



॥ मा विद्या या विमुक्तये ॥

परिपत्रक - 067 (1) ST

स्वामी रामानंद तीर्थ मराठवाडा विद्यापीठ, नांदेड

SWAMI RAMANAND TEERTH MARATHWADA UNIVERSITY, NANDED

'ज्ञानतीर्थ', विष्णुपुरी, नांदेड - ४३१ ६०६ (महाराष्ट्र राज्य) भारत

'Dnyanteerth', Vishnupuri, Nanded - 431 606 (Maharashtra State) INDIA

Established on 17th September, 1994, Recognized By the UGC U/S 2(F) and 12(B), NAAC Re-accredited with 'B++' grade

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विज्ञान व तंत्रज्ञान विद्याशाखे अंतर्गत राष्ट्रीय शैक्षणिक धोरण २०२० नुसार पदवी प्रथम वर्षाचे अभ्यासक्रम (Syllabus) शैक्षणिक वर्ष २०२४-२५ पासून लागू करण्याबाबत.

परिपत्रक

या परिपत्रकान्वये सर्व संबंधितांना कळविण्यात येते की, या विद्यापीठा अंतर्गत येणा-या सर्व संलग्नित महाविद्यालयामध्ये शैक्षणिक वर्ष २०२४-२५ पासून पदवीस्तरावर राष्ट्रीय शैक्षणिक धोरण -२०२० लागू करण्याच्या दृष्टीकोनातून विज्ञान व तंत्रज्ञान विद्याशाखे अंतर्गत येणा-या अभ्यासमंडळांनी तयार केलेल्या पदवी प्रथम वर्षाचे अभ्यासक्रमांना मा. विद्यापरिषदेने दिनांक १५ मे २०२४ रोजी संपन्न झालेल्या बैठकीतील विषय क्रमांक १५/५९-२०२४ च्या ठरावाअन्वये मान्यता प्रदान केली आहे. त्यानुसार विज्ञान व तंत्रज्ञान विद्याशाखेतील खालील बी. एस्सी प्रथम वर्षाचे अभ्यासक्रम (Syllabus) लागू करण्यात येत आहेत.

- 1) B. Sc. I year - Botany
- 2) B. Sc. I year - Seed Technology
- 3) B. Sc. I year - Horticulture
- 4) B. Sc. I year - Geology
- 5) B. Sc. I year - Dairy Science
- 6) B. Sc. I year -Electronics
- 7) B. Sc. I year - Environmental Science
- 8) B. Sc. I year - Fishery Science
- 9) B. Sc. I year - Mathematics
- 10) B. Sc. I year - Microbiology
- 11) B. Sc. I year - Agricultural Microbiology
- 12) B. Sc. I year - Physics
- 13) B. Sc. I year - Food Science
- 14) B. Sc. I year - Computer Science (N M D College Hingoli)

सदरील परिपत्रक व अभ्यासक्रम प्रस्तुत विद्यापीठाच्या www.srtmun.ac.in या संकेतस्थळावर उपलब्ध आहेत. तरी सदरील बाब ही सर्व संबंधितांच्या निदर्शनास आणून द्यावी, ही विनंती.

'ज्ञानतीर्थ' परिसर,

विष्णुपुरी, नांदेड - ४३१ ६०६.

जा.क्र.:शौ-१/एनइपी/विवत्रविपदवी/२०२४-२५/१११

दिनांक १२.०६.२०२४

प्रत : १) मा. आधिष्ठाता, विज्ञान व तंत्रज्ञान विद्याशाखा, प्रस्तुत विद्यापीठ.

२) मा. संचालक, परीक्षा व मुल्यमापन मंडळ, प्रस्तुत विद्यापीठ.

३) मा. प्राचार्य, सर्व संबंधित संलग्नित महाविद्यालये, प्रस्तुत विद्यापीठ.

४) मा. संचालक, सर्व संकुले परिसर व उपपरिसर, प्रस्तुत विद्यापीठ

५) मा. प्राचार्य, न्यू मॉडल डिग्री कॉलेज हिंगोली.

६) सिस्टीम एक्सपर्ट, शैक्षणिक विभाग, प्रस्तुत विद्यापीठ. याना देवून कळविण्यात येते की, सदर परिपत्रक संकेतस्थळावर

प्रसिध्द करण्यात यावे.

डॉ. सरिता लोसरवार

सहा.कुलसचिव

शैक्षणिक (१-अभ्यासमंडळ) विभाग

SWAMI RAMANAND TEERTH
MARATHWADA UNIVERSITY,
NANDED - 431 606 (MS)



(Credit Framework and Structure of Four Year UG Program
with Multiple Entry and Exit Option as per NEP-2020)

**UNDERGRADUATE PROGRAMME
OF SCIENCE & TECHNOLOGY**

SUB - DAIRY SCIENCE

Major in **DSC** and Minor in **DSM** (Subject)

Under the Faculty of Science & Technology

*(Revised as per the Govt. Of Maharashtra circular
Date 13th March 2024)*

B.Sc. F.Y. Semester - I

Title- Perspectives of livestock farming in India:

Paper No. : SDRSCT-1101

Marks-50/credit 2

2 Hours / week

Module No.1. 8Hrs

Unit : I

- 1.1 Introduction to the subject.
- 1.2 Common terminology used in animal husbandry.
- 1.3 Taxonomic classification of Dairy animals.
- 1.4 Argo-climatic zones in India.

Module No.2 7Hrs

Unit: II

- 2.1 Establishment of Dairy farm.
- 2.2 Site selection for Dairy farming
- 2.3 Water supply, light and ventilation.
- 2.4 Types of housing for Dairy animals.

Module No.3 8Hrs

Unit: III

- 3.1 Study of Dairy farming system in India.
- 3.2 Cattle development programme through five year plan.
- 3.3 Role of NDDB in Dairy development in India.
- 3.4 Role of livestock in manpower employment, Socioeconomic development.

Module No.4 7Hrs

Unit: IV

- 4.1 Production and potentiality of buffalo in India.
- 4.2 Recycling of wastes.
- 4.3 Maintenance of sanitary and hygienic conditions on farm.
- 4.4 Capital- Types of capital and ways of capital rise.

B. Sc. F.Y . Semester - I

Title- Practical Paper No.SDRSCP-1101

Marks-50/credit 2 4Hours / week - Total (60 Hrs)

Practicals

1. Morphology of cattle, Buffalo, Sheep and Goat.
2. Linear body measurement, Body wedges and estimation of body weight.
3. Study of physical characters of cattle.
4. Study of common appliances used on the animal farm.
5. Casting, restraining and handling of farm animals.
6. Study of castration of Cattle.
7. Study of Identification marks of cattle.
8. Study of health record of Pregnancy Cow.
9. Care and Management of Newly Born Calves.
10. Health records of calves.
11. Drenching of farm animals.
12. Dressing of farm animals.
13. Visit to.
 - i) Visit to Regional Cattle farm.
 - ii) Visit to Veterinary Hospital.
 - iii) Fodder Processing Plant.

B.Sc. F.Y. Semester - I

Title- Routine Management Practices in Farm Animals(**Generic**) :

Paper No. SDRSGE-1101

Marks-50/Credit 2

2Hours / week

Module No. 1

7Hrs

Unit: I

- 1.1 Introduction to the subject.
- 1.2 Identification marks of cattle & Buffalo.
- 1.3 Docking and dipping in Sheep.
- 1.4 Control of licking and chewing of old leathers.

Module No.2

8Hrs

Unit : II

- 2.1 Shoeing of dairy farm animals.
- 2.2 Livestock census and cattle population.
- 2.3 Drying off lactating cows, methods of drying.
- 2.4 Management of Newly born calves.

Module No.3

7Hrs

Unit: III

- 3.1 Preparation of animal for milking and methods of milking.
- 3.2 Trimming of hoofs in Cattle & Buffalo.
- 3.3.Suckling and Weaning of calves.
- 3.4 Keeping of health Records.

Module No.4

8Hrs

Unit: IV

- 4.1 Cleaning and sanitation of livestock houses.
- 4.2 Collection and utilization of manure.
- 4.3 Sewage of dairy waste.
- 4.4 First aid measures.

B.Sc. F.Y. Semester - I

Title- Preparation of Feed and Fodder **(Skill):**

Paper No. SDRVSC-1101

Marks-50/Credit

4Hours/ week

Total- (60 Hrs)

1. Collection of feed and fodder sample.
2. Preparation of Silage.
3. Preparation of Hay.
4. Computation of Ration for milking animal.
5. Feeding Standards to different categories of animal.
6. Preparation of calf starter.
7. Preparation of milk re placer.
8. Preparation of cropping scheme.
9. Cultivation of Maize.
10. Study of lucern and Berseem.
11. Preparation of compound feed for animals.
12. Study of Roughages and Concentrate feeds
13. Visit to.

A) Silage making Plant.

B) Feed Processing Unit.

C) Sugar cane Industry.

B.Sc. F.Y. Semester - II

Title- Chemical Quality Assurance of Milk:

Paper no. SDRSCT-1151

	Marks-50/Credit 2	2Hours / week
Module No.1		8Hrs

Unit: I

- 1.1 Introduction to the subject.
- 1.2 Composition of Buffalo Milk.
- 1.3 Physic-chemical properties of milk.
- 1.4 Collection and Transportation of milk .

Module No.2		7Hrs
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Unit: II

- 2.1 Heat stability of milk.
- 2.2 Pasteurization of milk and Methods.
- 2.3 Platform (RMRD) test of milk.
- 2.4 Milk lipids (fat), Importance in milk.

Module No.3		7Hrs
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Unit: III

- 3.1 Milk proteins, Types of milk proteins and their structure.
- 3.2 Acidity of milk and their role in body of milk .
- 3.3 Clean milk production.
- 3.4 Factors affecting clean Milk Production .

Module No.4		8 Hrs
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Unit: IV

- 4.1 Properties of milk constituents.
- 4.2 Bacteria, Classification of Bacteria.

4.3 Detergent used in dairy industry.

4.4 Clot on Boiling test of milk.

B.Sc. F.Y. Semester - II

Title- Practical Paper No.

SDRSCP-1151

Marks-50/credit 2

4Hours / week

Total- (60 Hrs)

1. Constituents of Milk.
2. Chilling of milk, methods of milk Chilling.
3. Straining, Filtration& Clarification of Milk,.
4. Pricing of Milk and Pricing policy.
5. Packaging of Milk.
6. Heat Stability test of milk.
7. Determination of acidity of milk.
8. Determination of Specific Gravity of milk.
9. Determination of Fat and Solid not fat.
10. Determination of pH of Milk.
- 11.Visit to :
 1. Milk Collection Center
 - 2 .Milk Chilling center
 3. Milk Processing Plant.
 4. Milk packaging unit.

Title- Clinical Practices of Livestock (**Generic**):

Paper No. SDRSGE-1151

Marks-50/Credit 2
Module No.1
2Hours / week
8Hrs

Unit: I

- 1.1 Introduction to the subject.
- 1.2 Terminology used in clinical practices in livestock.
- 1.3 Identification of Sick animals and isolation.
- 1.4 Symptoms of Healthy animals.

Module No.2
7Hrs

Unit:II

- 2.1 General Measures for prevention of Diseases.
- 2.2 Normal clinical values of livestock.
- 2.3 Vaccination schedule for Cattle.
- 2.4 Preparation of ointment, lotion etc.

Module No.3
7Hrs

Unit:III

- 3.1 Drenching of drugs to calves and Heifers.
- 3.2 Casting and Restraining of livestock.
- 3.3 Deworming of calves.
- 3.4 Disbudding and Dehorning of cattle.

Module No.4
8Hrs

Unit No.IV

- 4.1 Methods of Castration in Livestock.
- 4.2 Handling of clinical instrument.
- 4.3 Bandaging of wounds.
- 4.4 Disposal of clinical wastage

B.Sc. F.Y.Semester - II

Title: Milk Procurement (Skill):

Paper no.SDRVSC-1151

Marks-50/credit 2

4Hours/ week

Total - (60Hrs)

- 1.Composition of cow and Buffalo milk.
- 2.Collection and Transportation of milk.
- 3.Grading of milk and Pricing.
- 4.Layout of milk processing plant.
- 5.Quality analysis of milk .
6. Weighing of milk in processing plant.
7. Filtration and Clarification of Milk.
8. Standardization of milk.
- 9.Packaging Material for milk packaging.
- 10 Distribution of milk and Method of Distribution.
- 11.Visit to
 - i).Milk Processing plant.
 - ii) Milk cooling Unit.
 - lii) Milk Pasteurization plant.

