

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: GENERAL ENGLISH-I(semester 1) 2022-23 batch

COURSE CODE: EN18101

CREDITS: 3

DEPARTMENT: FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(B.Sc) Or POs :

PO1. Scientific Knowledge. Apply the knowledge of Science, Mathematics, Engineering & Technology fundamentals to solve technical problems.

PO2. Design/development of solutions: Design solutions for complex engineering problems and design system components or systems to meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO3. Problem analysis: Identify, formulate, research literature, and analyze complex scientific problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO4. Modern tool usage: Create, select and apply appropriate techniques, resources, modern technology and IT tools to complex engineering and technological activities.

PO5. Environment and sustainability: Understand the impact of professional science and technological solutions in societal and environmental contexts and for sustainable development.

PO6. Individual and team work: Function objectively as an individual and as a member in diverse teams.

PO7. Communication: Communicate effectively on complex science & technology activities with society at large and able to write reports and documentation.

PO8. Life-long learning: Recognise the need and ability to engage in independent and lifelong learning in the context of technology and change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

Understand the concept of food science, nutrition and dietetics

Analyse the relationships between various nutrients and physiological disorders and various diet therapies

Apply the knowledge of processing and preservation techniques in increasing the shelf life of food products

Combine the knowledge of food science, nutrition and dietetics to overcome food wastage, malnutrition and lifestyle disorders

COURSE OUTCOMES	BLOOM'S TAXONOMY
Categorise different foods based on guidelines and RDA	IV(ANALYSIS)
Analysing regulations of body weight and eating disorders	IV(ANALYSIS)
Describing nutritional aspects of vitamins	I(REMEMBER)
Compare nutritional aspects of various minerals	V(EVALUATE)
Classify antioxidants in health diseases	II(UNDERSTAND)

TABLE 1: CO, PO, PSO MAPPING

Programme Outcomes								Program Specific outcomes			
PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4
H			H	H			H	H	H		
H		H			H			H	H		
H	H				H		H		H	H	
H		H		H			H			H	
H		H					H	H	H		

H: Highly Supportive

S: Supportive

Table 2: COURSE OUTCOME ATTAINMENT

ATTAINMENT SCALE:

Pass percent of 85% and above= 3

Pass percent between 75% - 85%= 2

Pass percent between 65%- 75%= 1

Pass percent of less than 65%= 0

INTERNAL ASSESSMENT (40%)											EXTERNAL ASSESSMENT (60%)		
WEEKLY		MIDSEMESTER		PRE-FINAL		ASSIGNMENT		VIVA		Co-Wise Internal Average (Avg of A,B,C, D,E)	EXTERNAL EXAMS		Co-Wise External Average
ATTAINMENT LEVEL	PASS %	ATTAINMENT LEVEL	PASS %	ATTAINMENT LEVEL	PASS %	ATTAINMENT LEVEL	PASS %	ATTAINMENT LEVEL	PASS %		ATTAINMENT LEVEL	PASS %	
>85%=3 85-75%=2 75-65%=1 <65%=0	(A)	>85%=3 85-75%=2 75-65%=1 <65%=0	(B)	>85%=3 85-75%=2 75-65%=1 <65%=0	(C)	(choose the unit/CO from which assignment was given) >85%=3 85-75%=2 75-65%=1 <65%=0	(D)	>85%=3 85-75%=2 75-65%=1 <65%=0	(E)	(F)	>85%=3 85-75%=2 75-65%=1 <65%=0	(G)	
3	100	3	96.15	3	100	3	100	3	3	100	3	3	
-----	100	3	96.15	3	-----	-----	-----	-----	3	100	3	3	
-----	100	3	96.15	3	-----	-----	-----	-----	3	100	3	3	
-----	-----	-----	96.15	3	-----	-----	-----	-----	3	100	3	3	
-----	-----	-----	96.15	3	-----	-----	-----	-----	3	100	3	3	
INTERNAL AVERAGE [Avg of all (F)]: 3													Total External Average (Avg G):

RESULT ANALYSIS: (Only write a comment on the total CO attainment for the course and areas of improvement, how less it is from 3, which exam are they losing marks in, how can we attain 3)

Table 3: PROGRAMME OUTCOME MAPPING

[Instruction:

1. Copy the completed table 1.
2. Retain only the POs and the Highly supportive (H) points. [Delete the PSO columns and the 'S' points]
3. Write the respective CO-wise total average (column K in table 2) wherever each CO is mapped as (H) under each PO.]

Course outcomes	Programme Outcomes						
	PO1	PO2	PO3	PO4	PO5	PO6	PO7
1	H(3)			H(3)	H(3)		
2	H(3)		H(3)			H(3)	
3	H(3)	H(3)				H(3)	
4	H(3)		H(3)		H(3)		

5	H(3)		H(3)				
Column (a)	Average of Cos for PO1 3	Average of Cos for PO2 3	Average of Cos for PO3 3	Average of Cos for PO4 3	Average of Cos for PO5 3	Average of Cos for PO6 3	Average of Cos for PO7 3
Column (b)	Average of PO1: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO2: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO3: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO4: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO5: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO6: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO7: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3
TOTAL PO ATTAINMENT:	(Average of all values in Column (b): 3						

Please leave the blank columns as they are. Do not put zero for empty columns. Take the average of only the number of items entered.

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

DEPARTMENT: FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(B.Sc) Or POs :

PO1. Scientific Knowledge. Apply the knowledge of Science, Mathematics, Engineering & Technology fundamentals to solve technical problems.

PO2. Design/development of solutions: Design solutions for complex engineering problems and design system components or systems to meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

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PO5. Environment and sustainability: Understand the impact of professional science and technological solutions in societal and environmental contexts and for sustainable development.

PO6. Individual and team work: Function objectively as an individual and as a member in diverse teams.

PO7. Communication: Communicate effectively on complex science & technology activities with society at large and able to write reports and documentation.

PO8. Life-long learning: Recognise the need and ability to engage in independent and lifelong learning in the context of technology change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

Understand the concept of food science, nutrition and dietetics

Analyse the relationships between various nutrients and physiological disorders and various diet therapies

Apply the knowledge of processing and preservation techniques in increasing the shelf life of food products

Combine the knowledge of food science, nutrition and dietetics to overcome food wastage, malnutrition and lifestyle disorders

COURSE OUTCOMES

BLOOM'S TAXONOMY

Identify different functional properties of macromolecules	IV(ANALYSE)
Describe about water, water activity and its significance in food	II(UNDERSTAND)
Classify enzymes related to food	IV(ANALYSE)
Compare different food additives and their role in food industry	V(EVALUATE)
Explain structure and properties of plant and animal pigments	III(APPLY)

TABLE 1: CO, PO, PSO MAPPING

Programme Outcomes								Program Specific outcomes		
PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
H	H			H				H		
		H		H			H		H	
	H	H	H			H	S	H	H	
H		H			H					
		H		H			H	H	H	

H: Highly Supportive

S: Supportive

Table 2: COURSE OUTCOME ATTAINMENT

ATTAINMENT SCALE:

Pass percent of 85% and above= 3

Pass percent between 75% - 85%= 2

Pass percent between 65%- 75%= 1

Pass percent of less than 65%= 0

INTERNAL ASSESSMENT (40%)											EXTERNAL ASSESSMENT (60%)		
WEEKLY		MIDSEMESTER		PRE-FINAL		ASSIGNMENT		VIVA		Co-Wise Internal Average	EXTERNAL EXAMS		Co-Wise External Average
S	ATTAINMENT LEVEL	PASS %	ATTAINMENT LEVEL	PASS %	ATTAINMENT LEVEL	PASS %	ATTAINMENT LEVEL	PASS %	ATTAINMENT LEVEL	(Avg of A,B,C, D,E)	PASS %	ATTAINMENT LEVEL	Co-Wise External Average
	>85%=3 85-75%=2 75-65%=1 <65%=0 (A)		>85%=3 85-75%=2 75-65%=1 <65%=0 (B)		>85%=3 85-75%=2 75-65%=1 <65%=0 (C)		>85%=3 85-75%=2 75-65%=1 <65%=0 (D)		>85%=3 85-75%=2 75-65%=1 <65%=0 (E)			>85%=3 85-75%=2 75-65%=1 <65%=0 (G)	
	3	100	3	100	3	100	3	100	3	3	100	3	3
	-----	100	3	100	3	-----	-----	-----	-----	3	100	3	3
	-----	100	3	100	3	-----	-----	-----	-----	3	100	3	3
	-----	-----	-----	100	3	-----	-----	-----	-----	3	100	3	3

-	-----	-----	-----	100	3	-----	-----	-----	-----	3	100	3	3
INTERNAL AVERAGE [Avg of all (F)]:													Total Ext Ave (Avg G): 3

Programme Outcomes

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
H (3)					H (3)			H (3)
			H (3)		H (3)			H (3)
	H (3)			H (3)			H (3)	S
H (3)			H (3)			H (3)		
			H (3)		H (3)			H (3)
Average of Cos for PO1 3	Average of Cos for PO2 3	Average of Cos for PO3 3	Average of Cos for PO4 3	Average of Cos for PO5 3	Average of Cos for PO6 3	Average of Cos for PO7 3	Average of Cos for PO8 3	Average of Cos for PO9 3
Average of PO1: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO2: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO3: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO4: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO5: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO6: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO7: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO8: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO9: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3
(Average of all values in Column (b):								
3								

RESULT ANALYSIS: (Only write a comment on the total CO attainment for the course and areas of improvement, how less it is from 3, which exam are they losing marks in, how can we attain 3)

Table 3: PROGRAMME OUTCOME MAPPING

[Instruction:

1. Copy the completed table 1.
2. Retain only the POs and the Highly supportive (H) points. [Delete the PSO columns and the 'S' points]
3. Write the respective CO-wise total average (column K in table 2) wherever each CO is mapped as (H) under each PO.]

Please leave the blank columns as they are. Do not put zero for empty columns. Take the average of only the number of items entered.

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: FOOD AND HUMAN NUTRITION(semester 1) 2022-23 batch

COURSE CODE: FT1801

CREDITS: 4

DEPARTMENT:FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(B.Sc) Or POs :

PO1. Scientific Knowledge. Apply the knowledge of Science, Mathematics, Engineering& Technology fundamentals to solve the

problems.

PO2. Design/development of solutions: Design solutions for complex engineering problems and design system components or systems to meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO3. Problem analysis: Identify, formulate, research literature, and analyze complex scientific problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO4. Modern tool usage: Create, select and apply appropriate techniques, resources, modern technology and IT tools to complete complex technological activities.

PO5. Environment and sustainability: Understand the impact of professional science and technological solutions in societal and environmental contexts and for sustainable development.

PO6. Individual and team work: Function objectively as an individual and as a member in diverse teams.

PO7. Communication: Communicate effectively on complex science & technology activities with society at large and able to write reports and documentation.

PO8. Life-long learning: Recognise the need and ability to engage in independent and lifelong learning in the context of technology change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

Understand the concept of food science, nutrition and dietetics

Analyse the relationships between various nutrients and physiological disorders and various diet therapies

Apply the knowledge of processing and preservation techniques in increasing the shelf life of food products

Combine the knowledge of food science, nutrition and dietetics to overcome food wastage, malnutrition and lifestyle disorders

	COURSE OUTCOMES	BLOOM'S TAXONOMY
CO1	Identify the importance of membrane structure and its functions	IV (C)
CO2	Identify the importance of enzymes and biological oxidation	IV (C)
CO3	Explain carbohydrate chemistry and its metabolism	III (C)
CO4	Explain lipid chemistry and its metabolism	III (C)

CO5	Explain protein chemistry and its metabolism	III
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TABLE 1: CO, PO, PSO MAPPING

Course outcomes	Programme Outcomes								Programme Outcomes	
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2
1	H					H	H		H	
2	H	H		H					H	
3	S		H	H			H		H	H
4	H				H			H	H	
5			H		H			H	H	H

H: Highly Supportive

S: Supportive

Table 2: COURSE OUTCOME ATTAINMENT

ATTAINMENT SCALE:

Pass percent of 85% and above= 3

Pass percent between 75% - 85%= 2

Pass percent between 65%- 75%= 1

Pass percent of less than 65%= 0

INTERNAL ASSESSMENT (40%)											EXTERNAL ASSESSMENT		
WEEKLY		MIDSEMESTER		PRE-FINAL		ASSIGNMENT		VIVA		Co-Wise Internal Average (Avg of A,B,C, D,E)	EXTERNAL EXAMS		
PASS %	ATTAINMENT LEVEL	PASS %	ATTAINMENT LEVEL	PASS %	ATTAINMENT LEVEL	PASS %	ATTAINMENT LEVEL	PASS %	ATTAINMENT LEVEL		PASS %	ATTAINMENT LEVEL	
	>85%=3 85-75%=2 75-65%=1 <65%=0 (A)		>85%=3 85-75%=2 75-65%=1 <65%=0 (B)		>85%=3 85-75%=2 75-65%=1 <65%=0 (C)		>85%=3 85-75%=2 75-65%=1 <65%=0 (choose the unit/CO from which assignment was given) (D)		>85%=3 85-75%=2 75-65%=1 <65%=0 (E)				>85%=3 85-75%=2 75-65%=1 <65%=0 (F)
100	2	100	3	100	3	100	3	100	3	3	100	3	
-----	-----	100	3	100	3	-----	-----	-----	-----	3	100	3	
-----	-----	1000	3	100	3	-----	-----	-----	-----	3	100	3	
-----	-----	-----	-----	100	3	-----	-----	-----	-----	3	100	3	
-----	-----	-----	-----	100	3	-----	-----	-----	-----	3	100	3	

INTERNAL AVERAGE [Avg of all (F)]:

RESULT ANALYSIS: (Only write a comment on the total CO attainment for the course and areas of improvement, how less it is from 3, which exam are they losing marks in, how can we attain 3)

Column (b)	Average of PO1: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2	Average of PO2: [(Column a)/ 3 X Total CO attainment For Entire Course value in table 2	Average of PO3: [(Column a)/ 3 X Total CO attainment For Entire Course value in table 2	Average of PO4: [(Column a)/ 3 X Total CO attainment For Entire Course value in table 2	Average of PO5: [(Column a)/ 3 X Total CO attainment For Entire Course value in table 2	Average of PO6: [(Column a)/ 3 X Total CO attainment For Entire Course value in table 2	Average of PO7: [(Column a)/ 3 X Total CO attainment For Entire Course value in table 2
	3	4	3	4	3	3	3
TOTAL PO ATTAINMENT:	(Average of all values in Column (b): 3						

Please leave the blank columns as they are. Do not put zero for empty columns. Take the average of only the number of items entered.

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: FOOD CHEMISTRY

(semester 1)

2022-23 batch

COURSE CODE: FT18102

CREDITS: 1

DEPARTMENT: FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(B.Sc) Or POs :

- **PO1. Scientific Knowledge.** Apply the knowledge of Science, Mathematics, Engineering & Technology fundamentals to solve complex problems.
- **PO2. Design/development of solutions:** Design solutions for complex engineering problems and design system components to meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- **PO3. Problem analysis:** Identify, formulate, research literature, and analyze complex scientific problems reaching substantial conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- **PO4. Modern tool usage:** Create, select and apply appropriate techniques, resources, modern technology and IT tools to design and solve technological activities.
- **PO5. Environment and sustainability:** Understand the impact of professional science and technological solutions in society and environmental contexts and for sustainable development.
- **PO6. Individual and team work:** Function objectively as an individual and as a member in diverse teams.
- **PO7. Communication:** Communicate effectively on complex science & technology activities with society at large and industry through reports and documentation.
- **PO8. Life-long learning:** Recognise the need and ability to engage in independent and lifelong learning in the context of technology change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1: Understand the concept of food science, nutrition and dietetics

PSO2: Analyse the relationships between various nutrients and physiological disorders and various diet therapies

PSO3: Apply the knowledge of processing and preservation techniques in increasing the shelf life of food products

PSO4: Combine the knowledge of food science, nutrition and dietetics to overcome food wastage, malnutrition and lifestyle

	COURSE OUTCOMES	BLOOM'S TAXONOMY
CO1	Identify different microorganisms associated with food	IV(A)
CO2	Appraise the microbial estimation in food	V(E)
CO3	Classify microorganisms associated with food and water	IV(A)

CO4	Compare different food preservation techniques used	V(E
CO5	Explain various food borne illnesses caused due to microorganisms	III

TABLE 1: CO, PO, PSO MAPPING

Course outcomes	Programme Outcomes								Prog o	
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	P08	PSO1	PSO2
1	H	H			H				H	
2			H		H			H		H
3		H	H	H			H	S	H	H
4	H		H			H				
5			H		H			H	H	H

H: Highly Supportive

S: Supportive

Table 2: COURSE OUTCOME ATTAINMENT

ATTAINMENT SCALE:

Pass percent of 85% and above= 3

Pass percent between 75% - 85%= 2

Pass percent between 65%- 75%= 1

Pass percent of less than 65%= 0

INTERNAL ASSESSMENT (40%)											EXTERNAL ASSESSMENT	
WEEKLY		MIDSEMESTER		PRE-FINAL		ASSIGNMENT		VIVA			EXTERNAL EXAMS	
PASS %	ATTAINMENT LEVEL	PASS %	ATTAINMENT LEVEL	PASS %	ATTAINMENT LEVEL	PASS %	ATTAINMENT LEVEL	PASS %	ATTAINMENT LEVEL	Co-Wise Internal Average (Avg of A,B,C, D,E)	PASS %	ATTAINMENT LEVEL
	>85%=3 85-75%=2 75-65%=1 <65%=0 (A)		>85%=3 85-75%=2 75-65%=1 <65%=0 (B)		>85%=3 85-75%=2 75-65%=1 <65%=0 (C)		>85%=3 85-75%=2 75-65%=1 <65%=0 (D) (choose the unit/CO from which assignment was given)		>85%=3 85-75%=2 75-65%=1 <65%=0 (E)	(F)		>85%=3 85-75%=2 75-65%=1 <65%=0
100	3	100	3	100	3	100	3	100	3	3	100	3
-----	-----	100	3	100	3	-----	-----	-----	-----	3	100	3
-----	-----	100	3	100	3	-----	-----	-----	-----	3	100	3
-----	-----	-----	-----	100	3	-----	-----	-----	-----	3	100	3
-----	-----	-----	-----	100	3	-----	-----	-----	-----	3	100	3

INTERNAL AVERAGE [Avg of all (F)]:

RESULT ANALYSIS: (Only write a comment on the total CO attainment for the course and areas of improvement, how less it is from 3, which exam are they losing marks in, how can we attain 3)

Table 3: PROGRAMME OUTCOME MAPPING

[Instruction:

- 1. Copy the completed table 1.**
- 2. Retain only the POs and the Highly supportive (H) points. [Delete the PSO columns and the 'S' points]**
- 3. Write the respective CO-wise total average (column K in table 2) wherever each CO is mapped as (H) under each PO.]**

Course outcomes	Programme Outcomes						
	PO1	PO2	PO3	PO4	PO5	PO6	PO7
1	H (3)				H (3)		
2			H (3)		H (3)		
3		H (3)		H (3)			H (3)
4	H (3)		H (3)			H (3)	

5			H (3)		H (3)		
Column (a)	Average of Cos for PO1 3	Average of Cos for PO2 3	Average of Cos for PO3 3	Average of Cos for PO4 3	Average of Cos for PO5 3	Average of Cos for PO6 3	Average of Cos for PO7 3
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TOTAL PO ATTAINMENT:	(Average of all values in Column (b): 3						

Please leave the blank columns as they are. Do not put zero for empty columns. Take the average of only the number of items entered.

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: MICROBIOLOGY OF FOOD AND WATER

(SEMESTER-1)2022-23 batch

COURSE CODE: FT22103

CREDITS: 4

DEPARTMENT: FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(BA/BSC/BCOM and BBA)Or POs :

- **PO1.Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions critically, evaluating the validity of arguments and conclusion, and looking at our ideas and decisions (intellectual, organizational, and personal) from multiple perspectives.
 - **PO2.Effective Communication:** Speak, read, write and listen clearly in person and through electronic media in English, and make meaning of the word by connecting people, ideas, books, media, and technology.
 - **PO3.Social Interaction:** Elicit views of others, mediate disagreements and help reach conclusions in group settings.
 - **PO4.Conduct Investigation Of Complex Problems:** Use research based knowledge and research methods including data analysis and interpretation of data, and synthesis of information to provide valid conclusion
 - **PO5.Effective Citizen Ship:** Demonstrate empathetic social concern and equity centered national development, and the informed awareness of issues and participate in civil life through a volunteering.
 - **PO6.Ethics:** Recognize different value systems including your own, understand the moral dimensions of your decisions, and take responsibility for them.
 - **PO7.Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
 - **PO8.Self-Directed And Lifelong Learning:** Acquire the ability to engage in independent and lifelong learning in the broad field of study.
-

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Understand the nature and basic concepts of Psychology, English literature, and Journalism and express them effectively through speech.

PSO2. Analyse the relationship between individual and society, and the various ways individuals respond to socio-political-religious factors.

PSO3. Think critically about arguments and texts while taking into account diverse interpretations from different subject positions and the ability to act in a socially responsible, ethical and humane way, grooming themselves towards effective citizenship.

PSO4.Apply the theories of Psychology, English Literature, and Journalism in conducting investigations on complex problems of human being, his behaviour, and existence in society.

	COURSE OUTCOMES	BLOOM'S TAXONOMY
CO1	The students will be able to demonstrate food packaging	II (Understanding)
CO2	The students will be able to organize packing materials	IV(Analyzing)
CO3	The students will be able to inspect packaging designs and consumer behaviour	IV(Analyzing)
CO4	The students will be able to evaluate packaging	V(Evaluating)
CO5	The students will be able to list out food packaging laws and regulations	IV(Analyzing)

Table 1: CO, PO, PSO MAPPING

Course outcomes	Programme Outcomes								Programme Specific Outcomes	
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2
1		H						H	H	
2			H		H					H
3	H		H					H	H	
4	H	H			H				H	
5	H		H	H			H			

H: Highly Supportive

S: Supportive

Table 2: COURSE OUTCOME ATTAINMENT

ATTAINMENT SCALE:

- Pass percent of 85% and above= 3
- Pass percent between 75% - 85%= 2
- Pass percent between 75%- 65%= 1
- Pass percent of less than 65%= 0

INTERNAL ASSESSMENT (40%)					
WEEKLY	MIDSEMESTER	PRE-FINAL	ASSIGNMENT	VIVA	

1		H(3)					
2			H(3)		H(3)		
3	H(3)		H(3)				
4	H(3)	H(3)			H(3)		
5	H(3)		H(3)	H(3)			H(3)
Column (a)	Average of Cos for PO1 3	Average of Cos for PO2 3	Average of Cos for PO3 3	Average of Cos for PO4	Average of Cos for PO5 3	Average of Cos for PO6 3	Average of Cos for PO7 3
Column (b)	Average of PO1: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2	Average of PO2: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2	Average of PO3: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2	Average of PO4: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2	Average of PO5: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2	Average of PO6: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2	Average of PO7: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2
TOTAL PO ATTAINMENT:	(Average of all values in Column (b): 3						

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: TECHNOLOGY OF FOOD PERSERVATION(SEMESTER-1)2022-23 batch

COURSE CODE: FT19104

CREDITS: 4

DEPARTMENT: FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(BA/BSC/BCOM and BBA)Or POs :

- **PO1.Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions critically, evaluating the validity of arguments and conclusion, and looking at our ideas and decisions (intellectual, organizational, and personal) from multiple perspectives.
 - **PO2.Effective Communication:** Speak, read, write and listen clearly in person and through electronic media in English language, and make meaning of the word by connecting people, ideas, books, media, and technology.
 - **PO3.Social Interaction:** Elicit views of others, mediate disagreements and help reach conclusions in group settings.
 - **PO4.Conduct Investigation Of Complex Problems:** Use research based knowledge and research methods including data analysis and interpretation of data, and synthesis of information to provide valid conclusion
 - **PO5.Effective Citizen Ship:** Demonstrate empathetic social concern and equity centered national development, and the informed awareness of issues and participate in civil life through a volunteering.
 - **PO6.Ethics:** Recognize different value systems including your own, understand the moral dimensions of your decisions, and take responsibility for them.
 - **PO7.Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
 - **PO8.Self-Directed And Lifelong Learning:** Acquire the ability to engage in independent and lifelong learning in the field.
-

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Understand the nature and basic concepts of Psychology, English literature, and Journalism and express them effectively through speech.

PSO2. Analyse the relationship between individual and society, and the various ways individuals respond to socio-political-religious factors.

PSO3.Think critically about arguments and texts while taking into account diverse interpretations from different subject positions.

H: Highly Supportive

S: Supportive

Table 2: COURSE OUTCOME ATTAINMENT

ATTAINMENT SCALE:

- Pass percent of 85% and above= 3
- Pass percent between 75% - 85%= 2
- Pass percent between 75%- 65%= 1
- Pass percent of less than 65%= 0

INTERNAL ASSESSMENT (40%)										
WEEKLY		MIDSEMESTER		PRE-FINAL		ASSIGNMENT		VIVA		
PASS%	ATTAINMENT LEVEL	PASS%	ATTAINMENT LEVEL	PASS%	ATTAINMENT LEVEL	PASS%	ATTAINMENT LEVEL	PASS%	ATTAINMENT LEVEL	Co-Inte Av
	>85%=3 85-75%= 2 75-65%=1 <65%=0 (A)		>85%=3 85-75%= 2 75-65%=1 <65%=0 (B)		>85%=3 85-75%= 2 75-65%=1 <65%=0 (C)		(choose the unit/CO from which assignment was given) (D)		>85%=3 85-75%= 2 75-65%=1 <65%=0 (E)	(F)
100	3	100	3	100	3	100	3	100	3	3
-----	-----	100	3	100	3	100	3	100	3	3
-----	-----	100	3	100	3	----		100	3	3

-----	-----	-----	-----	----	3	----		100	3	3
-----	-----	-----	-----	----	3	-----		100	3	3

INTERNAL AVERAGE [Avg of all (F)]: 3

RESULT ANALYSIS: The total CO attainment of the course is satisfactory.

Table 3: PROGRAMME OUTCOME MAPPING

[Instruction:

- 1. Copy the completed table 1.**
- 2. Retain only the POs and the Highly supportive (H) points. [Delete the PSO columns and the 'S' points]**
- 3. Write the respective CO-wise total average (column K in table 2) wherever each CO is mapped as (H) under each PO.]**

Course outcomes	Programme Outcomes						
	PO1	PO2	PO3	PO4	PO5	PO6	PO7
1	H(3)	H(3)	H(3)	H(3)			
2	H(3)	H(3)	H(3)				
3	H(3)	H(3)	H(3)				
4	H(3)	H(3)	H(3)				
5	H(3)	H(3)					
Column (a)	Average of Cos for PO1 3	Average of Cos for PO2 3	Average of Cos for PO3 3	Average of Cos for PO4	Average of Cos for PO5 3	Average of Cos for PO6 3	Average of Cos for PO7 3

Column (b)	Average of PO1: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO2: [(Column a)/ 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO3: [(Column a)/ 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO4: [(Column a)/ 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO5: [(Column a)/ 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO6: [(Column a)/ 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO7: [(Column a)/ 3 X Total CO attainment For Entire Course value in table 2 3
TOTAL PO ATTAINMENT:	(Average of all values in Column (b): 3						

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: FOOD AND HUMAN NUTRITION (SEMESTER-1)2022-23 batch

COURSE CODE: FT18105

CREDITS: 1

DEPARTMENT: FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(BA/BSC/BCOM and BBA)Or POs :

- **PO1.Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions critically, evaluating the validity of arguments and conclusion, and looking at our ideas and decisions (intellectual, organizational, and personal) for their

perspectives.

- **PO2.Effective Communication:** Speak, read, write and listen clearly in person and through electronic media in English language, and make meaning of the word by connecting people, ideas, books, media, and technology.
- **PO3.Social Interaction:** Elicit views of others, mediate disagreements and help reach conclusions in group settings.
- **PO4.Conduct Investigation Of Complex Problems:** Use research based knowledge and research methods including data analysis and interpretation of data, and synthesis of information to provide valid conclusion
- **PO5.Effective Citizen Ship:** Demonstrate empathetic social concern and equity centered national development, and the informed awareness of issues and participate in civil life through a volunteering.
- **PO6.Ethics:** Recognize different value systems including your own, understand the moral dimensions of your decisions, responsibility for them.
- **PO7.Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
- **PO8.Self-Directed And Lifelong Learning:** Acquire the ability to engage in independent and lifelong learning in the br

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Understand the nature and basic concepts of Psychology, English literature, and Journalism and express them effectively in speech.

PSO2. Analyse the relationship between individual and society, and the various ways individuals respond to socio-political-religious factors.

PSO3. Think critically about arguments and texts while taking into account diverse interpretations from different subject positions. Ability to act in a socially responsible, ethical and humane way, grooming themselves towards effective citizenship.

PSO4. Apply the theories of Psychology, English Literature, and Journalism in conducting investigations on complex problems of human being, his behaviour, and existence in society.

	COURSE OUTCOMES	BLOOM'S TAXONOMY
CO1	Students will be able to understand the concept a severe acute malnutrition. Type's consequences level. and burden of SAM, LCDS programs at community	II (Understanding)
CO2	Students will be able to understand the facility. Based management of SAM! WHO protocols and IMNEs training protocol	IV(Analyzing)
CO3	Students will be able to understand. SAM preventive measures, best practices of UNICEF, SAM management, strength of weakness of Telangana model to prevent SAM...	IV(Analyzing)
CO4	students will be able to understand WHO protocol identification of SAM Africa and forward for India	V(Evaluating)

CO5	Students will be able to understand the HIV, Role of nutrition in HIV treatment, breast feedings and nutrition role in T-B and treatment protocol nutrition role in malaria and epidemics.	IV(Analyzing)
-----	--	---------------

Table 1: CO, PO, PSO MAPPING

Course outcomes	Programme Outcomes								Prog C	
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	P08	PSO1	PSO2
1		H						H	H	
2			H		H					H
3	H		H					H	H	
4	H	H			H				H	
5	H		H	H				H		

H: Highly Supportive

S: Supportive

Table 2: COURSE OUTCOME ATTAINMENT

ATTAINMENT SCALE:

- Pass percent of 85% and above= 3
- Pass percent between 75% - 85%= 2
- Pass percent between 75%- 65%= 1
- Pass percent of less than 65%= 0

INTERNAL ASSESSMENT (40%)

WEEKLY		MIDSEMESTER		PRE-FINAL		ASSIGNMENT		VIVA		Co- Inte Ave (A A,B (F)
PASS%	ATTAINMENT LEVEL	PASS%	ATTAINMENT LEVEL	PASS%	ATTAINMENT LEVEL	PASS%	ATTAINMENT LEVEL	PASS%	ATTAINMENT LEVEL	
	>85%=3 85-75%= 2 75-65%=1 <65%=0 (A)		>85%=3 85-75%= 2 75-65%=1 <65%=0 (B)		>85%=3 85-75%= 2 75-65%=1 <65%=0 (C)		(choose the unit/CO from which assignment was given) (D)		>85%=3 85-75%= 2 75-65%=1 <65%=0 (E)	
100	3	100	3	100	3	100	3	100	3	3
-----	-----	100	3	100	3	100	3	100	3	3
-----	-----	100	3	100	3	----		100	3	3
-----	-----	-----	-----	----	3	----		100	3	3
-----	-----	-----	-----	----	3	-----		100	3	3

INTERNAL AVERAGE [Avg of all (F)]: 3

RESULT ANALYSIS: The total CO attainment of the course is satisfactory.

Table 3: PROGRAMME OUTCOME MAPPING

[Instruction:

1. Copy the completed table 1.
2. Retain only the POs and the Highly supportive (H) points. [Delete the PSO columns and the 'S' points]
3. Write the respective CO-wise total average (column K in table 2) wherever each CO is mapped as (H) under each PO.]

Course outcomes	Programme Outcomes						
	PO1	PO2	PO3	PO4	PO5	PO6	PO7
1		H(3)					
2			H(3)		H(3)		
3	H(3)		H(3)				
4	H(3)	H(3)			H(3)		
5	H(3)		H(3)	H(3)			H(3)
Column (a)	Average of Cos for PO1 3	Average of Cos for PO2 3	Average of Cos for PO3 3	Average of Cos for PO4	Average of Cos for PO5 3	Average of Cos for PO6 3	Average of Cos for PO7 3
Column (b)	Average of PO1: [(Column a) / 3 X Total CO	Average of PO2: [(Column a)/	Average of PO3: [(Column a)/	Average of PO4: [(Column a)/	Average of PO5: [(Column a)/	Average of PO6: [(Column a)/	Average of PO7: [(Column a)/

	attainment For Entire Course value in table 2	3 X Total CO attainment For Entire Course value in table 2 3	3 X Total CO attainment For Entire Course value in table 2 3	3 X Total CO attainment For Entire Course value in table 2 3	3 X Total CO attainment For Entire Course value in table 2 3	3 X Total CO attainment For Entire Course value in table 2 3	3 X Total CO attainment For Entire Course value in table 2 3
TOTAL PO ATTAINMENT:	(Average of all values in Column (b): 3						

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: FOOD CHEMISTRY PRACTICALS

(SEMESTER-6)2022-23 batch

COURSE CODE: FT18106

CREDITS: 1

DEPARTMENT: FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(BA/BSC/BCOM and BBA)Or POs :

- **PO1.Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions critically, evaluate the validity of arguments and conclusion, and looking at our ideas and decisions (intellectual, organizational, and personal) from multiple perspectives.
- **PO2.Effective Communication:** Speak, read, write and listen clearly in person and through electronic media in English language, and make meaning of the word by connecting people, ideas, books, media, and technology.
- **PO3.Social Interaction:** Elicit views of others, mediate disagreements and help reach conclusions in group settings.
- **PO4.Conduct Investigation Of Complex Problems:** Use research based knowledge and research methods including data analysis and interpretation of data, and synthesis of information to provide valid conclusion
- **PO5.Effective Citizen Ship:** Demonstrate empathetic social concern and equity centered national development, and the informed awareness of issues and participate in civil life through a volunteering.

- **PO6.Ethics:** Recognize different value systems including your own, understand the moral dimensions of your decisions, responsibility for them.
- **PO7.Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
- **PO8.Self-Directed And Lifelong Learning:** Acquire the ability to engage in independent and lifelong learning in the br

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Understand the nature and basic concepts of Psychology, English literature, and Journalism and express them effectively in speech.

PSO2. Analyse the relationship between individual and society, and the various ways individuals respond to socio-political-religious factors.

PSO3. Think critically about arguments and texts while taking into account diverse interpretations from different subject positions. Ability to act in a socially responsible, ethical and humane way, grooming themselves towards effective citizenship.

PSO4. Apply the theories of Psychology, English Literature, and Journalism in conducting investigations on complex problems of human being, his behaviour, and existence in society.

	COURSE OUTCOMES	BLOOM'S TAXONOMY
CO1	Students will be able to learn the different communications, tools and techniques, also the different aids to communicate and also the responsibilities of a nutritional counsellor.	II (Understanding)
CO2	Students will be able to learn the nutrition policy and health status of community through national program for prevention of anemia and vitamin A deficiency and iodine deficiency disorders.	IV(Analyzing)
CO3	Students will be able to learn about food and its components, also the approaches for nutrition security.	IV(Analyzing)
CO4	Students will be able to learn about the health administrations and central, state, village level and primary health care.	V(Evaluating)
CO5	Students will be able to learn about the occupational hazards, and women employees in the industries also the factories act and legislation.	IV(Analyzing)

Table 1: CO, PO, PSO MAPPING

Course	Programme Outcomes	Programme Outcomes

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	P08	PSO1	PSO2
1		H						H	H	
2			H		H					H
3	H		H					H	H	
4	H	H			H				H	
5	H		H	H			H			

H: Highly Supportive

S: Supportive

Table 2: COURSE OUTCOME ATTAINMENT

ATTAINMENT SCALE:

Pass percent of 85% and above= 3

Pass percent between 75% - 85%= 2

Pass percent between 75%- 65%= 1

Pass percent of less than 65%= 0

INTERNAL ASSESSMENT (40%)

WEEKLY		MIDSEMESTER		PRE-FINAL		ASSIGNMENT		VIVA		Co- Int Av (Av A,B (F)
PASS%	ATTAINMENT LEVEL	PASS%	ATTAINMENT LEVEL	PASS%	ATTAINMENT LEVEL	PASS%	ATTAINMENT LEVEL	PASS%	ATTAINMENT LEVEL	
	>85%=3 85-75%= 2 75-65%=1 <65%=0 (A)		>85%=3 85-75%= 2 75-65%=1 <65%=0 (B)		>85%=3 85-75%= 2 75-65%=1 <65%=0 (C)		(choose the unit/CO from which assignment was given) (D)		>85%=3 85-75%= 2 75-65%=1 <65%=0 (E)	
100	3	100	3	100	3	100	3	100	3	3
-----	-----	100	3	100	3	100	3	100	3	3
-----	-----	100	3	100	3	----		100	3	3
-----	-----	-----	-----	----	3	----		100	3	3
-----	-----	-----	-----	----	3	-----		100	3	3

INTERNAL AVERAGE [Avg of all (F)]: 3

RESULT ANALYSIS: The total CO attainment of the course is satisfactory.

Table 3: PROGRAMME OUTCOME MAPPING

[Instruction:

1. Copy the completed table 1.

2. Retain only the POs and the Highly supportive (H) points. [Delete the PSO columns and the 'S' points]

3. Write the respective CO-wise total average (column K in table 2) wherever each CO is mapped as (H) under each PO.]

Course outcomes	Programme Outcomes						
	PO1	PO2	PO3	PO4	PO5	PO6	PO7
1		H(3)					
2			H(3)		H(3)		
3	H(3)		H(3)				
4	H(3)	H(3)			H(3)		
5	H(3)		H(3)	H(3)			H(3)
Column (a)	Average of Cos for PO1 3	Average of Cos for PO2 3	Average of Cos for PO3 3	Average of Cos for PO4	Average of Cos for PO5 3	Average of Cos for PO6 3	Average of Cos for PO7 3
Column (b)	Average of PO1: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2	Average of PO2: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2	Average of PO3: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2	Average of PO4: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2	Average of PO5: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2	Average of PO6: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2	Average of PO7: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2

		3	3	3	3	3	3
TOTAL PO ATTAINMENT:	(Average of all values in Column (b):						
	3						

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: MICROBIOLOGY OF FOOD WATER PRACTICALS (SEMESTER-1)2020 batch

COURSE CODE: FT22107

CREDITS: 1

DEPARTMENT: FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(BA/BSC/BCOM and BBA)Or POs :

PO1.Critical Thinking: Take informed actions after identifying the assumptions that frame our thinking and actions critically evaluate the validity of arguments and conclusion, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.

PO2.Effective Communication: Speak, read, write and listen clearly in person and through electronic media in English and in other language, and make meaning of the word by connecting people, ideas, books, media, and technology.

PO3.Social Interaction: Elicit views of others, mediate disagreements and help reach conclusions in group settings.

PO4.Conduct Investigation Of Complex Problems: Use research based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusion

PO5.Effective Citizen Ship: Demonstrate empathetic social concern and equity centered national development, and the ability to gain informed awareness of issues and participate in civil life through a volunteering.

PO6.Ethics: Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.

PO7.Environment and Sustainability: Understand the issues of environmental contexts and sustainable development.

PO8.Self-Directed And Lifelong Learning: Acquire the ability to engage in independent and lifelong learning in the broadest way possible.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

Understand the nature and basic concepts of Psychology, English literature, and Journalism and express them effectively in writing.

Analyse the relationship between individual and society, and the various ways individuals respond to socio-political-religious and cultural changes.

Think critically about arguments and texts while taking into account diverse interpretations from different subject positions and act in a socially responsible, ethical and humane way, grooming themselves towards effective citizenship.

Apply the theories of Psychology, English Literature, and Journalism in conducting investigations on complex problems concerning human behaviour, his behaviour, and existence in society.

COURSE OUTCOMES	BLOOM'S TAXONOMY
The student will be able to understand the basic principles of food safety.	I (Remember)
The student will be able to apply their knowledge of food laws for safe food production.	IV (Analyzing)
Students will be able to explain various toxicants associated with foods.	V (Evaluating)
Students will be able to identify the chemical toxicants in food at various levels.	V (Evaluating)
Students will be able to appraise microbial toxins associated with food, their occurrence, symptoms and preventive measures.	V (Evaluating)

Table 1: CO, PO, PSO MAPPING

Programme Outcomes								Program Specific outcomes		
PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
	H		H			H	H	H	H	
	H					H		H	H	
	H	H				S	H	H		
H	S					H		H		S
						H	H	H		

H: Highly Supportive

S: Supportive

Table 2: COURSE OUTCOME ATTAINMENT

ATTAINMENT SCALE:

Pass percent of 85% and above= 3

Pass percent between 75% - 85%= 2

Pass percent between 75%- 65%= 1
 Pass percent of less than 65%= 0

INTERNAL ASSESSMENT (40%)									
WEEKLY	MIDSEMESTER		PRE-FINAL		ASSIGNMENT		VIVA		
ATTAINMENT LEVEL	PASS%	ATTAINMENT LEVEL	PASS%	ATTAINMENT LEVEL	PASS%	ATTAINMENT LEVEL	PASS%	ATTAINMENT LEVEL	Co-Wise Internal Average
>85%=3 85-75%= 2 75-65%=1 <65%=0 (A)		>85%=3 85-75%= 2 75-65%=1 <65%=0 (B)		>85%=3 85-75%= 2 75-65%=1 <65%=0 (C)	(choose the unit/CO from which assignment was given)	>85%=3 85-75%= 2 75-65%=1 <65%=0 (D)		>85%=3 85-75%= 2 75-65%=1 <65%=0 (E)	(Avg of A,B,C,D,E) (F)
3	100	3	100	3	100	3	100	3	3
-----	100	3	100	3	100	3	100	3	3
-----	100	3	100	3	----		100	3	3
-----	-----	-----	100	3	----		100	3	3
-----	-----	-----	100	3	----		100	3	3

INTERNAL AVERAGE [Avg of all (F)]: 3

Programme Outcomes								
PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
	H(3)		H(3)			H(3)		H(3)
	H(3)					H(3)		
	H(3)	H(3)				S(3)		H(3)
H(3)	S(3)					H(3)		
						H(3)		H(3)
Average of Cos for PO1 3	Average of Cos for PO2 3	Average of Cos for PO3 3	Average of Cos for PO4	Average of Cos for PO5 3	Average of Cos for PO6 3	Average of Cos for PO7 3		Average of Cos for PO8 3
Average of PO1: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2] 3	Average of PO2: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2] 3	Average of PO3: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2] 3	Average of PO4: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2] 3	Average of PO5: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2] 3	Average of PO6: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2] 3	Average of PO7: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2] 3		Average of PO8: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2] 3
(Average of all values in Column (b):								
NT: 3								

RESULT ANALYSIS: The total CO attainment of the course is satisfactory.

Table 3: PROGRAMME OUTCOME MAPPING

[Instruction:

1. Copy the completed table 1.
2. Retain only the POs and the Highly supportive (H) points. [Delete the PSO columns and the 'S' points]
3. Write the respective CO-wise total average (column K in table 2) wherever each CO is mapped as (H) under each PO.]

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: TECHNOLOGY OF FOOD PRESERVATION PRACTICALS

(SEMESTER-1)2022-23 batch

COURSE CODE: FT18108

CREDITS: 1

DEPARTMENT: FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(BA/BSC/BCOM and BBA)Or POs :

PO1.Critical Thinking: Take informed actions after identifying the assumptions that frame our thinking and actions critically evaluate the validity of arguments and conclusion, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.

PO2.Effective Communication: Speak, read, write and listen clearly in person and through electronic media in English and in our own language, and make meaning of the word by connecting people, ideas, books, media, and technology.

PO3.Social Interaction: Elicit views of others, mediate disagreements and help reach conclusions in group settings.

PO4.Conduct Investigation Of Complex Problems: Use research based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusion

PO5.Effective Citizen Ship: Demonstrate empathetic social concern and equity centered national development, and the ability to demonstrate informed awareness of issues and participate in civil life through a volunteering.

PO6.Ethics: Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.

PO7.Environment and Sustainability: Understand the issues of environmental contexts and sustainable development.

PO8.Self-Directed And Lifelong Learning: Acquire the ability to engage in independent and lifelong learning in the broadest v

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

Understand the nature and basic concepts of Psychology, English literature, and Journalism and express them effectively in writing.

Analyse the relationship between individual and society, and the various ways individuals respond to socio-political-religious and cultural changes.

Think critically about arguments and texts while taking into account diverse interpretations from different subject positions and apply them to act in a socially responsible, ethical and humane way, grooming themselves towards effective citizenship.

Apply the theories of Psychology, English Literature, and Journalism in conducting investigations on complex problems concerning human behaviour, his behaviour, and existence in society.

COURSE OUTCOMES	BLOOM'S TAXONOMY
Students will be able to understand the principles involved in processing of various food grains.	I (Remember)
Students will be able to evaluate various steps to eliminate antinutritional components in nuts and oil seeds.	IV(Analyzing)
Students will be able to identify various dairy processing methods.	V(Evaluating)
Students will be able to create and understanding on changes occurring in fruits and vegetables during maturation.	V(Evaluating)
Students will be able to appraise the role of sugar in food preparation.	V(Evaluating)

Table 1: CO, PO, PSO MAPPING

Programme Outcomes								Program Specific outcomes		
PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
	H		H			H	H	H	H	
	H					H		H	H	
	H	H				S	H	H		
H	S					H		H		S
						H	H	H		

H: Highly Supportive

S: Supportive

Table 2: COURSE OUTCOME ATTAINMENT

ATTAINMENT SCALE:

- Pass percent of 85% and above= 3
- Pass percent between 75% - 85%= 2
- Pass percent between 75%- 65%= 1
- Pass percent of less than 65%= 0

INTERNAL ASSESSMENT (40%)									
WEEKLY	MIDSEMESTER		PRE-FINAL		ASSIGNMENT		VIVA		
ATTAINMENT LEVEL	PASS%	ATTAINMENT LEVEL	PASS%	ATTAINMENT LEVEL	PASS%	ATTAINMENT LEVEL	PASS%	ATTAINMENT LEVEL	Co-Wise Internal Average
>85%=3 85-75%= 2 75-65%=1 <65%=0		>85%=3 85-75%= 2 75-65%=1 <65%=0		>85%=3 85-75%= 2 75-65%=1 <65%=0	(choose the unit/CO from which assignment was given)	>85%=3 85-75%= 2 75-65%=1 <65%=0		>85%=3 85-75%= 2 75-65%=1 <65%=0	Co-Wise Internal Average (Avg of A,B,C,D,E) (F)
(A)		(B)		(C)		(D)		(E)	
3	100	3	100	3	100	3	100	3	3
-----	100	3	100	3	100	3	100	3	3
-----	100	3	100	3	----		100	3	3
-----	-----	-----	100	3	----		100	3	3
-----	-----	-----	100	3	----		100	3	3

INTERNAL AVERAGE [Avg of all (F)]: 3

Programme Outcomes								
PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
	H(3)		H(3)			H(3)		H(3)
	H(3)					H(3)		
	H(3)	H(3)				S(3)		H(3)
H(3)	S(3)					H(3)		
						H(3)		H(3)
Average of Cos for PO1 3	Average of Cos for PO2 3	Average of Cos for PO3 3	Average of Cos for PO4	Average of Cos for PO5 3	Average of Cos for PO6 3	Average of Cos for PO7 3		Average of Cos for PO8 3
Average of PO1: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO2: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO3: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO4: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO5: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO6: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO7: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3		Average of PO8: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3
(Average of all values in Column (b): 3)								

RESULT ANALYSIS: The total CO attainment of the course is satisfactory.

Table 3: PROGRAMME OUTCOME MAPPING

[Instruction:

1. Copy the completed table 1.
2. Retain only the POs and the Highly supportive (H) points. [Delete the PSO columns and the 'S' points]
3. Write the respective CO-wise total average (column K in table 2) wherever each CO is mapped as (H) under each PO.]

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: GENERAL ENGLISH (SEMESTER-1)2022-23batch

COURSE CODE: EN18201

CREDITS: 3

DEPARTMENT: FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(BA/BSC/BCOM and BBA)Or POs :

PO1.Critical Thinking: Take informed actions after identifying the assumptions that frame our thinking and actions critically evaluate the validity of arguments and conclusion, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.

PO2.Effective Communication: Speak, read, write and listen clearly in person and through electronic media in English and in our own language, and make meaning of the word by connecting people, ideas, books, media, and technology.

PO3.Social Interaction: Elicit views of others, mediate disagreements and help reach conclusions in group settings.

PO4.Conduct Investigation Of Complex Problems: Use research based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusion

PO5.Effective Citizen Ship: Demonstrate empathetic social concern and equity centered national development, and the ability to be informed awareness of issues and participate in civil life through a volunteering.

PO6.Ethics: Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.

PO7.Environment and Sustainability: Understand the issues of environmental contexts and sustainable development.

PO8.Self-Directed And Lifelong Learning: Acquire the ability to engage in independent and lifelong learning in the broadest v

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

Understand the nature and basic concepts of Psychology, English literature, and Journalism and express them effectively in writing.

Analyse the relationship between individual and society, and the various ways individuals respond to socio-political-religious and cultural changes.

Think critically about arguments and texts while taking into account diverse interpretations from different subject positions and apply them to act in a socially responsible, ethical and humane way, grooming themselves towards effective citizenship.

Apply the theories of Psychology, English Literature, and Journalism in conducting investigations on complex problems concerning human behaviour, his behaviour, and existence in society.

COURSE OUTCOMES	BLOOM'S TAXONOMY
Students will be able to create knowledge on chemistry and metabolism of protein.	I (Remember)
Students will be able to evaluate various gastric functions tests and endocrine disorders.	IV(Analyzing)
Students will be able to apply the knowledge of liver and kidney function tests and interpret the results.	V(Evaluating)
Students will be able to identify the various cardiac function tests.	V(Evaluating)
Students will be able to appraise the roles of fluids, electrolytes and acid base balance.	V(Evaluating)

Table 1: CO, PO, PSO MAPPING

Programme Outcomes								Program Specific outcomes		
PO1	PO2	PO3	PO4	PO5	PO6	PO7	P08	PSO1	PSO2	PSO3
	H		H			H	H	H	H	
	H					H		H	H	
	H	H				S	H	H		
H	S					H		H		S
						H	H	H		

H: Highly Supportive

S: Supportive

Table 2: COURSE OUTCOME ATTAINMENT

ATTAINMENT SCALE:

- Pass percent of 85% and above= 3
- Pass percent between 75% - 85%= 2
- Pass percent between 75%- 65%= 1
- Pass percent of less than 65%= 0

INTERNAL ASSESSMENT (40%)									
WEEKLY	MIDSEMESTER		PRE-FINAL		ASSIGNMENT		VIVA		
ATTAINMENT LEVEL	PASS%	ATTAINMENT LEVEL	PASS%	ATTAINMENT LEVEL	PASS%	ATTAINMENT LEVEL	PASS%	ATTAINMENT LEVEL	Co-Wise Internal Average
>85%=3 85-75%= 2 75-65%=1 <65%=0 (A)		>85%=3 85-75%= 2 75-65%=1 <65%=0 (B)		>85%=3 85-75%= 2 75-65%=1 <65%=0 (C)	(choose the unit/CO from which assignment was given)	>85%=3 85-75%= 2 75-65%=1 <65%=0 (D)		>85%=3 85-75%= 2 75-65%=1 <65%=0 (E)	(Avg of A,B,C,D,E) (F)
3	100	3	100	3	100	3	100	3	3

-----	100	3	100	3	100	3	100	3	3
-----	100	3	100	3	----		100	3	3
-----	-----	-----	100	3	----		100	3	3
-----	-----	-----	100	3	-----		100	3	3

AL AVERAGE [Avg of all (F)]: 3

Programme Outcomes								
PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
	H(3)		H(3)			H(3)		H(3)
	H(3)					H(3)		
	H(3)	H(3)				S(3)		H(3)
H(3)	S(3)					H(3)		
						H(3)		H(3)
Average of Cos for PO1 3	Average of Cos for PO2 3	Average of Cos for PO3 3	Average of Cos for PO4	Average of Cos for PO5 3	Average of Cos for PO6 3	Average of Cos for PO7 3		Average of Cos for PO8 3
Average of PO1: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO2: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO3: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO4: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO5: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO6: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO7: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3		Average of PO8: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3
(Average of all values in Column (b): 3								

RESULT ANALYSIS: The total CO attainment of the course is satisfactory.

Table 3: PROGRAMME OUTCOME MAPPING

[Instruction:

1. Copy the completed table 1.
2. Retain only the POs and the Highly supportive (H) points. [Delete the PSO columns and the 'S' points]
3. Write the respective CO-wise total average (column K in table 2) wherever each CO is mapped as (H) under each PO.]

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: INDIAN HERITAGE AND CULTURE (SEMESTER-2)2022-23 batch

COURSE CODE: ICI19001

CREDITS: 2

DEPARTMENT: FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(BA/BSC/BCOM and BBA)Or POs :

PO1.Critical Thinking: Take informed actions after identifying the assumptions that frame our thinking and actions critically evaluate the validity of arguments and conclusion, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.

PO2.Effective Communication: Speak, read, write and listen clearly in person and through electronic media in English and in our own language, and make meaning of the word by connecting people, ideas, books, media, and technology.

PO3.Social Interaction: Elicit views of others, mediate disagreements and help reach conclusions in group settings.

PO4.Conduct Investigation Of Complex Problems: Use research based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusion

PO5.Effective Citizen Ship: Demonstrate empathetic social concern and equity centered national development, and the ability to have informed awareness of issues and participate in civil life through a volunteering.

PO6.Ethics: Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.

PO7.Environment and Sustainability: Understand the issues of environmental contexts and sustainable development.

PO8.Self-Directed And Lifelong Learning: Acquire the ability to engage in independent and lifelong learning in the broadest v

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

Understand the nature and basic concepts of Psychology, English literature, and Journalism and express them effectively in writing.

Analyse the relationship between individual and society, and the various ways individuals respond to socio-political-religious and cultural changes.

Think critically about arguments and texts while taking into account diverse interpretations from different subject positions and a
to act in a socially responsible, ethical and humane way, grooming themselves towards effective citizenship.

Apply the theories of Psychology, English Literature, and Journalism in conducting investigations on complex problems concerning human
being, his behaviour, and existence in society.

COURSE OUTCOMES	BLOOM'S TAXONOMY
Students will be able to construct knowledge on nutritional status assessment methods.	I (Remember)
Students will be able to use dietary intake parameter to assess nutritional status.	IV(Analyzing)
Students will be able to explain biochemical parameter to assess nutritional status.	V(Evaluating)
Students will be able to classify various nutritional surveillance systems.	V(Evaluating)
Students will be able to describe type of nutritional surveillance appropriate to different situation.	V(Evaluating)

Table 1: CO, PO, PSO MAPPING

Programme Outcomes								Program Specific outcomes		
PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
	H		H			H	H	H	H	
	H					H		H	H	
	H	H				S	H	H		
H	S					H		H		S
						H	H	H		

H: Highly Supportive

S: Supportive

Table 2: COURSE OUTCOME ATTAINMENT

ATTAINMENT SCALE:

- Pass percent of 85% and above= 3
- Pass percent between 75% - 85%= 2
- Pass percent between 75%- 65%= 1
- Pass percent of less than 65%= 0

INTERNAL ASSESSMENT (40%)									
WEEKLY	MIDSEMESTER		PRE-FINAL		ASSIGNMENT		VIVA		
ATTAINMENT LEVEL	PASS%	ATTAINMENT LEVEL	PASS%	ATTAINMENT LEVEL	PASS%	ATTAINMENT LEVEL	PASS%	ATTAINMENT LEVEL	Co-Wise Internal Average
>85%=3 85-75%= 2 75-65%=1 <65%=0 (A)		>85%=3 85-75%= 2 75-65%=1 <65%=0 (B)		>85%=3 85-75%= 2 75-65%=1 <65%=0 (C)	(choose the unit/CO from which assignment was given)	>85%=3 85-75%= 2 75-65%=1 <65%=0 (D)		>85%=3 85-75%= 2 75-65%=1 <65%=0 (E)	(Avg of A,B,C,D,E) (F)
3	100	3	100	3	100	3	100	3	3

-----	100	3	100	3	100	3	100	3	3
-----	100	3	100	3	----		100	3	3
-----	-----	-----	100	3	----		100	3	3
-----	-----	-----	100	3	-----		100	3	3

AL AVERAGE [Avg of all (F)]: 3

Programme Outcomes								
PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
	H(3)		H(3)			H(3)		H(3)
	H(3)					H(3)		
	H(3)	H(3)				S(3)		H(3)
H(3)	S(3)					H(3)		
						H(3)		H(3)
Average of Cos for PO1 3	Average of Cos for PO2 3	Average of Cos for PO3 3	Average of Cos for PO4	Average of Cos for PO5 3	Average of Cos for PO6 3	Average of Cos for PO7 3		Average of Cos for PO8 3
Average of PO1: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2] 3	Average of PO2: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2] 3	Average of PO3: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2] 3	Average of PO4: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2] 3	Average of PO5: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2] 3	Average of PO6: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2] 3	Average of PO7: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2] 3		Average of PO8: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2] 3
(Average of all values in Column (b):								
NT: 3								

RESULT ANALYSIS: The total CO attainment of the course is satisfactory.

Table 3: PROGRAMME OUTCOME MAPPING

[Instruction:

1. Copy the completed table 1.
2. Retain only the POs and the Highly supportive (H) points. [Delete the PSO columns and the 'S' points]
3. Write the respective CO-wise total average (column K in table 2) wherever each CO is mapped as (H) under each PO.]

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE: APPLIED MATHEMATICS (SEMESTER-2)2022-23batch

COURSE CODE: FT19201

CREDITS: 5

DEPARTMENT: FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(BA/BSC/BCOM and BBA)Or POs :

PO1.Critical Thinking: Take informed actions after identifying the assumptions that frame our thinking and actions critically evaluate the validity of arguments and conclusion, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.

PO2.Effective Communication: Speak, read, write and listen clearly in person and through electronic media in English and in other language, and make meaning of the word by connecting people, ideas, books, media, and technology.

PO3.Social Interaction: Elicit views of others, mediate disagreements and help reach conclusions in group settings.

PO4.Conduct Investigation Of Complex Problems: Use research based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusion

PO5.Effective Citizen Ship: Demonstrate empathetic social concern and equity centered national development, and the ability to gain informed awareness of issues and participate in civil life through a volunteering.

PO6.Ethics: Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.

PO7.Environment and Sustainability: Understand the issues of environmental contexts and sustainable development.

PO8.Self-Directed And Lifelong Learning: Acquire the ability to engage in independent and lifelong learning in the broadest v

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

Understand the nature and basic concepts of Psychology, English literature, and Journalism and express them effectively in writing.

Analyse the relationship between individual and society, and the various ways individuals respond to socio-political-religious and cultural changes.

Think critically about arguments and texts while taking into account diverse interpretations from different subject positions and apply them to act in a socially responsible, ethical and humane way, grooming themselves towards effective citizenship.

Apply the theories of Psychology, English Literature, and Journalism in conducting investigations on complex problems concerning human behaviour, his behaviour, and existence in society.

COURSE OUTCOMES	BLOOM'S TAXONOMY
the students will be able to classify eggs, meat, fish and poultry	II(Understanding)
the students will be able to compare spices and condiments, dietary fibre and leavening agents	IV(Analyzing)
the students will be able to discover about beverages and juices	IV(Analyzing)
the students will be able to adapt other food commodities	VI(Creating)
the students will be able evaluate sensory evaluation of food	V(Evaluation)

Table 1: CO, PO, PSO MAPPING

Programme Outcomes	Program Specific Outcomes
---------------------------	----------------------------------

PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
H		H		H		H			H	H
	H	H		H					H	H
		H		H					H	H
	H	H		H	H				H	H
H	H		H						H	H

H: Highly Supportive

S: Supportive

Table 2: COURSE OUTCOME ATTAINMENT

ATTAINMENT SCALE:

Pass percent of 85% and above= 3

Pass percent between 75% - 85%= 2

Pass percent between 65%- 75%= 1

Pass percent of less than 65%= 0

INTERNAL ASSESSMENT (40%)					
WEEKLY	MIDSEMESTER	PRE-FINAL	ASSIGNMENT	VIVA	

ATTAINMENT LEVEL	PASS%	ATTAINMENT LEVEL	PASS%	ATTAINMENT LEVEL	PASS%	ATTAINMENT LEVEL	PASS%	ATTAINMENT LEVEL	Co-Wise Internal Average
>85%=3 85-75%= 2 75-65%=1 <65%=0		>85%=3 85-75%= 2 75-65%=1 <65%=0		>85%=3 85-75%= 2 75-65%=1 <65%=0	(choose the unit/CO from which assignment was given)	>85%=3 85-75%= 2 75-65%=1 <65%=0		>85%=3 85-75%= 2 75-65%=1 <65%=0	(Avg of A,B,C,D,E)
(A)		(B)		(C)		(D)		(E)	(F)
3	100	3	100	3	100	3	100	3	12.6
-----	100	3	100	3	100	3	100	3	12.6
-----	100	3	100	3	----		100	3	12.6
-----	-----	-----	----	3	----		100	3	12.6
-----	-----	-----	----	3	----		100	3	12.6

AL AVERAGE [Avg of all (F)]: 3

Programme Outcomes								
PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
H(3)		H(3)		H(3)		H(3)		
	H(3)	H(3)		H(3)				
		H(3)		H(3)				
	H(3)	H(3)		H(3)	H(3)			
H(3)	H(3)		H(3)					
Average of Cos for PO1 3	Average of Cos for PO2 3	Average of Cos for PO3 3	Average of Cos for PO4	Average of Cos for PO5 3	Average of Cos for PO6 3	Average of Cos for PO7 3		Average of Cos for PO8 3
Average of PO1: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO2: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO3: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO4: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO5: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO6: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO7: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3		Average of PO8: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3
(Average of all values in Column (b): 3								

RESULT ANALYSIS: The total CO attainment of the course is satisfactory.

Table 3: PROGRAMME OUTCOME MAPPING

[Instruction:

1. Copy the completed table 1.
2. Retain only the POs and the Highly supportive (H) points. [Delete the PSO columns and the 'S' points]
3. Write the respective CO-wise total average (column K in table 2) wherever each CO is mapped as (H) under each PO.]

RESULT ANALYSIS: (Only write a comment on the total CO attainment for the course and areas of improvement, how less it is from 3, which exam are they losing marks in, how can we attain 3)

Table 3: PROGRAMME OUTCOME MAPPING

[Instruction:

1. Copy the completed table 1.
2. Retain only the POs and the Highly supportive (H) points. [Delete the PSO columns and the 'S' points]
3. Write the respective CO-wise total average (column K in table 2) wherever each CO is mapped as (H) under each PO.]

Course outcomes	Programme Outcomes						
	PO1	PO2	PO3	PO4	PO5	PO6	PO7
1	H (3)				H (3)		

2			H (3)		H (3)		
3		H (3)		H (3)			H (3)
4	H (3)		H (3)			H (3)	
5			H (3)		H (3)		
Column (a)	Average of Cos for PO1 3	Average of Cos for PO2 3	Average of Cos for PO3 3	Average of Cos for PO4 3	Average of Cos for PO5 3	Average of Cos for PO6 3	Average of Cos for PO7 3
Column (b)	Average of PO1: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO2: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO3: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO4: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO5: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO6: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO7: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3
TOTAL PO ATTAINMENT:	(Average of all values in Column (b): 3						

Please leave the blank columns as they are. Do not put zero for empty columns. Take the average of only the number of items entered.

RESULT ANALYSIS: (Only write a comment on the total CO attainment for the course and areas of improvement, how less it is from 3, which exam are they losing marks in, how can we attain 3)

Table 3: PROGRAMME OUTCOME MAPPING

[Instruction:

- 1. Copy the completed table 1.**
- 2. Retain only the POs and the Highly supportive (H) points. [Delete the PSO columns and the 'S' points]**
- 3. Write the respective CO-wise total average (column K in table 2) wherever each CO is mapped as (H) under each PO.]**

Course outcomes	Programme Outcomes						
	PO1	PO2	PO3	PO4	PO5	PO6	PO7
1	H (2.71)						H (2.71)
2		H (2.71)		H (2.71)		H (2.71)	H (2.71)
3	H (2.71)		H (2.71)		H (2.71)		
4	H (2.71)		H (2.71)		H (2.71)		
5	H (2.71)				H (2.71)		
Column (a)	Average of Cos for PO1	Average of Cos for PO2	Average of Cos for PO3	Average of Cos for PO4	Average of Cos for PO5	Average of Cos for PO6	Average of Cos for PO7

	2.1	2.71	2.71	2.71	2.71	2.71	2.71
Column (b)	Average of PO1: [(Column a) / 3 X <div style="border: 1px solid black; background-color: yellow; padding: 2px; display: inline-block;">Total CO attainment For Entire Course</div> value in table 2	Average of PO2: [(Column a)/ 3 X <div style="border: 1px solid black; background-color: yellow; padding: 2px; display: inline-block;">Total CO attainment For Entire Course</div> value in table 2	Average of PO3: [(Column a)/ 3 X <div style="border: 1px solid black; background-color: yellow; padding: 2px; display: inline-block;">Total CO attainment For Entire Course</div> value in table 2	Average of PO4: [(Column a)/ 3 X <div style="border: 1px solid black; background-color: yellow; padding: 2px; display: inline-block;">Total CO attainment For Entire Course</div> value in table 2	Average of PO5: [(Column a)/ 3 X <div style="border: 1px solid black; background-color: yellow; padding: 2px; display: inline-block;">Total CO attainment For Entire Course</div> value in table 2	Average of PO6: [(Column a)/ 3 X <div style="border: 1px solid black; background-color: yellow; padding: 2px; display: inline-block;">Total CO attainment For Entire Course</div> value in table 2	Average of PO7: [(Column a)/ 3 X <div style="border: 1px solid black; background-color: yellow; padding: 2px; display: inline-block;">Total CO attainment For Entire Course</div> value in table 2
	2.71	2.71	2.71	2.71	2.71	2.71	2.71
TOTAL PO ATTAINMENT:	(Average of all values in Column (b):						
	2.71						

Please leave the blank columns as they are. Do not put zero for empty columns. Take the average of only the number of items entered.

RESULT ANALYSIS: (Only write a comment on the total CO attainment for the course and areas of improvement, how less it is from 3, which exam are they losing marks in, how can we attain 3)

Table 3: PROGRAMME OUTCOME MAPPING

[Instruction:

1. Copy the completed table 1.

2. Retain only the POs and the Highly supportive (H) points. [Delete the PSO columns and the 'S' points]

3. Write the respective CO-wise total average (column K in table 2) wherever each CO is mapped as (H) under each PO.]

Course outcomes	Programme Outcomes						
	PO1	PO2	PO3	PO4	PO5	PO6	PO7
1	H (2.92)					H (2.92)	H (2.92)
2	H (2.8)	H (2.8)		H (2.8)			
3	S		H (2.8)	H (2.8)			H (2.8)
4	H (3)				H (3)		
5			H (3)		H (3)		
Column (a)	Average of Cos for PO1 3	Average of Cos for PO2 3	Average of Cos for PO3 3	Average of Cos for PO4 3	Average of Cos for PO5 3	Average of Cos for PO6 3	Average of Cos for PO7 3
Column (b)	Average of PO1: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO2: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2	Average of PO3: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2	Average of PO4: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2	Average of PO5: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2	Average of PO6: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2	Average of PO7: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2

		3	3	3	3	3	3
TOTAL PO ATTAINMENT:	(Average of all values in Column (b):						
	3						

Please leave the blank columns as they are. Do not put zero for empty columns. Take the average of only the number of items entered.

RESULT ANALYSIS: (Only write a comment on the total CO attainment for the course and areas of improvement, how less it is from 3, which exam are they losing marks in, how can we attain 3)

Table 3: PROGRAMME OUTCOME MAPPING

[Instruction:

1. Copy the completed table 1.
2. Retain only the POs and the Highly supportive (H) points. [Delete the PSO columns and the 'S' points]

3. Write the respective CO-wise total average (column K in table 2) wherever each CO is mapped as (H) under each PO.]

Course outcomes	Programme Outcomes						
	PO1	PO2	PO3	PO4	PO5	PO6	PO7
1	H(3)			H(3)	H(3)		
2	H(3)		H(3)			H(3)	
3	H(3)	H(3)				H(3)	
4	H(3)		H(3)		H(3)		
5	H(3)		H(3)				
Column (a)	Average of Cos for PO1 3	Average of Cos for PO2 3	Average of Cos for PO3 3	Average of Cos for PO4 3	Average of Cos for PO5 3	Average of Cos for PO6 3	Average of Cos for PO7 3
Column (b)	Average of PO1: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO2: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO3: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO4: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO5: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO6: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO7: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3

TOTAL PO ATTAINMENT:	(Average of all values in Column (b): 3)
-----------------------------	---

Please leave the blank columns as they are. Do not put zero for empty columns. Take the average of only the number of items entered.

RESULT ANALYSIS: (Only write a comment on the total CO attainment for the course and areas of improvement, how less it is from 3, which exam are they losing marks in, how can we attain 3)

Table 3: PROGRAMME OUTCOME MAPPING

[Instruction:

1. Copy the completed table 1.
2. Retain only the POs and the Highly supportive (H) points. [Delete the PSO columns and the 'S' points]
3. Write the respective CO-wise total average (column K in table 2) wherever each CO is mapped as (H) under each PO.]

Course outcomes	Programme Outcomes						
	PO1	PO2	PO3	PO4	PO5	PO6	PO7
1	H (3)				H (3)		
2			H (3)		H (3)		

3		H (3)		H (3)			H (3)
4	H (3)		H (3)			H (3)	
5			H (3)		H (3)		
Column (a)	Average of Cos for PO1 3	Average of Cos for PO2 3	Average of Cos for PO3 3	Average of Cos for PO4 3	Average of Cos for PO5 3	Average of Cos for PO6 3	Average of Cos for PO7 3
Column (b)	Average of PO1: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO2: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO3: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO4: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO5: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO6: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3	Average of PO7: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 3
TOTAL PO ATTAINMENT:	(Average of all values in Column (b): 3						

Please leave the blank columns as they are. Do not put zero for empty columns. Take the average of only the number of items entered.

RESULT ANALYSIS: (Only write a comment on the total CO attainment for the course and areas of improvement, how less it is from 3, which exam are they losing marks in, how can we attain 3)

Table 3: PROGRAMME OUTCOME MAPPING

[Instruction:

1. Copy the completed table 1.
2. Retain only the POs and the Highly supportive (H) points. [Delete the PSO columns and the 'S' points]
3. Write the respective CO-wise total average (column K in table 2) wherever each CO is mapped as (H) under each PO.]

Course outcomes	Programme Outcomes						
	PO1	PO2	PO3	PO4	PO5	PO6	PO7
1	H (2.8)					H (2.8)	H (2.8)
2	H (2.8)	H (2.8)		H (2.8)			
3			H (2.8)	H (2.8)			H (2.8)
4	H (2.6)				H (2.6)		
5			H (2.6)		H (2.6)		
Column (a)	Average of Cos for PO1	Average of Cos for PO2	Average of Cos for PO3	Average of Cos for PO4	Average of Cos for PO5	Average of Cos for PO6	Average of Cos for PO7
	2.7	2.8	2.7	2.8	2.6	2.8	2.8

Column (b)	Average of PO1: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 2.3	Average of PO2: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 2.4	Average of PO3: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 2.3	Average of PO4: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 2.4	Average of PO5: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 2.3	Average of PO6: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 2.4	Average of PO7: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 2.4
TOTAL PO ATTAINMENT:	(Average of all values in Column (b): 2.35						

Please leave the blank columns as they are. Do not put zero for empty columns. Take the average of only the number of items entered.

RESULT ANALYSIS: (Only write a comment on the total CO attainment for the course and areas of improvement, how less it is from 3, which exam are they losing marks in, how can we attain 3)

Table 3: PROGRAMME OUTCOME MAPPING

[Instruction:

1. Copy the completed table 1.

2. Retain only the POs and the Highly supportive (H) points. [Delete the PSO columns and the 'S' points]

3. Write the respective CO-wise total average (column K in table 2) wherever each CO is mapped as (H) under each PO.]

Course outcomes	Programme Outcomes						
	PO1	PO2	PO3	PO4	PO5	PO6	PO7
1	H (2.9)				H (2.9)		
2			H (2.9)		H (2.9)		
3		H (2.9)		H (2.9)			H (2.9)
4	H (2.9)		H (2.9)			H (2.9)	
5			H (2.9)		H (2.9)		
Column (a)	Average of Cos for PO1 2.9	Average of Cos for PO2 2.9	Average of Cos for PO3 2.9	Average of Cos for PO4 2.9	Average of Cos for PO5 2.9	Average of Cos for PO6 2.9	Average of Cos for PO7 2.9
Column (b)	Average of PO1: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 2.9	Average of PO2: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 2.9	Average of PO3: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 2.9	Average of PO4: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 2.9	Average of PO5: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 2.9	Average of PO6: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 2.9	Average of PO7: [(Column a) / 3 X Total CO attainment For Entire Course value in table 2 2.9

**TOTAL PO
ATTAINMENT:**

(Average of all values in Column (b):

2.9

Please leave the blank columns as they are. Do not put zero for empty columns. Take the average of only the number of items entered.

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE:FOOD ADDITIVES AND TOXICOLOGY (semester 2) 2022-23 batch

COURSE CODE: FT18202

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(B.Sc) Or POs :

- **PO1. Scientific Knowledge.** Apply the knowledge of Science, Mathematics, Engineering & Technology fundamentals to solve the complex problems.
- **PO2. Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- **PO3. Problem analysis:** Identify, formulate, research literature, and analyze complex scientific problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- **PO4. Modern tool usage:** Create, select and apply appropriate techniques,

resources, modern technology and IT tools to complex science and technological activities.

- **PO5. Environment and sustainability:** Understand the impact of professional science

and technological solutions in societal and environmental contexts and for sustainable development.

- **PO6. Individual and team work:** Function objectively as an individual and as a member in diverse teams.
- **PO7. Communication:** Communicate effectively on complex science & technology activities with society at large and able to write effective reports and documentation.
- **PO8. Life-long learning:** Recognise the need and ability to engage in independent and lifelong learning in the context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1: understand the concept of food science, nutrition and dietetics

PSO2: analyse the relationships between various nutrients and physiological disorders and various diet therapies

PSO3: apply the knowledge of processing and preservation techniques in increasing the shelf life of food products

PSO4: combine the knowledge of food science, nutrition and dietetics to overcome food

wastage, malnutrition and lifestyle disorders

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	Explain structure and properties of plant and animal pigments	III(APPLY)
CO2	Classify different food additives and their role in food industry	II(UNDERSTAND)
CO3	Identify the various food colours and flavours and their use in food industry	IV(ANALYSE)
CO4	To evaluate the microbial agents in the food industry	V(EVALUATE)
CO5	Apply the knowledge of role of antioxidants and sweeteners in foods	III(APPLY)

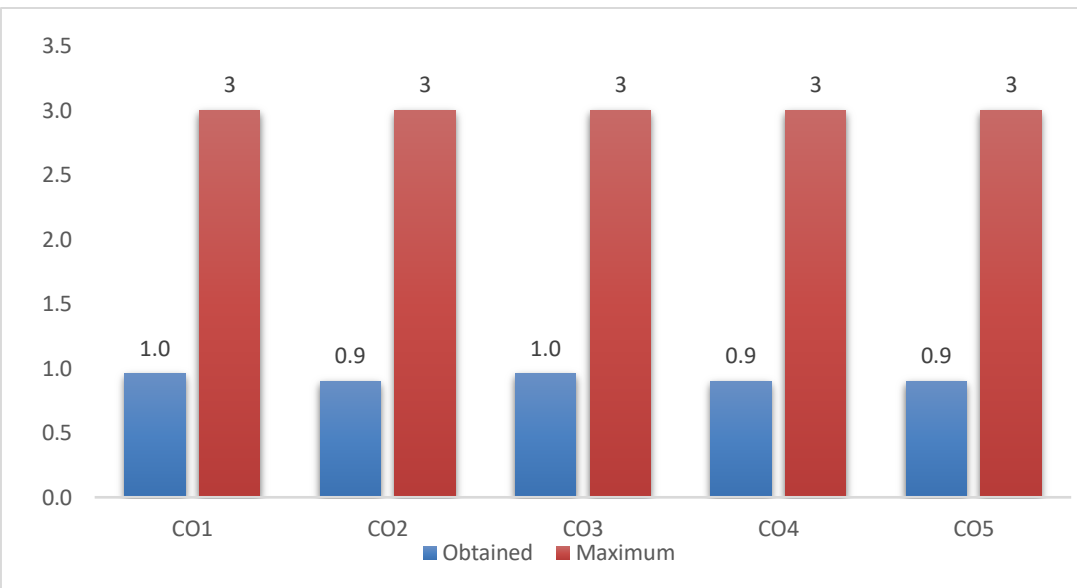
TABLE 1: CO, PO, PSO MAPPING

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01
-----------------	-----	-----	-----	-----	-----	-----	-----	-----	------

C01		H	H		H	H			
C02	H	H	H		H	H			
C03		H	H		H	H			
C04	H	H	H		H	H			H
C05		H	H		H	H			H

	mid exam 1		mid exam 2		group discussion		assign
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%
CO1	98.0	3.0			100.0	3.0	100.0
CO2	98.0	3.0			100.0	3.0	
CO3	98.0	3.0	98.0	3.0	100.0	3.0	
CO4			98.0	3.0	100.0	3.0	
CO5			98.0	3.0	100.0	3.0	

AVERAGE	AVERAGE
0	0.924



OUTCOME	PO1		PO2		PO3		PO4		PO5		P
CO1			H	0.96	H	0.96			H	0.96	H
CO2	H	0.9	H	0.9	H	0.9			H	0.9	H

CO3		H 0.96	H 0.96		H 0.96	H	
CO4	H 0.9	H 0.9	H 0.9		H 0.9	H	
CO5		H 0.9	H 0.9		H 0.9	H	
AVERAGE OF COS FOR POS	0.9	0.924	0.924		0.924	0	
AVERAGE OF POS	0.9	0.9168	0.9168		0.9168		
AVERAGE						0.91344	

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM

OUTCOMES:

COURSE TITLE: FOOD PROCESS ENGINEERING-1 (semester 2) 2022-23

batch

COURSE CODE: FT18203

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(B.Sc) Or POs :

- **PO1. Scientific Knowledge.** Apply the knowledge of Science, Mathematics, Engineering & Technology fundamentals to solve the complex problems.
- **PO2. Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- **PO3. Problem analysis:** Identify, formulate, research literature, and analyze complex scientific problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- **PO4. Modern tool usage:** Create, select and apply appropriate techniques, resources, modern technology and IT tools to complex science and technological activities.
- **PO5. Environment and sustainability:** Understand the impact of professional science and technological solutions in societal and environmental contexts and for sustainable development.

- **PO6. Individual and team work:** Function objectively as an individual and as a member in diverse teams.
- **PO7. Communication:** Communicate effectively on complex science & technology activities with society at large and able to write effective reports and documentation.
- **PO8. Life-long learning:** Recognise the need and ability to engage in independent and lifelong learning in the context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1: Understand the concept of food science, nutrition and dietetics

PSO2: Analyse the relationships between various nutrients and physiological disorders and various diet therapies

PSO3: Apply the knowledge of processing and preservation techniques in increasing the shelf life of food products

PSO4: Combine the knowledge of food science, nutrition and dietetics to overcome food wastage, malnutrition and lifestyle disorders.

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
C01	To develop understanding the concept of viscosity and flow measuring instruments	II(UNDERSTAND)
C02	To apply the laws of heat transfer to food processing	III(APPLY)
C03	To compare the steady and non-steady state heat transfer	V(EVALUATE)
C04	To identify the combine effects of heat transfer through evaporation and dehydration	IV(ANALYSE)
C05	To analyse different types of filtrations	IV(ANALYSE)

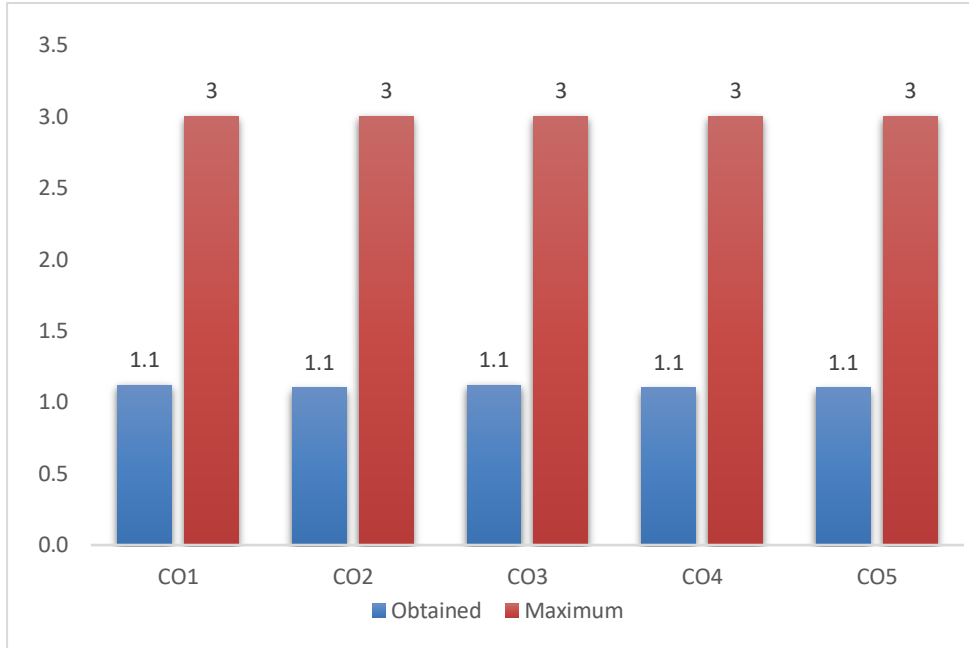
outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	
C01	H	H	H	H					
C02	H	H							
C03	H		H						
C04	H								
C05	H		H						

H: Highly Supportive

S: Supportive

co	mid exam 1		mid exam 2		group discussion		assignment		viva	
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level
CO1	98.0	3.0			100.0	3.0	100.0	3.0	100.0	3.0
CO2	98.0	3.0			100.0	3.0			100.0	3.0
CO3	98.0	3.0	96.0	3.0	100.0	3.0			100.0	3.0
CO4			96.0	3.0	100.0	3.0			100.0	3.0
CO5			96.0	3.0	100.0	3.0			100.0	3.0

AVERAGE	AVERAGE
0	1.108



OUTCOME	PO1	PO2	PO3	PO4	PO5	
CO1	H 1.12	H 1.12	H 1.12	H 1.12		
CO2	H 1.1	H 1.1				
CO3	H 1.12		H 1.12			
CO4	H 1.1					
CO5	H 1.1		H 1.1			
AVERAGE OF COS FOR POS	1.108	1.11	1.113333333	1.12		
AVERAGE OF POS	1.1056	1.105	1.111111111	1.12		
AVERAGE	1.110427778					

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM

OUTCOMES:

COURSE TITLE: FOOD BIOCHEMISTRY (semester 2) 2022-23 batch

COURSE CODE: FT2204

CREDITS:4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(B.Sc) Or POs :

- **PO1. Scientific Knowledge.** Apply the knowledge of Science, Mathematics, Engineering & Technology fundamentals to solve the complex problems.
- **PO2. Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- **PO3. Problem analysis:** Identify, formulate, research literature, and analyze complex scientific problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- **PO4. Modern tool usage:** Create, select and apply appropriate techniques, resources, modern technology and IT tools to complex science and technological activities.
- **PO5. Environment and sustainability:** Understand the impact of professional science and technological solutions in societal and environmental contexts and for sustainable development.
- **PO6. Individual and team work:** Function objectively as an individual and as a member

in diverse teams.

- **PO7. Communication:** Communicate effectively on complex science & technology activities with society at large and able to write effective reports and documentation.
- **PO8. Life-long learning:** Recognise the need and ability to engage in independent and lifelong learning in the context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1:understand the concept of food science, nutrition and dietetics

PSO2:analyse the relationships between various nutrients and physiological disorders and various diet therapies

PSO3:apply the knowledge of processing and preservation techniques in increasing the shelf life of food products

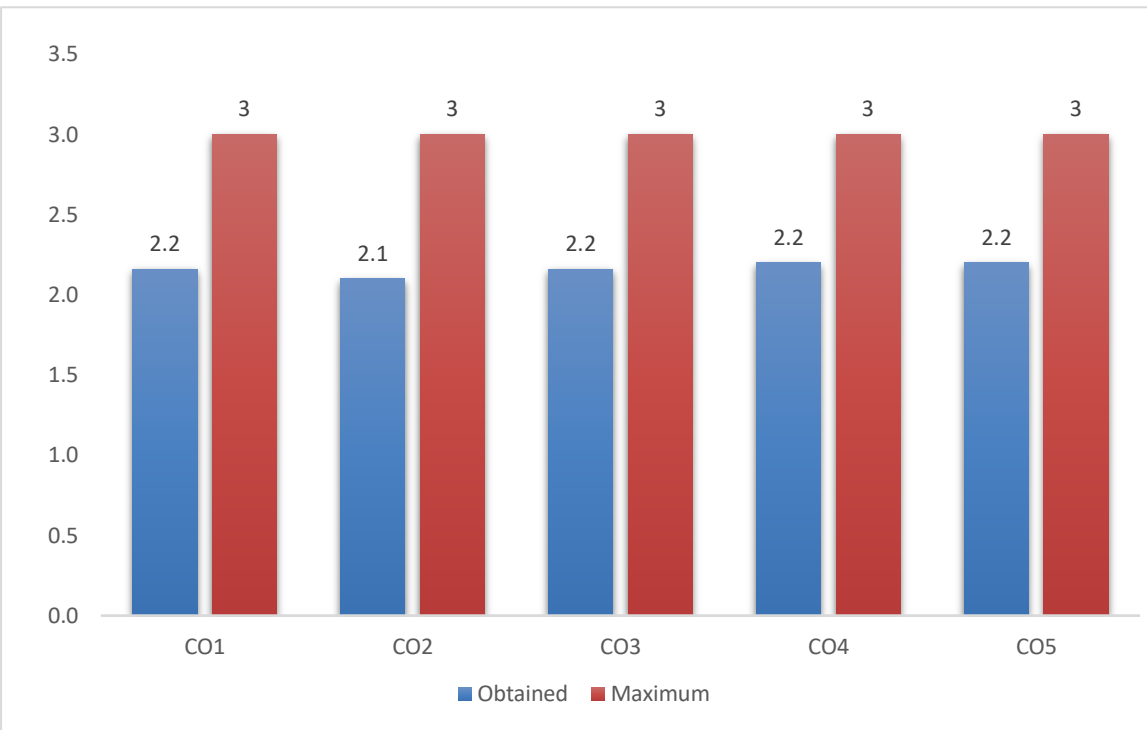
PSO4:combine the knowledge of food science, nutrition and dietetics to overcome food wastage, malnutrition and lifestyle disorders

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	Identify different microorganisms associated with foods	IV (Analyze)
CO2	Evaluate the microbial estimation in food	V (Evaluate)
CO3	Analyze microorganisms associated with various food groups	IV (Analyze)
CO4	Evaluate the various food preservation techniques	V (Evaluate)
CO5	Explain various food borne illnesses	II (Understand)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01
C01	H	H			H				H
C02			H		H			H	
C03		H	H	H			H	S	H
C04	H		H			H			
C05			H		H			H	H

co	mid exam 1		mid exam 2		group discussion		assignment		viva	
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level
C01	84.0	2.0			100.0	3.0	100.0	3.0	86.0	3.0
C02	84.0	2.0			100.0	3.0			86.0	3.0
C03	84.0	2.0	86.0	3.0	100.0	3.0			86.0	3.0
C04			86.0	3.0	100.0	3.0			86.0	3.0
C05			86.0	3.0	100.0	3.0			86.0	3.0

AVERAGE	AVERAGE
2	2.164



OUTCOME	PO1	PO2	PO3	PO4	PO5	
CO1	H 2.16	H 2.16			H 2.16	
CO2			H 2.1		H 2.1	
CO3		H 2.16	H 2.16	H 2.16		
CO4	H 2.2		H 2.2			H
CO5			H 2.2		H 2.2	
AVERAGE OF COS FOR POS	2.18	2.16	2.165	2.16	2.153333333	
AVERAGE OF POS	2.19	2.16	2.165	2.16	2.151111111	
AVERAGE	2.167013889					

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM

OUTCOMES:

COURSE TITLE: TECHNOLOGY OF ANIMAL BASED FOODS

(SEMESTER-4) 2022-23 batch

COURSE CODE: FT20401

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(BA/BSC/BCOM and BBA)Or POs :

- **PO1.Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions critically evaluate the validity of arguments and conclusion, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
- **PO2.Effective Communication:** Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the word by connecting people, ideas, books, media, and technology.
- **PO3.Social Interaction:** Elicit views of others, mediate disagreements and help reach conclusions in group settings.
- **PO4.Conduct Investigation Of Complex Problems:** Use research based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusion
- **PO5.Effective Citizen Ship:** Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issues and participate in civil life through a volunteering.
- **PO6.Ethics:** Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
- **PO7.Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
- **PO8.Self-Directed And Lifelong Learning:** Acquire the ability to engage in independent and lifelong learning in the broadest way.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Understand the nature and basic concepts of Psychology, English literature, and Journalism and express them effectively in writing and speech.

PSO2. Analyse the relationship between individual and society, and the various ways individuals respond to socio-political-religious and economic factors.

PSO3. Think critically about arguments and texts while taking into account diverse interpretations from different subject positions and acquire the ability to act in a socially responsible, ethical and humane way, grooming themselves towards effective citizenship.

PSO4. Apply the theories of Psychology, English Literature, and Journalism in conducting investigations on complex problems concerning the human being, his behaviour, and existence in society.

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	Conduct survey on the sources of meat and meat products in India	II (Understanding)
CO2	Differentiate the various changes in meat processing	IV(Analyzing)
CO3	Develop various preservation methods in meat	IV(Analyzing)
CO4	Understand various processing methods in meat	V(Evaluating)
CO5	Prepare fish products by different preservation methods	IV(Analyzing)

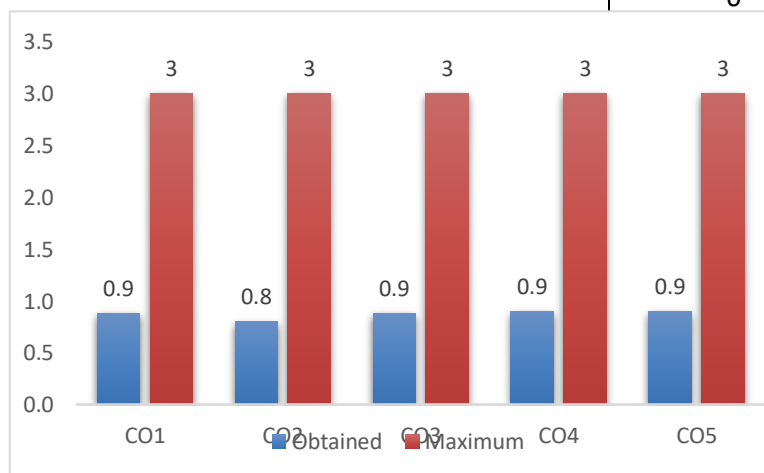
outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01
C01	H		H	S			S	H	
C02	H		H	H			H	S	
C03	H		H	H	H		H	H	
C04	H		H	H	S		H	H	
C05	H		H	H	H		H	H	

H: Highly Supportive

S: Supportive

co	mid exam 1		mid exam 2		group discussion		assignment		viva	
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level
C01	80.0	2.0			95.6	3.0	95.6	3.0	95.6	3.0
C02	80.0	2.0			95.6	3.0			95.6	3.0
C03	80.0	2.0	88.9	3.0	95.6	3.0			95.6	3.0
C04			88.9	3.0	95.6	3.0			95.6	3.0
C05			88.9	3.0	95.6	3.0			95.6	3.0

AVERAGE	AVERAGE
0	0.872



OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6
CO1	H 0.88		H 0.88			
CO2	H 0.8		H 0.8	H 0.8		
CO3	H 0.88		H 0.88	H 0.88	H 0.88	
CO4	H 0.9		H 0.9	H 0.9		
CO5	H 0.9		H 0.9	H 0.9	H 0.9	
AVERAGE OF COS FOR POS	0.872		0.872	0.87	0.89	
AVERAGE OF POS	0.8704		0.8704	0.87	0.89	
AVERAGE	0.877216667					

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM

OUTCOMES:

COURSE TITLE: TECHNOLOGY OF OILS AND FATS

(SEMESTER-4) 2022-23 batch

COURSE CODE: FT18403

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(BA/BSC/BCOM and BBA)Or POs :

- **PO1.Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions critically evaluate the validity of arguments and conclusion, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
- **PO2.Effective Communication:** Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the word by connecting people, ideas, books, media, and technology.
- **PO3.Social Interaction:** Elicit views of others, mediate disagreements and help reach conclusions in group settings.
- **PO4.Conduct Investigation Of Complex Problems:** Use research based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusion
- **PO5.Effective Citizen Ship:** Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issues and participate in civil life through a volunteering.
- **PO6.Ethics:** Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
- **PO7.Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
- **PO8.Self-Directed And Lifelong Learning:** Acquire the ability to engage in independent and lifelong learning in the broadest way.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Understand the nature and basic concepts of Psychology, English literature, and Journalism and express them effectively in writing and speech.

PSO2. Analyse the relationship between individual and society, and the various ways individuals respond to socio-political-religious and economic factors.

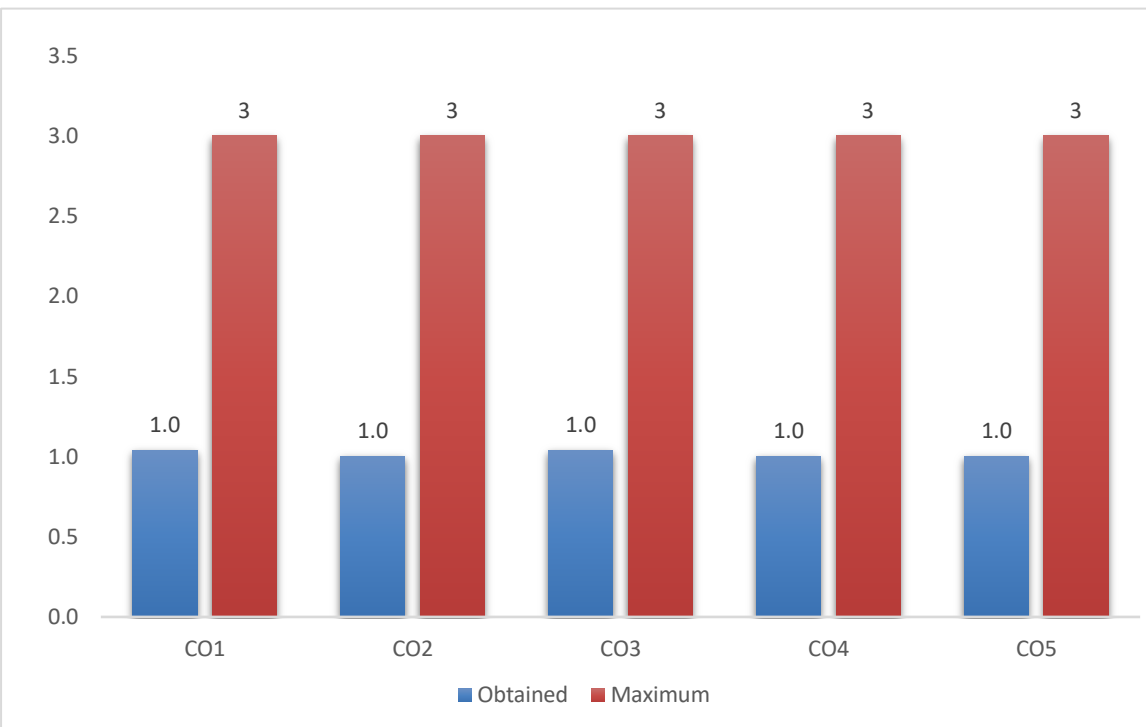
PSO3. Think critically about arguments and texts while taking into account diverse interpretations from different subject positions and acquire the ability to act in a socially responsible, ethical and humane way, grooming themselves towards effective citizenship.

PSO4. Apply the theories of Psychology, English Literature, and Journalism in conducting investigations on complex problems concerning the human being, his behaviour, and existence in society.

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	Explain composition and classification of fats and oils	II(Understand)
CO2	Create knowledge on various characteristics of fats	VI(Creating)
CO3	Explain the various steps involved in processing of fats	II(Understand)
CO4	Create value added products from fats	VI(Creating)
CO5	To show how to utilize the by-products from oil refining industries	II(Understand)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01
C01	H	H	H	H					H
C02	H	H	H						H
C03	H	H	H						H
C04	H	H	H						H
C05	H	H							H

co	mid exam 1		mid exam 2		group discussion		assignment		pass%
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	
C01	91.1	3.0			95.6	3.0	95.6	3.0	95.6
C02	91.1	3.0			95.6	3.0			95.6
C03	91.1	3.0	95.6	3.0	95.6	3.0			95.6
C04			95.6	3.0	95.6	3.0			95.6
C05			95.6	3.0	95.6	3.0			95.6



OUTCOME	PO1	PO2	PO3	PO4	PO5	P
CO1	H 1.04	H 1.04	H 1.04	H 1.04		
CO2	H 1	H 1	H 1			
CO3	H 1.04	H 1.04	H 1.04			
CO4	H 1	H 1	H 1			
CO5	H 1	H 1				
AVERAGE OF COS FOR POS	1.016	1.016	1.02	1.04		
AVERAGE OF POS	1.0112	1.0112	1.015	1.04		
AVERAGE						1.01935

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM

OUTCOMES:

COURSE TITLE: BAKING SCIENCE AND TECHNOLOGY

(SEMESTER-4) 2022-23 batch

COURSE CODE: FT20404

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND TECHNOLOGY

PROGRAMME OUTCOMES(BA/BSC/BCOM and BBA)Or POs :

- **PO1.Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions critically evaluate the validity of arguments and conclusion, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
- **PO2.Effective Communication:** Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the word by connecting people, ideas, books, media, and technology.
- **PO3.Social Interaction:** Elicit views of others, mediate disagreements and help reach conclusions in group settings.
- **PO4.Conduct Investigation Of Complex Problems:** Use research based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusion
- **PO5.Effective Citizen Ship:** Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issues and participate in civil life through a volunteering.
- **PO6.Ethics:** Recognize different value systems including your own, understand the

moral dimensions of your decisions, and accept responsibility for them.

- **PO7.Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
- **PO8.Self-Directed And Lifelong Learning:** Acquire the ability to engage in independent and lifelong learning in the broadest way.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Understand the nature and basic concepts of Psychology, English literature, and Journalism and express them effectively in writing and speech.

PSO2. Analyse the relationship between individual and society, and the various ways individuals respond to socio-political-religious and economic factors.

PSO3. Think critically about arguments and texts while taking into account diverse interpretations from different subject positions and acquire the ability to act in a socially responsible, ethical and humane way, grooming themselves towards effective citizenship.

PSO4. Apply the theories of Psychology, English Literature, and Journalism in conducting

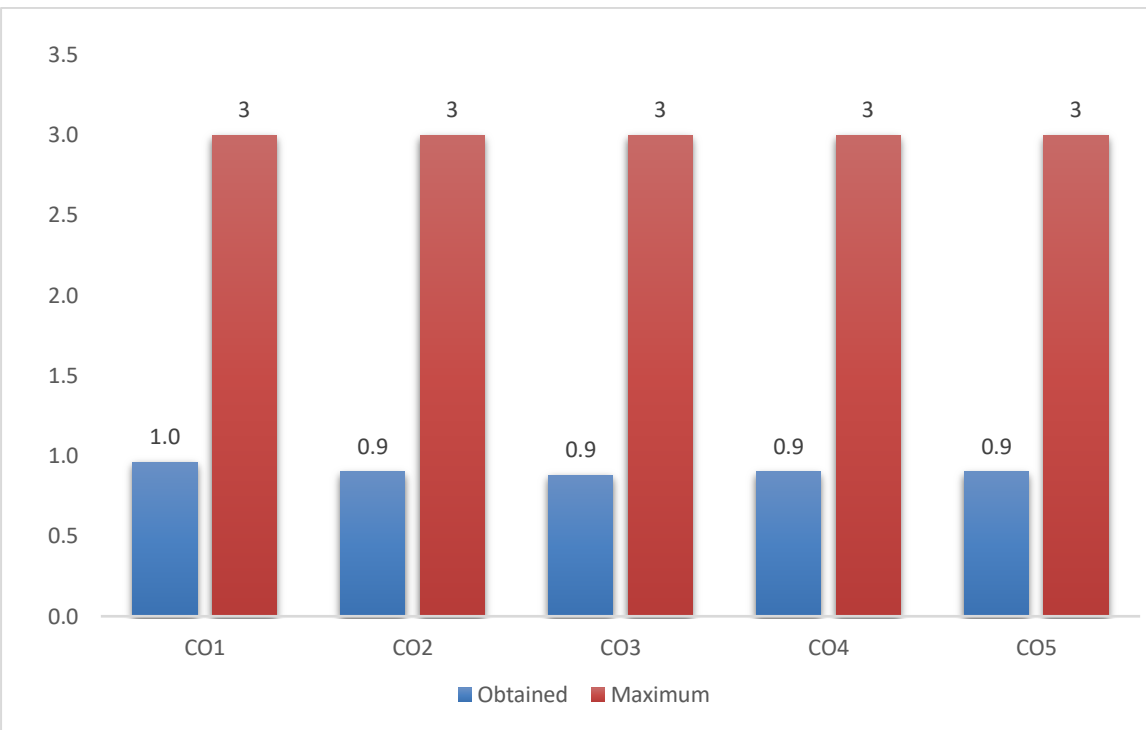
investigations on complex problems concerning the human being, his behaviour, and existence in society.

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	To plan the ingredients used in bread making	VI (Create)
CO2	To develop bread making process	VI (Create)
CO3	To produce different types of biscuits	III(Apply)
CO4	To construct the recipe for cakes	VI (Create)
CO5	To prepare wafers, frozen dough products and flat breads	III(Apply)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01
C01		H						H	H
C02			H		H				
C03	H		H					H	H
C04	H	H			H				H
C05	H		H	H			H		

co	mid exam 1		mid exam 2		group discussion		assignment		viva	
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level
C01	84.4	2.0			95.6	3.0	95.6	3.0	95.6	3.0
C02	84.4	2.0			95.6	3.0			95.6	3.0
C03	84.4	2.0	84.4	2.0	95.6	3.0			95.6	3.0
C04			84.4	2.0	95.6	3.0			95.6	3.0
C05			84.4	2.0	95.6	3.0			95.6	3.0

AVERAGE	AVERAGE
0	0.908



OUTCOME	PO1	PO2	PO3	PO4	PO5	
CO1		H 0.96				
CO2			H 0.9		H 0.9	
CO3	H 0.88		H 0.88			
CO4	H 0.9	H 0.9			H 0.9	
CO5	H 0.9		H 0.9	H 0.9		
AVERAGE OF COS FOR POS	0.8933333333	0.93	0.8933333333	0.9	0.9	
AVERAGE OF POS	0.8933333333	0.915	0.8933333333	0.9	0.9	
AVERAGE	0.900238095					

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM

OUTCOMES:

COURSE TITLE: FOOD PACKAGING

(SEMESTER-4) 2022-23 batch

COURSE CODE: FT20405 CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(BA/BSC/BCOM and BBA)Or POs :

- **PO1.Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions critically evaluate the validity of arguments and conclusion, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
- **PO2.Effective Communication:** Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the word by connecting people, ideas, books, media, and technology.
- **PO3.Social Interaction:** Elicit views of others, mediate disagreements and help reach conclusions in group settings.
- **PO4.Conduct Investigation Of Complex Problems:** Use research based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusion
- **PO5.Effective Citizen Ship:** Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issues and participate in civil life through a volunteering.
- **PO6.Ethics:** Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
- **PO7.Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
- **PO8.Self-Directed And Lifelong Learning:** Acquire the ability to engage in independent and lifelong learning in the broadest way.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Understand the nature and basic concepts of Psychology, English literature, and Journalism and express them effectively in writing and speech.

PSO2. Analyse the relationship between individual and society, and the various ways individuals respond to socio-political-religious and economic factors.

PSO3. Think critically about arguments and texts while taking into account diverse interpretations from different subject positions and acquire the ability to act in a socially responsible, ethical and humane way, grooming themselves towards effective citizenship.

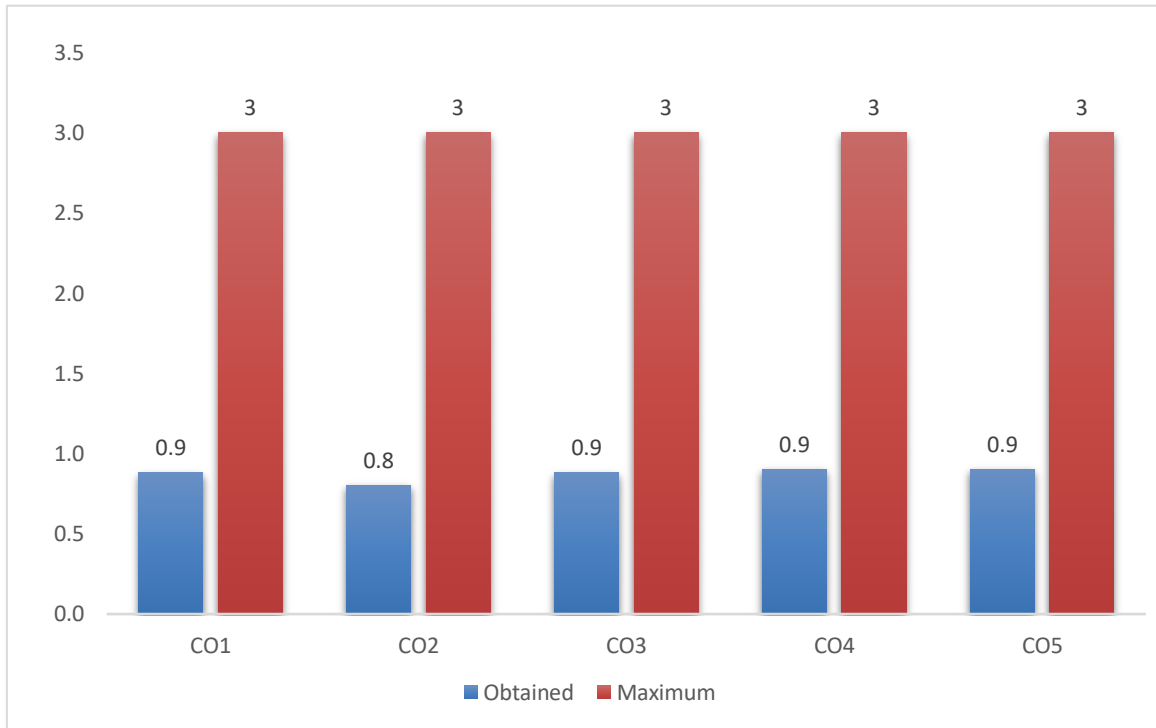
PSO4. Apply the theories of Psychology, English Literature, and Journalism in conducting investigations on complex problems concerning the human being, his behaviour, and existence in society.

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	Identify the importance, functions and design of packaging	IV(Analyzing)
CO2	Classify the food packaging material(paper& metal)	IV(Analyzing)
CO3	Explain the packaging materials(plastic & glass) and their properties	III(Apply)
CO4	Evaluate the packaging material, package performance and packaging equipment	V(Evaluating)
CO5	Compare the recent trends in packaging	V(Evaluating)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01
C01		H						H	H
C02			H		H				
C03	H		H					H	H
C04	H	H			H				H
C05	H		H	H			H		

co	mid exam 1		mid exam 2		group discussion		assignment		viva	
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level
C01	80.0	2.0			95.6	3.0	95.6	3.0	95.6	3.0
C02	80.0	2.0			95.6	3.0			95.6	3.0
C03	80.0	2.0	88.9	3.0	95.6	3.0			95.6	3.0
C04			88.9	3.0	95.6	3.0			95.6	3.0
C05			88.9	3.0	95.6	3.0			95.6	3.0

AVERAGE	AVERAGE
0	0.872



OUTCOME	PO1	PO2	PO3	PO4	PO5	
CO1		H 0.88				
CO2			H 0.8		H 0.8	
CO3	H 0.88		H 0.88			
CO4	H 0.9	H 0.9			H 0.9	
CO5	H 0.9		H 0.9	H 0.9		
AVERAGE OF COS FOR POS	0.8933333333	0.89	0.86	0.9	0.85	

AVERAGE OF POS

0.8933333333

0.895

0.86

0.9

0.85

AVERAGE

0.882619048

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM

OUTCOMES:

**COURSE TITLE: FOOD PLANT SANITATION AND WASTE MANAGEMENT
(SEMESTER-4) 2020**

batch

COURSE CODE: FT18406

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(BA/BSC/BCOM and BBA)Or POs :

- **PO1.Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions critically evaluate the validity of arguments and conclusion, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
- **PO2.Effective Communication:** Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the word by connecting people, ideas, books, media, and technology.
- **PO3.Social Interaction:** Elicit views of others, mediate disagreements and help reach conclusions in group settings.
- **PO4.Conduct Investigation Of Complex Problems:** Use research based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusion
- **PO5.Effective Citizen Ship:** Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issues and participate in civil life through a volunteering.
- **PO6.Ethics:** Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
- **PO7.Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
- **PO8.Self-Directed And Lifelong Learning:** Acquire the ability to engage in independent and lifelong learning in the broadest way.

PROGRAMME OUTCOMES(BA/BSC/BCOM and BBA)Or POs :

- **PO1.Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions critically evaluate the validity of arguments and conclusion, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
- **PO2.Effective Communication:** Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the word by connecting people, ideas, books, media, and technology.
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- **PO7.Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
- **PO8.Self-Directed And Lifelong Learning:** Acquire the ability to engage in independent and lifelong learning in the broadest way.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Understand the nature and basic concepts of Psychology, English literature, and Journalism and express them effectively in writing and speech.

PSO2. Analyse the relationship between individual and society, and the various ways individuals respond to socio-political-religious and economic factors.

PSO3. Think critically about arguments and texts while taking into account diverse interpretations from different subject positions and acquire the ability to act in a socially

responsible, ethical and humane way, grooming themselves towards effective citizenship.

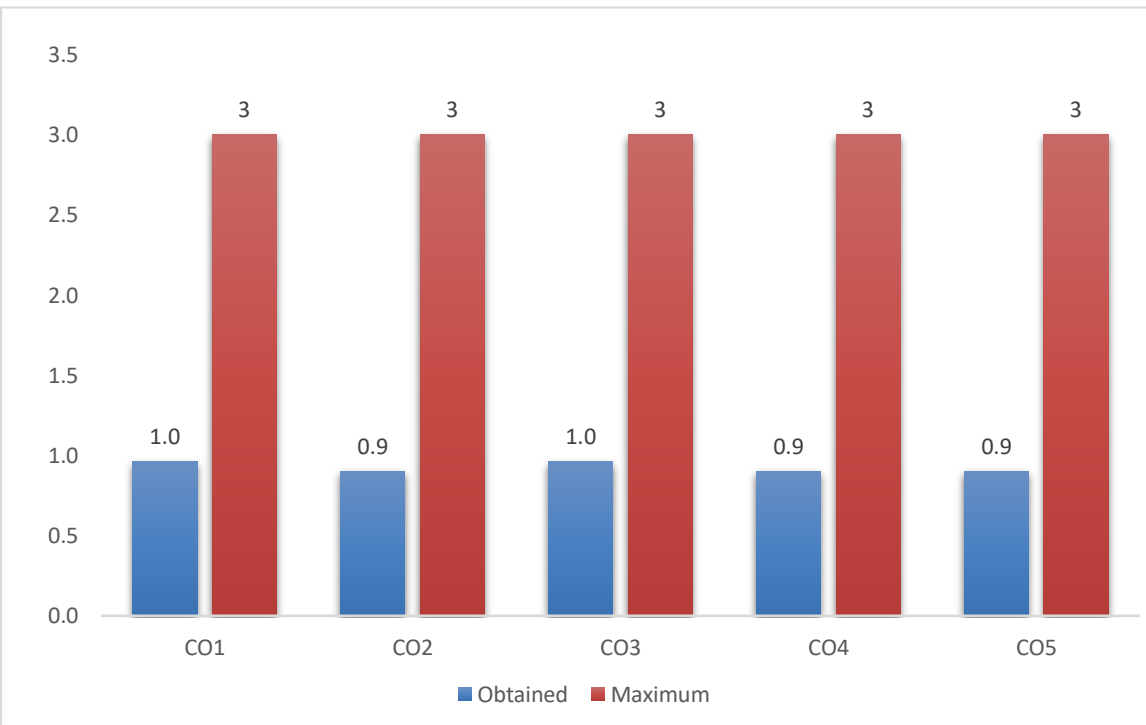
PSO4. Apply the theories of Psychology, English Literature, and Journalism in conducting investigations on complex problems concerning the human being, his behaviour, and existence in society.

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	Plan food plant layout and equipment design	VI(Creating)
CO2	Evaluate food plant hygiene and sanitation	V(Evaluating)
CO3	Classify the waste water treatment systems	IV (Analysing)
CO4	Differentiate the different biological treatment of waste water	IV (Analysing)
CO5	Explain the utilization of food industry wastes	III (Applying)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01
C01		H		H			H	H	H
C02		H					H		H
C03		H	H				S	H	H
C04	H	S					H		H
C05							H	H	H

co	mid exam 1		mid exam 2		group discussion		assignment		viva	
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level
CO1	100.0	3.0			100.0	3.0	100.0	3.0	100.0	3.0
CO2	100.0	3.0			100.0	3.0			100.0	3.0
CO3	100.0	3.0	97.7	3.0	100.0	3.0			100.0	3.0
CO4			97.7	3.0	100.0	3.0			100.0	3.0
CO5			97.7	3.0	100.0	3.0			100.0	3.0

AVERAGE	AVERAGE
0	0.924



OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6
CO1		H 0.96		H 0.96		
CO2		H 0.9				
CO3		H 0.96	H 0.96			
CO4	H 0.9					
CO5						
AVERAGE OF COS FOR POS	0.9	0.94	0.96	0.96		
AVERAGE OF POS	0.9	0.9333333333	0.96	0.96		
AVERAGE	0.931736111					

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM

OUTCOMES:

COURSE TITLE: EXTRUSION TECHNOLOGY

(SEMESTER-6) 2022-23 batch

COURSE CODE: FT18601A

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(BA/BSC/BCOM and BBA)Or POs :

- **PO1.Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions critically evaluate the validity of arguments and conclusion, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
- **PO2.Effective Communication:** Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the word by connecting people, ideas, books, media, and technology.
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- **PO6.Ethics:** Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.

- **PO7.Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
- **PO8.Self-Directed And Lifelong Learning:** Acquire the ability to engage in independent and lifelong learning in the broadest way.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Understand the nature and basic concepts of Psychology, English literature, and Journalism and express them effectively in writing and speech.

PSO2. Analyse the relationship between individual and society, and the various ways individuals respond to socio-political-religious and economic factors.

PSO3. Think critically about arguments and texts while taking into account diverse interpretations from different subject positions and acquire the ability to act in a socially responsible, ethical and humane way, grooming themselves towards effective citizenship.

PSO4. Apply the theories of Psychology, English Literature, and Journalism in conducting

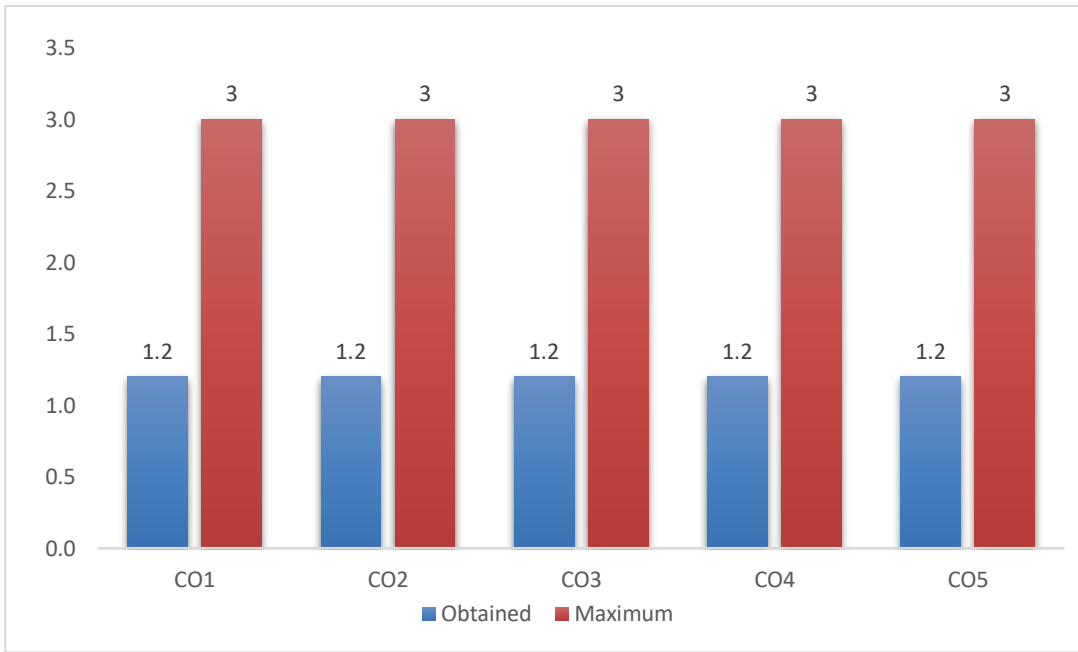
investigations on complex problems concerning the human being, his behaviour, and existence in society.

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	Compare the advantages and disadvantages of extrusion	IV(Analyzing)
CO2	Design single and double screw extruder	VI (Creating)
CO3	Differentiate the chemical and nutritional changes occur in food during extrusion	IV(Analyzing)
CO4	Make the different processing of snack foods and animal foods by using extrusion	IV(Analyzing)
CO5	Prepare the RTE cereals and texturized vegetable protein	III(Applying)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01
C01		H		H			H	H	H
C02		H					H		H
C03		H	H				S	H	H
C04	H	S					H		H
C05							H	H	H

co	mid exam 1		mid exam 2		group discussion		assignment		viva	
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level
C01	92.0	3.0			100.0	3.0	100.0	3.0	100.0	3.0
C02	92.0	3.0			100.0	3.0			100.0	3.0
C03	92.0	3.0	100.0	3.0	100.0	3.0			100.0	3.0
C04			100.0	3.0	100.0	3.0			100.0	3.0
C05			100.0	3.0	100.0	3.0			100.0	3.0

AVERAGE	AVERAGE
0	1.2



OUTCOME

PO1

PO2

PO3

PO4

PO5

CO1		H 1.2		H 1.2		
CO2		H 1.2				
CO3		H 1.2	H 1.2			
CO4	H 1.2					
CO5						
AVERAGE OF COS FOR POS	1.2	1.2	1.2	1.2		
AVERAGE OF POS	1.2	1.2	1.2	1.2		
AVERAGE	1.2					

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM

OUTCOMES:

COURSE TITLE: TECHNOLOGY OF SPICES AND CONDIMENTS

(SEMESTER- 6) 2022-23 batch

COURSE CODE: FT2161B

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(BA/BSC/BCOM and BBA)Or POs :

- **PO1.Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions critically evaluate the validity of arguments and conclusion, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
- **PO2.Effective Communication:** Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the word by connecting people, ideas, books, media, and technology.
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- **PO6.Ethics:** Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
- **PO7.Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
- **PO8.Self-Directed And Lifelong Learning:** Acquire the ability to engage in independent and lifelong learning in the broadest way.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Understand the nature and basic concepts of Psychology, English literature, and Journalism and express them effectively in writing and speech.

PSO2. Analyse the relationship between individual and society, and the various ways individuals respond to socio-political-religious and economic factors.

PSO3. Think critically about arguments and texts while taking into account diverse interpretations from different subject positions and acquire the ability to act in a socially responsible, ethical and humane way, grooming themselves towards effective citizenship.

PSO4. Apply the theories of Psychology, English Literature, and Journalism in conducting investigations on complex problems concerning the human being, his behaviour, and existence in society.

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	Differentiate spices and condiments and their importance	IV(Analyzing)
CO2	Identify various components present in spices and condiments	IV(Analyzing)
CO3	Processing of major Indian spices	VI(Creating)
CO4	Produce various spice oils	VI(Creating)

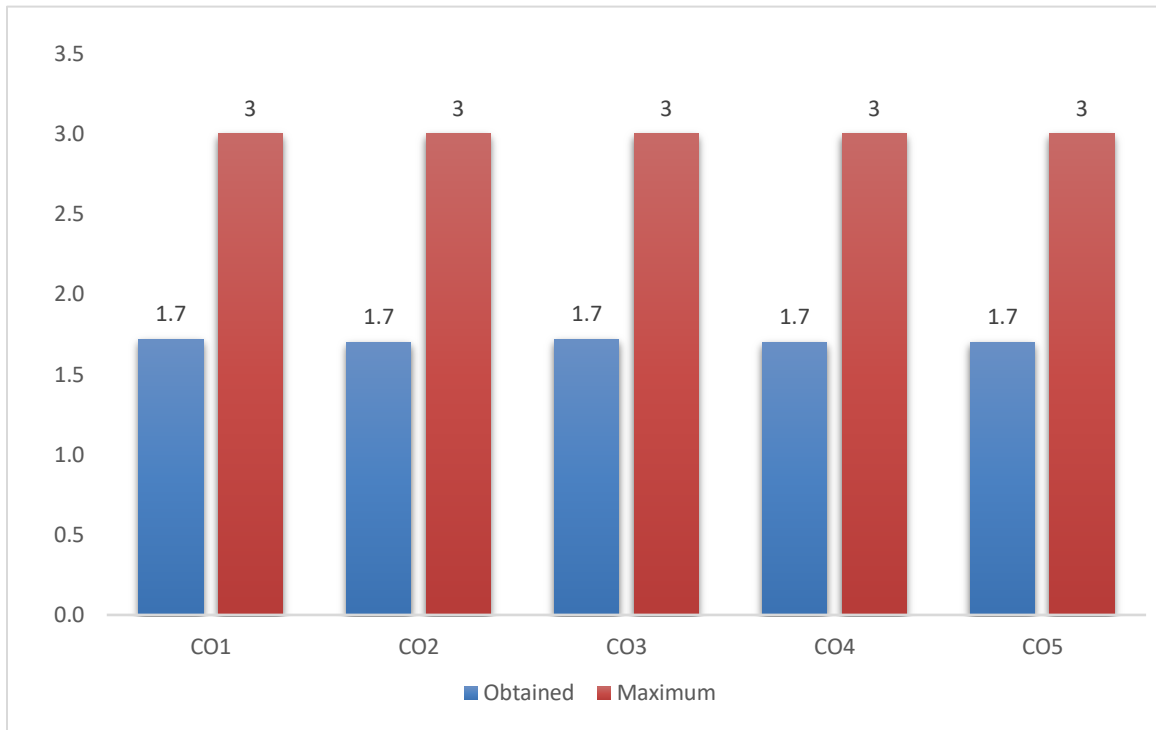
CO5	Analyse various spices and condiments and their shelf life	IV(Analyzing)
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outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01
C01		H		H			H	H	H
C02		H					H		H
C03		H	H				S	H	H
C04	H	S					H		H
C05							H	H	H

co	mid exam 1		mid exam 2		group discussion		assignment		viva	
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level
C01	100.0	3.0			100.0	3.0	100.0	3.0	100.0	3.0
C02	100.0	3.0			100.0	3.0			100.0	3.0
C03	100.0	3.0	100.0	3.0	100.0	3.0			100.0	3.0
C04			100.0	3.0	100.0	3.0			100.0	3.0
C05			100.0	3.0	100.0	3.0			100.0	3.0

AVERAGE AVERAGE

1	1.708
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OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6
CO1		H 1.72		H 1.72		
CO2		H 1.7				
CO3		H 1.72	H 1.72			
CO4	H 1.7					
CO5						
AVERAGE OF COS FOR POS	1.7	1.713333333	1.72	1.72		
AVERAGE OF POS	1.7	1.711111111	1.72	1.72		

AVERAGE

1.710578704

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM

OUTCOMES:

COURSE TITLE: TECHNOLOGY OF NON FERMENTED BEVERAGES

(semester 6) 2022-23 batch

COURSE CODE: FT18503B

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(B.Sc) Or POs :

- **PO1. Scientific Knowledge.** Apply the knowledge of Science, Mathematics, Engineering & Technology fundamentals to solve the complex problems.
- **PO2. Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- **PO3. Problem analysis:** Identify, formulate, research literature, and analyze complex scientific problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- **PO4. Modern tool usage:** Create, select and apply appropriate techniques, resources, modern technology and IT tools to complex science and technological activities.
- **PO5. Environment and sustainability:** Understand the impact of professional science and technological solutions in societal and environmental contexts and for

sustainable development.

- **PO6. Individual and team work:** Function objectively as an individual and as a member in diverse teams.
- **PO7. Communication:** Communicate effectively on complex science & technology activities with society at large and able to write effective reports and documentation.
- **PO8. Life-long learning:** Recognise the need and ability to engage in independent and lifelong learning in the context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1: Understand the concept of food science, nutrition and dietetics

PSO2: Analyse the relationships between various nutrients and physiological disorders and various diet therapies

PSO3: Apply the knowledge of processing and preservation techniques in increasing the shelf life of food products

PSO4: Combine the knowledge of food science, nutrition and dietetics to overcome food wastage, malnutrition and lifestyle disorders.

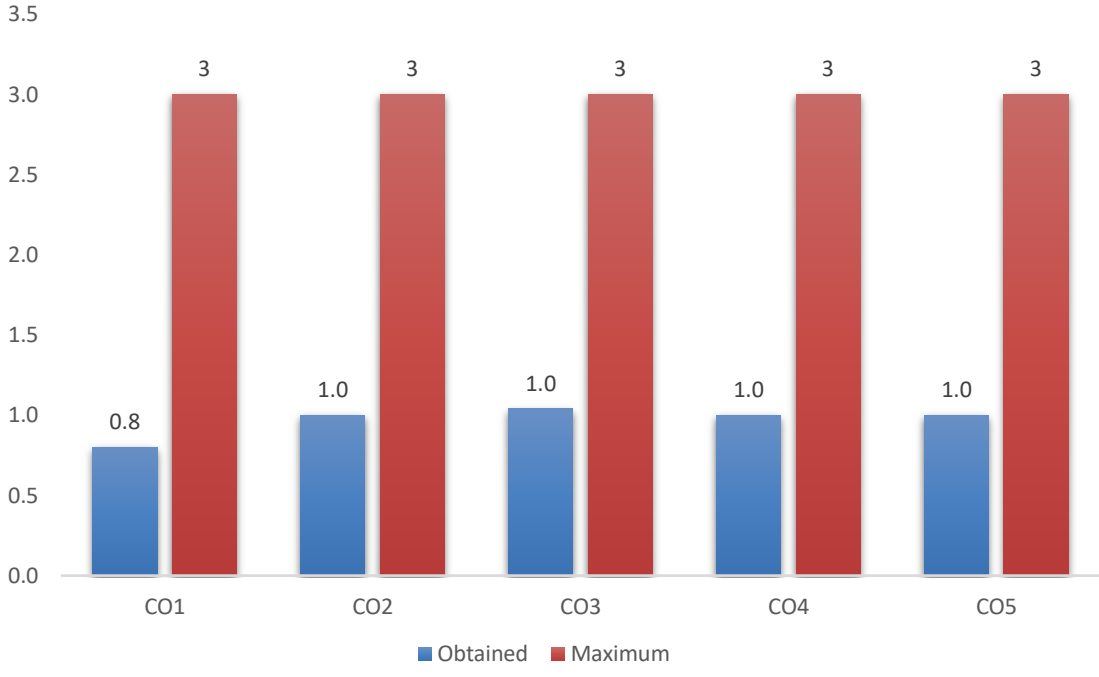
	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
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C01	1. Explain introduction and classification of beverages	II(UNDERSTAND)
C02	Preparation and preservation of fruit juices	V(EVALUATE)
C03	Formulation and composition of beverages	IV(ANALYSE)
C04	Processing of non-fermented beverages	VI(CREATE)
C05	Explain the importance of non fermented beverages	II(UNDERSTAND)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01
C01	H		H	S			S	H	
C02	H		H	H			H	H	
C03	H		H	H	H		H	H	
C04	H		H	H	S		H	S	
C05	H		H	H	H		S	H	

co	mid exam 1		mid exam 2		group discussion		assignment		viva	
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level
CO1	100.0	3.0			100.0	3.0	26.9	0.0	100.0	3.0
CO2	100.0	3.0			100.0	3.0			100.0	3.0
CO3	100.0	3.0	100.0	3.0	100.0	3.0			100.0	3.0
CO4			100.0	3.0	100.0	3.0			100.0	3.0
CO5			100.0	3.0	100.0	3.0			100.0	3.0

AVERAGE	AVERAGE
0	0.968



OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6
CO1	H 0.8		H 0.8			
CO2	H 1		H 1	H 1		
CO3	H 1.04		H 1.04	H 1.04	H 1.04	
CO4	H 1		H 1	H 1		
CO5	H 1		H 1	H 1	H 1	
AVERAGE OF COS FOR POS	0.968		0.968	1.01	1.02	
AVERAGE OF POS	1.0016		1.0016	1.01	1.02	
AVERAGE	1.007755556					

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM

OUTCOMES:

COURSE TITLE: FOOD PRODUCT DEVELOPEMENT

(SEMESTER-6) 2022-23 batch

COURSE CODE: FT21602A

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(BA/BSC/BCOM and BBA)Or POs :

- **PO1.Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions critically evaluate the validity of arguments and conclusion, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
- **PO2.Effective Communication:** Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the word by connecting people, ideas, books, media, and technology.
- **PO3.Social Interaction:** Elicit views of others, mediate disagreements and help reach conclusions in group settings.
- **PO4.Conduct Investigation Of Complex Problems:** Use research based knowledge and research methods including design of experiments, analysis and interpretation of data,

and synthesis of information to provide valid conclusion

- **PO5.Effective Citizen Ship:** Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issues and participate in civil life through a volunteering.
- **PO6.Ethics:** Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
- **PO7.Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
- **PO8.Self-Directed And Lifelong Learning:** Acquire the ability to engage in

independent and lifelong learning in the broadest way.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Understand the nature and basic concepts of Psychology, English literature, and Journalism and express them effectively in writing and speech.

PSO2. Analyse the relationship between individual and society, and the various ways individuals respond to socio-political-religious and economic factors.

PSO3. Think critically about arguments and texts while taking into account diverse

interpretations from different subject positions and acquire the ability to act in a socially responsible, ethical and humane way, grooming themselves towards effective citizenship.

PSO4.Apply the theories of Psychology, English Literature, and Journalism in conducting investigations on complex problems concerning the human being, his behaviour, and existence in society.

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	Explain the concept involved in food product development	II(UNDERSTAND)
CO2	Demonstrate various stages of food product development	II(UNDERSTAND)
CO3	Identify role and behaviour of consumers in food product development	IV(ANALYSE)

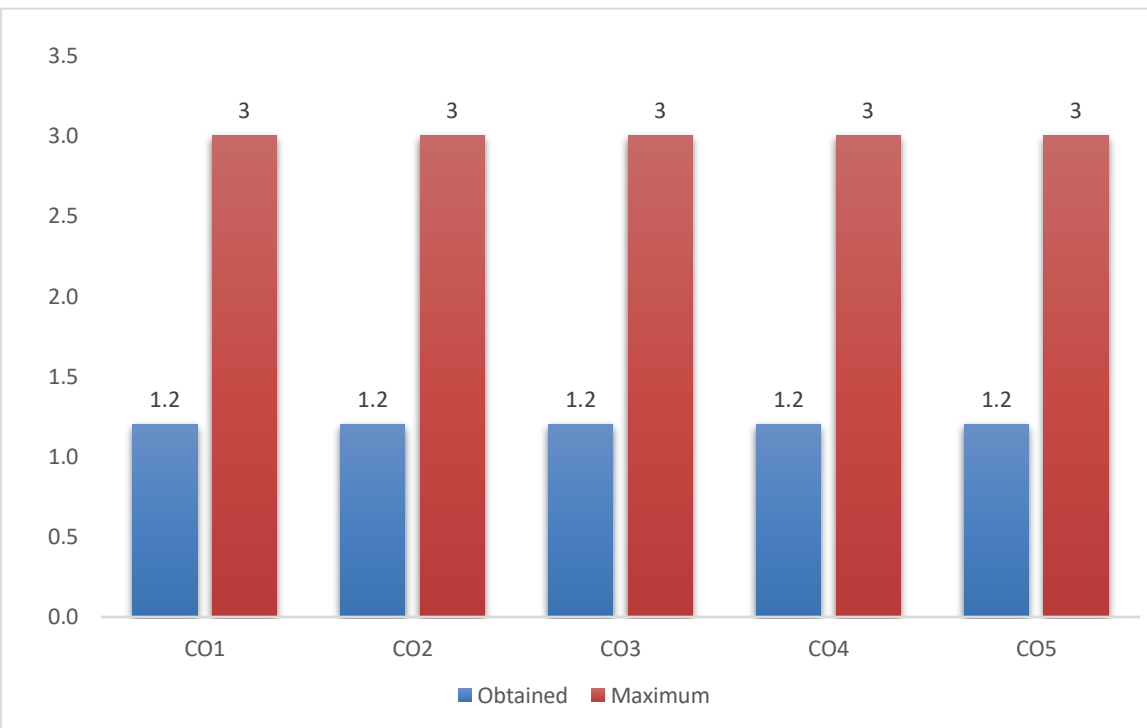
CO4	Explain the design and management of product development process	II(UNDERSTAND)
CO5	Create awareness on improving product success	VI(CREATE)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01
C01		H		H			H	H	H
C02		H					H		H
C03		H	H				S	H	H
C04	H	S					H		H
C05							H	H	H

co	mid exam 1		mid exam 2		group discussion		assignment		viva	
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level
C01	100.0	3.0			100.0	3.0	100.0	3.0	100.0	3.0
C02	100.0	3.0			100.0	3.0			100.0	3.0
C03	100.0	3.0	100.0	3.0	100.0	3.0			100.0	3.0
C04			100.0	3.0	100.0	3.0			100.0	3.0

C05			100.0	3.0	100.0	3.0			100.0	3.0
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AVERAGE	AVERAGE
0	1.2



OUTCOME	PO1	PO2	PO3	PO4	PO5	P
CO1		H 1.2		H 1.2		
CO2		H 1.2				
CO3		H 1.2	H 1.2			
CO4	H 1.2					
CO5						

AVERAGE OF COS FOR POS	1.2	1.2	1.2	1.2		
AVERAGE OF POS	1.2	1.2	1.2	1.2		
AVERAGE						1.2

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

COURSE TITLE:FOOD ADDITIVES AND TOXICOLOGY (semester 2) 2022-23 batch

COURSE CODE: FT18202

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(B.Sc) Or POs :

- **PO1. Scientific Knowledge.** Apply the knowledge of Science, Mathematics, Engineering& Technology fundamentals to solve the complex problems.
- **PO2. Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

- **PO3.Problem analysis:** Identify, formulate, research literature, and analyze complex scientific problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- **PO4. Modern tool usage:** Create, select and apply appropriate techniques, resources, modern technology and IT tools to complex science and technological activities.
- **PO5. Environment and sustainability:** Understand the impact of professional science

and technological solutions in societal and environmental contexts and for sustainable development.

- **PO6.Individual and team work:** Function objectively as an individual and as a member in diverse teams.
- **PO7. Communication:** Communicate effectively on complex science & technology activities with society at large and able to write effective reports and documentation.
- **PO8. Life-long learning:** Recognise the need and ability to engage in independent and lifelong learning in the context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1:understand the concept of food science, nutrition and dietetics

PSO2:analyse the relationships between various nutrients and physiological disorders and various diet therapies

PSO3:apply the knowledge of processing and preservation techniques in increasing the shelf life of food products

PSO4:combine the knowledge of food science, nutrition and dietetics to overcome food

wastage, malnutrition and lifestyle disorders

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	Explain structure and properties of plant and animal pigments	III(APPLY)
CO2	Classify different food additives and their role in food industry	II(UNDERSTAND)
CO3	Identify the various food colours and flavours and their use in food industry	IV(ANALYSE)
CO4	To evaluate the microbial agents in the food industry	V(EVALUATE)
CO5	Apply the knowledge of role of antioxidants and sweeteners in foods	III(APPLY)

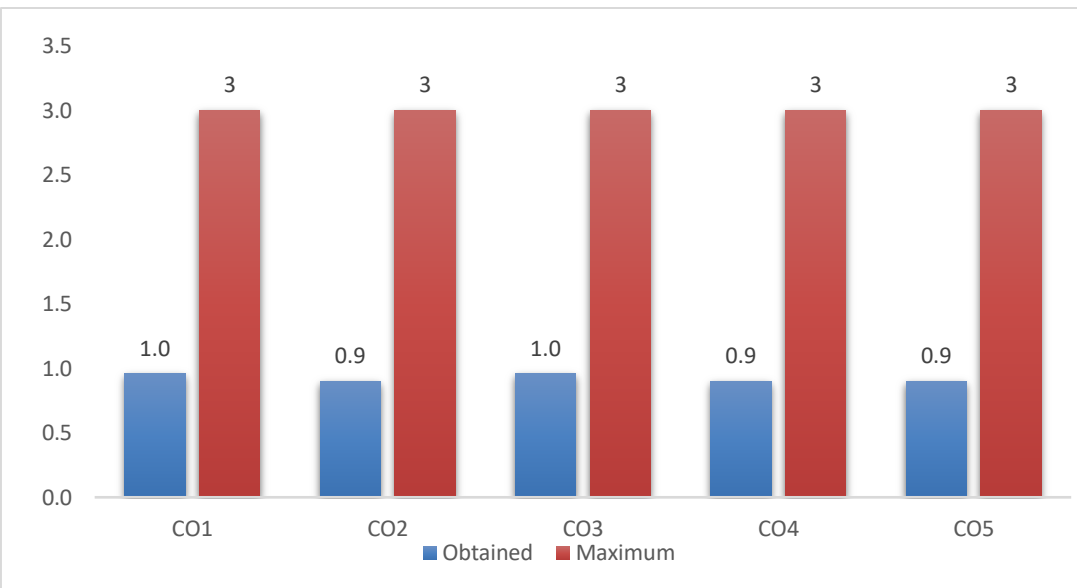
TABLE 1: CO, PO, PSO MAPPING

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01
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C01		H	H		H	H			
C02	H	H	H		H	H			
C03		H	H		H	H			
C04	H	H	H		H	H			H
C05		H	H		H	H			H

	mid exam 1		mid exam 2		group discussion		assign
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%
CO1	98.0	3.0			100.0	3.0	100.0
CO2	98.0	3.0			100.0	3.0	
CO3	98.0	3.0	98.0	3.0	100.0	3.0	
CO4			98.0	3.0	100.0	3.0	
CO5			98.0	3.0	100.0	3.0	

AVERAGE	AVERAGE
0	0.924



OUTCOME	PO1		PO2		PO3		PO4		PO5		P
CO1			H	0.96	H	0.96			H	0.96	H
CO2	H	0.9	H	0.9	H	0.9			H	0.9	H

CO3		H 0.96	H 0.96		H 0.96	H	
CO4	H 0.9	H 0.9	H 0.9		H 0.9	H	
CO5		H 0.9	H 0.9		H 0.9	H	
AVERAGE OF COS FOR POS	0.9	0.924	0.924		0.924	0	
AVERAGE OF POS	0.9	0.9168	0.9168		0.9168		
AVERAGE						0.91344	

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM

OUTCOMES:

COURSE TITLE: FOOD PROCESS ENGINEERING-1 (semester 2) 2022-23

batch

COURSE CODE: FT18203

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(B.Sc) Or POs :

- **PO1. Scientific Knowledge.** Apply the knowledge of Science, Mathematics, Engineering & Technology fundamentals to solve the complex problems.
- **PO2. Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
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- **PO7. Communication:** Communicate effectively on complex science & technology activities with society at large and able to write effective reports and documentation.
- **PO8. Life-long learning:** Recognise the need and ability to engage in independent and lifelong learning in the context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1: Understand the concept of food science, nutrition and dietetics

PSO2: Analyse the relationships between various nutrients and physiological disorders and various diet therapies

PSO3: Apply the knowledge of processing and preservation techniques in increasing the shelf life of food products

PSO4: Combine the knowledge of food science, nutrition and dietetics to overcome food wastage, malnutrition and lifestyle disorders.

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
C01	To develop understanding the concept of viscosity and flow measuring instruments	II(UNDERSTAND)
C02	To apply the laws of heat transfer to food processing	III(APPLY)
C03	To compare the steady and non-steady state heat transfer	V(EVALUATE)
C04	To identify the combine effects of heat transfer through evaporation and dehydration	IV(ANALYSE)
C05	To analyse different types of filtrations	IV(ANALYSE)

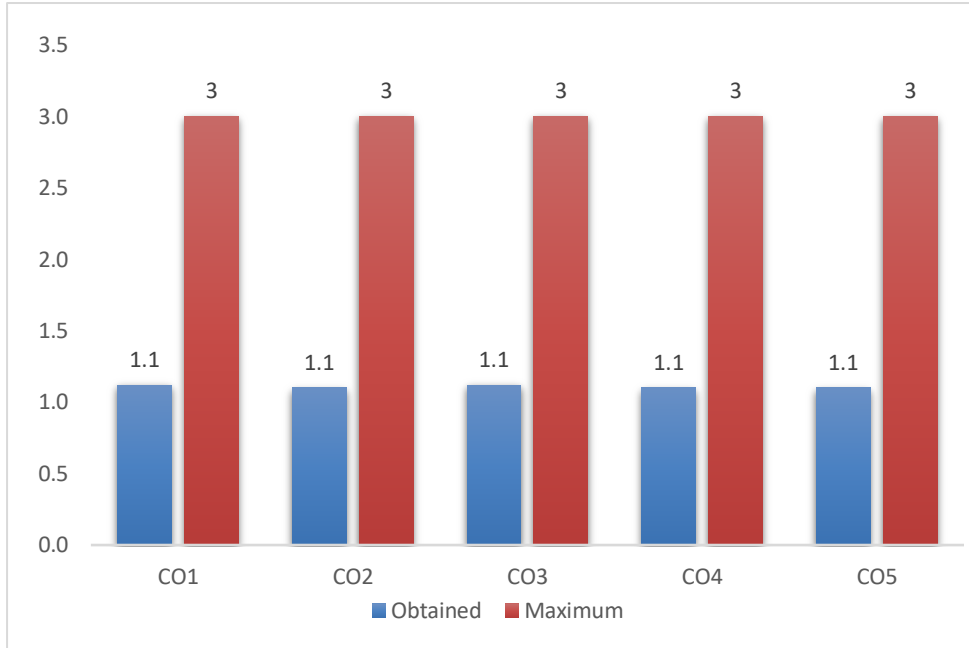
outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	
C01	H	H	H	H					
C02	H	H							
C03	H		H						
C04	H								
C05	H		H						

H: Highly Supportive

S: Supportive

co	mid exam 1		mid exam 2		group discussion		assignment		viva	
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level
CO1	98.0	3.0			100.0	3.0	100.0	3.0	100.0	3.0
CO2	98.0	3.0			100.0	3.0			100.0	3.0
CO3	98.0	3.0	96.0	3.0	100.0	3.0			100.0	3.0
CO4			96.0	3.0	100.0	3.0			100.0	3.0
CO5			96.0	3.0	100.0	3.0			100.0	3.0

AVERAGE	AVERAGE
0	1.108



OUTCOME	PO1	PO2	PO3	PO4	PO5	
CO1	H 1.12	H 1.12	H 1.12	H 1.12		
CO2	H 1.1	H 1.1				
CO3	H 1.12		H 1.12			
CO4	H 1.1					
CO5	H 1.1		H 1.1			
AVERAGE OF COS FOR POS	1.108	1.11	1.113333333	1.12		
AVERAGE OF POS	1.1056	1.105	1.111111111	1.12		
AVERAGE	1.110427778					

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM

OUTCOMES:

COURSE TITLE: FOOD BIOCHEMISTRY (semester 2) 2022-23 batch

COURSE CODE: FT2204

CREDITS:4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(B.Sc) Or POs :

- **PO1. Scientific Knowledge.** Apply the knowledge of Science, Mathematics, Engineering & Technology fundamentals to solve the complex problems.
- **PO2. Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
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- **PO5. Environment and sustainability:** Understand the impact of professional science and technological solutions in societal and environmental contexts and for sustainable development.
- **PO6. Individual and team work:** Function objectively as an individual and as a member

in diverse teams.

- **PO7. Communication:** Communicate effectively on complex science & technology activities with society at large and able to write effective reports and documentation.
- **PO8. Life-long learning:** Recognise the need and ability to engage in independent and lifelong learning in the context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1:understand the concept of food science, nutrition and dietetics

PSO2:analyse the relationships between various nutrients and physiological disorders and various diet therapies

PSO3:apply the knowledge of processing and preservation techniques in increasing the shelf life of food products

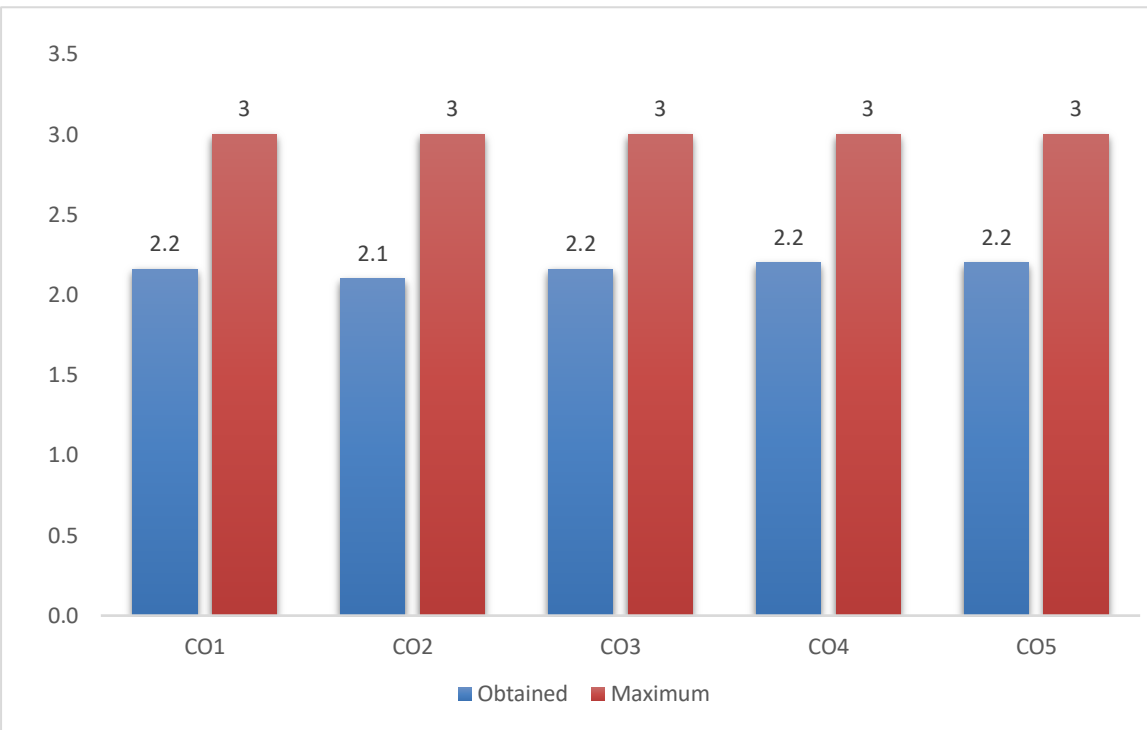
PSO4:combine the knowledge of food science, nutrition and dietetics to overcome food wastage, malnutrition and lifestyle disorders

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	Identify different microorganisms associated with foods	IV (Analyze)
CO2	Evaluate the microbial estimation in food	V (Evaluate)
CO3	Analyze microorganisms associated with various food groups	IV (Analyze)
CO4	Evaluate the various food preservation techniques	V (Evaluate)
CO5	Explain various food borne illnesses	II (Understand)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01
C01	H	H			H				H
C02			H		H			H	
C03		H	H	H			H	S	H
C04	H		H			H			
C05			H		H			H	H

co	mid exam 1		mid exam 2		group discussion		assignment		viva	
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level
C01	84.0	2.0			100.0	3.0	100.0	3.0	86.0	3.0
C02	84.0	2.0			100.0	3.0			86.0	3.0
C03	84.0	2.0	86.0	3.0	100.0	3.0			86.0	3.0
C04			86.0	3.0	100.0	3.0			86.0	3.0
C05			86.0	3.0	100.0	3.0			86.0	3.0

AVERAGE	AVERAGE
2	2.164



OUTCOME	PO1	PO2	PO3	PO4	PO5	
CO1	H 2.16	H 2.16			H 2.16	
CO2			H 2.1		H 2.1	
CO3		H 2.16	H 2.16	H 2.16		
CO4	H 2.2		H 2.2			H
CO5			H 2.2		H 2.2	
AVERAGE OF COS FOR POS	2.18	2.16	2.165	2.16	2.153333333	
AVERAGE OF POS	2.19	2.16	2.165	2.16	2.151111111	
AVERAGE	2.167013889					

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM

OUTCOMES:

COURSE TITLE: TECHNOLOGY OF ANIMAL BASED FOODS

(SEMESTER-4) 2022-23 batch

COURSE CODE: FT20401

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(BA/BSC/BCOM and BBA)Or POs :

- **PO1.Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions critically evaluate the validity of arguments and conclusion, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
- **PO2.Effective Communication:** Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the word by connecting people, ideas, books, media, and technology.
- **PO3.Social Interaction:** Elicit views of others, mediate disagreements and help reach conclusions in group settings.
- **PO4.Conduct Investigation Of Complex Problems:** Use research based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusion
- **PO5.Effective Citizen Ship:** Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issues and participate in civil life through a volunteering.
- **PO6.Ethics:** Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
- **PO7.Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
- **PO8.Self-Directed And Lifelong Learning:** Acquire the ability to engage in independent and lifelong learning in the broadest way.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Understand the nature and basic concepts of Psychology, English literature, and Journalism and express them effectively in writing and speech.

PSO2. Analyse the relationship between individual and society, and the various ways individuals respond to socio-political-religious and economic factors.

PSO3. Think critically about arguments and texts while taking into account diverse interpretations from different subject positions and acquire the ability to act in a socially responsible, ethical and humane way, grooming themselves towards effective citizenship.

PSO4. Apply the theories of Psychology, English Literature, and Journalism in conducting investigations on complex problems concerning the human being, his behaviour, and existence in society.

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	Conduct survey on the sources of meat and meat products in India	II (Understanding)
CO2	Differentiate the various changes in meat processing	IV(Analyzing)
CO3	Develop various preservation methods in meat	IV(Analyzing)
CO4	Understand various processing methods in meat	V(Evaluating)
CO5	Prepare fish products by different preservation methods	IV(Analyzing)

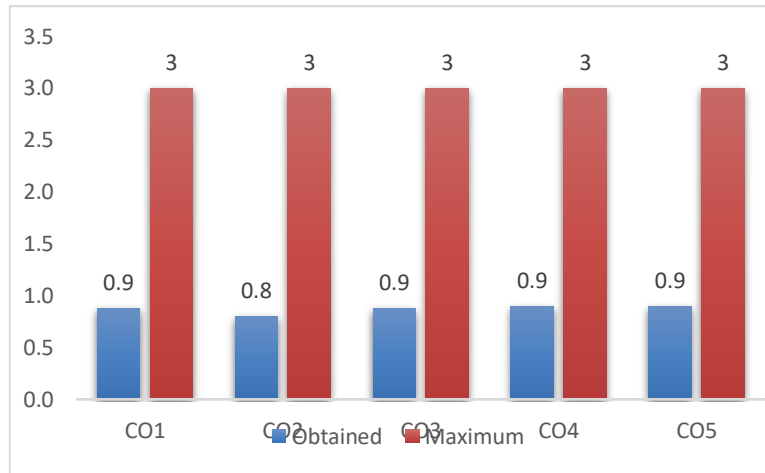
outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01
C01	H		H	S			S	H	
C02	H		H	H			H	S	
C03	H		H	H	H		H	H	
C04	H		H	H	S		H	H	
C05	H		H	H	H		H	H	

H: Highly Supportive

S: Supportive

co	mid exam 1		mid exam 2		group discussion		assignment		viva	
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level
C01	80.0	2.0			95.6	3.0	95.6	3.0	95.6	3.0
C02	80.0	2.0			95.6	3.0			95.6	3.0
C03	80.0	2.0	88.9	3.0	95.6	3.0			95.6	3.0
C04			88.9	3.0	95.6	3.0			95.6	3.0
C05			88.9	3.0	95.6	3.0			95.6	3.0

AVERAGE	AVERAGE
0	0.872



OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6
CO1	H 0.88		H 0.88			
CO2	H 0.8		H 0.8	H 0.8		
CO3	H 0.88		H 0.88	H 0.88	H 0.88	
CO4	H 0.9		H 0.9	H 0.9		
CO5	H 0.9		H 0.9	H 0.9	H 0.9	
AVERAGE OF COS FOR POS	0.872		0.872	0.87	0.89	
AVERAGE OF POS	0.8704		0.8704	0.87	0.89	
AVERAGE	0.877216667					

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM

OUTCOMES:

COURSE TITLE: TECHNOLOGY OF OILS AND FATS

(SEMESTER-4) 2022-23 batch

COURSE CODE: FT18403

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(BA/BSC/BCOM and BBA)Or POs :

- **PO1.Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions critically evaluate the validity of arguments and conclusion, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
- **PO2.Effective Communication:** Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the word by connecting people, ideas, books, media, and technology.
- **PO3.Social Interaction:** Elicit views of others, mediate disagreements and help reach conclusions in group settings.
- **PO4.Conduct Investigation Of Complex Problems:** Use research based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusion
- **PO5.Effective Citizen Ship:** Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issues and participate in civil life through a volunteering.
- **PO6.Ethics:** Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
- **PO7.Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
- **PO8.Self-Directed And Lifelong Learning:** Acquire the ability to engage in independent and lifelong learning in the broadest way.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Understand the nature and basic concepts of Psychology, English literature, and Journalism and express them effectively in writing and speech.

PSO2. Analyse the relationship between individual and society, and the various ways individuals respond to socio-political-religious and economic factors.

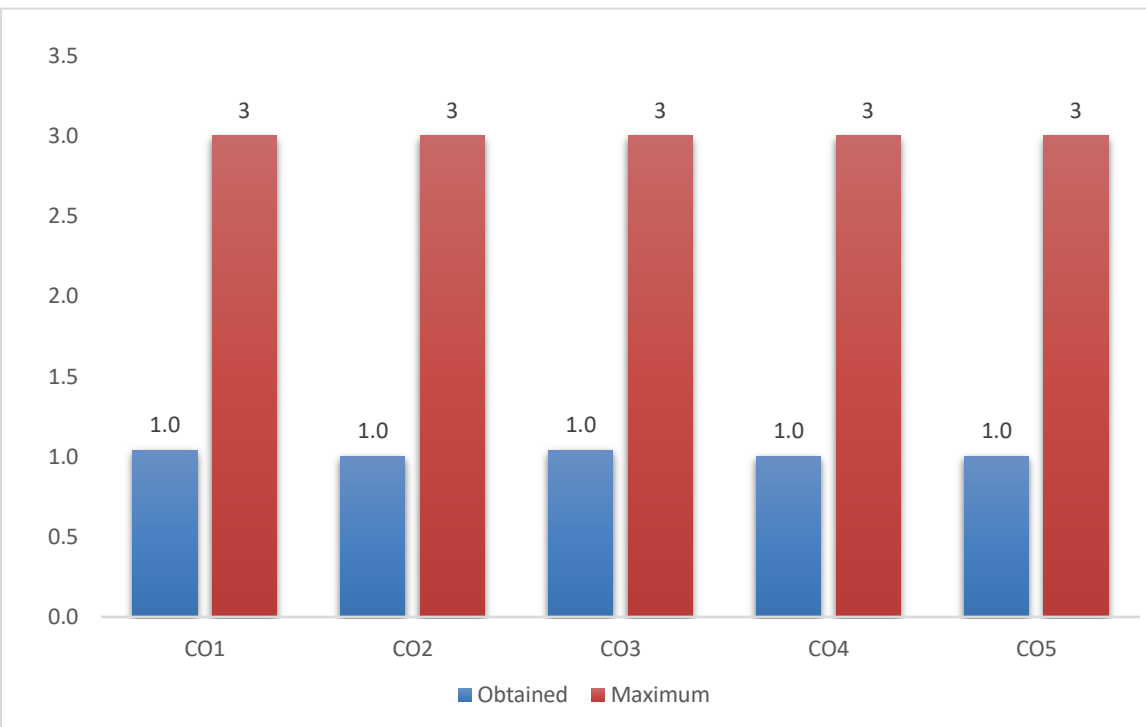
PSO3. Think critically about arguments and texts while taking into account diverse interpretations from different subject positions and acquire the ability to act in a socially responsible, ethical and humane way, grooming themselves towards effective citizenship.

PSO4. Apply the theories of Psychology, English Literature, and Journalism in conducting investigations on complex problems concerning the human being, his behaviour, and existence in society.

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	Explain composition and classification of fats and oils	II(Understand)
CO2	Create knowledge on various characteristics of fats	VI(Creating)
CO3	Explain the various steps involved in processing of fats	II(Understand)
CO4	Create value added products from fats	VI(Creating)
CO5	To show how to utilize the by-products from oil refining industries	II(Understand)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01
C01	H	H	H	H					H
C02	H	H	H						H
C03	H	H	H						H
C04	H	H	H						H
C05	H	H							H

co	mid exam 1		mid exam 2		group discussion		assignment		pass%
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	
C01	91.1	3.0			95.6	3.0	95.6	3.0	95.6
C02	91.1	3.0			95.6	3.0			95.6
C03	91.1	3.0	95.6	3.0	95.6	3.0			95.6
C04			95.6	3.0	95.6	3.0			95.6
C05			95.6	3.0	95.6	3.0			95.6



OUTCOME	PO1	PO2	PO3	PO4	PO5	P
CO1	H 1.04	H 1.04	H 1.04	H 1.04		
CO2	H 1	H 1	H 1			
CO3	H 1.04	H 1.04	H 1.04			
CO4	H 1	H 1	H 1			
CO5	H 1	H 1				
AVERAGE OF COS FOR POS	1.016	1.016	1.02	1.04		
AVERAGE OF POS	1.0112	1.0112	1.015	1.04		
AVERAGE						1.01935

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM

OUTCOMES:

COURSE TITLE: BAKING SCIENCE AND TECHNOLOGY

(SEMESTER-4) 2022-23 batch

COURSE CODE: FT20404

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND TECHNOLOGY

PROGRAMME OUTCOMES(BA/BSC/BCOM and BBA)Or POs :

- **PO1.Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions critically evaluate the validity of arguments and conclusion, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
- **PO2.Effective Communication:** Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the word by connecting people, ideas, books, media, and technology.
- **PO3.Social Interaction:** Elicit views of others, mediate disagreements and help reach conclusions in group settings.
- **PO4.Conduct Investigation Of Complex Problems:** Use research based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusion
- **PO5.Effective Citizen Ship:** Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issues and participate in civil life through a volunteering.
- **PO6.Ethics:** Recognize different value systems including your own, understand the

moral dimensions of your decisions, and accept responsibility for them.

- **PO7.Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
- **PO8.Self-Directed And Lifelong Learning:** Acquire the ability to engage in independent and lifelong learning in the broadest way.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Understand the nature and basic concepts of Psychology, English literature, and Journalism and express them effectively in writing and speech.

PSO2. Analyse the relationship between individual and society, and the various ways individuals respond to socio-political-religious and economic factors.

PSO3. Think critically about arguments and texts while taking into account diverse interpretations from different subject positions and acquire the ability to act in a socially responsible, ethical and humane way, grooming themselves towards effective citizenship.

PSO4. Apply the theories of Psychology, English Literature, and Journalism in conducting

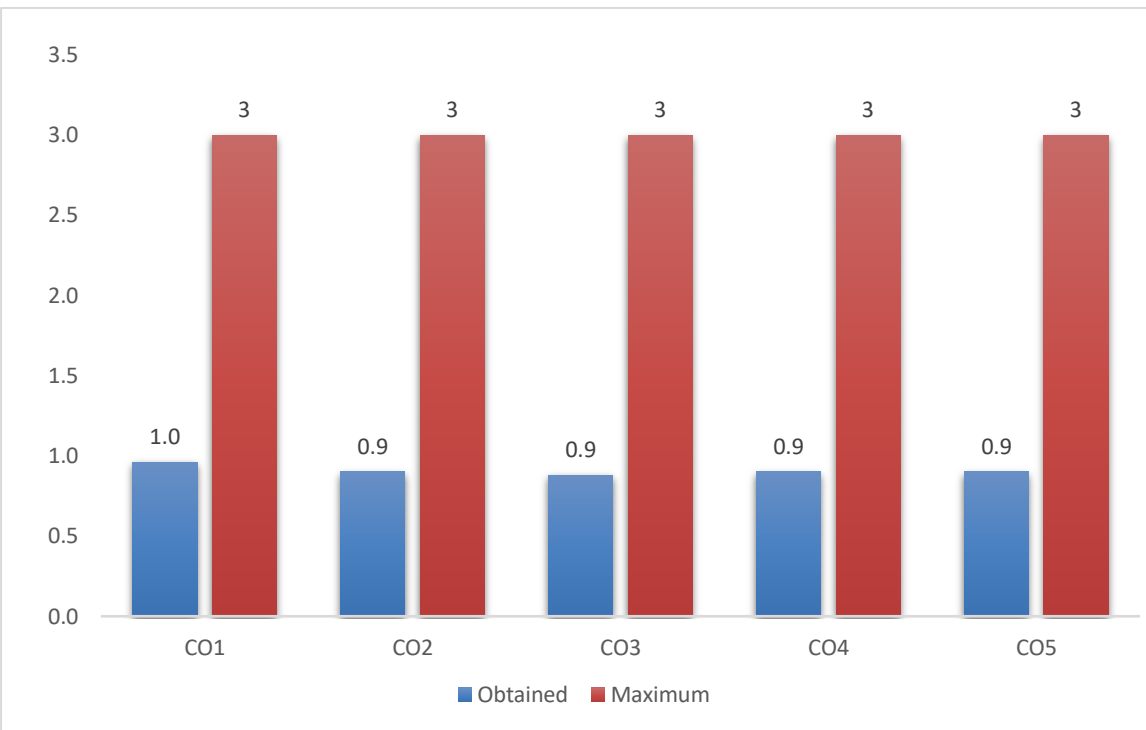
investigations on complex problems concerning the human being, his behaviour, and existence in society.

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	To plan the ingredients used in bread making	VI (Create)
CO2	To develop bread making process	VI (Create)
CO3	To produce different types of biscuits	III(Apply)
CO4	To construct the recipe for cakes	VI (Create)
CO5	To prepare wafers, frozen dough products and flat breads	III(Apply)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01
C01		H						H	H
C02			H		H				
C03	H		H					H	H
C04	H	H			H				H
C05	H		H	H			H		

co	mid exam 1		mid exam 2		group discussion		assignment		viva	
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level
C01	84.4	2.0			95.6	3.0	95.6	3.0	95.6	3.0
C02	84.4	2.0			95.6	3.0			95.6	3.0
C03	84.4	2.0	84.4	2.0	95.6	3.0			95.6	3.0
C04			84.4	2.0	95.6	3.0			95.6	3.0
C05			84.4	2.0	95.6	3.0			95.6	3.0

AVERAGE	AVERAGE
0	0.908



OUTCOME	PO1	PO2	PO3	PO4	PO5	
CO1		H 0.96				
CO2			H 0.9		H 0.9	
CO3	H 0.88		H 0.88			
CO4	H 0.9	H 0.9			H 0.9	
CO5	H 0.9		H 0.9	H 0.9		
AVERAGE OF COS FOR POS	0.8933333333	0.93	0.8933333333	0.9	0.9	
AVERAGE OF POS	0.8933333333	0.915	0.8933333333	0.9	0.9	
AVERAGE	0.900238095					

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM

OUTCOMES:

COURSE TITLE: FOOD PACKAGING

(SEMESTER-4) 2022-23 batch

COURSE CODE: FT20405 CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(BA/BSC/BCOM and BBA)Or POs :

- **PO1.Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions critically evaluate the validity of arguments and conclusion, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
- **PO2.Effective Communication:** Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the word by connecting people, ideas, books, media, and technology.
- **PO3.Social Interaction:** Elicit views of others, mediate disagreements and help reach conclusions in group settings.
- **PO4.Conduct Investigation Of Complex Problems:** Use research based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusion
- **PO5.Effective Citizen Ship:** Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issues and

participate in civil life through a volunteering.

- **PO6.Ethics:** Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
- **PO7.Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
- **PO8.Self-Directed And Lifelong Learning:** Acquire the ability to engage in independent and lifelong learning in the broadest way.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Understand the nature and basic concepts of Psychology, English literature, and Journalism and express them effectively in writing and speech.

PSO2. Analyse the relationship between individual and society, and the various ways individuals respond to socio-political-religious and economic factors.

PSO3. Think critically about arguments and texts while taking into account diverse interpretations from different subject positions and acquire the ability to act in a socially responsible, ethical and humane way, grooming themselves towards effective citizenship.

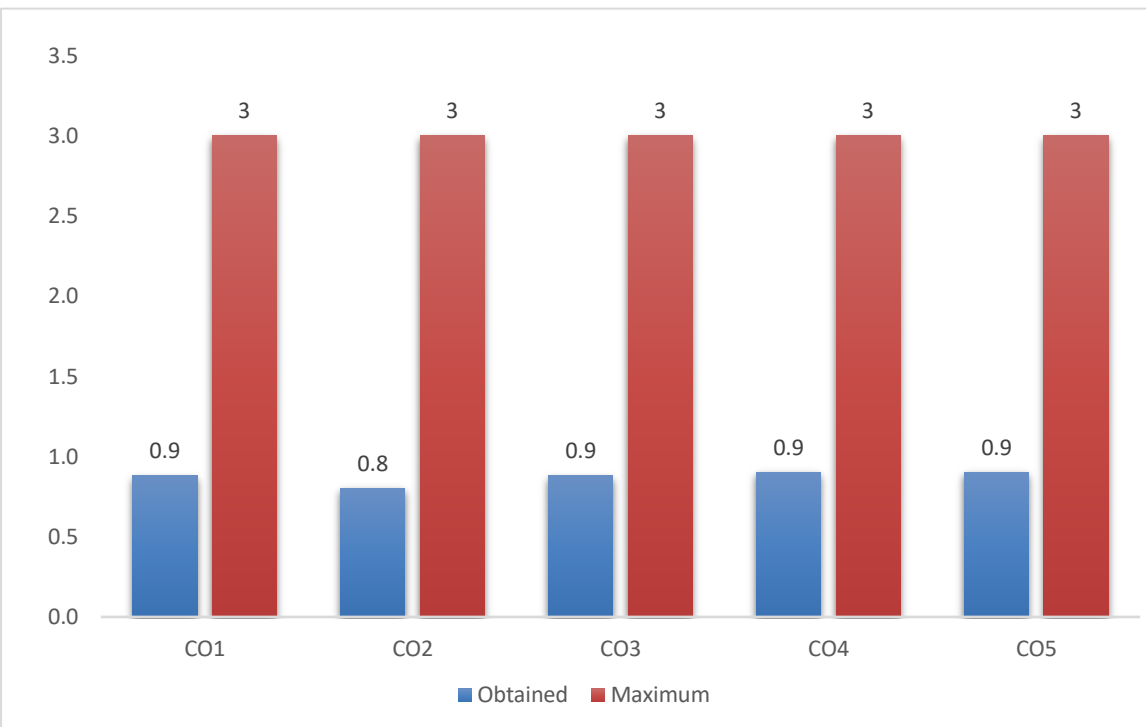
PSO4. Apply the theories of Psychology, English Literature, and Journalism in conducting investigations on complex problems concerning the human being, his behaviour, and existence in society.

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	Identify the importance, functions and design of packaging	IV(Analyzing)
CO2	Classify the food packaging material(paper& metal)	IV(Analyzing)
CO3	Explain the packaging materials(plastic & glass) and their properties	III(Apply)
CO4	Evaluate the packaging material, package performance and packaging equipment	V(Evaluating)
CO5	Compare the recent trends in packaging	V(Evaluating)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01
C01		H						H	H
C02			H		H				
C03	H		H					H	H
C04	H	H			H				H
C05	H		H	H			H		

co	mid exam 1		mid exam 2		group discussion		assignment		viva	
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level
C01	80.0	2.0			95.6	3.0	95.6	3.0	95.6	3.0
C02	80.0	2.0			95.6	3.0			95.6	3.0
C03	80.0	2.0	88.9	3.0	95.6	3.0			95.6	3.0
C04			88.9	3.0	95.6	3.0			95.6	3.0
C05			88.9	3.0	95.6	3.0			95.6	3.0

AVERAGE	AVERAGE
0	0.872



OUTCOME	PO1	PO2	PO3	PO4	PO5	
CO1		H 0.88				
CO2			H 0.8		H 0.8	
CO3	H 0.88		H 0.88			
CO4	H 0.9	H 0.9			H 0.9	
CO5	H 0.9		H 0.9	H 0.9		
AVERAGE OF COS FOR POS	0.8933333333	0.89	0.86	0.9	0.85	
AVERAGE OF POS	0.8933333333	0.895	0.86	0.9	0.85	

AVERAGE

0.882619048

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM

OUTCOMES:

**COURSE TITLE: FOOD PLANT SANITATION AND WASTE MANAGEMENT
(SEMESTER-4) 2020**

batch

COURSE CODE: FT18406

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(BA/BSC/BCOM and BBA)Or POs :

- **PO1.Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions critically evaluate the validity of arguments and conclusion, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
- **PO2.Effective Communication:** Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the word by connecting people, ideas, books, media, and technology.
- **PO3.Social Interaction:** Elicit views of others, mediate disagreements and help reach conclusions in group settings.
- **PO4.Conduct Investigation Of Complex Problems:** Use research based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusion
- **PO5.Effective Citizen Ship:** Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issues and participate in civil life through a volunteering.
- **PO6.Ethics:** Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
- **PO7.Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
- **PO8.Self-Directed And Lifelong Learning:** Acquire the ability to engage in independent and lifelong learning in the broadest way.

PROGRAMME OUTCOMES(BA/BSC/BCOM and BBA)Or POs :

- **PO1.Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions critically evaluate the validity of arguments and conclusion, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
- **PO2.Effective Communication:** Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the word by connecting people, ideas, books, media, and technology.
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- **PO7.Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
- **PO8.Self-Directed And Lifelong Learning:** Acquire the ability to engage in independent and lifelong learning in the broadest way.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Understand the nature and basic concepts of Psychology, English literature, and Journalism and express them effectively in writing and speech.

PSO2. Analyse the relationship between individual and society, and the various ways individuals respond to socio-political-religious and economic factors.

PSO3. Think critically about arguments and texts while taking into account diverse interpretations from different subject positions and acquire the ability to act in a socially

responsible, ethical and humane way, grooming themselves towards effective citizenship.

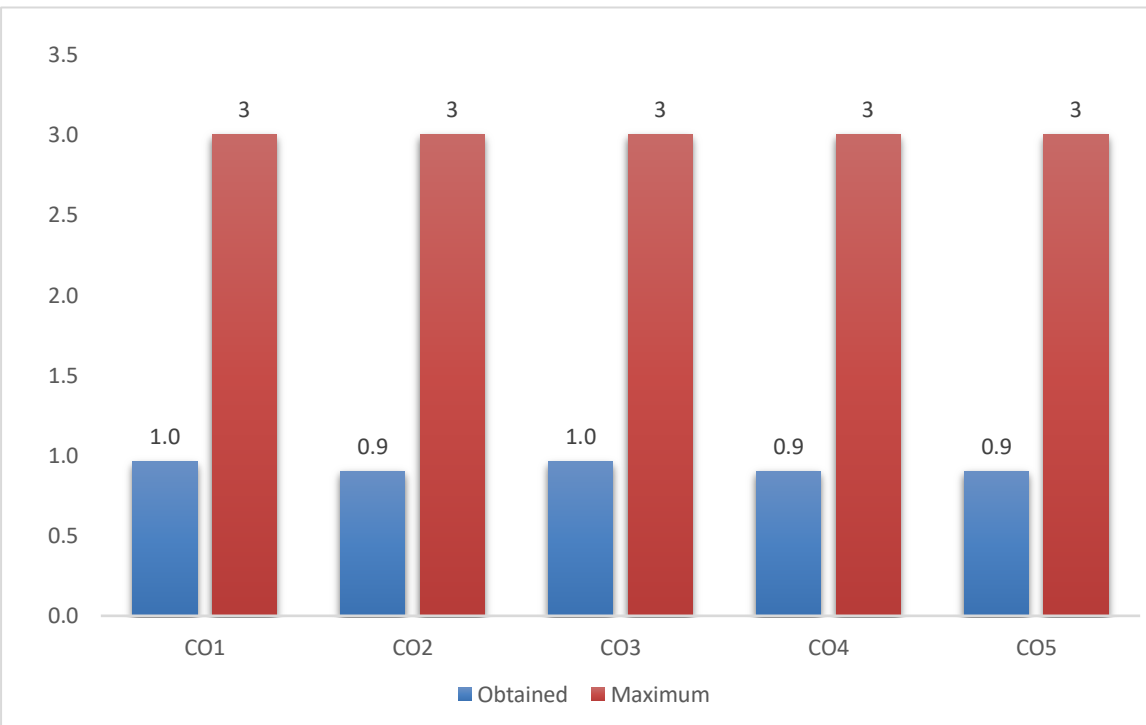
PSO4. Apply the theories of Psychology, English Literature, and Journalism in conducting investigations on complex problems concerning the human being, his behaviour, and existence in society.

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	Plan food plant layout and equipment design	VI(Creating)
CO2	Evaluate food plant hygiene and sanitation	V(Evaluating)
CO3	Classify the waste water treatment systems	IV (Analysing)
CO4	Differentiate the different biological treatment of waste water	IV (Analysing)
CO5	Explain the utilization of food industry wastes	III (Applying)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01
C01		H		H			H	H	H
C02		H					H		H
C03		H	H				S	H	H
C04	H	S					H		H
C05							H	H	H

co	mid exam 1		mid exam 2		group discussion		assignment		viva	
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level
CO1	100.0	3.0			100.0	3.0	100.0	3.0	100.0	3.0
CO2	100.0	3.0			100.0	3.0			100.0	3.0
CO3	100.0	3.0	97.7	3.0	100.0	3.0			100.0	3.0
CO4			97.7	3.0	100.0	3.0			100.0	3.0
CO5			97.7	3.0	100.0	3.0			100.0	3.0

AVERAGE	AVERAGE
0	0.924



OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6
CO1		H 0.96		H 0.96		
CO2		H 0.9				
CO3		H 0.96	H 0.96			
CO4	H 0.9					
CO5						
AVERAGE OF COS FOR POS	0.9	0.94	0.96	0.96		
AVERAGE OF POS	0.9	0.9333333333	0.96	0.96		
AVERAGE	0.931736111					

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM

OUTCOMES:

COURSE TITLE: EXTRUSION TECHNOLOGY

(SEMESTER-6) 2022-23 batch

COURSE CODE: FT18601A

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(BA/BSC/BCOM and BBA)Or POs :

- **PO1.Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions critically evaluate the validity of arguments and conclusion, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
- **PO2.Effective Communication:** Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the word by connecting people, ideas, books, media, and technology.
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- **PO4.Conduct Investigation Of Complex Problems:** Use research based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusion
- **PO5.Effective Citizen Ship:** Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issues and participate in civil life through a volunteering.
- **PO6.Ethics:** Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.

- **PO7.Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
- **PO8.Self-Directed And Lifelong Learning:** Acquire the ability to engage in independent and lifelong learning in the broadest way.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Understand the nature and basic concepts of Psychology, English literature, and Journalism and express them effectively in writing and speech.

PSO2. Analyse the relationship between individual and society, and the various ways individuals respond to socio-political-religious and economic factors.

PSO3. Think critically about arguments and texts while taking into account diverse interpretations from different subject positions and acquire the ability to act in a socially responsible, ethical and humane way, grooming themselves towards effective citizenship.

PSO4. Apply the theories of Psychology, English Literature, and Journalism in conducting

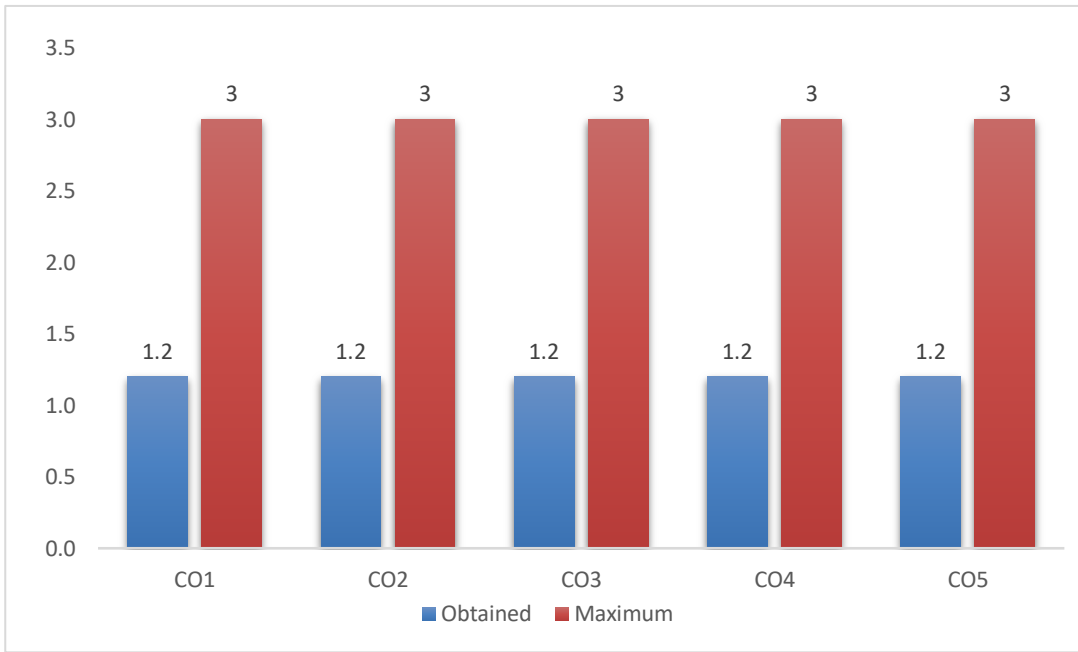
investigations on complex problems concerning the human being, his behaviour, and existence in society.

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	Compare the advantages and disadvantages of extrusion	IV(Analyzing)
CO2	Design single and double screw extruder	VI (Creating)
CO3	Differentiate the chemical and nutritional changes occur in food during extrusion	IV(Analyzing)
CO4	Make the different processing of snack foods and animal foods by using extrusion	IV(Analyzing)
CO5	Prepare the RTE cereals and texturized vegetable protein	III(Applying)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01
C01		H		H			H	H	H
C02		H					H		H
C03		H	H				S	H	H
C04	H	S					H		H
C05							H	H	H

co	mid exam 1		mid exam 2		group discussion		assignment		viva	
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level
C01	92.0	3.0			100.0	3.0	100.0	3.0	100.0	3.0
C02	92.0	3.0			100.0	3.0			100.0	3.0
C03	92.0	3.0	100.0	3.0	100.0	3.0			100.0	3.0
C04			100.0	3.0	100.0	3.0			100.0	3.0
C05			100.0	3.0	100.0	3.0			100.0	3.0

AVERAGE	AVERAGE
0	1.2



OUTCOME

PO1

PO2

PO3

PO4

PO5

CO1		H 1.2		H 1.2		
CO2		H 1.2				
CO3		H 1.2	H 1.2			
CO4	H 1.2					
CO5						
AVERAGE OF COS FOR POS	1.2	1.2	1.2	1.2		
AVERAGE OF POS	1.2	1.2	1.2	1.2		
AVERAGE	1.2					

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM

OUTCOMES:

COURSE TITLE: TECHNOLOGY OF SPICES AND CONDIMENTS

(SEMESTER- 6) 2022-23 batch

COURSE CODE: FT2161B

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(BA/BSC/BCOM and BBA)Or POs :

- **PO1.Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions critically evaluate the validity of arguments and conclusion, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
- **PO2.Effective Communication:** Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the word by connecting people, ideas, books, media, and technology.
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- **PO5.Effective Citizen Ship:** Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issues and participate in civil life through a volunteering.
- **PO6.Ethics:** Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
- **PO7.Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
- **PO8.Self-Directed And Lifelong Learning:** Acquire the ability to engage in independent and lifelong learning in the broadest way.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Understand the nature and basic concepts of Psychology, English literature, and Journalism and express them effectively in writing and speech.

PSO2. Analyse the relationship between individual and society, and the various ways individuals respond to socio-political-religious and economic factors.

PSO3. Think critically about arguments and texts while taking into account diverse interpretations from different subject positions and acquire the ability to act in a socially responsible, ethical and humane way, grooming themselves towards effective citizenship.

PSO4. Apply the theories of Psychology, English Literature, and Journalism in conducting investigations on complex problems concerning the human being, his behaviour, and existence in society.

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	Differentiate spices and condiments and their importance	IV(Analyzing)
CO2	Identify various components present in spices and condiments	IV(Analyzing)
CO3	Processing of major Indian spices	VI(Creating)
CO4	Produce various spice oils	VI(Creating)

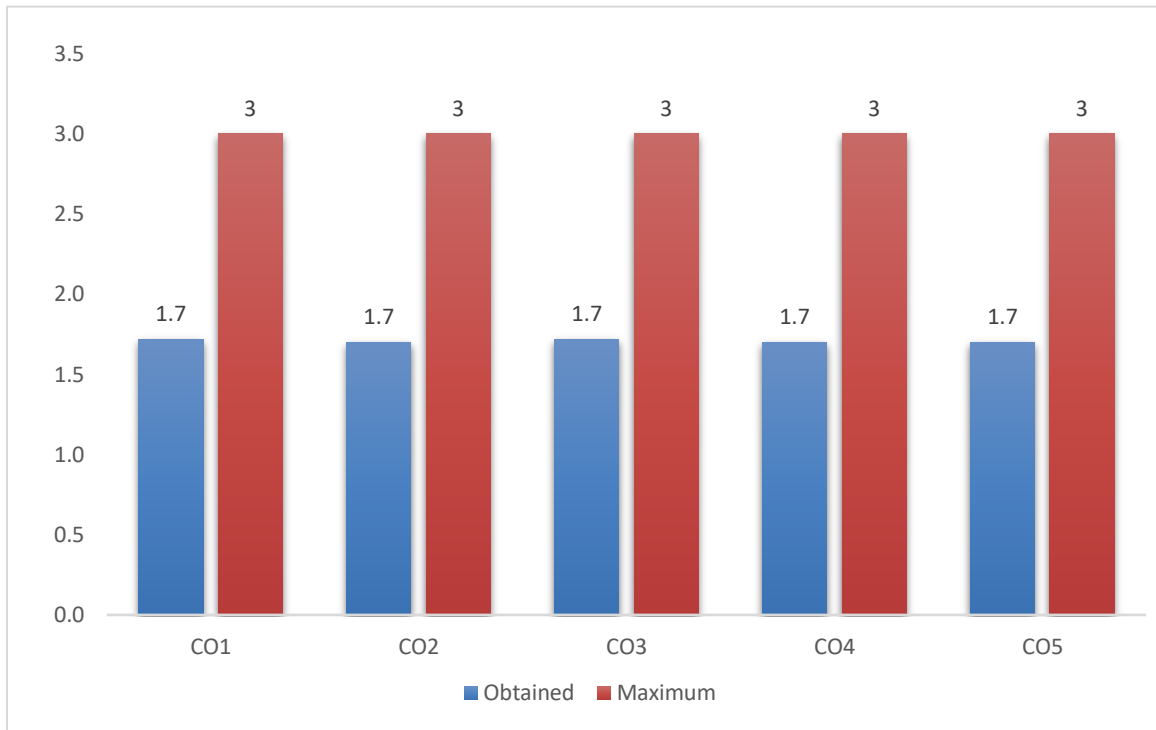
CO5	Analyse various spices and condiments and their shelf life	IV(Analyzing)
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outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01
C01		H		H			H	H	H
C02		H					H		H
C03		H	H				S	H	H
C04	H	S					H		H
C05							H	H	H

co	mid exam 1		mid exam 2		group discussion		assignment		viva	
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level
C01	100.0	3.0			100.0	3.0	100.0	3.0	100.0	3.0
C02	100.0	3.0			100.0	3.0			100.0	3.0
C03	100.0	3.0	100.0	3.0	100.0	3.0			100.0	3.0
C04			100.0	3.0	100.0	3.0			100.0	3.0
C05			100.0	3.0	100.0	3.0			100.0	3.0

AVERAGE AVERAGE

1	1.708
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OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6
CO1		H 1.72		H 1.72		
CO2		H 1.7				
CO3		H 1.72	H 1.72			
CO4	H 1.7					
CO5						
AVERAGE OF COS FOR POS	1.7	1.713333333	1.72	1.72		
AVERAGE OF POS	1.7	1.711111111	1.72	1.72		

AVERAGE

1.710578704

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM

OUTCOMES:

COURSE TITLE: TECHNOLOGY OF NON FERMENTED BEVERAGES

(semester 6) 2022-23 batch

COURSE CODE: FT18503B

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(B.Sc) Or POs :

- **PO1. Scientific Knowledge.** Apply the knowledge of Science, Mathematics, Engineering & Technology fundamentals to solve the complex problems.
- **PO2. Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- **PO3. Problem analysis:** Identify, formulate, research literature, and analyze complex scientific problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- **PO4. Modern tool usage:** Create, select and apply appropriate techniques, resources, modern technology and IT tools to complex science and technological activities.
- **PO5. Environment and sustainability:** Understand the impact of professional science and technological solutions in societal and environmental contexts and for

sustainable development.

- **PO6. Individual and team work:** Function objectively as an individual and as a member in diverse teams.
- **PO7. Communication:** Communicate effectively on complex science & technology activities with society at large and able to write effective reports and documentation.
- **PO8. Life-long learning:** Recognise the need and ability to engage in independent and lifelong learning in the context of technological change.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1: Understand the concept of food science, nutrition and dietetics

PSO2: Analyse the relationships between various nutrients and physiological disorders and

various diet therapies

PSO3: Apply the knowledge of processing and preservation techniques in increasing the shelf life of food products

PSO4: Combine the knowledge of food science, nutrition and dietetics to overcome food wastage, malnutrition and lifestyle disorders.

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
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C01	1. Explain introduction and classification of beverages	II(UNDERSTAND)
C02	Preparation and preservation of fruit juices	V(EVALUATE)
C03	Formulation and composition of beverages	IV(ANALYSE)
C04	Processing of non-fermented beverages	VI(CREATE)
C05	Explain the importance of non fermented beverages	II(UNDERSTAND)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01
C01	H		H	S			S	H	
C02	H		H	H			H	H	
C03	H		H	H	H		H	H	
C04	H		H	H	S		H	S	
C05	H		H	H	H		S	H	

co	mid exam 1		mid exam 2		group discussion		assignment		viva	
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level
CO1	100.0	3.0			100.0	3.0	26.9	0.0	100.0	3.0
CO2	100.0	3.0			100.0	3.0			100.0	3.0
CO3	100.0	3.0	100.0	3.0	100.0	3.0			100.0	3.0
CO4			100.0	3.0	100.0	3.0			100.0	3.0
CO5			100.0	3.0	100.0	3.0			100.0	3.0

AVERAGE	AVERAGE
0	0.968

3.5

3.0

2.5

2.0

1.5

1.0

0.5

0.0

3

3

3

3

3

0.8

1.0

1.0

1.0

1.0

CO1

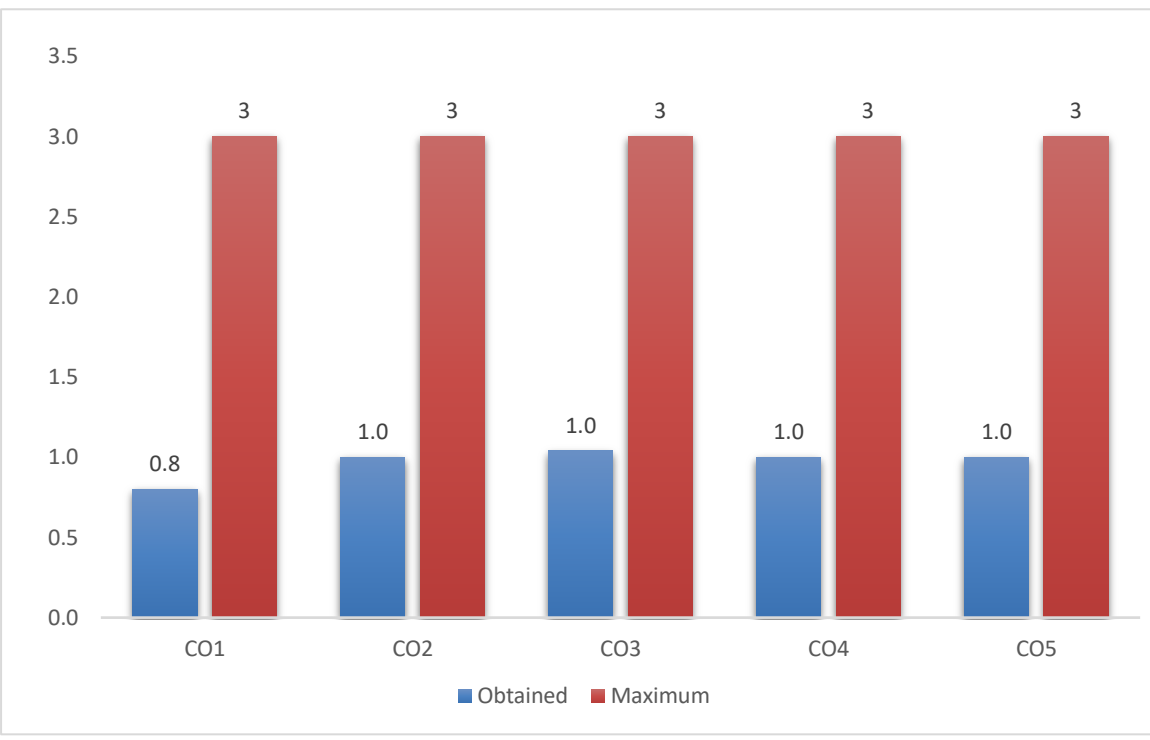
CO2

CO3

CO4

CO5

■ Obtained ■ Maximum



OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6
CO1	H 0.8		H 0.8			
CO2	H 1		H 1	H 1		
CO3	H 1.04		H 1.04	H 1.04	H 1.04	
CO4	H 1		H 1	H 1		
CO5	H 1		H 1	H 1	H 1	
AVERAGE OF COS FOR POS	0.968		0.968	1.01	1.02	
AVERAGE OF POS	1.0016		1.0016	1.01	1.02	
AVERAGE	1.007755556					

COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM

OUTCOMES:

COURSE TITLE: FOOD PRODUCT DEVELOPMENT

(SEMESTER-6) 2022-23 batch

COURSE CODE: FT21602A

CREDITS: 4

DEPARTMENT: B.SC FOOD TECHNOLOGY AND MANAGEMENT

PROGRAMME OUTCOMES(BA/BSC/BCOM and BBA)Or POs :

- **PO1.Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions critically evaluate the validity of arguments and conclusion, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
- **PO2.Effective Communication:** Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the word by connecting people, ideas, books, media, and technology.
- **PO3.Social Interaction:** Elicit views of others, mediate disagreements and help reach conclusions in group settings.
- **PO4.Conduct Investigation Of Complex Problems:** Use research based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusion
- **PO5.Effective Citizen Ship:** Demonstrate empathetic social concern and equity centered

national development, and the ability to act with an informed awareness of issues and participate in civil life through a volunteering.

- **PO6.Ethics:** Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
- **PO7.Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.
- **PO8.Self-Directed And Lifelong Learning:** Acquire the ability to engage in

independent and lifelong learning in the broadest way.

PROGRAMME SPECIFIC OUTCOME (DEPARTMENT WISE):

PSO1. Understand the nature and basic concepts of Psychology, English literature, and Journalism and express them effectively in writing and speech.

PSO2. Analyse the relationship between individual and society, and the various ways individuals respond to socio-political-religious and economic factors.

PSO3. Think critically about arguments and texts while taking into account diverse

interpretations from different subject positions and acquire the ability to act in a socially responsible, ethical and humane way, grooming themselves towards effective citizenship.

PSO4.Apply the theories of Psychology, English Literature, and Journalism in conducting investigations on complex problems concerning the human being, his behaviour, and existence in society.

	COURSE OUTCOMES	BLOOM'S TAXONOMY LEVEL
CO1	Explain the concept involved in food product development	II(UNDERSTAND)
CO2	Demonstrate various stages of food product development	II(UNDERSTAND)
CO3	Identify role and behaviour of consumers in food product development	IV(ANALYSE)

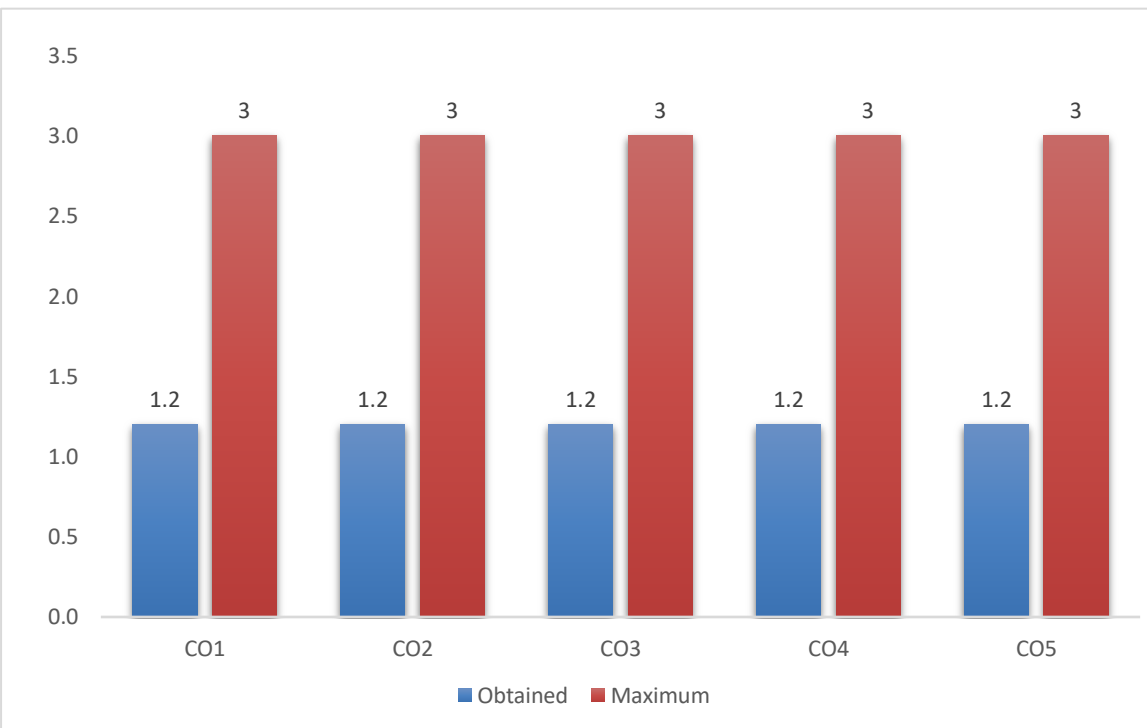
CO4	Explain the design and management of product development process	II(UNDERSTAND)
CO5	Create awareness on improving product success	VI(CREATE)

outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PS01
C01		H		H			H	H	H
C02		H					H		H
C03		H	H				S	H	H
C04	H	S					H		H
C05							H	H	H

co	mid exam 1		mid exam 2		group discussion		assignment		viva	
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level
C01	100.0	3.0			100.0	3.0	100.0	3.0	100.0	3.0
C02	100.0	3.0			100.0	3.0			100.0	3.0
C03	100.0	3.0	100.0	3.0	100.0	3.0			100.0	3.0
C04			100.0	3.0	100.0	3.0			100.0	3.0

C05			100.0	3.0	100.0	3.0			100.0	3.0
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AVERAGE	AVERAGE
0	1.2



OUTCOME	PO1	PO2	PO3	PO4	PO5	P
CO1		H 1.2		H 1.2		
CO2		H 1.2				
CO3		H 1.2	H 1.2			
CO4	H 1.2					
CO5						

AVERAGE OF COS FOR POS	1.2	1.2	1.2	1.2		
AVERAGE OF POS	1.2	1.2	1.2	1.2		
AVERAGE						1.2

