



SRI VENKATESWARA UNIVERSITY, TIRUPATHI

4 -Year UG Honours in B.vocational (Dairy and Animal Husbandry) Major in Consonance with Curriculum Frame work w.e.f AY 2026-27

COURSE STRUCTURE (for Semester III)

Year	Semester	Course	Title of the course	No.o f hrs/ week	No.of credits
II	III	5	Milk and milk products Technology (theory)	3	3
			Milk and milk products Technology (practical)	2	1
		6	Basic of animal nutrition(theory)	3	3
			Basic of animal nutrition (practical)	2	1
		7	Fodder production and conservation(theory)	3	3
			Fodder production and conservation (practical)	2	1

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SEMESTER- III
Course 6: BASICS OF ANIMAL NUTRITION

<u>Theory</u>	<u>credits-3</u>	<u>3hrs/week</u>
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LEARNING OUTCOMES

After completion of course, student is able to

1. Being able to define basic nutrition terms.
2. Discuss how to measure nutrient content.
3. Describe the different types of digestion (e.g., ruminant vs. Non -ruminant)
4. Understand how proper nutrition impacts an animal's health welfare, and productivity.

UNIT -I	9hrs
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Importance of Nutrition- Common Definitions in Animal Nutrition – Classification of Nutrients

Role of Different Nutrients in the body systems –Water –Carbohydrates –Proteins –Fats – Minerals –Vitamins .

UNIT -II	9hrs
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Special consideration in the Nutrition of different livestock species – Ruminants – Non – ruminants – Poultry .

Carbohydrates –sugars –soluble carbohydrates

Energy – Gross energy –Digestible energy –Meta boilable energy – Net energy

UNIT -III	9 hrs
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Proteins in Animal Nutrition – True protein and crude protein –Amino acids –Essential and Non-Essential Amino Acids –Biological values Lipid nutrition –essential fatty acids .

UNIT -IV	9hrs
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Minerals in Animal Nutrition –Major minerals –Minor minerals Vitamins –Fat Soluble vitamins –Water soluble vitamins –Roles, deficiency symptoms and sources of vitamins .

UNIT -V	9hrs
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Compound feeds –Feed supplements –Feed Additives .General considerations while Feeding of various species for livestock products- Dairy cattle and buffaloes –Sheep and Goat –Pigs –Poultry.

SEMESTER-III
Course 6: BASICS OF ANIMAL NUTRITION

<u>practical</u>	<u>credits-1</u>	<u>2hrs/week</u>
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1. General acquaintance of various equipment in nutrition laboratory –Hot air oven- Kelda Digestion and Distillation Unit-Sox let Apparatus-Muffle furnace .
- 2..Estimation of various proximate principles in feed-Moisture -Crude protein -Ether extract -Crude fiber -Total Ash .
- 3.Estimation of Acid Insoluble Ash -Calcium -Phosphorus -Detection of common adulterants in feeds .
- 4.Feed formulation -Ration formulation -practical exercises
- 5.Visit to Cattle feed plant and Poultry feed plant .

Reference books:

- 1.Principles of animal Nutrition and feed technology D.V. Reddy
- 2.Principles and practices of animal nutrition Jag dish Prasad
- 3.A textbook of animal nutrition D.N. varma,, kalyani
- 4.Basic animal nutrition and feeding, Pond, Wiley
- 5.Animal nutrition Maynard
- 6.Principles of animal nutrition and feeds BANERJEE

MODEL QUESTION PAPER

course: B.Voc Dairy & Animal Husbandry

BASICS OF ANIMAL NUTRITION

Time: 3 hours

Marks: 75

SECTION – A

Answer any five of the following questions each question carries equal marks 5X3=15

1. Define nutrition and explain its importance in animal health
2. Classify nutrients and explain their role in animal body systems
3. Discuss the significance of carbohydrates in animal nutrition
4. What is gross energy and how is it different from net energy
5. Explain the role of amino acids in animal nutrition
6. Define true protein and crude protein and describe their importance in animal feed
7. Write a short note on the functions of water-soluble vitamins
8. What are the deficiency symptoms of fat-soluble vitamins in animals
9. Define feed additives and their role in animal nutrition
10. Discuss the nutritional needs of dairy cattle in livestock production

SECTION-B

Answer all question each question carries equal marks 5X12=60

11. a) Discuss the classification of nutrients with examples .
(OR)
b) Explain the role of proteins and carbohydrates in the animal body
12. a) Write a detailed note on the nutritional considerations from ruminants and non-ruminants
(OR)
b) Explain the concept of metabolizable energy and its relevance in animal nutrition
13. a) Describe the different types of amino acids and explain the significance of essential amino acids
(OR)
b) Write a detailed note on lipid nutrition and essential fatty acids in animal diets
14. a) Discuss the role and sources of major minerals in animal nutrition
(OR)
b) Explain the deficiency symptoms and role of water-soluble vitamins in animal health
(OR)
15. a) Write a detailed note on compound feeds and supplements
(OR)
b) Discuss the nutritional needs of sheep and goats in livestock production

4- Year UG Honours, Major
Syllabus
(2026-27)
Semester-III

Model Question Paper

Time : 3hrs

Marks:75

Part-A

Answer any Five Questions. Each Question carries 3 Marks.

5x3=15

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

Answer the following questions. Each question carries 12 Marks

5x12=60

11. a) Unit-I
(Or)
b) Unit-I

12. a) Unit-II
(Or)
b) Unit-II

13. a) Unit-III
(Or)
b) Unit-III

14. a) Unit-IV
(Or)
b) Unit-IV

15. a) Unit-V
(Or)
b) Unit-V