

M S Ramaiah University of Applied Sciences

HEI SUB CLAIM SHEET

Details		Weightage
Criterion	Infrastructure and Learning Resources	100
Key Indicator	4.1 - Physical Facilities	30
Metric Number	4.1.1 - The institution has adequate infrastructure facilities for a. teaching - learning. viz., classrooms, laboratories, b. ICT enabled facilities such as smart classes, LMS etc. c. Facilities for cultural and sports activities, yoga centre, games (indoor and outdoor) gymnasium, auditorium etc. (QLM)	20

06) Faculties, Schools, Constituent Colleges

05) Faculty of Life and Allied Health Sciences

04) Laboratories

Room No.	T 09 -Laboratory 6
Name of the Lab	Food Engineering and Packaging FT
Area	159.38 Sq. Mt.
Batch Capacity	30
ICT Facilities	Computer, Projector, LAN, Wi-Fi, Amplifier with Speakers.

The laboratory is actively involved in conducting hands on practical sessions for both undergraduate (UG) and postgraduate (PG) students in the domain of Food Processing and Packaging. These practical exercises actively involve students in laboratory experiments, enabling them to acquire invaluable hands-on experience while grasping the fundamental principles of these fields. These practical's are important for building essential laboratory skills, conducting experiments, and research in these fields. They offer valuable insights into the packaging strength and water absorption of packaging materials and other processing equipment like cleaning grading milling techniques and food processing applications.



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Equipment list

	Food Technology Lab 1: Food Engineering and Packaging lab	
1.	Freeze dryer	1
2.	Rotary evaporator and vacuum pump	1
3.	Laminar flow	1
4.	Magnetic stirrer	1
5.	Hot air oven	1
6.	Moisture analyzer	1
7.	Band sealing machine	1
8.	Vacuum sealing machine	1
9.	Hand sealing machine	2
10.	Cup sealing machine	1
11.	Tray sealing machine	1
12.	Sieve shaker fitted FHP motor 6"sieve of 8" dia	1
13.	Rice sheller	1
14.	Grain/Rice sizing device	1
15.	Probe sonicator	1
16.	gas analyser oxybaby	1
17.	Microwave synthesizer/extra	1
18.	Burst tester	1
19.	Bomb colorimeter	1
20.	Cobb tester	1
21.	Cyclo vortex	1
22.	Elmendorf type tear tester	1

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23.	Dielectric constant kit	2
24.	Laboratory type ball mill	1
25.	magnetic stirrer and hot plate ABDos	2
26.	Vacuum oven Rvo-50	1
27.	Paper thickness gauge	1
28.	Tensile strength tester	1
29.	Bottle top filtration system	1
30.	Milk cream separator	1
31.	Screw oil expeller	3
32.	Lab aspirator	1
33.	Seed blower	1
34.	Rubber roll Sheller	1
35.	Hammer mill	1
36.	Bio safety cabin	1
37.	Viscometer	1
38.	Rice polisher	1
39.	Deep fryer	1
40.	Air fryer	1
41.	Microwave	1
42.	BOD incubator shaker	1



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Image showing entrance of the Laboratory:



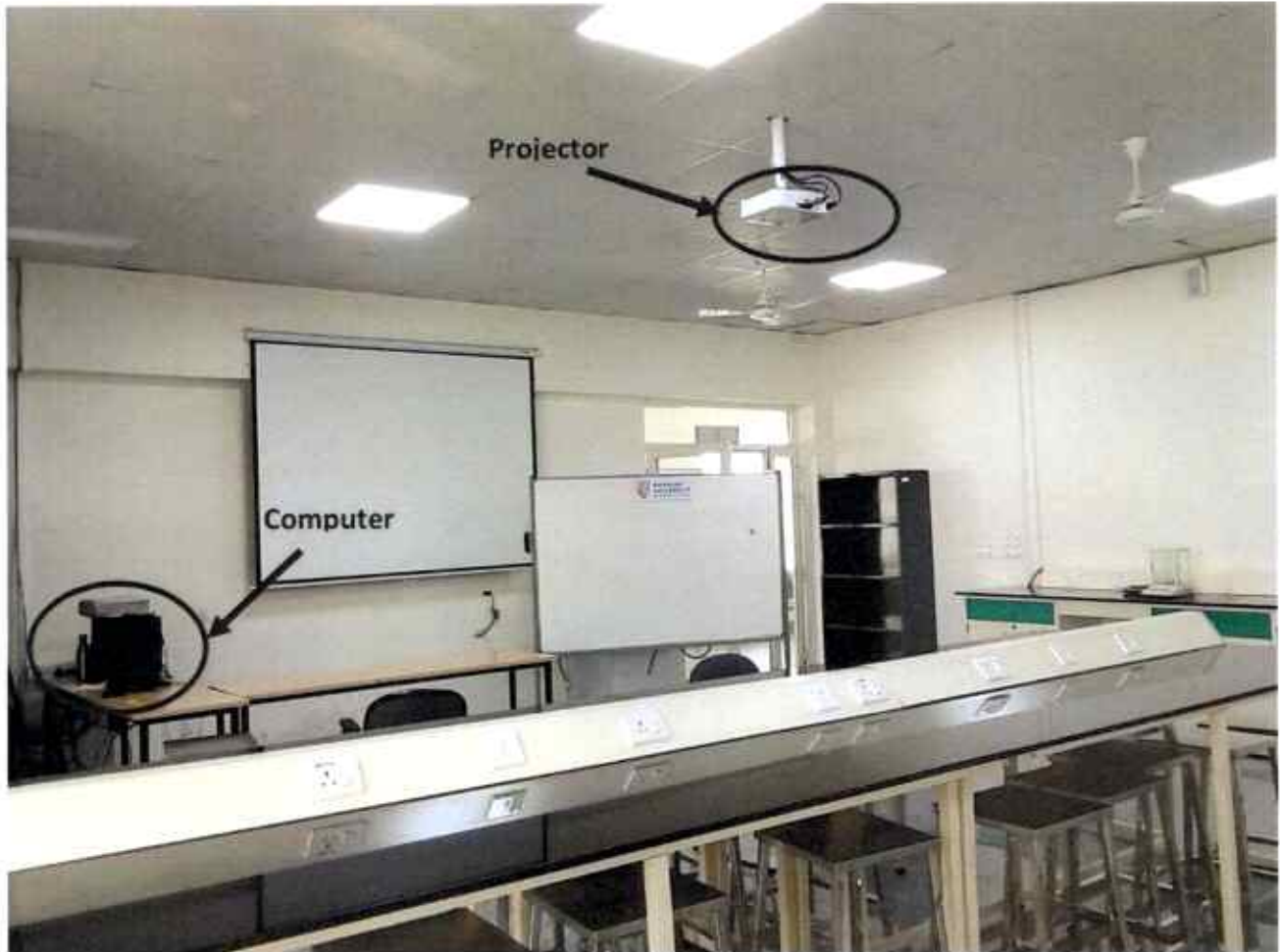

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Latitude	13° 1' 46.72"
Longitude	77° 34' 9.62"

Faculty of Life and Allied Health Sciences
M.S. Ramaiah University of Applied Sciences
Bangalore - 560054

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Image showing inside view of the Laboratory:



Latitude	13° 1' 46.72"
Longitude	77° 34' 9.63"


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Image showing inside view of the Laboratory:



Latitude	13° 1' 46.73"
Longitude	77° 34' 9.63"


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Image showing inside view of the Laboratory:



Latitude	13° 1' 46.72"
Longitude	77° 34' 9.62"


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Image showing inside view of the Laboratory:



Latitude	13° 1' 46.28"
Longitude	77° 34' 9.71"



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Image showing inside view of the Laboratory:



Latitude	13° 1' 46.98"
Longitude	77° 34' 9.70"


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Major Equipment:

1) Freeze Dryer



Freeze drying, also known as lyophilization or cryodesiccation, is a food preservation and dehydration process that involves removing moisture from a substance while preserving its structure, flavor, and nutritional content. It is widely used in the food industry, pharmaceuticals, and various scientific applications.



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2) Ultrasonicator



An ultrasonicator, often referred to as an ultrasonic bath or ultrasonic cleaner, is a laboratory instrument that uses ultrasonic waves to clean, disperse, mix, or homogenize samples in a liquid medium. It employs the phenomenon of acoustic cavitation, where the rapid formation and collapse of microscopic bubbles in a liquid create intense localized energy, which can be harnessed for various applications.

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3) -40 ° C Refrigerator



A -40 degree refrigerator, also known as an ultra-cold freezer or deep freezer, is designed to maintain an internal temperature of -40 degrees Celsius. These freezers are capable of reaching and sustaining extremely low temperatures, making them suitable for preserving and storing biological samples, food substances, prefreezing for lyophilization, and other sensitive research materials.


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Bangalore - 560 054

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06) Faculties, Schools, Constituent Colleges

05) Faculty of Life and Allied Health Sciences

04) Laboratories

Room No.	Laboratory 3: S09
Name of the Lab	Biochemistry and Microbiology, FT
Area	1362 Sq Ft
Seating Capacity	30
ICT Facilities	Computer, Projector, LAN / Wi Fi, Amplifier with Speakers

The laboratory is actively involved in conducting hands-on practical sessions for both undergraduate (UG) and postgraduate (PG) students in the domain of biochemistry and microbiology. These practical exercises actively involve students in laboratory experiments, enabling them to acquire invaluable hands-on experience while grasping the fundamental principles of these fields. These practicals are important for building essential laboratory skills, conducting experiments, and advancing research in these fields. They offer valuable insights into the biochemical and microbial processes that underlie various biological phenomena, including food born disease and metabolism.


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Equipment list

Food Technology Lab 3:: Food chemistry & Microbiology lab		
1.	Centrifuge	1
2.	Colorimeter digital	1
3.	Colony counter digital	2
4.	Digital photoelectric calorie meter	5
5.	Distillation unit	3
6.	Electronic weighing balance	5
7.	Fermenter	2
8.	Heating mantle	3
9.	Hot air oven	1
10.	Incubator	2
11.	Muffle furnace	1
12.	Magnetic stirrer	5
13.	Magnetic stirrer without hot plate	1
14.	PH meter	2
15.	Protein digestion unit	1
16.	Melting point apparatus	1
17.	Refrigerator	2
18.	Soxhlet apparatus	1
19.	Thermometer digital	3
20.	UV-visible spectrophotometer	1
21.	Digital ultrasonic cleaner	1
22.	Binocular microscope with camera	1
23.	Laminar air flow (4*2*2)	1

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24.	Autoclave large	1
25.	UV Illuminator	1
26.	Autoclave	1
27.	Refrigerated Centrifuge	1
28.	Micro plate reader	1
29.	Water bath	2
30.	Vacuum Pump 51 Liter With Oil Single Stage, 1/4 Hp Power	1
31.	Hot plate	1
32.	Microscope	10
33.	Stereomicroscope	1



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Image showing entrance of the Laboratory:



Latitude	13° 1' 46.50"
Longitude	77° 34' 9.44"


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Image showing inside view of the Laboratory:



Latitude	13° 1' 46.84"
Longitude	77° 34' 9.56"


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Image showing inside view of the Laboratory:



Latitude	13° 1' 46.83"
Longitude	77° 34' 9.55"


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Image showing inside view of the Laboratory:



Latitude	13° 1' 46.80"
Longitude	77° 34' 9.56"



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Major Equipment:

1) Plate counter



A plate counter, also known as a colony counter or bacterial colony counter, is a laboratory instrument used for counting the number of bacterial or other microbial colonies on a petri dish or agar plate. It is a valuable tool in microbiology, clinical laboratories, and research settings for various purposes, including quality control, disease diagnosis, and research studies.



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2) Electronic Microscope



An electronic microscope, also known as an electron microscope, is a powerful scientific instrument used for magnifying extremely small objects or structures at a much higher resolution than traditional light microscopes. It achieves this high-resolution imaging through the use of a beam of electrons instead of visible light. Electron microscopes have revolutionized various scientific fields by enabling researchers to visualize and study the fine details of specimens at the nanoscale.



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3) Refrigerated centrifuge.



A refrigerated centrifuge is a laboratory device designed to rapidly separate substances within a test sample based on their density. It combines the principles of centrifugation with temperature control to enable scientists and researchers to perform a wide range of applications in fields such as biology and chemistry.


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4) Fermenter



A lab fermenter, also known as a bioreactor or Fermenter, is a specialized piece of equipment used in industrial microbiology and fermentation technology for the cultivation and growth of microorganisms, such as bacteria, yeast, and fungi, under controlled conditions. It plays a crucial role in various research, development, and production processes, particularly in fields like food and beverage production, Nutraceuticals and biofuel manufacturing.


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Registrar
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Registrar

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06) Faculties, Schools, Constituent Colleges

05) Faculty of Life and Allied Health Sciences

04) Laboratories

Room No.	S08-Laboratory 2
Name of the Lab	Nutrition and Product Development FT
Area	1455 Sq Ft
Batch Capacity	30
ICT Facilities	Computer, Projector, LAN / Wi Fi, Amplifier with Speakers

The laboratory is actively involved in conducting practical sessions for undergraduate (UG) and postgraduate (PG) students in Food Nutrition and Dietetics. These practical exercises allow students to actively participate in laboratory experiments, gaining valuable hands-on experience while comprehending the core principles of Food Nutrition and Dietetics. These practicals are vital for educational enrichment and also offer significant value for research endeavors. This lab exclusively hosts a kitchen set up for fostering a deep understanding of product development hands on experiences.



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Equipment list

Food Technology Lab 2: Nutrition and Product Development Lab		
1.	Refrigerator	1
2.	Microwave oven	1
3.	Built in oven	2
4.	Deep freezer	1
5.	Air fryer	1
6.	Deep fryer	1
7.	Food Dehydrator	1
8.	Table top Mixer grinder+1	2
9.	Ice cream maker	1
10.	Weighing machine	1
11.	Hand sealing machine (12 inch)	1
12.	Insect-o-cutor	1
13.	Digital Weighing scale	2
14.	Tray dryer	1
15.	Gerber centrifuge	1
16.	Environmental chamber	1
17.	Magnetic stirrer	1
18.	Stand mixer	1
19.	Pasta extruder	1
20.	Cleebger apparatus for oil lighter than water	1
21.	Inductions	8
22.	Sandwich griller	1



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23.	Autoclave large	1
24.	Skinfold caliper	1
25.	Microscope	5



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Image showing entrance of the Laboratory:



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Latitude	13° 1' 46.57" N
Longitude	77° 34' 9.58" E

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Image showing inside view of the Laboratory:



Latitude	13° 1' 46.49" N
Longitude	77° 34' 9.57" E


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Image showing inside view of the Laboratory:



Latitude	13° 1' 46.49" N
Longitude	77° 34' 9.59" E


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Image showing inside view of the Laboratory:



Latitude	13° 1' 46.49" N
Longitude	77° 34' 9.59" E


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Image showing inside view of the Laboratory:



Latitude	13° 1' 46.52" N
Longitude	77° 34' 9.51" E



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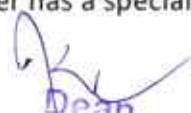
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Major Equipment:

1) Tray Dryer



A tray dryer is a type of industrial drying equipment used for drying various substances, typically in bulk quantities. It is commonly found in food processing industries. The primary purpose of a tray dryer is to remove moisture or solvents from materials or products to enhance their shelf life, quality, or usability. This dryer has a special control system for capturing drying rate and assisting in drying optimization.


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2) Environmental chamber



An environmental chamber, also known as a climate chamber or environmental test chamber, is a specialized piece of equipment used in various industries and scientific research to simulate and control environmental conditions for testing and experimentation in accelerated shelf life analysis.


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