

Government Degree College

Tekkali



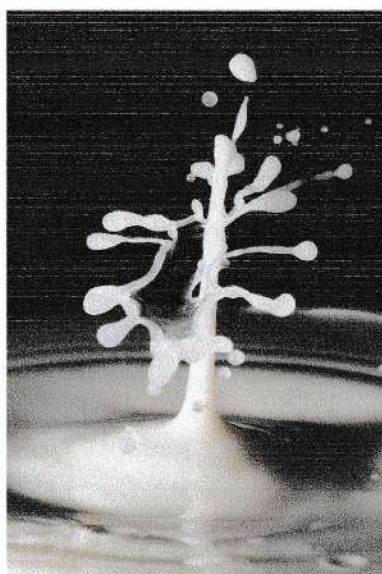
Department of Chemistry

Academic Year 2025-2026

Certificate Course

On

DAIRY TECHNOLOGY



Government Degree College Tekkali

REQUESTING FOR THE APPROVAL OF CERTIFICATE COURSE

1. Department : **CHEMISTRY**
2. Title of the Certificate Course : **DAIRY TECHNOLOGY**
3. Name of the Course Coordinator : **Sri V Luke Paul**
4. Course Code : **04-CHE-2025**
5. Objectives of the Course :

On successful completion of this course, students will be able:

- Understand the physical composition of milk
- Know Proper maintenance of farms
- Acquaint with Dairy management & Development
- Understand Microbiological aspects of milk
- Know Refrigeration of dairy products

6. Outcomes of the Course :

1. Students will be able to develop skills to serve society through various positions pertaining to Dairy industry.
2. Students can have a breakthrough of diversification along their career in the direction of jobs and entrepreneurship.

7. Duration of the Course : 30 hrs
8. Date of Commencement of the Course : 18.09.2025
9. Course Fee : Nil
10. No. Of Students : 20



Signature of the Course Coordinator



Signature of the Department In-charge



Signature of the Principal

Govt.Degree College Tekkali

Certificate Course on Analytical Methods in Chemistry (Course Code: 04-CHE-2025)

Objectives & Outcomes

The Department of Chemistry has decided to offer a certificate course on “Dairy Technology” for the II, III B.SC Chemistry students to enhance their Skills which are essential for their Professional development.

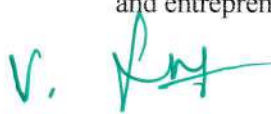
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Course Outcomes:

1. Students will be able to develop skills to serve society through various positions pertaining to Dairy industry.
2. Students can have a breakthrough of diversification along their career in the direction of jobs and entrepreneurship


Signature of the Course Coordinator


Signature of the Department In-charge


Signature of the Principal

Certificate Course

Dairy Technology

Course Code: 04-CHE-2025

SYLLABUS

Learning Objectives:

- Understand the physical composition of milk
- Know Proper maintenance of farms
- Acquaint with Dairy management & Development
- Understand Microbiological aspects of milk
- Know Refrigeration of dairy products

Dairy Technology

- Physical Chemistry of Milk - The physical composition of milk of different species and its various properties like density, viscosity etc.
- Milk Production Management & Dairy Development - Production of milk and the management and development of dairy products.
- Fluid Mechanics - Units, dimensions and properties of the fluids.
- Fundamentals of Microbiology - The concept, scope and history of Microbiology.
- Market Milk - Market of milk in India and several countries and the proper way to manufacture different kinds of milk.
- Introductory Dairy Microbiology - The complex microbiology of milk and the importance and the ways of hygienic milk production.
- Chemistry of Milk - Definition and structure of milk, factors affecting composition of milk, its nomenclature and classification of milk proteins.
- Condensed & Dried Milks - Status and scope of condensed and dried milk in India and abroad, along with definition and legal standards of condensed milk, sweetened condensed milk and evaporated milk.
- Refrigeration and Air Conditioning - The basic refrigeration cycles and concepts required for the various kinds of milk.
- Dairy Engineering - The basic engineering concepts being made used in the various dairy manufacturing processes

GOVERNMENT DEGREE COLLEGE TEKKALI**DEPARTMENT OF CHEMISTRY****CERTIFICATE COURSE 2025-26****DAIRY TECHNOLOGY****STUDENTS REGISTERED**

S.NO.	NAME OF THE STUDENT	<i>III Yr</i> GROUP
1	B.Prasad	Major Chemistry
2	P.Bhargavi	Major Chemistry
3	B.Lakshmana Rao	Major Chemistry
4	D.Yeswanth	Major Chemistry
5	K.Chandu	Major Chemistry
6	K.Durga Prasad	Major Chemistry
7	K.Tarun Babu	Major Chemistry
8	M.Dhanalakshmi	Major Chemistry
9	P.Sravani	Major Chemistry
10	P.Eswar	Major Chemistry
11	S.Revathi	Major Chemistry
12	S.Taviti Naidu	Major Chemistry
13	S.Vishnuvardhan	Major Chemistry
14	T.Navdeep	Major Chemistry
15	B.Manasa	Major Zoology
16	N.Manjula	Major Zoology
17	B.Ashok	Major Computer Science
18	P.Suresh	Major Computer Science
19	U.Vinita	Major Computer Science
20	K.Haripriya	Major Zoology

DAIRY TECHNOLOGY ATTENDANCE[illegible]

GOVERNMENT DEGREE COLLEGE TEKKALI

DEPARTMENT OF CHEMISTRY

CERTIFICATE COURSE 2025-26

DAIRY TECHNOLOGY ATTENDANCE

24	25	26	27	28	29	30	No. of classes attended	Signature of the student
13-11-2025	14-11-2025	15-11-2025	17-11-2025	18-11-2025	19-11-2025	20-11-2025		
P	P	P	P	P	P	P	30	B. Prasad
P	P	P	P	P	P	P	30	P. Bhargavi
P	P	P	P	P	P	P	30	B. Lakshmana Rao
P	P	P	P	P	P	P	30	D. yeswanth
P	P	P	P	P	P	P	30	K. Chandu
P	P	P	P	P	P	P	30	K. Durga prasad
P	P	P	P	P	P	P	30	K. Tarun babu
P	P	P	P	P	P	P	29	M. Dharmika kshmi
P	P	P	P	P	P	P	30	P. Savani
P	P	P	P	P	P	P	28	P. ESWARI
P	P	P	P	P	P	P	29	S. Revathi
P	P	P	P	A	P	P	28	S. Thaviti Naidu
P	P	P	P	P	P	P	30	S. Vishnuvardhan
P	P	P	P	P	P	P	30	T. Navedeep
P	P	P	P	P	P	P	30	B. Manasa
P	P	P	P	P	P	P	30	N. mangula
P	P	P	P	P	P	P	30	B. Ashok
P	P	P	P	P	P	P	30	P. Suresh
P	P	P	P	P	P	P	30	U. Vihetha
P	P	P	P	P	P	P	30	K. Hathi Priya

GOVERNMENT DEGREE COLLEGE TEKKALI			
DEPARTMENT OF CHEMISTRY			
CERTIFICATE COURSE 2025-26			
DAIRY TECHNOLOGY			
MARKS SHEET			
S.NO.	NAME OF THE STUDENT	III Year GROUP	Marks Secured
1	B.Prasad	Major Chemistry	30
2	P.Bhargavi	Major Chemistry	30
3	B.Lakshmana Rao	Major Chemistry	29
4	D.Yeswanth	Major Chemistry	28
5	K.Chandu	Major Chemistry	28
6	K.Durga Prasad	Major Chemistry	29
7	K.Tarun Babu	Major Chemistry	28
8	M.Dhanalakshmi	Major Chemistry	30
9	P.Sravani	Major Chemistry	30
10	P.Eswar	Major Chemistry	30
11	S.Revathi	Major Chemistry	30
12	S.Taviti Naidu	Major Chemistry	30
13	S.Vishnuvardhan	Major Chemistry	30
14	T.Navdeep	Major Chemistry	29
15	B.Manasa	Major Zoology	30
16	N.Manjula	Major Zoology	30
17	B.Ashok	Major Computer Science	29
18	P.Suresh	Major Computer Science	28
19	U.Vinita	Major Computer Science	30
20	K.Haripriya	Major Zoology	30

GOVERNMENT DEGREE COLLEGE, TEKKALI

CERTIFICATE COURSE

DAIRY TECHNOLOGY

EXAMINATION

Name of the student:

Group:

1. By regulation, milk from cows treated with antibiotics usually must be withheld for ___ hours.

- a) 48 – 72 b) 30 – 60 c) 48 – 108 d) 72 – 96

2. Rules developed by the ___ are designed to protect the health and welfare of consumers.

- a) United States Department of Agriculture (USDA) b) Protein and Lactose Organization (PLO)
c) Future Farmers of America (FFA) d) Food and Drug Administration (FDA)

3. What is the principal carbohydrate in the milks of all mammals?

- a. Lactose b. Glucose c. Sucrose d. Fructose

4. Percentage of water in buffalo milk is:-

- a. 65-67 % b. 70-75 % c. 80-85 % d. 87-90 %

5. Soft fats in milk fat are:-

- a. Lauric & Stearic b. Capric & Lauric c. Oleic & Butyric d. Oleic & Lauric

6. Principal protein in milk is:-

- a. Albumin b. Lactalbumin c. Casein d. Lactoglobulin

7. Percentage of mineral matter in milk is about :-

- a. 1 % b. 0.7 % c. 1.5 % d. 0.05 %

8. Example of soft cheese is:-

- a. Cheddar b. Swiss c. Brick d. Cottage

9. Under which of the following weather conditions would you expect to observe the greatest decrease in milk yield per cow?

- a) Cold and dry b) Hot and humid c) Cool and humid d) Warm and dry

10. Mixture of milk and cream containing not less than 10.5 percent milk fat, but less than 18 percent milk fat, is the definition of?

- a) Light whipping cream b) Light cream c) Half-and-half d) Heavy cream

11. The feed additive isoacid gives a ___ pound daily milk response, with maximum response in early lactation.

- a) 2 to 4 b) 4 to 6 c) 6 to 8 d) 8 to 10

12. Lactose has water solubility of

- a. 100% b. 50% c. 18% d. 25%

13. Which enzyme is tested for cream pasteurization?

- a. Plasmin b. Phosphatas c. Catalase d. peroxidase

14. Milk is a good source of all water-soluble vitamins except for ___

- a) Cyanocobalmin b) Riboflavin c) Ascorbic Acid d) Thiamine

15. ___ is a milk process that makes milk more easily digested by those with a sensitive digestive system.

- a) Ionization b) Evaporation c) Pasteurization d) Homogenization

16. ___ amino acids are commonly found in milk proteins, including the essential amino acids.

- a) 7 b) 12 c) 14 d) 19

17. Summer milk has been estimated to contain 1.6 times as much vitamin ___ as winter milk.

- a) A b) B c) C d) D

18. The milk becomes the property of the buyer once ?

- a) The transport truck reaches the plant b) It is loaded into the transport truck on the farm
c) The transport truck leaves the farm d) It is unloaded into the processor's bulk tanks

19. Cows with ___ have a higher incidence of mastitis because physical injury is more likely.

- a) Sickled hocks b) Horns c) Lower foot angles d) Pendulous udders

20. Of the listed below products, which contains no dairy ingredients?

- a) Gelato b) Sherbet c) Custard d) Sorbet

21. As it comes from a cow, the solids portion of milk contains approximately 3.7 percent fat and ___ percent solids-not-fat.

- a) 3% b) 6% c) 9% d) 12%

22. Milk contains 87 % water and the rest is solids and fats. Which of the following is not included as milk solid?

- a) Protein b) Water c) Carbohydrate d) Milk Fat

23. The part of the mammary gland where milk is produced is called:

- a) Capillary b) Teat Cistern c) Chine d) Alveolus

24. The heritability of the traits for milk production is:

- a) 15% b) 25% c) 55% d) 100%

25. The Primary Milk carbohydrate is:

- a) Leucine b) Sucrose c) Arginine d) Lactose

26. The primary Protein in Milk is:

- a) Casein b) Tryptophan c) Lysine d) Arginine

27. What is the application of any effective method or substance to a clean surface for destruction of pathogen is called?

- a. Pasteurization b. High Temperature Treatment c. Sanitization d. Cleaning

28. A product consisting of a mixture of milk and cream which contains not less than 10.5% milk fat is called?

- a. Concentrated Milk b. Low Fat Milk c. Half-and -Half d. Eggnog

29. The process of raising or lowering the percent of fat in milk or cream to a desired standard is called?

- a. Enrichment b. Fortification c. Standardization d. None of the above

30. The high nutritive value of cheese is due to

- a. High mineral contents b. High protein contents c. Taste & flavor d. All of the above



GOVERNMENT DEGREE COLLEGE TEKKALI
DEPARTMENT OF CHEMISTRY
CERTIFICATE COURSE 2025-26
DAIRY TECHNOLOGY

ACTION TAKEN REPORT ON FEEDBACK ON CERTIFICATE COURSE

The feedback on certificate course entitled '**Dairy Technology**' was collected and analyzed. Based on this, the following action has been taken.

- The certificate course will be continued for the next academic year.
- The syllabus will be reviewed in the next academic year.

Feedback on Certificate Course

11 responses

[Publish analytics](#)

Name of the student

11 responses

K Haripriya

P.Sravani

P.Eswar

B.Ashok

P. Suresh

B Prasad

D. Yeshwant

S Revathi

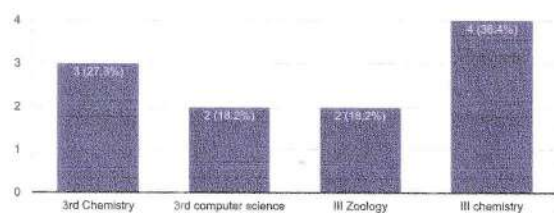
N. Manjula

S. Vishnuvardhan

P.Bhargavi

Year & Group

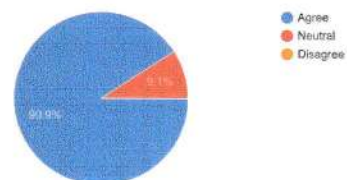
11 responses


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1. The course I pursue is useful for my goal attainment

11 responses



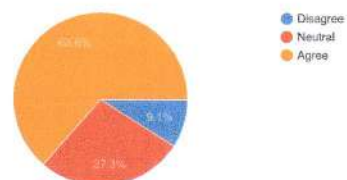
2. The course is useful for getting job opportunities relevant

11 responses



3. The syllabus would help me to improve laboratory space

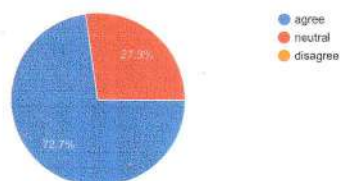
11 responses


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4. The course is useful for pursuing higher studies

11 responses



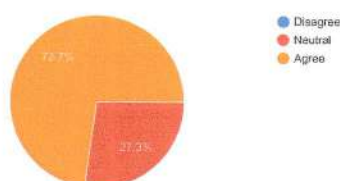
5. syllabus is in accordance with modern technology

11 responses



6. syllabus of the course is up-to-date and satisfactory

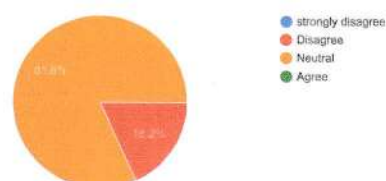
11 responses


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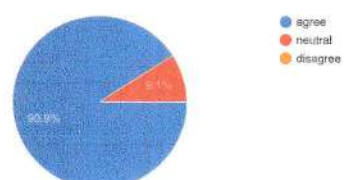
7. changes are required to the syllabus

11 responses



8. the course would increase my confidence

11 responses



9. I suggest continuous of the course.

11 responses


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