT III

UNIT IV
Supervision- principles, techniques and functions of supervision. Qualities of supervisor, supervisor-subordinate relationship and interaction process. Changing organizational structure and system, changing organizational climate and interpersonal style, issues and choice involved in making organizational climate.

Organization development- history, nature, characteristics, assumptions and process. Organization development interventions.

Suggested Readings
Selected articles from journals.

AHE 702: FARM JOURNALISM AND PUBLIC RELATIONS 2+1
Objective: To sensitize students about the role of mass media, newspapers, magazines, radio, T.V. and internet for promoting animal husbandry.

Theory

UNIT I
Concept of farm journalism and communication. Journalism as a means of mass-communication and its role in livestock development. Opportunities, strength and limitations. Ethics and principles of journalism for effective writing.

UNIT II
Art of writing, news items, news stories, feature articles, success stories, magazines, bulletins, folders etc. Fundamentals of layout in writing. Writing of research papers and popular articles in journals and farm magazines.

UNIT III
Methods and techniques of broadcasting of farm programmes. Writing scripts for radio and televisions. Importance of public relations in veterinary and animal husbandry extension.

UNIT IV
Rapport building with different categories of clients involved in veterinary and animal husbandry extension programmes. Art of speaking. Importance of listening and reading. Relations with press media.

UNIT V

Practical
Designing and preparation of news stories, feature articles, success stories related to animal husbandry. Designing and preparation of magazines, folders, popular research articles, radio and T.V. scripts. Visit to agricultural information and communication centre to record the activities of preparation, editing and publication of news articles and research publications. Exercise on the art of good speaking in class-room and field situations.
**Suggested Readings**

Selected articles from journals.

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**AHE 703: ADVANCED RESEARCH TECHNIQUES IN SOCIAL RESEARCH**  
3+1

**Objective**: To train the students about various research and management techniques/methods applicable to animal husbandry researches.

**UNIT I**  
Measurement- meaning and levels, tests, and scales. Different types of Variables.

**UNIT II**  
Techniques of attitude scale construction viz. paired comparison, equal appearing interval, successive interval, summated ratings, scalogram analysis.

**UNIT III**  

**UNIT IV**  
Experimental and quasi experimental research designs. Content analysis and projective techniques.

**UNIT V**  
Multivariate analysis, systems analysis, principle component analysis, discriminant analysis and their application in extension education research.

**Practical**  
Exercises on scaling techniques, attitude scale construction - Paired Comparison, Equal Appearing interval, Summated Rating Scale, Critical Incident Technique, Knowledge Test.

**Suggested Readings**

Selected articles from journals.

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**AHE 704: TRAINING FOR HUMAN RESOURCE DEVELOPMENT**  
2+1

**Objective**: To make the students aware of planning, implementation and evaluation of various training programmes.

**Theory**

**UNIT I**  
Concept of training and education. Training infrastructure for extension personnel and farmers in India. Role of institution, organization and participants in success of training programme.

**UNIT II**  
Assessment of training needs, curriculum design and development. Training strategies, models of training.

**UNIT III**  
Planning, development and execution of training programmes.

**UNIT IV**  
Training methods- Lecture, symposium, workshop, case studies, group discussion, conference, convention, panel discussion, buzz session, forum, debates, syndicate, simulation exercises, role playing, brain storming.

**UNIT V**  
Evaluation and follow-up of training programmes.

**Practical**
Preparation of training programmes for extension personnel, livestock and poultry farmers. Evaluation of on-going training programmes.

**Suggested Readings:** Selected articles from journals.

### AHE 705: POLICIES AND REGULATIONS IN LIVESTOCK SECTOR

**Objective:** To sensitize the students about policies and regulations in animal husbandry sector.

**Theory**

**UNIT I**


**UNIT II**

HACCP, Sanitary and phyto-sanitary measures to protect the animals’ life and health, food safety uses in relation to animal husbandry sector. Introduction to Agreement on Technical Barriers to Trade (ATBT).

**UNIT III**

Animal welfare laws- legislations in veterinary and animal sciences.

**UNIT IV**


**Suggested Readings**

Selected articles from journals.

### AHE 706: EDUCATIONAL TECHNOLOGY

**Objective:** To acquaint students with different concepts of education technology and preparation of teaching aids

**Theory**

**UNIT I**


**UNIT II**

Preparation of course outline for instructions, lesson planning. Designing instructions for theory and practical, Instructional methods and devices in class room instruction, computer aided learning. Understanding learners’ behavior, learning styles, motivating learners.

**UNIT III**

Student counselling and guidance, Student evaluation - meaning and methods, construction of measuring instrument - question banking.

**UNIT IV**

Performance appraisal of teachers -meaning and methods, construction of assessment instruments. Use of library for effective learning.

**Practical**

Preparation of course outline, Preparation of lesson plans, Planning and preparation of instructional aids, Individual classroom instructional exercises, Development of student evaluation instrument, Development of performance appraisal instrument for teachers.
Suggested Readings
Selected articles from journals.

AHE 707: DYNAMICS OF CHANGE 2+0

Objective: To make the students aware of dynamics of change, group dynamics and social change.

Theory

UNIT I
Definition of change, development, social and cultural change. Dimensions, characteristics, types, rate and directions of social change. General conditions of social change.

UNIT II
Process of change. Concept, importance and problems of planned change. Role of change agents. Approaches of change agents towards planned change. Acceptance and rejection to planned change in animal husbandry. Techniques for accelerating change.

UNIT III
Theories of change: Darwin, Kurt, Lewin, Ogburn & influence process of change, assessment of resources, fixation of change objective, evaluating change effect. Barrier to change—psychological, social & economical, stimulants to change: psychological, social & economical.

UNIT IV
Agrarian changes with reference to livestock development.

Suggested Readings
Selected articles from journals.

AHE 708: ORGANIZATIONAL COMMUNICATION 2+1

Objective: To sensitize the students towards communication and networking to increase the efficiency of an organization.

Theory

UNIT I
Organizational communication—its importance, function and characteristics. Understanding of organizational communication. Types of organizational communication—upward, downward, diagonal and grapevine. Communication network.

UNIT II
Effectiveness and efficiency of organizational communication.

UNIT III
Essentials of a sound organizational communication system. Social and Psychological barriers to effective organization communication. Causes of poor organization communication.

Practical
Studies on organizational communication patterns in animal husbandry

Suggested Readings
Selected articles from journals.

AHE 790: SPECIAL PROBLEM 0+2

Objective: To provide expertise in handling practical research problem(s).
Practical

Short research problem(s) involving contemporary issues and research techniques.