



College of Veterinary Science & Animal Husbandry

Kamdhenu University, Bhuj (Kutch)



DEPARTMENT OF VETERINARY & ANIMAL HUSBANDRY EXTENSION EDUCATION

About department

Department of Veterinary & Animal Husbandry Extension Education started at College of Veterinary Science & Animal Husbandry, Kamdhenu University, Bhuj in August, 2025 as per the Minimum Standards of Veterinary Education-2016 guidelines of Veterinary Council of India, New Delhi. This department is started for offering education, research, and organizing extension activities in the field of veterinary science and animal husbandry as per the requirement of MSVE-2016. Presently, this department is engaged in organizing extension activities through various modes for livestock farmers and stakeholders during initial developmental period of this college to get more support and responses from farmers' side.

Objectives:

1. To impart education for conducting undergraduate courses of department and post-graduate teaching in the subject of Veterinary Extension Education.
2. To conduct research at livestock farmers' field for understanding needs of farmers and stakeholders.
3. To organize extension activities at field condition for technology transfer and entrepreneurship development.

Faculty status:

Sr. No.	Name of the Post	Requirement as per MSVE-2016	Present status
1.	Professor	1	1
2.	Associate Professor	1	0
3.	Assistant Professor	1	0

Faculty details

Professor & Head

Dr. S.W. Sawarkar , Ph.D. (IVRI), M.B.A.(HRM), B.A.(MC&J)		
	• Total Experience- 23 years • Students guided- 07 (M.V.Sc.) • Research papers published- 12 • Training & Practical manuals developed- 10 • Popular articles published- 15 • Literatures developed for farmers-35 • Television Talks-8 • Radio Talks-10	• Lectures delivered for farmers/youths/entrepreneurs- 500< • Best Paper Award-01 • Best Poster Award-01 • Best Extension Educationist Award-02 • Best Article Award-01 • Worked-Assistant Editor, JAU Newsletter • Worked-Editor, Girja-JVC-eNewsletter • Editor, Chaupaye-jo-hellaro BVC-eNewsletter

Under-graduate education (As per VCI- MSVE, 2016 Regulations)

Course details

Subject: Veterinary and Animal Husbandry Extension Education (Credit Hours: 3+1)

THEORY

UNIT-1 (LIVESTOCK BASED LIVELIHOODS AND THEIR EVOLUTION)

History of domestication and their social dimensions. Evolution and relationship between agriculture and animal husbandry. Farming and characteristics of farming in India. Classification of farming, types and systems. Peasant farming, cooperative farming, collective farming, contract farming, estate farming, organic farming, capitalistic farming, small-scale farming, largescale farming, intensive, extensive farming, specialized, diversified, mixed, integrated and dry land farming. Role of animals in the contemporary society.

UNIT-2 (EXTENSION EDUCATION AND DEVELOPMENT)

Early extension efforts in India. Types of education: Formal, non-formal and informal education. Extension education: Concept, levels, objectives and dimensions. Principles, philosophy and functions of extension education. Teaching learning process and steps in extension teaching. Concept of need and its types. Rural development - Concept, significance and

importance of rural development programmes for poverty alleviation. Problems and Issues in development. Panchayati Raj System.

UNIT-3 (RURAL SOCIOLOGY IN VETERINARY EXTENSION)

Concept of sociology and rural sociology in animal husbandry extension. Culture: definition, elements, change, impact on production systems. Basic sociological concepts - society, community and association. Rural society: characteristics and differences among society, community and culture. Characteristics and differences among tribal, rural and urban communities. Social control: concept and means of social control (techniques, folkways, taboos, mores and laws). Social stratification: definition, forms and characteristics (caste system and class system). Social institutions in rural society: Social, economic, political, religious and educational (definition, composition and function). Social change: concept, importance and factors. Social groups: different groups, classification of social groups and their characteristics. Leadership: definition, functions of leader, types of rural leaders, Key communicators and their role in the animal husbandry extension.

UNIT-4 (TRANSFER OF TECHNOLOGY FOR LIVESTOCK DEVELOPMENT)

Technology- Concept, generation process, application, merits and de-merits. Adoption and diffusion of innovations, stages of adoption, adopter categories, innovation decision process, attributes of innovations, diffusion process, factors affecting adoption and diffusion processes. Programme planning- principles, objectives and steps. Evaluation of extension programme, constraints in the adoption of scientific animal husbandry practices. Role of extension agents in diffusion of livestock innovations. Cattle and buffalo improvement programmes: Key Village Scheme, Intensive Cattle Development Project, Gosadan and Gaushala. Dairy development programmes: concept of cooperation, Rochdale principles of cooperation, objectives of cooperative, Amul pattern of dairy cooperative system and Operation Flood. Transfer of technology projects of Indian Council of Agricultural Research (ICAR): Krishi Vigyan Kendra (KVK), Agricultural Technology Information Centre (ATIC), Agricultural Technology Management Agency (ATMA), National Agricultural Innovation Project (NAIP), Rashtriya Krishi Vikas Yojana (RKVY) etc. Different ongoing central and state government animal husbandry development programmes being run related to sheep, goat, poultry, piggery, fodder production etc.

UNIT-5 (COMMUNICATION AND EXTENSION TEACHING METHODS)

Communication and its functions. Basic concepts: communication fidelity, communication gap, time lag in communication, empathy, homophily and heterophily, propaganda, publicity, persuasion and development communication. Types of communication: Intrapersonal, interpersonal, verbal, non-verbal, vertical, horizontal, organizational communication etc. Elements of communication: Communicator, message, channel, treatment of message, audience, and audience response (feedback). Barriers of communication. Individual contact methods: Farm and home visit, farmer's call, personal letter, adaptive or minikit trial, farm clinic etc. Group contact methods: Result demonstration, method demonstration, group meeting, training, field day or farmers' day, study tour etc. Mass contact methods: Farm publications (leaflet, folder, pamphlet, booklet, bulletin, farm magazine, newsletter etc.), mass meeting, campaign, exhibition, newspaper, radio, television, mobile short message service. Selection and use of extension teaching methods.

UNIT-6 (LIVESTOCK ECONOMICS AND MARKETING)

Introduction to Economics and Livestock Economics: definition and scope (production, consumption, exchange and distribution). Basic concepts- wants, goods, wealth, utility, price, value, assets, capital, money, income etc. Important features of land, labour, capital and organization. Theories of demand, supply and cost. Theories of production (law of diminishing return, increasing return, constant return and return to scale). Concept of market: market, market structure and classification of markets. Market price and normal price, price determination under perfect competition in short and long run. Marketing functions: meaning and their classification (packaging, transportation, grading, standardization, storage and warehousing, processing and value addition, buying and selling, market information, financing, risk bearing, minimization of risks (speculation and hedging). Marketing agencies, institutions and channels for livestock and livestock products. Government interventions and role in marketing of livestock and livestock products. External trade in livestock products, recent policies on trade and international trade agreements and their implications in livestock sector.

UNIT-7 (LIVESTOCK ENTREPRENEURSHIP)

Definition of entrepreneur, entrepreneurship, enterprise and manager. Difference between entrepreneur and entrepreneurship, entrepreneur and enterprise, entrepreneur and manager. Theories of entrepreneurship: Sociological theory, economic theory, cultural theory, psychological theory. Types, characteristics and functions of an entrepreneur. Forms of entrepreneurship: (Sole proprietorship, partnership, corporation, cooperative, joint stock company, Private and Public Limited Company). Introduction to financial management: concept, function, analysis of financial statement, sources of capital (banks, venture capitals, etc.). Project appraisal- Introduction, importance, techno-economic feasibility, criteria of project evaluation (discounted and non-discounted), capital budgeting, etc. Business plan for enterprise. Institutions promoting entrepreneurship in India. Entrepreneurship development programmes. Accounting: objectives, common terms. Personnel management-identification of work, job analysis, division of labour etc. Resource management- organization aspect of livestock farms, resources and procurement of inputs and financial resources, breakeven- analysis etc.

UNIT-8 (INFORMATION AND COMMUNICATION TECHNOLOGY)

Strengths and limitations of ICTs application in livestock sector and farmer's capacity building. Information kiosk, E-learning, CAD, virtual classroom, virtual reality, multi-media etc. Cyber extension- problems and prospects in livestock

extension. Computer networking: (LAN, MAN, WAN, Internet, tele-conferencing, tele-text, radio-text, video-text, interactive cable distribution system, satellite communication, internet, www, etc.).

UNIT-9 (CONTEMPORARY ISSUES IN LIVESTOCK ENTERPRISES)

Gender and animal husbandry- definition, difference between gender and sex, role of women in animal husbandry, gender sensitization, importance of gender sensitization in animal husbandry, need for gender analysis, gender budgeting and mainstreaming. Salient features of recent livestock census, livestock insurance scheme, national livestock mission. Sustainability- concept of sustainability of livestock production system (social, environmental and economic challenges faced). Introduction to environmental consequences of livestock rearing. Animal welfare: Introduction to animal welfare, ethics and rights. Importance of animal welfare in the contemporary society. Expectations from veterinary professionals.

PRACTICAL

UNIT-1 Tools of data collection: Preparation of instrument for conducting social survey; Visit to nearby village: Conducting social survey for assessment of farming system and constraints; Data analysis and reporting; Organizing demonstration for farmers; identification of key communicators by Socio-metric method; Familiarization with audio visual aids; Principle and use of projectors; Preparation of Radio Script Preparation of Television script; Preparation and use of poster; Preparation and use of chart; Preparation and use of flash cards; Preparation and use of farm publications for extension work; Planning and organizing an awareness campaign (Health and Production); Planning and organization of animal health camps; Exercise on rapid rural appraisal (RRA).; Exercise on participatory rural appraisal (PRA) technique; Planning and organization of group discussion.

UNIT-2 Rules of debit and credit in livestock business transactions. Journal Entry and Ledger Posting. Writing of Cash Book. Balancing and preparation of final accounts. Exercise on calculation of depreciation. Visit to commercial enterprises of livestock production. Preparation of dairy entrepreneurial project report. Preparation of sheep and goat entrepreneurial project report. Preparation of poultry entrepreneurial project report. Preparation of piggery or rabbit entrepreneurial project report. Techno-economic feasibility report. Exercise on Break-even analysis. Exercise on BCR, IRR and NPW. Case study of successful entrepreneurial project. Visit to livestock market. Visit to livestock fair. Exercise on economics of diseases

Examination system:

Examination	Papers	Units	Maximum marks	Weightage
Internal Assessment	First	30 % (Unit 1 and 2)	40	10
	Second	60 % (Unit 3 and 4)	40	10
	Third	90 % (Unit 5 and 6)	40	10
Annual Board	Theory			
	Paper-I Paper-II	Unit 1,2,3,4, and 5 Unit 6,7,8 & 9	100 100	20 20
	Practical			
	Paper-I Paper-II	Unit 1,2,3,4, and 5 Unit 6,7,8 & 9	60 60	20 20

Post-graduate education

M.V.Sc. (Veterinary Extension Education) Course details

Course Code, Course Title & Credit Hours
EXT 601 Development Perspectives of Extension Education (2+1=3)
EXT 602 Communication for Livestock Development (1+1=2)
EXT 603 Diffusion and Adoption of Innovations (2+1=3)
EXT 604 Programme Planning and Evaluation (1+1=2)
EXT 605 Research Methodology (2+1=3)
EXT 606 Social Psychology and Group Dynamics (1+1=3)
EXT 607 Livestock Entrepreneurship (1+2=3)
EXT 608 Human Resource Management in Animal Husbandry Sector (1+1=2)
EXT 609 Gender Empowerment and Livestock Development (1+0=1)
EXT 610 Farm Journalism (1+1=2)
SSS 600 Statistics for Social Sciences (2+1=3)
EXT 611 Masters Seminar (1+0=1)
EXT 612 Masters Research (0+30=30)

Ph.D. in Veterinary Extension Education Course details

Course Code, Course Title and Credits
RPE 700 Research and Publication Ethics (1+1=2) #
EXT 701 Organizational Leadership and Management (2+0 =2)
EXT 702 Recent Trends in Research Techniques in Social Sciences (2+1=3)
EXT 703 Training for Development (1+1=2)
EXT 704 Policies and Regulations in Livestock Sector (1+0=1)
EXT 705 Educational Technology (2+1=3)
EXT 706 Dynamics of Social Change (2+0=2)
EXT 707 Monitoring and Evaluation of Livestock Development Programmes (2+1=3)
EXT 708 Theory Constructions in Social Sciences (1+0=1)
EXT 709 Facilitation for Development (2+1=3)
EXT 710 Managing Extension Organizations (2+1=3)
EXT 711 Doctoral Seminar-I (1+0=1)
EXT 712 Doctoral seminar-II (1+0=1)
EXT 713 Doctoral Research (0+75=75)

Mandatory Major course for all Ph D. students. Other Core Courses to the extent of 10 credits are to be taken from remaining 700 series courses listed above

List of specified Minor Subjects for Major Subject *Veterinary Extension Education

Animal Nutrition, Poultry Science, Livestock Production Management, Public Health and Epidemiology, Livestock Economics, Statistics, LPT.

*The Minor courses may be taken from any number of disciplines/ departments listed against major discipline limiting to credits prescribed as decided by the Chairman of Advisory Committee of the student. Minor courses may also be taken from the disciplines/ departments other than those listed above on the recommendations of advisory committee, if essentially required as per the research problem with the concurrence of Head of the Department and Concerned Authorities.

Examination system:

Sr. No.	Examination	Theory	Practical
1.	Self-study (Assignment/ Presentation)	20	-
2.	Internal tests: First Test Mid Term Test	10 20	- 50
3.	Semester End Examination	50	50
	Total Marks	100	100

Contact details

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