

Indira Gandhi National Open University New Delhi – Study Centre – 27120 (P)

Department of Dairy Science and Technology, Janta Vedic College, Baraut (Baghpat) U.P.

Diploma in Dairy Technology (36 Guided & 08 unguided of 4 hours each session)

Counseling Schedule for Practical, Session – JULY 2025

Sr. No.	Date, Day and Time	Course Code & Title	Session No.	Serial No. and Title of the experiment / Exercise	Name of the counselor
1.	04.01.2026 Sunday 8.30-12.30 Noon	BPVI-011 Milk Production and Quality of Milk	1	1. Identification of different milch breeds of cattle, buffaloes, goats and external anatomy of dairy animals. 2. Judging of dairy animals. 3. Identification of various feeds and fodders for dairy animals.	Dr. Rakesh Kumar Atrey
	1:00 – 5:00 PM	BPVI-011 Milk Production and Quality of Milk	2	4. Preparations of balanced rations, calf starters, milk replacer and feeding of calves. 5. Housing of animals and maintenance of hygienic conditions at farm. 6. Clean milk production. 7. Fields/Farm Visits.	Dr. Rakesh Kumar Atrey
2.	11.01.2026 Sunday 8.30-12.30 Noon	BPVI-011 Milk Production and quality of milk	3	1. Preparation of standard 0.1 N sodium hydroxide solution. 2. Preparation of standard 0.1N hydrochloric acid. 3. Preparation of Gerber acid for determination of fat in milk. 4. Sampling of milk. 5. Plate form tests-(I) clot in boiling. 6. Plate form Test-(II) alcohol test.	Dr. Sudheer Kumar
	1:00 – 5:00 PM	BPVI-011 Milk production and quality of milk	4	7. Plate form test-(III) sediment test. 8. Determination of fat in milk by Gerber method. 9. Determination of solids not fat (SNF) in milk. 10. Determination of total solids (TS) in milk. 11. Determination of specific gravity in milk. 12. Determination of Titrable acidity in milk.	Dr. Rakesh Kumar Atrey

3.	18.01.2026 Sunday 8:30 – 12:30 Noon	BPVI-011 Milk Production and Quality of Milk	5	13. Determination of milk pH. 14. Determination of Starch in milk. 15. Determination of cane sugar in milk. 16. Detection of glucose in milk. 17. Detection of urea in milk. 18. Detection of Ammonium sulphate in milk. 19. Detection of sodium carbonate or bicarbonate as neutralizer in milk.	Dr. Mahesh Kumar
	1:00 – 5:00 PM	BPVI-011 Milk Production and quality of milk	6	20. Resazurin reduction test. 21. Methylene blue reduction (MBR) test. 22. Preparation of microbial media. 23. Demonstration of presumptive coli form test. 24. Demonstration of standard plate count methods. 25. Staining methods.	Dr. Mahesh Kumar
4.	25.01.2026 Sunday 8:30 – 12:30 Noon	BPVI-012 Dairy Equipment & Utilities	7	1. To learn elementary layout drawings of utilities. 2. Study of various workshop tools. 3. Study of different sanitary S.S. Pipes fitting and gaskets. 4. Dismantling and assembling of milk pumps.	Dr. Kapil Kumar
	1:00 – 5:00 PM	BPVI-012 Dairy Equipment & Utilities	8	5. Study and sketch the details of milk tankers, storage tanks and silos. 6. To study different types of thermometers, pressure gauge and flow meters. 7. Study of refrigeration system. 8. Study of part and operation of a cold storage plant and an ice bank unit.	Dr. Kapil Kumar
5.	01.02.2026 Sunday 8:30–12:30 Noon	BPVI-012 Dairy Equipment & Utilities	9	9. Study different parts and learn the operation of plate chiller and bulk milk cooler. 10. Study of water supply system and water softening plant. 11. Study the constructional details of a fire tube boiler and water tube boilers.	Dr. Sachin Kumar Shandilya

	1:00 – 5:00 PM	BPVI-012 Dairy Equipment & Utilities	10	12. Study of a dairy effluent plant. 13. To study the different parts of single phase and three phase induction motors. 14. Starting of 3 phase squirrel cage induction motors by direct on line and star data starter. 15. Study of different safety measures to be adopted in a dairy plant. 16. To study the control and safety mountings of a steam boiler.	Dr. Sachin Kumar Shandilya
6.	08.02.2026 Sunday 8:30– 12:30 Noon	BPVI-013 Milk Processing and Packaging	11	1. Reception of Milk. 2. Straining, filtration and clarification of milk. 3. Chilling and storage of milk. 4. Study of cream separator.	Dr. Sudheer Kumar
	1:00 – 5:00 PM	BPVI-013 Milk Processing and Packaging	12	5. Study of separation of cream. 6. Standardization of milk. 7. Study of batch pasteurizer and high temperature short time (HTST) pasteurizer. 8. Pasteurization of milk.	Dr. Rakesh Kumar Atrey
7.	15.02.2026 Sunday 8:30–12:30 Noon	BPVI-013 Milk Processing and Packaging	13	9. Determination of efficiency of pasteurization. 10. Study of homogenizer, homogenization of milk and determination of homogenization efficiency. 11. Study of milk sterilizer, sterilization of milk and determination of sterilization efficiency. 12. Study of packaging system of milk.	Dr. Gyanendra Singh
	1:00 – 5:00 PM	BPVI-013 Milk Processing and Packaging	14	13. Preparation of flavoured milk, reconstituted, toned and double toned milk. 14. Cleaning of equipments. 15. Sanitization of equipments. 16. Assessment of cleaning and sanitization efficiency.	Dr. Gyanendra Singh

8.	22.02.2026 Sunday 8:30-12:30 Noon	BPVI-014 Dairy Products-I	15	1. Preparation and standardization of cream. 2. Preparation of sterilized cream. 3. Preparation of Butter starter.	Dr. Kapil Kumar
	1:00 – 5:00 PM	BPVI-014 Dairy Products-I	16	4. Preparation of cream for butter making. 5. Construction and operation of power churn.	Dr. Kapil Kumar
9.	01.03.2026 Sunday 8:30-12:30 Noon	BPVI-014 Dairy Products-I	17	6. Construction and operation of butter packaging machine. 7. Preparation of desi butter (makhhan), table butter and cooking butter by hand operated Churn.	Dr. Gyanendra Singh
	1:00-5:00 PM	BPVI-014 Dairy Products-I	18	8. Study of manufacture of table butter by power churn. 9. Preparation of Ghee. 10. Ag-mark grading of Ghee	Dr. Gyanendra Singh
10.	08.03.2026 Sunday 8:30-12:30 Noon	BPVI-015 Dairy Products-II	19	1. Preparation of Khoa. 2. Preparation of Gulabjamun. 3. Preparation of Peda. 4. Preparation of Burfi.	Dr. Sudheer Kumar
	1:00 – 5:00 PM	BPVI-015 Dairy Products-II	20	5. Preparation of Rabri. 6. Preparation of Kalakand and milk cake. 7. Preparation of Kheer. 8. Preparation of Chhana.	Dr. Rakesh Kumar Atrey
11.	15.03.2026 Sunday 8:30-12:30 Noon	BPVI-015 Dairy Products-II	21	9. Preparation of Rasogolla. 10. Preparation of Sandesh 11. Preparation of Rasmalai. 12. Preparation of Chhana Murki.	Dr. Kapil Kumar
	1:00 – 5:00 PM	BPVI-015 Dairy Products-II	22	13. Preparation of Paneer. 14. Study of vacuum pan/double effect/triple effect of evaporator. 15. Study of manufacture of spray dried milk powder. 16. Preparation of value added products from dried milk dairy whitener.	Dr. Kapil Kumar

12.	22.03.2026 Sunday 8:30-12:30 Noon	BPVI-016 Dairy Products-III	23	<ol style="list-style-type: none"> 1. Preparation of Processed cheese 2. Preparation of Processed cheese spread 3. Calculation of ingredients of Ice-cream mix 4. Preparation of Ice-cream mix. 5. Preparation of Ice-cream and determination of over run. 	Dr. Devesh Gupta
	1:00 – 5:00 PM	BPVI-016 Dairy Products III	24	<ol style="list-style-type: none"> 16. Preparation of Softy 17. Preparation of Kulfi 18. Manufacture of Casein 19. Study of manufacture of lactose 	Dr. Rakesh Kumar Atrey
13.	29.03.2026 Sunday 8:30-12:30 Noon	BPVI-017 Quality Assurance	25	<ol style="list-style-type: none"> 1. Familiarization with laboratory equipments and instruments. 2. Listing of quality control agencies at National and International level. 3. Standards specification(Chemical & Microbiological) of milk and milk products. 	Dr. Gyanendra Singh
	1:00 – 5:00 PM	BPVI-017 Quality Assurance	26	<ol style="list-style-type: none"> 4. Determination of fat in milk, cream, butter, khoa, paneer, ice-cream & milk powder. 5. Determination of titrable acidity and pH of milk and milk products. 6. Determination of solubility of milk powder. 7. Determination of acid value in ghee. 	Dr. Gyanendra Singh
14.	05.04.2026 Sunday 8:30-12:30 Noon	BPVI-017 Quality Assurance	27	<ol style="list-style-type: none"> 8. Microbiological analysis of milk & milk products. 9. Microbiological analysis of water & air. 10. Test for Sanitation of Dairy Equipments (Rinse Solution and Swab Contact Methods) 	Dr. Mahesh Kumar
	1:00 – 5:00 PM	BVPI-017 Quality Assurance	28	11-20. Judging of milk, table butter, ghee, dahi, ice-cream, khoa (pindi type), paneer, cheddar cheese, milk powder and srikhand.	Dr. Mahesh Kumar
15.	12.04.2026 Sunday 8:30-12:30 Noon	BPVI-018 Dairy Management & Entrepreneurship	29	<ol style="list-style-type: none"> 1. Identification of sources for milk losses during processing of milk and preparation of milk products. 2. Identification of parameters for 	Dr. Kapil Kumar

				<p>production efficiency.</p> <p>3. Study of working of a co-operative society.</p> <p>4. Calculation of milk payment based on fat and two axis pricing policy.</p>	
	1:00 – 5:00 PM	BPVI-018 Dairy Management & Entrepreneurship	30	<p>5. Designing of milk collection route based on data.</p> <p>6. Preparation of ledger, trial balance and balance sheet of dairy cooperative society.</p> <p>7. Identification of Entrepreneurial skills.</p> <p>8. Preparation of a project report to set up small dairy plant.</p>	Dr. Kapil Kumar
16.	19.04.2026 Sunday 8:30-12:30 Noon	BPVI-018 Dairy Management and Entrepreneurship	31	<p>9. Assessment of strength and weakness of milk and milk product marketing.</p> <p>10. Preparation of check list of problem in procurement and distribution of milk</p> <p>11. Study of store keeping practices, inventory control and maintenance of various records.</p> <p>12. Preparation of check list for evaluation of performance of a dairy plant.</p>	Dr. Gyanendra Singh
	1:00 – 5:00 PM	BPVI-018 Dairy Management & Entrepreneurship	32	<p>13. Steam load estimation of dairy a plant.</p> <p>14. Refrigeration load estimation of a dairy plant.</p> <p>15. Electrical load estimation of a dairy plant.</p>	Dr. Gyanendra Singh
17.	26.04.2026 Sunday 8:30-12:30 Noon	BPVI-016 Dairy Products-III	33	<p>1. Preparation of Starter Culture.</p> <p>2. Preparation of Dahi.</p> <p>3. Preparation of Mishti Dahi.</p> <p>4. Preparation of Lassi.</p>	Dr. Sudheer Kumar
	1:00 – 5:00 PM	BPVI-016 Dairy Products-III	34	<p>5. Preparation of Yoghurt.</p> <p>6. Preparation of Srikhand.</p> <p>7. Preparation of cheddar cheese from cow milk.</p> <p>8. Preparation of mozzarella cheese.</p>	Dr. Devesh Gupta
18.	03.05.2026 Sunday 8:30-12:30 Noon	BPVI-014 & 015 Dairy Products-I & Dairy Products-II	35	<p>11. Visit to small scale Dairy Plant involved in Production of Agmark Grade of Butter and Ghee.</p> <p>17. Visit of Dairy Product manufacturing plant.</p>	Dr. Rakesh Kumar Atrey
	1:00 – 5:00 PM	BPVI-016 Dairy Products-III	36	<p>14. Visit to Ice-cream Factory</p> <p>15. Visit to Cheese Factory</p>	Dr. Rakesh Kumar Atrey

19.	10.05.2026 Sunday 8:30-12:30 Noon	BPVI-011 Milk Production and Quality of Milk	01	UNGUIDED PRACTICAL	
	1:00 – 5:00 PM	BPVI-012 Dairy Equipment and Utilities	02	UNGUIDED PRACTICAL	
20.	17.05.2026 Sunday 8:30-12:30 PM	BPVI-013 Milk Processing and Packaging	03	UNGUIDED PRACTICAL	
	1:00-5:00 PM	BPVI-014 Dairy Products-I	04	UNGUIDED PRACTICAL	
21.	24.05.2026 Sunday 8:30-12:30 Noon	BPVI-015 Dairy Products-II	05	UNGUIDED PRACTICAL	
	1:00-5:00 PM	BPVI-016 Dairy Products-III	06	UNGUIDED PRACTICAL	
22.	31.05.2026 Sunday 8:30-12:30 Noon	BPVI-017 Quality Assurance	07	UNGUIDED PRACTICAL	
	1:00-5:00 PM	BPVI-018 Dairy Management & Entrepreneurship	08	UNGUIDED PRACTICAL	

In case of absence of any of the counselor in any session, class will be taken by available any other Counselor/Programme Incharge.

(12:30 – 1:00 Noon) Lunch Break

R. K. Atrey
(Dr. Rakesh Kumar Atrey)

Programme Incharge

Programme Incharge
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J.V. (P.G.) COLLEGE
SARAFI INO

A. V. Pratap Singh
(Dr. Virendra Pratap Singh)

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