



**RAMAIAH**  
College of Arts, Science &  
Commerce

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**M S Ramaiah College of Arts, Science and Commerce**

Re-accredited 'A' by NAAC, Permanently Affiliated to Bengaluru City University,  
Approved by Government of Karnataka - Approved by AICTE, New Delhi,  
Recognized by UGC under 2F & 12B of UGC act 1956



(National Institutional Ranking Framework, Ministry of Education, Govt of India)

Ranked 62<sup>nd</sup> in NIRF India Ranking by MHRD, New Delhi

DBT Star College Scheme

REF: MSRCASC/MB / 21-22 / 011

Date: 25.05.2022

## Circular

### Department of Microbiology

#### Value added Course

The students of B.Scare hereby informed that, there is a Value added course offered in the topic  
“**Good Manufacturing Practices, Quality Control and Quality Assurance of Foods**”,  
**organized by the Department of Microbiology under the DBT –STAR College Scheme.** The  
students are hereby informed to register for the same at the earliest.

  
Co-ordinator

DBT - STAR College scheme

In-charge of the Department  
**MICRO BIOLOGY**  
Ramaiah College of Arts,  
Science & Commerce  
Bangalore - 560 054

  
Principal

Principal,  
M.S. Ramaiah College of Arts, Science & Commerce  
MSRIT Post, MSR Nagar  
Bangalore - 560 054



**RAMAIAH**

College of Arts, Science

& Commerce

Department of Microbiology



**VALUE ADDED COURSE**

**Good Manufacturing Practices, Quality Control  
and Quality Assurance of Foods.**

**About the course:** Food Technology is an important sector in the industry with a wide range of processed food products suitable for today's life style. Food quality testing is an indispensable part of food safety supported by various Food Control Agencies like FSSAI, AGMARK, FAO, FPO.

Hence assuring Food quality becomes an integral part of the food industry for the safety of the consumer. The course imparts all the technical skills towards various parameters set in the food industry.



**Objectives:**

- To impart technical knowledge and skill development in the field of Food industries.
- To develop qualities of a Microbiologist in the field of Good manufacturing practices, Food QC and QA.



**Duration of the Course :** 30 hours of theory and practical sessions with critical thinking, skill based learning, interactive sessions, personality development and Entrepreneurship development.

**Registration :** 50 Nos.(Students need to fill the Google form and the first registered students will be considered for the course)

**Plan of action:** The design of the course is in accordance to the industrial norms. The course content includes theoretical sessions, hands on practical sessions and skill based outcomes • Visit to Food industries to understand Food Quality Control and Quality Assurance.

**Out come:** To develop a professional Food Microbiologist in GMP , Quality Control and Quality Assurance as a stepping towards the Industries



**Organizing committee**

**Dr. Pushpa.H**  
Professor,  
HOD- Microbiology, MSRCASC

**Dr. Yogesh D**  
Assistant Professor,  
Department of Microbiology

**Dr. Prasanna Srinivas**  
Assistant Professor,  
Department of Microbiology

**Dr. Ramesha A**  
Assistant Professor,  
Department of Microbiology



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DBT Star College Scheme

## M. S. RAMAIAH COLLEGE OF ARTS, SCIENCE AND COMMERCE

### DEPARTMENT OF MICROBIOLOGY

#### Report on Value added course “Good Manufacturing practices, Quality Control and Quality Assurance of Foods”.

**Objectives:** To study about the fast food outlets for the quality of raw materials used in food preparation.

**Sponsored Project:** DBT-STAR College Scheme.

**Co-ordinator DBT-STAR College Scheme:** Dr.Pushpa.H

**Resource persons:** Dr.PrasannaSrinivas.R

Dr.Yogesh

Dr.Ramesha

**Venue:**Microbiology Laboratory

**Duration of conduction:** 13<sup>th</sup> July to 13<sup>th</sup> August

**No. of Participants:**-26 students.

**Modules for the study :**

**Module 1- Biosafety in Microbiology Laboratory :**

Biosafety Levels- Level -I, Level-II, Level-III and Level- IV

General Laboratory directions for Food safety

## **Module 2-Chemical and Microbiological analysis of raw materials**

Microbial standards of food and water used in the preparation of foods

## **Module 3 -Microbial examination of Canned foods :**

Study of Mesophiles and Thermophiles- microbes in low acid foods, microbes in acid and Acidified low acid foods by Enrichment and Direct Plating technique.

## **Module 4 - Microbiological Standards for processed foods:**

The study of Standard Food safety limits of nine major food borne pathogens.

## **Module 5 -Food Auditing, HACCP, Quality Control and Quality Assurance:**

Basic map of Food industry, Data maintenance, Book keeping and Basic auditing at Food Industry, Overview of HACCP, Quality Control and Quality Assurance cell in the industry.

## **REPORT:**

The course started with a basic interaction with the students and an orientation was given to the students towards the value added course. An overview of the modules were discussed and explained about the theory and practical sessions, which would be conducted during the programme.

The students were advised to select a few street food outlets in different areas around Bengaluru. The students studied the food preparation conditions and the quality of hygiene by sampling the food serving plates, the personnel and the air flora. The raw food samples like pulses, chopped onions, coriander, etc were analysed for the microbiological quality.

The water samples used for the food preparation were collected and tested for MPN test and coliform tests. The canned foods were analyzed for mesophilic bacteria and sampled on specialized media like Bacillus agar, Pseudomonas Agar, Salmonella Shigella Agar, etc to understand about food contaminants.

The students were provided with theoretical knowledge about the Thermophiles, Acidophiles and contaminants of Acidified low acid foods. The study included Biosafety Levels- Level -I, Level-II, Level-III and Level- IV in the food industry for good manufacturing practices.

The ready -to-eat foods- pizza, pasta, Filled cream rolls, sandwiches, Dips, Dressings/ Mayonnaise, icing agents, cherries were analyzed for microbiological quality and compared with standard guidelines.

Hence the Microbiological assessment of the above foods was categorized for Class A, Class B, Class C, Class D. The topics of HACCP, Quality control and Quality assurance were discussed

### **OUTCOME OF THE PROJECT:**

The food samples analyzed for microbiological quality showed that there was moderate level of contamination. The students were assessed about food quality control, food standards, HACCP, by few MCQ.



**Students at the Microbiology Laboratory on the first day of Value added Course**



Air exposure at a food outlet | Sampling of the raw food ingredients



Isolation of Bacteria from raw pulses used in food preparations



Most Probable Number method of Food analysis conducted for water and milk

Future Objectives:

1. Study of food colouring agents – artificial food colours and their effect on micro-organisms.
2. Adulterants used in food preparation.

*Sulme.H*  
Co-ordinator

DBT-STAR College Scheme  
Head of the Department  
MICRO BIOLOGY  
Ramaiah College of Arts,  
Science & Commerce  
Bangalore - 560 054

Resource persons

1. *[Signature]*
2. *Kameela A*
3. *[Signature]*

*Vatsalya*  
Principal,  
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**DEPARTMENT OF BIOTECHNOLOGY**  
MINISTRY OF SCIENCE & TECHNOLOGY,  
GOVERNMENT OF INDIA

## Certificate

This is to Certify that Yashoda. Q  
of B.Sc - IV Semester has participated in Value Added Program on  
“**Good Manufacturing Practices, Quality Control and Quality Assurances of Foods**”  
held from 13<sup>th</sup> July to 13<sup>th</sup> August 2022 Organized by the Department of Microbiology,  
**M. S. Ramaiah College of Arts, Science and Commerce, Bangalore**

**Dr. Pushpa H**  
Vice Principal & Head, Department of Microbiology,  
MSRCASC, Bangalore

**Dr. Vatsala G**  
Principal  
MSRCASC, Bangalore

M.S.RAMAIAH COLLEGE OF ARTS, SCIENCE AND COMMERCE

VALUE ADDED COURSE- DBT SPONSORED-2022-ATTENDANCE- July to August 2022

DEPARTMENT OF MICROBIOLOGY

Sl.No.	NAME OF THE STUDENT	CLASS										
1	Aishwarya.S	VI SEM	Aishwarya.S (Kasturba)	Aishwarya.S (Kasturba)	Aishwarya.S (Kasturba)	Aishwarya.S (Kasturba)	Aishwarya.S (Kasturba)	Aishwarya.S (Kasturba)	Aishwarya.S (Kasturba)	Aishwarya.S (Kasturba)	Aishwarya.S (Kasturba)	Aishwarya.S (Kasturba)
2	Keerthana.K	VI SEM	Keerthana.K (Kasturba)	Keerthana.K (Kasturba)	Keerthana.K (Kasturba)	Keerthana.K (Kasturba)	Keerthana.K (Kasturba)	Keerthana.K (Kasturba)	Keerthana.K (Kasturba)	Keerthana.K (Kasturba)	Keerthana.K (Kasturba)	Keerthana.K (Kasturba)
3	DivyaBala.R	VI SEM	DivyaBala.R (Kasturba)	DivyaBala.R (Kasturba)	DivyaBala.R (Kasturba)	DivyaBala.R (Kasturba)	DivyaBala.R (Kasturba)	DivyaBala.R (Kasturba)	DivyaBala.R (Kasturba)	DivyaBala.R (Kasturba)	DivyaBala.R (Kasturba)	DivyaBala.R (Kasturba)
4	Divyashree.B	VI SEM	Divyashree.B (Kasturba)	Divyashree.B (Kasturba)	Divyashree.B (Kasturba)	Divyashree.B (Kasturba)	Divyashree.B (Kasturba)	Divyashree.B (Kasturba)	Divyashree.B (Kasturba)	Divyashree.B (Kasturba)	Divyashree.B (Kasturba)	Divyashree.B (Kasturba)
5	Aishwarya.K	VI SEM	Aishwarya.K (Kasturba)	Aishwarya.K (Kasturba)	Aishwarya.K (Kasturba)	Aishwarya.K (Kasturba)	Aishwarya.K (Kasturba)	Aishwarya.K (Kasturba)	Aishwarya.K (Kasturba)	Aishwarya.K (Kasturba)	Aishwarya.K (Kasturba)	Aishwarya.K (Kasturba)
6	Afsana Khan	VI SEM	Afsana Khan (Kasturba)	Afsana Khan (Kasturba)	Afsana Khan (Kasturba)	Afsana Khan (Kasturba)	Afsana Khan (Kasturba)	Afsana Khan (Kasturba)	Afsana Khan (Kasturba)	Afsana Khan (Kasturba)	Afsana Khan (Kasturba)	Afsana Khan (Kasturba)
7	Bandi Sai Charishmitha	VI SEM	Bandi Sai Charishmitha (Kasturba)	Bandi Sai Charishmitha (Kasturba)	Bandi Sai Charishmitha (Kasturba)	Bandi Sai Charishmitha (Kasturba)	Bandi Sai Charishmitha (Kasturba)	Bandi Sai Charishmitha (Kasturba)	Bandi Sai Charishmitha (Kasturba)	Bandi Sai Charishmitha (Kasturba)	Bandi Sai Charishmitha (Kasturba)	Bandi Sai Charishmitha (Kasturba)
8	Swathi.S	IV SEM	Swathi.S (Kasturba)	Swathi.S (Kasturba)	Swathi.S (Kasturba)	Swathi.S (Kasturba)	Swathi.S (Kasturba)	Swathi.S (Kasturba)	Swathi.S (Kasturba)	Swathi.S (Kasturba)	Swathi.S (Kasturba)	Swathi.S (Kasturba)
9	Nityasree Natarajan	IV SEM	Nityasree Natarajan (Kasturba)	Nityasree Natarajan (Kasturba)	Nityasree Natarajan (Kasturba)	Nityasree Natarajan (Kasturba)	Nityasree Natarajan (Kasturba)	Nityasree Natarajan (Kasturba)	Nityasree Natarajan (Kasturba)	Nityasree Natarajan (Kasturba)	Nityasree Natarajan (Kasturba)	Nityasree Natarajan (Kasturba)
10	Yashoda O	IV SEM	Yashoda O (Kasturba)	Yashoda O (Kasturba)	Yashoda O (Kasturba)	Yashoda O (Kasturba)	Yashoda O (Kasturba)	Yashoda O (Kasturba)	Yashoda O (Kasturba)	Yashoda O (Kasturba)	Yashoda O (Kasturba)	Yashoda O (Kasturba)
11	Hima.R	IV SEM	Hima.R (Kasturba)	Hima.R (Kasturba)	Hima.R (Kasturba)	Hima.R (Kasturba)	Hima.R (Kasturba)	Hima.R (Kasturba)	Hima.R (Kasturba)	Hima.R (Kasturba)	Hima.R (Kasturba)	Hima.R (Kasturba)

Principal  
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**nirf** (National Institutional Ranking Framework, Ministry of Education, Go  
Ranked 59<sup>th</sup> in NIRF India Ranking by MHRD, New Delhi  
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### Assessment of the Value Added Course:

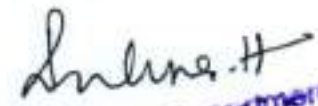
Sl.No.	NAME OF THE STUDENT	CLASS	30 MARKS
1	Aishwarya.S	VI SEM	27
2	Keerthana.K	VI SEM	28
3	DivyaBala.R	VI SEM	29
4	Divyashree.B	VI SEM	29
5	Aishwarya.K	VI SEM	25
6	Afsana Khan	VI SEM	26
7	Bandi Sai Charishmitha	VI SEM	25
8	Swathi.S	IV SEM	29
9	Nityasree Natarajan	IV SEM	29
10	Yashoda.O	IV SEM	30
11	Hima.R	IV SEM	28
12	Brinda.P	IV SEM	28
13	Akshatha.K	IV SEM	29
14	Dhathri.V.Murali	IV SEM	30
15	Easha Roy	IV SEM	27
16	Sushma.D	VI SEM	27

17	Ramya Shankar	VI SEM	28
18	Tamding Dolna	VI SEM	28
19	Nityasree Natarajan	VI SEM	27
20	Vedika .R.Kuttanda	VI SEM	29
21	Ritankar	VI SEM	25
22	Rohini.R	VI SEM	26
23	Spoorthy	VI SEM	28
24	Annesha Bannerjee	VI SEM	30
25	Andrea Amili Lobo	VI SEM	28
26	Anushka	VI SEM	29

1) 

2) Ramya A

3) 

  
 Head of the Department  
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