Course Syllabus
Gyanmanjari Science College
Semester- 3(M.Sc.)

Subject: Practicals-MSCFT13518

Type of course: Major

Prerequisite: Student must have comprehensive understanding of Food Science and technology

Rationale: Empowering students with essential knowledge and practical skills for effective food processing techniques.

Teaching and Examination Scheme:

Teaching Scheme			Credits	Examination Marks					Total Marks
CI	T	P	C	Theory Marks		Practical Marks		CA	
				ESE	MSE	V	P	ALA	
0	0	12	6	00	00	40	80	30	150

Legends: CI-Class Room Instructions; T – Tutorial; P - Practical; C – Credit; ESE - End Semester Examination; MSE- Mid Semester Examination; V – Viva; CA - Continuous Assessment; ALA- Active Learning Activities.

List of Practical:

Sr. No	Descriptions	Hrs
1.	To study the physico-chemical properties of food grains	3
2.	Preparation of malt	3
3.	Determination of glutent content in wheat flour	3
4.	To study the cooking quality of rice using water up takes method.	3
5.	To study the methods of extraction of oil from oilseeds	3
6.	Determination of under milled grains from polished rice	3

7.	Preparation of quick cooked rice	3
8.	Determination of Angle of Repose of grains	3
9.	Principles of dehulling and pulse Milling Process.	3
10.	Parboiling of paddy	3
11.	Sampling of milk and milk production	3
12.	Milk testing	3
13.	Determination of fat content of milk	3
14.	Detection of adulterants in milk and milk products	3
15.	Standardization of milk	3
16.	Heat processing of milk – Pasteurization	3
17.	Preparation of butter	3
18.	Preparation of ghee	3
19.	Preparation of ice-cream	3
20.	Preparation of coagulated milk product (paneer)	3
21.	Preparation of indigenous fermented milk products (dahi, Shrikhand, etc)	3
22.	Preparation of khoa	3
23.	Preparation of khoa based sweet	3
24.	Prepaartion of channa	3
25.	Preparation of channa based sweet (Rasogulla)	3
26.	Visit to dairy plant	3
27.	Slaughtering and dressing of poultry bird	3

28.	Slaughtering and dressing of goat	3
29.	Determination of water holding capacity of meat	3
30.	Determination of extract release volume	3
31.	Determination of meat pH	3
32.	Estimation of total meat pigments	3
33.	Determination of metmyoglobin content of meat	3
34.	Preparation of meat products	3
35.	Preparation of blood meal	3
36.	Tenderization of meat	3
37.	Composition and structure of egg	3
38.	Determination of egg quality by Haugh unit	3
39.	Preservation of shell egg	3
40.	Study of anatomy and dressing of fish	3
	Total	120

Suggested Specification table with Marks (Practical):80

Distribution of Theory Marks **(Revised Bloom's Taxonomy)**						
Level	Remembrance (R)	Understanding (U)	Application (A)	Analyze (N)	Evaluate (E)	Create (C)
Weightage	10%	20%	30%	30%	10%	-

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the question paper may vary slightly from above table.

Continuous Assessment:

Sr. No	Active Learning Activities	Marks
1	**Journal**: Unit wise practical will be given by faculty and Students will prepare journal for the practical and submit to faculty.	30
	Total	**30**

Instructional Method: The course delivery method will depend upon the requirement of content and need of students. The teacher in addition to conventional teaching method by black board, may also use any of tools such as demonstration, role play, Quiz, brainstorming, MOOCs etc.

From the content 10% topics are suggested for flipped mode instruction.

Students will use supplementary resources such as online videos, NPTEL/SWAYAM videos, e-courses, Virtual Laboratory

The internal evaluation will be done on the basis of Active Learning Assignment

Practical/Viva examination will be conducted at the end of semester for evaluation of performance of students in laboratory.