

Sri Venkateswara University, Tirupati

Model syllabus for 4- Year UG Honours in B.vocational (Dairy and Animal Husbandry) as Major in consonance with curriculum framework w.e.f.AY2025-26

COURSE STRUCTURE (FOR SEMESTER I to VIII)

Year	Semester	Course	Title of the course	No. of hrs/ week	No. of credits
I	I	1	Dairy Husbandry management production and dairy design & dairy development (Theory)	3	3
			Dairy Husbandry management production and dairy design & dairy development (Practical)	2	1
		2	Indian milk dairy products (Theory)	3	3
			Indian milk dairy products (practical)	2	1
	II	3	Bio-chemistry and physical chemistry of milk (theory)	3	3
			Bio-chemistry and physical chemistry of milk (Practical)	2	1
		4	Dairy plant management (theory)	3	3
			Dairy plant management (Practical)	2	1
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
	IV	8	Veterinary physiology (theory)	3	3
			Veterinary physiology (practical)	2	1
		9	Laboratory Diagnostic & Techniques (theory)	3	3
			Laboratory Diagnostic & Techniques (practical)	2	1
		10	Veterinary Gynacology & AI(Artificial insimulation)(theory)	3	3
			Veterinary Gynacology & AI (Artificial insimulation) (practical)	2	1

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III	V	II	Veterinary pharmacology (theory)	3	3
			Veterinary pharmacology (practical)	2	1
		12	Meat production and meat abattoir management(theory)	3	3
			Meat production and meat abattoir management (practical)	2	1
		13	Veterinary immunology & Vaccinations (Theory)	3	3
			Veterinary immunology & Vaccinations (practical)	2	1
	VI	14	Basics of Veterinary surgery (Theory)	3	3
			Basics of Veterinary surgery (Practical)	2	1
		15	Poultry farm management and production (theory)	3	3
			Poultry farm management and production (practical)	2	1
IV	VII	16	Basics of veterinary anatomy(theory)	3	3
			Basics of veterinary anatomy (practical)	2	1
		17	Dairy farm general management (theory)	3	3
			Dairy farm general management (practical)	2	1
		18	Cattle feed mixing plant (theory)	3	3
			Cattle feed mixing plant (practical)	2	1
		19	Animal genetics and breeding (theory)	3	3
			Animal genetics and breeding (practical)	2	1
		20	Fundamental of veterinary medicine (theory)	3	3
			Fundamental of veterinary medicine (practical)	2	1
	VIII	21	Milk production management Dairy plant Design and Dairy development (theory)	3	3
			Milk production management Dairy plant design and Dairy development (practical)	2	1
		22	Animal birth control programme (theory)	3	3
			Animal birth control programme (practical)	2	1
		23	Principles of Dairy chemistry and Dairy microbiology (theory)	3	3
			Principles of Dairy chemistry and Dairy microbiology(practical)	2	1
		24	Livestock production and management (theory)	3	3
			Live stock production and management (practical)	2	1
		25	Dairy economic and marketing (theory)	3	3
			Dairy economic and marketing (practical)	2	1

SEMESTE II
COURSE 4 : DAIRY PLANT MANAGEMENT

Theory	credit -3	3hrs/week
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LEARNIING OUTCOMES

After completion of course, student is able to

- 1.Ensuring animal health and productivity.
- 2.Implementing clean milk production and quality control.
- 3.Processing and preserving milk and dairy products, and managing plant operations and sanitation.
- 4.Involve marketing dairy products, managing feed and resources, and developing entrepreneurial and communication skills.

UNIT – 1.	9hrs
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Dairy equipment for fluid milk processing – Introduction - The Dairy Plant - Milk Collection or Chilling Centre - Milk Reception and Storage - Pasteurizer and Sterilizer - Homogenizer and Centrifuges - Packaging and Filling - Clean-in-place (CIP) - Cleaning System.

UNIT – 2.	9hrs
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Dairy equipment for products processing - Objectives – Introduction - Butter and Cheese Making Equipment - Ice-Cream Making Equipment - Evaporators and Dryers.

UNIT – 3	9hrs
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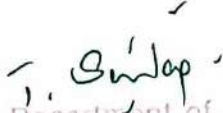
Ghee Making Equipment - Khoa Making Equipment - Dahi and Lassi Making Equipment - Paneer, Channa & Casein Making Equipment

UNIT – 4.	9hrs
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Materials their characteristics and selection of equipment – Objectives – Introduction - Types of Materials - Properties of Materials - Corrosion and its Prevention - Choice of Materials - Milk Handling and Processing Equipment - Selection of Utilities

UNIT – 5.	9hrs
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Preventive maintenance of dairy plants and machineries - Principles of Preventive Maintenance Development of Plant Maintenance Programme - Guidelines for Effective Lubrication - Care and Cleaning of SS Surface - Dairy Building Sanitation Dairy effluent management


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SEMESTE II

COURSE 4 : DAIRY PLANT MANAGEMENT

<u>Practical</u>	<u>credits-1</u>	<u>2hrs/week</u>
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1. Visit to milk collection centre
2. Visit to milk chilling centre.
3. Visit to various units of dairy plant.
4. Hands on training in preparation of various milk products.
5. Handling of different dairy equipment

Reference books:

1. Ahmad Tufail. (1990) .Dairy Plant Systems Engineering. KitabMahal Publisher, Allahabad. Anantakrishnan.
2. C.P. and Simha N.N. (1987). Dairy Engineering Technology and Engineering of Dairy Plant operation.Laxmi Publications, Delhi
3. Kessler H.G. (1981). Food Engineering and Dairy Technology.
4. Verlag A. Kessler, P.O .Box 1721, Dairy Engineering Division-8050, Freising (Germany) Warner James. (1976).
5. Principles of Dairy Processing. Wiley Eastern Ltd. Publisher, New Delhi. Warner James N . (1976).
6. Principle of Dairy Processing. Wiley Eastern Limited Publisher, New Delhi Newcomer ,J.L. (1981).
7. Preventive Maintenance Manual for Dairy Industry. Venus Trading Co., P.O. Box 17.ANAND 388 001.

MODEL QUESTION PAPER
Course B .voc Dairy &Animal Husbandry

DAIRY PLANT MANAGEMENT

Time:3 hours

Max.Marks:75

SECTION -A

Answers any five of the following question .Each question carries equal marks (5X3=15)

1. Chilling center
2. Pasteurizer
3. Dryers
4. Evaporators
5. Dahi
6. paneer
7. Milk handling
8. Corrosion
9. Care and cleaning
10. Lubrication

SECTION -B

Answer all the question .Each question carries equal marks.

(5X12=60)

11. A)Discuss the dairy equipment for fluid milk processing
(or)
b)write about milk reception and storage
- 12.a)write a detailed note on butter making equipment
(or)
b)Explain the ice cream making equipment
- 13.a)describe the Ghee making equipment
(or)
b)write a detailed note on khoa making equipment
- 14.a) Discuss the characteristics and selection of equipment of materials
(or)
b) Describe the types of materials .
15. a)Describe the principle of preventive maintenance development
(or)
b) Explain about sanitation in dairy management .