



**PROCEEDINGS OF THE DIRECTORATE OF ACADEMICS AND RESEARCH  
KERALA VETERINARY AND ANIMAL SCIENCES UNIVERSITY  
Pookode, Wayanad – 673576**

**(Abstract)**

KVASU- DAR- Academics- Starting a Diploma course in Livestock Management by the Department of Livestock Production Management at College of Veterinary and Animal Sciences, Mannuthy- Sanctioned- Orders issued.

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No. KVASU/DAR/B1/1721/2023(6)

Dated, , 07/02/2025

Read: 1. Minutes of 39th meeting of Academic Council (Item 39.E.10) held on 10/12/2024  
2. Minutes of 47th meeting of Management Council ( Resolution No. 8 ) held on 22/08/2024

**ORDER**

A proposal for starting 'Diploma in Livestock Management' with syllabus and comments from two experts, was placed in the 23rd meeting of Board of Studies of Faculty of Veterinary and Animal Sciences, KVASU by the HoUD, Department of Livestock Production Management, College of Veterinary and Animal Sciences, Mannuthy. Suggestions of Board of Studies were incorporated in the proposal and the proposal was placed before the 39th Academic Council for approval. The Academic Council has discussed the matter in detail and the following orders are issued.

1. The proposal to start a Diploma course in Livestock Management by the Department of Livestock Production Management, College of Veterinary and Animal Sciences, Mannuthy is hereby approved with the following modifications in the syllabus .

- a) Eligibility of candidate should be modified as pass in Plus Two or pass in VHSE/NSQF.
- b) The number of seats is modified as 32, instead of 30.
- c) Under the Budget head, the income and expenditure should be equal.

**Prof. (Dr.) C. Latha**  
**DIRECTOR (ACADEMICS & RESEARCH)**

**Proposal for starting Diploma in Livestock Management by the Dept. of Livestock Production Management, College of Veterinary and Animal Sciences, Mannuthy**

**Associating Departments:** Dept. of Poultry Science, Dept. of Veterinary Anatomy, Dept. of Veterinary Physiology, Dept. of Animal Nutrition, Dept. of Veterinary Pharmacology and Toxicology, Dept. of Animal Reproduction Gynaecology and Obstetrics, Dept. of Clinical Veterinary Medicine, Ethics and Jurisprudence and Dept. of Veterinary Epidemiology and Preventive Medicine.

- |                                       |   |   |
|---------------------------------------|---|---|
| 1. Title of the programme             | : | <b>Diploma in Livestock Management</b>  |
| 2. Nature of the programme            | : | Full time   |
| 2. Justification for the Proposal     | : | Attached separately   |
| 3. Faculty                            | : | Faculty of Veterinary & Animal Sciences   |
| 4. Duration                           | : | Two semesters   |
| 5. Degree awarded                     | : | Diploma in Livestock Management   |
| 6. Total credits                      | : | Theory + Practical      15 + 15   |
|                                       |   | Total                              30   |
| 7. Department offering the programme: |   | Dept. of Livestock Production Management<br>Associating Departments: Dept. of Poultry Science, Dept. of Veterinary Anatomy, Dept. of Veterinary Physiology, Dept. of Animal Nutrition, Dept. of Veterinary Pharmacology, Dept. of Animal Reproduction Gynaecology and Obstetrics, Dept. of Clinical Veterinary Medicine, Ethics and Jurisprudence and Dept. of Veterinary Epidemiology and Preventive Medicine, CVAS, Mannuthy. |
| 8. Year of start                      | : | Academic year 2024 or later   |
| 9. Eligibility of candidates          | : | Pass in Plus-Two or Pass in VHSC  |
| 10 Selection procedure                | : | As per the procedures adopted by the  |

## KVASU for Diploma courses

|                                |   |   |
|--------------------------------|---|---|
| 11. Course Takers              | : | Inservice candidates or Labourers who full fills the above criteria   |
| 12. No. of Seats               | : | 30  |
| 13. Fee structure              | : | Rs. 31500/semester  |
| 14. Training                   | : | Farm training for a specific period will be provided in various farm units of the university during the course  |
| 15. Examination                | : | Examination as per common regulation of KVASU for diploma programmes. The pass mark will be 60% for each course, separate for theory and practical. Minimum attendance of 80% is mandatory for appearing in the examination |
| 16. Examination Fees           | : | As per common regulation of KVASU for diploma programmes.   |
| 17. Additional space required  | : | 50 x 50 sq.ft classroom with Jefferson chairs, whiteboard and audio-visual aids.<br><br>100 x 100 sq. ft laboratory space with work bench, tables, lab stools and racks for conducting practical.                           |
| 18. Present staff position     | : | Professors 3<br>Associate professor 3<br>Assistant Professor 2  |
| 19. Additional staff required  | : | Instructors-Two Nos (BVSc & AH)<br>One Office Assistant cum data entry operator (Plus Two with DCA and typing skill.)   |
| 20. Equipment required, if any | : | Will be purchased utilizing the funds as  |

- shown in the budget for the purchase for IT /Electrical / Electronic / maintenance / accessories may be provided
21. Course contents : Detailed syllabus attached
22. Whether sufficient thought & discussion was made in finalizing the proposal including discussion at departmental level : Yes
23. Attach the syllabus review report : Attached  
of at least one outside expert
24. Has the syllabus been compared : Yes  
with similar programmes in and outside India
25. Attach list of Equipment : Equipment will be decided and purchased when required from the funds available as shown in the budget without exceeding the limit.

### **Justification for the proposal:**

The livestock sector is a critical component of agriculture, contributing significantly to the economy, food security and livelihoods in the state of Kerala. As the human population continues to grow, the demand for animal products such as meat, milk and eggs is expected to rise, necessitating efficient and sustainable livestock management practices. To address the emerging challenges and opportunities in this sector, there is an urgent need for well-trained personals who can implement modern techniques of livestock management. The proposed Diploma in Livestock Management is designed to fill this gap by providing skilled, trained personals to excel in this vital field.

The livestock industry is undergoing rapid transformation, driven by technological advancements, changing consumer preferences, and the need for sustainability. Post-COVID era has seen a revolution in animal husbandry sector, animal care and veterinary hospitals. All these has resulted in the prerequisite of trained and skilled para-veterinarian in the state. This diploma programme on 'Livestock management' is intended to equip students with practical and theoretical knowledge, making valuable assets to cater the need for the public organisations

and private enterprises. This diploma programme is envisaged in the KVASU statute as a prerequisite for direct selection and internal selection of farm assistants.

#### Semester-wise distribution of credits

| Semester No.       | Course No.  | Title of Course   | Credits       |
|--------------------|-------------|---|---------------|
| <b>Semester I</b>  | DAN 011     | Basic Animal Anatomy  | 1+1           |
|                    | DPY 011     | Basic Animal Physiology                                     | 1+1           |
|                    | DPH 011     | Basic Pharmacy  | 1+1           |
|                    | DNU 011     | Basic and Applied Livestock Nutrition                       | 1+1           |
|                    | DAH 011     | Basic Animal Husbandry                                      | 2+2           |
|                    | DFT 011     | Farm Training-1   | 0+2           |
| <b>Semester II</b> | DAH 021     | Basic Poultry Husbandry                                     | 1+1           |
|                    | DAB 021     | Applied Animal Reproduction                                 | 2+1           |
|                    | DAB 022     | Artificial Insemination                                     | 2+2           |
|                    | DPM 021     | First-aid and Animal Health Care Management-I               | 2+0           |
|                    | DPM 022     | First-aid and Animal Health Care Management-II              | 2+1           |
|                    | DFT 021     | Farm Training-2   | 0+1           |
|                    | DIT 021     | Farm Data Management, Record Keeping & Android Applications | 0+1           |
| <b>Summary</b>     | Grand Total |   | 15+15 =<br>30 |

### DAN 011-BASIC ANIMAL ANATOMY- (1+1)

**Theory:** Introduction: branches of anatomy, **Systematic anatomical study of domestic animals and poultry.** **Skeletal system:** Types of bones, classification of skeletal system. Forelimb, hindlimb, skull, vertebral column, ribs, sternum. Salient difference in goat, pig, dog and fowl. **Position of organs in situ.**

**Digestive system:** Cattle: Lips, tongue, teeth, salivary glands, pharynx, oesophagus, ruminant stomach, intestine, liver, pancreas, spleen. Comparison with goat, pigs, dog and fowl

**Respiratory system:** Cattle: Nasal cavity, pharynx, larynx, trachea, bronchi, lungs, thyroid, thymus. Comparison with goat, pigs, dog and fowl

**Urogenital system:** Cattle: Urinary system, kidney, urinary bladder. Comparison with goat, pigs, dog, fowl. The male genital organs-Bull, buck, boar, dog, fowl. The female genital organs- Cow, doe, sow and fowl. Mammary glands: structure of udder.

**Circulatory system:** Blood vascular system, heart, the blood vessels, Important veins

**Lymphatic system:** Lymph glands, lymph circulation

**Integumentary system:** Skin, sense organs

**Nervous system:** General features

**Endocrine system:** General features

**Injection site in different animals, site for nose punching, site for tagging, Site for microchipping**

**Practical:** Descriptive terms and body parts, Skeleton of ox, pig and fowl, **Body parts** of cattle, Muscular system. Boundaries of the body cavities. Digestive system, Respiratory system, urinary system, shape of kidney in different animals, Urinary bladder-parts. Genital system: male reproductive system, female reproductive system, genital organs of cow, mammary glands/udder of cow. Circulatory system: General features. Identification of bones, joints and organs of different species.

### DPY 011-BASIC ANIMAL PHYSIOLOGY- (1+1)

**Theory:** Assessing physiological status: Normal values of respiration, pulse and temperature, rumen motility.

**Digestive system:** carnivore, herbivore, omnivore

Steps in digestion: Digestion in stomach: Digestion in simple stomach, digestion in ruminant stomach, Digestion of carbohydrates, protein and non-protein nitrogen, fat digestion Digestion in the small intestine: intestinal movements, pancreatic juice, liver, intestinal juice. Digestion in the large intestine, Absorption of digested food, Avian digestive system.

**Nervous system, Endocrine system, Respiratory system, Excretory system, Urinary system.**

**Circulatory system:** Major functions of cardiovascular system, red blood cells, white blood cells, platelets, physiology of circulation.

**Collection & preservation of clinical materials for laboratory examination:** Urine, feces, milk, skin scrapping, Nasal discharge.

**Practical:** Compound microscope, setting up of microscope for examination, preparation of slides, dung sample, etc. Introduction to haematology, haemocytometry, Enumeration of erythrocytes, Enumeration of leucocytes, Collection of ruminal fluid and its preservation, counting of rumen motility, Determination of pH and protozoa motility in rumen liquor, Recording of respiration rate in domestic animals. Measurement of physiological vitals (Body temperature, pulse rate, respiration rate). Urine analysis, Normal constituents of urine. Collection and handling of swabs

### DPH 011-BASIC PHARMACY- (1+1)

**Theory:** Definition of common terms, Pharmacological definitions, Source of drugs, Types of Official Drug Preparations, Solid preparations intended for internal use, Commonly Available Liquid preparations for internal use, Solid preparations for External use, Liquid preparations for External use, Metrology, Adverse Drug Reactions, Pharmacy Management: Furniture and Equipment required in dispensing, Precautions while handling drugs in a pharmacy, Records & Registers, Maintenance of Cold Chain, Transportation of vaccines, Storage of vaccines, Precautions to be taken while using vaccines in field, Common Galenical Preparations Used in Veterinary Dispensaries: Galenical Drugs, Action wise classification of Galenicals, Common Routes of administration of drugs- Oral Route, Subcutaneous route, Intramuscular route, Intravenous route.

**Practical:** Terms used in prescription writing, understanding a prescription, Types of Prescription, Metrology Practicals, Instruments and equipment used in Pharmacy, labelling packing and forwarding. Preparation of solutions of various strengths, Familiarization of pharmacy, Compounding, Dispensing & Routine Preparation of official Drug preparations, Preparation and dispensing of Ointment, Preparation and dispensing of mixture, Preparation and dispensing of Paste, Preparation and dispensing of Lotion, Preparation & dispensing of Powders, Preparation & dispensing of Electuary, Administration of drugs in live domestic animals, Anti-Microbial Resistance (AMR), How Anti-Microbial Resistance develops in humans and animals, How to avoid Anti-Microbial Resistance, Formulations using Galenicals. Aseptic protocols in various sample collection. Segregation and disposal of veterinary hospital waste.

### DAN 01- BASIC AND APPLIED LIVESTOCK NUTRITION (1+1)

**Theory:** Nutrition and Feeding: Functions of feed, water, carbohydrates, digestion of carbohydrates, lactacidosis, proteins, biological value of protein, lipids, protected fat/protein (Bypass fat/protein) Minerals, major elements, vitamins, deficiency diseases, feeding of cattle, ration, balanced ration, total mixed ration (TMR), feeding of different class of dairy animals and thumb rules of feeding, challenge feeding, steaming-up, feeding of calves up to six months, feeding of heifers, feeding of pregnant cows, feeding of bulls, non-conventional feeds, hydroponics, toxic plants

Forage crops cultivation and preservation, cultivated forage grasses, forage legumes, cereal fodder, forage trees, cultivation practices of fodder, forage conservation. Unconventional feed sources commonly available in Kerala.

**Practical:** Identification of different feed ingredients, Nutrient content of different feed ingredients, Collection, packing and despatch of feed samples, identification of fodder varieties. Cultivation of fodder in a demonstration plot. Feed preparation in feed mill.



### DAH 011- BASIC ANIMAL HUSBANDRY-(2+2)

**Theory:** Introduction, common technical terms,

**Dairy Husbandry:** taxonomy of cattle, breeds of cattle, methods of identification, handling and restraining of cattle, construction of cattle shed, loose housing system, free stall system, routine dairy farm operations-biosecurity, quarantine, isolation, vaccination, disposal of carcass, grooming, deworming, castration, disbudding, estimation of body weight, record keeping

Equipment/machines used in modern dairy farms selection and culling of dairy cattle, summer management of dairy cattle, farm waste management, licensing of livestock farms.

Milking of animals, machine milking, advantages of milking machine, disadvantages, hand milking, clean milk production, cleaning and sanitation of dairy utensils, practices for mastitis control.

**Milk:** Composition of milk, pricing policy of milk, factors affecting the composition of milk, platform tests for collection of milk in a dairy, common types of bacteria found in milk, processing of milk-chilling, pasteurization, condensation, drying of milk. Milk products, traditional products, common adulterants of milk.

**Buffalo Husbandry:** Introduction, breeds of buffaloes, housing, breeding parameters, buffaloes for meat.

**Goat Husbandry:** Introduction, demography, products obtained from goat, advantages of goat farming, systems of goat rearing, challenges to goat rearing in Kerala, common technical terms, breeds of goat, breeding programme for Kerala, criteria for selection, housing of goat, Reproduction, artificial insemination, stages of parturition, Feeding: milk feeding of kids, feeding of kids, feeding of buck and does, record keeping.

**Swine Husbandry:** Introduction, demography, advantages of pig farming, common technical terms, breeds of pigs, systems of pig rearing, housing, feeding: (sow with litter, creep feeding, feeding of growing and finishing pigs, swill feeding. Care and management-general guidelines, boars, pregnant sow & gilt, farrowing sow & litter, growing and finishing pigs, orphaned piglets, manure disposal.

**Rabbit Husbandry and Laboratory Animals:** Introduction, common terms, advantage of rabbit farming, breeds of rabbit suitable for Kerala, housing, colony cages, feeders and waterers, handling and restraint, feeding and feeding schedules, conventional and unconventional feeds for rabbits, reproduction-breeding chart and normal values of reproduction, coprophagy, common disease of rabbits.

**Practical:** Visit to dairy farm, body parts of a cow, handling and restraining of animal identification of common tools used in animal farms, methods of identification of animals, identification of breeds of cattle. Body condition score of animals. Recording body weight of cattle and estimation of body weight. Dentition and ageing of cattle, Hoof management, Casting of cattle, lifting devices, Calculation of Herd average, Wet average, Farm evaluation techniques, cow comfort index, stall standing Index. Farm records and data entry systems.

Labour norms and labour management. Sanitation and Hygiene of cattle shed. Control of mastitis, Milking machine and its parts

### **DAH 012-BASIC POULTRY HUSBANDRY-(1+1)**

**Theory:** Introduction, Poultry sector-national scenario, poultry husbandry in Kerala, advantages of poultry farming, common technical terms, body parts of fowl, general classification of chicken, classes of fowl, housing and management, systems of poultry: Free range, semi intensive, backyard, intensive-deep litter, cage, construction of poultry shed, litter management, equipment required in poultry farms, manurial value of litter, cage or batter system, californian cages, homestead cages

**Feeds and feeding:** Chick feed, grower feed, layer feed, finisher feed

**Commercial layer management:** Chick management, brooding and rearing of chicks, artificial brooding, floor brooding-requirements. Brooding management, Grower management, Layer management, lighting management, deworming, ectoparasitic control, debeaking, dubbing/, collection, handling, grading, storage, transport and marketing of table eggs. Nutritive value of eggs, structure of eggs, formation of eggs, selection and handling of hatching eggs. Care and management of hatching eggs, Incubation.

**Broiler production:** common broiler breeds, broiler production system, housing and management of commercial broilers, lighting, feeding of broilers, feeders and drinkers, Targets of production, feed conversion ratio. Processing of broilers: steps in processing. marketing.

**Duck Production:** Advantages of duck farming, breeds of ducks, systems of duck farming, layer duck management, brooder, grower, layer, pen cum run system, nomadic system, feeds and feeding, broiler duck management, handling of hatching eggs.

**Quail Production:** Advantages of quail farming, Layer quail management, brooder management, grower management, layer management. Broiler quail management.

**Turkey Production:** Common terms, breeds reared in India, general management, incubation, water hygiene. **Goose production, Emu, Ostrich**

**Poultry farm sanitation and disinfectants:** Fumigation, disinfectants, protocols to be adopted in farms to combat biological threats in farm. stress management, summer management.

**Incubation and Hatchery management:** Hatchery, different sections of hatchery, hatchery schedule, principles of incubation-temperature, humidity, ventilation, position of eggs, turning of eggs, sorting of chicks, sexing of chicks, vaccination.

**Common deficiency diseases:** Vitamin deficiency, mineral deficiency, metabolic disorder-visceral gout, fatty liver haemorrhage syndrome. Farm licensing rules. **Poultry farm waste management.**

**Practical:** Common breeds of poultry, Economic traits of layer and broilers, AI in poultry, Housing and design of a poultry farm, Poultry farm equipment, Brooding arrangements. Calculation of economic indices. Judging of layers. Poultry feed preparation in feed mill. Vaccination, debeaking, poultry processing, candling of eggs in hatchery, setter, hatcher and brooder management. Chick sexing. Licensing of farm and pollution control norms.

### DAB 021-APPLIED ANIMAL REPRODUCTION-(2+1)

**Theory:** **Breeding**, Systems of breeding, Inbreeding, Out-breeding, Out crossing, Grading up, Cross breeding, Species hybridization, Selection. **Functional anatomy of the female reproductive system, Production of hormones. Hormonal control of reproduction, Functional Anatomy of male reproductive system, Reproductive cycle**, Signs of Heat, Age at first calving and Calving interval. Pregnancy and Parturition, Fertilization, Gestation, **Pregnancy Diagnosis** (Rectal Method), Detection of pregnancy at various stages, The external indications of pregnancy, **Differential Diagnosis of pregnancy examination**, Mummification of foetus, The Maceration of foetus, Pyometra, Mucometra or Hydrometra, Early Embryonic death or foetal death with abortion or possible resorption, **Parturition**, Dystocia, Retention of Foetal Membranes (RFM), **Common causes of infertility and sterility, Abortion**, Brucellosis, Vibriosis, Trichomoniasis, **Management Factors, Repeat breeder**, Castration, Purpose of Castration, Optimum Age for castration, Methods of castration.

**Practical:** Study of female genital organ using slaughter house specimens-Oestrus detection aids, Technique of rectal palpation of female reproductive tract. Gynaecological equipment and instruments.

### DAB 022-ARTIFICIAL INSEMINATION (2+2)

**Theory:** Artificial Insemination, Evaluation of Semen: Deep freezing of semen: Equipment required for artificial insemination, Handling of Frozen Semen Insemination with the gun: Technique of Insemination: Advantages of rectovaginal method, Common errors committed during A.I, Life of spermatozoa in the female genital tract, Life of ovum in the female genital tract, Time of ovulation, Double insemination, Procedure of Rectal examination, Sexed Semen or Sex sorted semen: Advantages, limitations Embryo Transfer Technology: Artificial Insemination (AI) in Goat: Selection of Bulls, Breeding policy of Kerala, Sterilization of appliances and equipment, **Records and Registers**, Cattle survey register, Artificial Insemination Register, Semen account register, Semen Account Passbook, Semen discard register, Field note book of livestock inspectors, Infertility Register, Movement register, Calf Birth Register, Deworming register, Register of Castration, Care form register and TR5 receipt, Daily receipt book, Cash book, Reproductive health control programme, **Standard Operating Procedures for Artificial Insemination and Semen Handling**, Insemination Technique, Post Insemination Advice to Farmers, Post insemination follow-up.

**Practical:** Handling and shipment of frozen semen and liquid nitrogen container at field level, practicing artificial insemination, Measurement of liquid nitrogen in the container and recording. Care, sterilization, storage and upkeep of equipment used for artificial insemination. Sterilization of glass wares, Sterilization of artificial vagina, Procedure for inner liner and cone Semen collection. Breeding registers, maintenance of registers.

### DPM 021-FIRST AID AND ANIMAL HEALTH MANAGEMENT (2+0)

**Theory: First aid:** Inflammation, wounds, hematoma, Healing of Wounds, Maggot wounds (Cutaneous Myiasis), First aid of wounds, Fracture, First aid for fracture, First aid for dog bite, first aid for snake bite, Foot lesion, Evulsions, Bandages and bandaging.

Suppuration and abscess, Necrosis and gangrene, Ulcer, Prolapse, Preparation of the site of operation. First Aid in Common Ailments- Indigestion, Bloat, Enteritis (Diarrhoea), Dysentery, Impaction, Constipation, Cough, Management of Livestock during Disasters, Hoof management First aid kit.

**Diseases:** Hereditary, Congenital and Acquired Diseases, General and Local Diseases, Structural and Functional Diseases, Contagious and Non-Contagious Diseases, Infectious disease, Contagious diseases, Classification of diseases based on occurrence, Incidence of contagious diseases in Kerala, Zoonotic diseases, Health, Signs of health in animals, Temperature, Pulse, Respiration. General measures for dealing with outbreaks of contagious and infectious diseases, Isolation, quarantine, disinfection, disinfection in outbreaks, destruction of affected animals, disposal of carcass, notification,

Diseases of cattle, Diseases of swine, Diseases of goats, Diseases of poultry: Diseases of ducks,

**Common parasitic infestations in animal. Deworming schedule of cattle, goats, pigs, dogs & poultry. Protozoan diseases in cattle. Protozoan diseases in poultry, Diseases due to insects and ectoparasites. Zoonotic diseases-Bacterial zoonoses. Rickettsial zoonoses. Fungal zoonoses: Parasitic zoonoses, Metabolic diseases: Metabolic diseases of cattle- Metabolic diseases of goats, Nonspecific diseases of cattle, Management of downer animals, Nonspecific diseases of goats- Diseases due to toxins in animals & birds. Hospital management and client management. Disaster management strategies.**

### DPM 022-DISEASE PREVENTION AND CONTROL (2+1)

**Theory: Immunisation:** Immunity, Active immunity, Passive immunity, Antigen, Antibody, Vaccine, Antiserum, Vaccination and Inoculation, Serum, Simultaneous method of control or immunization, Infectious agents that cause diseases in animals. **Vaccination in domestic animals and birds:** vaccination schedule for cattle. Vaccination schedule for goats. Vaccination schedule for pigs. Vaccination schedule for broilers. Vaccination schedule for layers. Vaccination schedule for commercial ducks. **List of vaccine manufacturers. Collection, preservation and despatch of clinical materials for laboratory examination: General considerations for collection of specimens:** Collection Procedure of different non-invasive biological material/specimen, Milk, Faeces, Urine, Pus, Nasal/throat/uterine discharges, Exudates/transudates and body fluids, Tissue, blood and exudates. Preparation of smears, Preservation of materials for specific examination: Bacteriological/ Mycological, Virological, Parasitological, Serological tests, Histopathological, Toxicological, **Despatch of Samples to Animal Health Laboratories: Composition of common preservatives /transport media. Disease control programmes. Operational guidelines for national animal disease control programme (NADCP) for foot and mouth disease (FMD) and brucellosis.** States Monitoring Unit (SMU), District Monitoring Unit (DMU), Activities under NADCP for FMD and Brucellosis, Details of work plan with technical indicators for NADCP-BCP, **Sero monitoring.** FMD pre and post vaccination sero-monitoring under NADCP, Sampling strategy followed for post vaccination monitoring, Collection and transport of serum samples, **State animal disease emergency response cell (SADEC)**

**Practical:** Principles of Vaccination, Different types of vaccination, Common vaccines used in animals, handling of vaccines, Maintenance of cold chain, Test for urine & Milk, Sterilization of glass wares used in Hospitals, Familiarization of surgical instruments, Preparation of surgical packs, Sterilization of Instruments. Preparation of surgical site, Different bandaging and splint techniques. Wound cleaning, Irrigation & wound dressing and bandaging, Examination of fecal samples, Examination of blood for diagnosis of parasitic disease, Examination of skin scrapings. Emergency reporting.

#### **DIT 021 FARM DATA MANAGEMENT, RECORD KEEPING & ANDROID APPS (0+1)**

**Practical:** Introduction to livestock and poultry statistics, census, Current production of milk, meat and eggs. **MS word:** Creating and formatting documents, working with table, drafting letters, preparation of notice.

**MS Excel:** Creating formatting work sheets, inserting charts, familiarizing mathematical and statistical function. Data Management

**MS Power point:** Creating presentation,

**Internet:** Web browsing, email communication, Android applications in animal husbandry

#### **DFT 011 FARM TRAINING (0+2)**

#### **DFT 021 FARM TRAINING (0+2)**

#### **BUDGET**

|          |   |  |   |                       |
|----------|---|--|---|-----------------------|
| <b>A</b> | Income  | Tuition fee 31500  | 31500/student /semester x 2 semesters x 30 students | <b>18,90,000/year</b> |
| <b>B</b> | Expenditure   | Instructors- 2 Nos                                       | 360000 / year                                       |                       |
|          | <b>LPM/Poultry, Anatomy/Physiology, Nutrition/Pharmacology , Gynaecology/Medicine</b> |  |   |                       |
|          |   | One Office Assistant cum data entry operator             | 60,000 / year                                       |                       |
|          |   | Biologicals & Labware                                    | 200000 / year                                       |                       |
|          |   | Teaching aids & Stationary                               | 50000 / year  |                       |
|          |   | IT / Electrical / Electronic / equipment / accessories / | 400000 / year                                       |                       |

|  |                              |                 |                 |                      |
|--|------------------------------|-----------------|-----------------|----------------------|
|  |                              | maintenance     |                 |                      |
|  |                              | <b>Total</b>    | <b>10,70000</b> |                      |
|  | <b>Total Expenditure:</b>    | <b>10,70000</b> |                 |                      |
|  | <b>Institutional Charges</b> | @30%            | <b>5,67,000</b> |                      |
|  | <b>Grand Total</b>           |                 |                 | <b>1637000/ year</b> |

**Re-appropriation of the funds under different heads may be allowed without exceeding the total limit. The expenditure allowed may be proportionate to the number of students admitted and tuition fees collected every year to make this course financially viable and self-reliant.**

### **Summary**

**Total Receipts : 18,90,000 / Year**

**Total Expenditure including overhead Charges : 16,37000 / Year**