

## COURSE OUTCOME MAPPING

### MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

**COURSE TITLE:** ADVANCED FOOD CHEMISTRY(THEORY)

**COURSE CODE:** MFT13105

**CREDITS:** 4

**DEPARTMENT:** M.SC FOOD TECHNOLOGY AND MANAGEMENT

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

PO1: **Scientific Knowledge:** Ability to build a strong foundation of knowledge, integrated with the latest developments in science and technology which help students develop critical thinking, reasoning, decision making in process of quality education.

PO2: **Problem Analysis:** Identify, formulate and analyse the complex scientific problems using the knowledge gained across various streams of science and technology.

PO3: **Effective Communication:** Ability to articulate ideas, communicate effectively using current tools in the field of ICT along with effective report writing and documentation.

PO4: **Development of Skill and Attitude:** Enabling the students with the required skill, right attitude, time management and self discipline for prominent career in industry, research institutes and for further academic study.

PO5: **Life Long Learning and Social Responsibility:** Recognise the need and ability to engage in life long learning and work effectively as an individual and as a member of diverse team. Students get the ability to act with an informed awareness of issues to participate in civic life through volunteering.

**PROGRAMME SPECIFIC OUTCOME ( DEPARTMENT WISE) or PSOs**

PSO1: Formulate environment friendly innovative food products

PSO2.Acquire entrepreneurial skills and skill based knowledge in the field of food science and to establish a food service outlet

PSO3.Devise research strategies for empowering and promoting healthy living in the community

PSO4.Develop comprehensive and analytical skills to take up careers in academics, Food industry and health sectors

	<b>COURSE OUTCOMES</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>CO1</b>	Name and describe the general chemical structures of major components of foods (water, proteins, carbohydrates, and lipids) and selected minor components (vitamins and minerals).	II (UNDERSTAND)
<b>CO2</b>	Understand, plan, perform and analyse a range of chemical investigations with emphasis on food analysis	IV(ANALYZE) I (REMEMBER)
<b>CO3</b>	Relate the chemical composition of foods to their functional properties	IV(ANALYZE)
<b>CO4</b>	Examine a molecular rationalization for the observed physical properties and reactivity of major food components	IV(ANALYZE)
<b>CO5</b>	Predict how changes in overall composition are likely to change the reactivity of individual food components	II (UNDERSTAND)

**Table 1: CO, PO, PSO MAPPING**

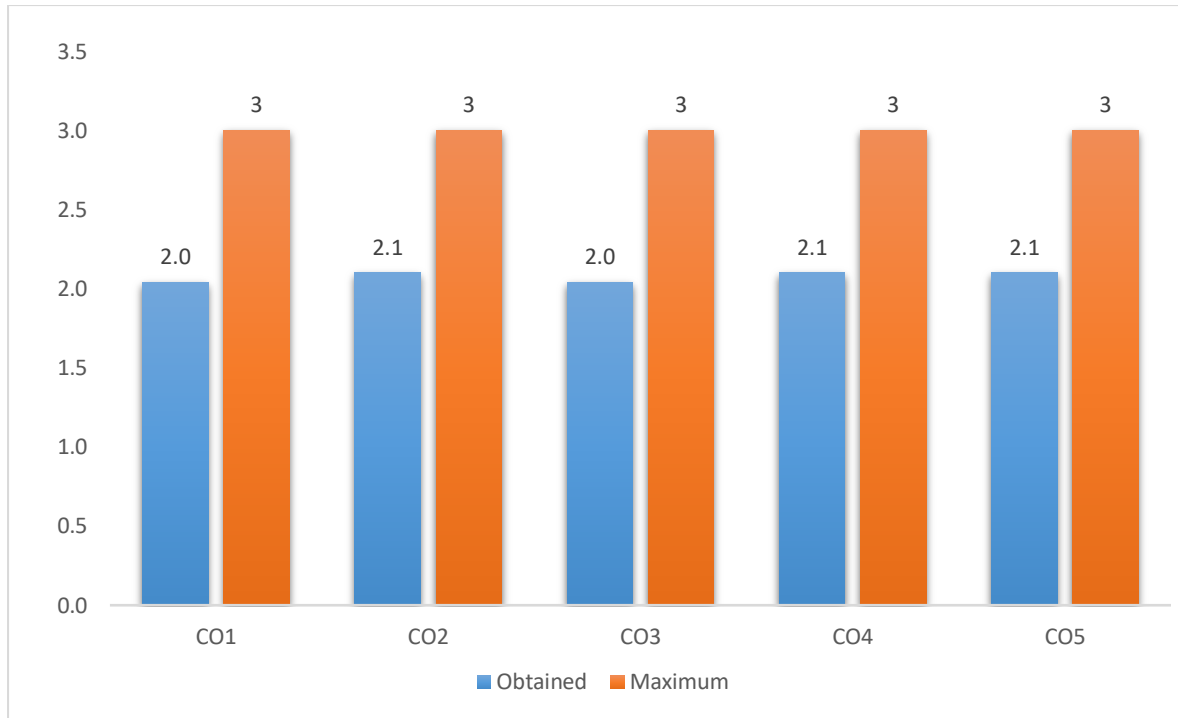
outcomes	PO1	PO2	PO3	PO4	PO5	PS01	PS02	PS03	PS04
C01	H		H						H
C02		H		S			S		H
C03	S			H					S
C04	H			H			H		
C05	H				H	S	H		

**H: Highly Supportive**

**S: Supportive**

**Table 2: COURSE OUTCOME ATTAINMENT**

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDENCE		co wise intern average
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	
C01	0.0	0.0			100.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
C02	0.0	0.0			100.0	3.0			0.0	0.0	0.0	0.0	0.8
C03	0.0	0.0	0.0	0.0	100.0	3.0			0.0	0.0	0.0	0.0	0.6
C04			0.0	0.0	100.0	3.0			0.0	0.0	0.0	0.0	0.8
C05			0.0	0.0	100.0	3.0			0.0	0.0	0.0	0.0	0.8



**Table 3: PROGRAMME OUTCOME MAPPING**

OUTCOME	PO1	PO2	PO3	PO4	PO5
CO1	H 2.04		H 2.04		
CO2		H 2.1			
CO3				H 2.04	
CO4	H 2.1			H 2.1	
CO5	H 2.1				H 2.1
AVERAGE OF COS FOR POS	2.08	2.1	2.04	2.07	2.1
AVERAGE OF POS	2.093333	2.1	2.04	2.07	2.1
AVERAGE	2.08066667				

## COURSE OUTCOME MAPPING

### MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

**COURSE TITLE:** ADVANCED FOOD CHEMISTRY (PRACTICAL)

**COURSE CODE:** MFT13107

**CREDITS:** 4

**DEPARTMENT:** M.SC FOOD TECHNOLOGY AND MANAGEMENT

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

PO1: **Scientific Knowledge:** Ability to build a strong foundation of knowledge, integrated with the latest developments in science and technology which help students develop critical thinking, reasoning, decision making in process of quality education.

PO2: **Problem Analysis:** Identify, formulate and analyse the complex scientific problems using the knowledge gained across various streams of science and technology.

PO3: **Effective Communication:** Ability to articulate ideas, communicate effectively using current tools in the field of ICT along with effective report writing and documentation.

PO4: **Development of Skill and Attitude:** Enabling the students with the required skill, right attitude, time management and self discipline for prominent career in industry, research institutes and for further academic study.

PO5: **Life Long Learning and Social Responsibility:** Recognise the need and ability to engage in life long learning and work effectively as an individual and as a member of diverse team. Students get the ability to act with an informed awareness of issues to participate in civic life through volunteering.

**PROGRAMME SPECIFIC OUTCOME ( DEPARTMENT WISE) or PSOs**

PSO1: Formulate environment friendly innovative food products

PSO2.Acquire entrepreneurial skills and skill based knowledge in the field of food science and to establish a food service outlet

PSO3.Devise research strategies for empowering and promoting healthy living in the community

PSO4.Develop comprehensive and analytical skills to take up careers in academics, Food industry and health sectors

	<b>COURSE OUTCOMES</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>CO1</b>	To find out the major components of foods (proteins, carbohydrates, and lipids) and selected minor components (vitamins and minerals).	II (ANALYZE)
<b>CO2</b>	Understand, perform the food analysis	IV(ANALYZE) I (REMEMBER)
<b>CO3</b>	Examine the deteriorative characteristics of food	IV(ANALYZE)
<b>CO4</b>	Understand the sampling concepts	IV(UNDERSTAND))
<b>CO5</b>	Analyse overall composition likely to change the reactivity of individual food components	II (ANALYZE)

**Table 1: CO, PO, PSO MAPPING**

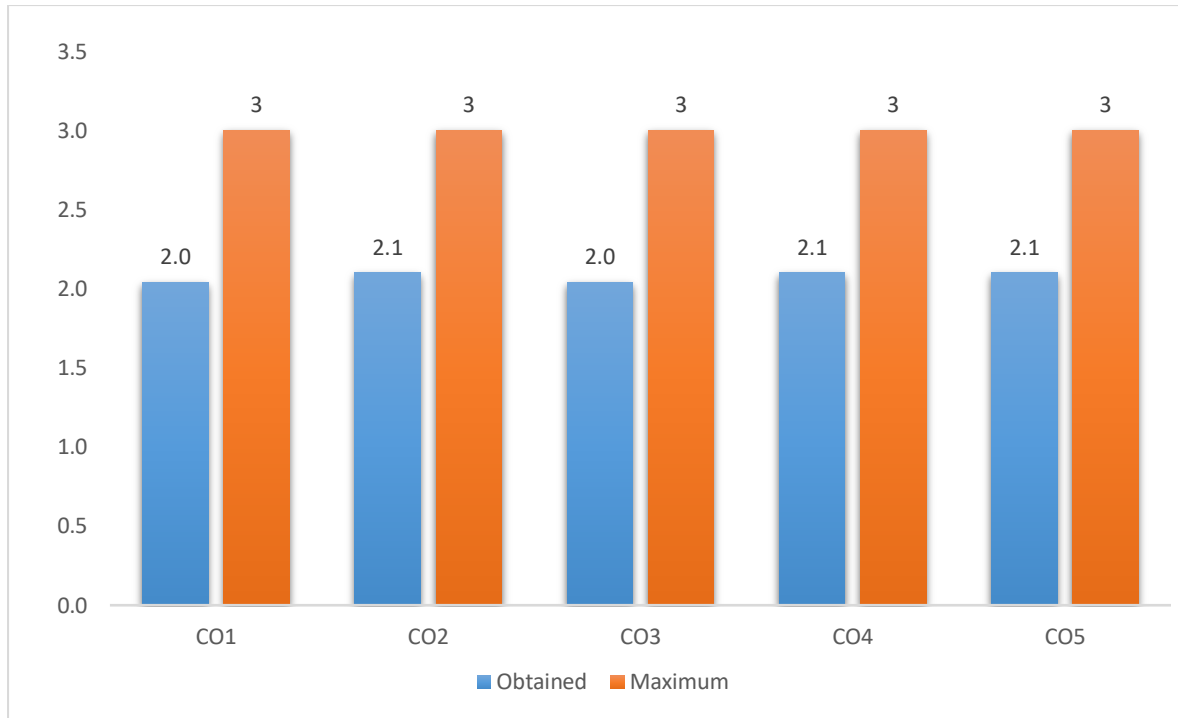
outcomes	PO1	PO2	PO3	PO4	PO5	PS01	PS02	PS03	PS04
<b>C01</b>	H		H						H
<b>C02</b>		H		S			S		H
<b>C03</b>	S			H					S
<b>C04</b>	H			H			H		
<b>C05</b>	H				H	S	H		

**H: Highly Supportive**

**S: Supportive**

**Table 2: COURSE OUTCOME ATTAINMENT**

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDENCE		co wise intern average
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	
CO1	0.0	0.0			100.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
CO2	0.0	0.0			100.0	3.0			0.0	0.0	0.0	0.0	0.8
CO3	0.0	0.0	0.0	0.0	100.0	3.0			0.0	0.0	0.0	0.0	0.6
CO4			0.0	0.0	100.0	3.0			0.0	0.0	0.0	0.0	0.8
CO5			0.0	0.0	100.0	3.0			0.0	0.0	0.0	0.0	0.8



**Table 3: PROGRAMME OUTCOME MAPPING**

OUTCOME	PO1	PO2	PO3	PO4	PO5
CO1	H 2.04		H 2.04		
CO2		H 2.1			
CO3				H 2.04	
CO4	H 2.1			H 2.1	
CO5	H 2.1				H 2.1
AVERAGE OF COS FOR POS	2.08	2.1	2.04	2.07	2.1
AVERAGE OF POS	2.093333	2.1	2.04	2.07	2.1
AVERAGE	2.08066667				

## COURSE OUTCOME MAPPING

### MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

**COURSE TITLE: ADVANCES IN FOOD PACKAGING PRACTICALS**

**COURSE CODE: MFT13307**

**CREDITS: 4**

**DEPARTMENT: M.SC FOOD TECHNOLOGY AND MANAGEMENT**

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

**PO1: Scientific Knowledge:** Ability to build a strong foundation of knowledge, integrated with the latest developments in science and technology which help students develop critical thinking, reasoning, decision making in process of quality education.

**PO2: Problem Analysis:** Identify, formulate and analyse the complex scientific problems using the knowledge gained across various streams of science and technology.

**PO3: Effective Communication:** Ability to articulate ideas, communicate effectively using current tools in the field of ICT along with effective report writing and documentation.

**PO4: Development of Skill and Attitude:** Enabling the students with the required skill, right attitude, time management and self discipline for prominent career in industry, research institutes and for further academic study.

**PO5: Life Long Learning and Social Responsibility:** Recognise the need and ability to engage in life long learning and work effectively as an individual and as a member of diverse team. Students get the ability to act with an informed awareness of issues to participate in civic life through volunteering.

**PROGRAMME SPECIFIC OUTCOME ( DEPARTMENT WISE) or PSOs**

PSO1: Formulate environment friendly innovative food products

PSO2.Acquire entrepreneurial skills and skill based knowledge in the field of food science and to establish a food service outlet

PSO3.Devise research strategies for empowering and promoting healthy living in the community

PSO4.Develop comprehensive and analytical skills to take up careers in academics, Food industry and health sectors

	<b>COURSE OUTCOMES</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>CO1</b>	To understand the various packaging materials used in food industry	II (UNDERSTAND)
<b>CO2</b>	Perform different tests for different packaging materials	IV(ANALYZE) I (REMEMBER)
<b>CO3</b>	Analyse the packaging material properties	IV(ANALYZE)
<b>CO4</b>	Grading the different packaging materials in food chain	IV(ANALYZE)
<b>CO5</b>	<b>Industrial visit to packaging industry</b>	II (UNDERSTAND)

**Table 1: CO, PO, PSO MAPPING**

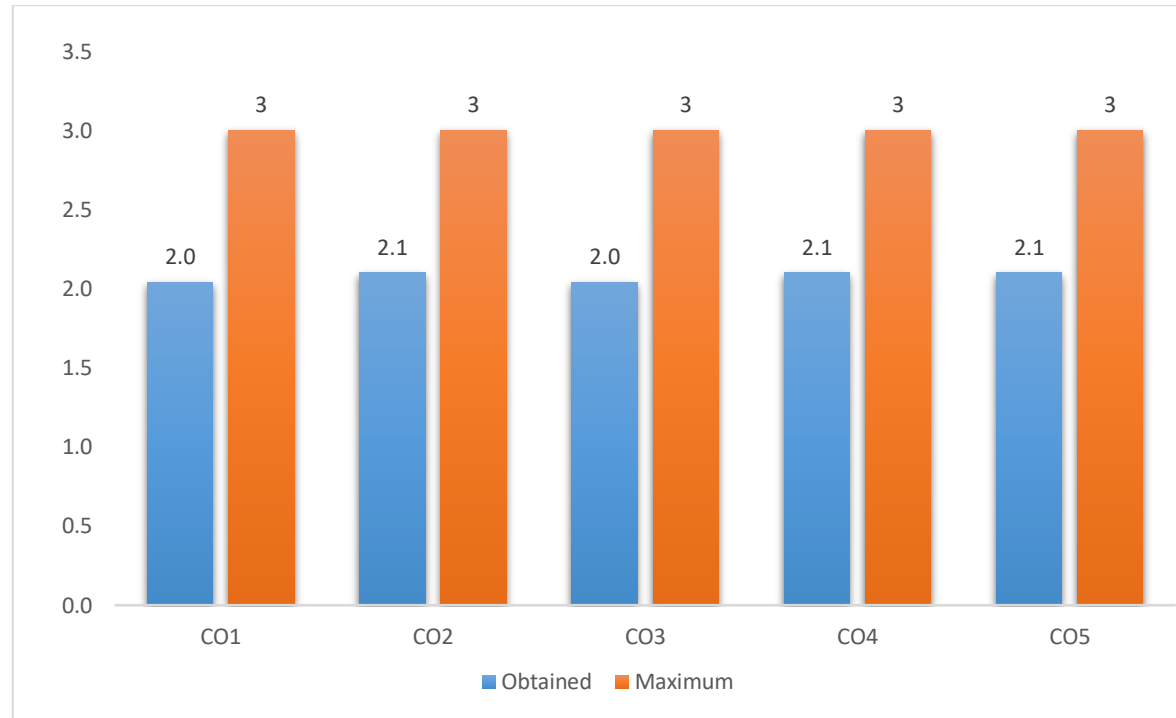
outcomes	PO1	PO2	PO3	PO4	PO5	PS01	PS02	PS03	PS04
<b>C01</b>	H		H						H
<b>C02</b>		H		S			S		H
<b>C03</b>	S			H					S
<b>C04</b>	H			H			H		
<b>C05</b>	H				H	S	H		

**H: Highly Supportive**

**S: Supportive**

**Table 2: COURSE OUTCOME ATTAINMENT**

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDENCE		co
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	
CO1	0.0	0.0			100.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	
CO2	0.0	0.0			100.0	3.0			0.0	0.0	0.0	0.0	
CO3	0.0	0.0	0.0	0.0	100.0	3.0			0.0	0.0	0.0	0.0	
CO4			0.0	0.0	100.0	3.0			0.0	0.0	0.0	0.0	
CO5			0.0	0.0	100.0	3.0			0.0	0.0	0.0	0.0	



**Table 3: PROGRAMME OUTCOME MAPPING**

OUTCOME	PO1	PO2	PO3	PO4	PO5
CO1	H 2.04		H 2.04		
CO2		H 2.1			
CO3				H 2.04	
CO4	H 2.1			H 2.1	
CO5	H 2.1				H 2.1
AVERAGE OF COS FOR POS	2.08	2.1	2.04	2.07	2.1
AVERAGE OF POS	2.093333	2.1	2.04	2.07	2.1
AVERAGE	2.08066667				

## COURSE OUTCOME MAPPING

### MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

**COURSE TITLE: ADVANCES IN FOOD PACKAGING**

**COURSE CODE: MFT13304**

**CREDITS: 4**

**DEPARTMENT: M.SC FOOD TECHNOLOGY AND MANAGEMENT**

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

**PO1: Scientific Knowledge:** Ability to build a strong foundation of knowledge, integrated with the latest developments in science and technology which help students develop critical thinking, reasoning, decision making in process of quality education.

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PSO3.Devise research strategies for empowering and promoting healthy living in the community

PSO4.Develop comprehensive and analytical skills to take up careers in academics, Food industry and health sectors

	<b>COURSE OUTCOMES</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>CO1</b>	knowledge about the importance of packaging and understand different techniques involved in packing foods	II (UNDERSTAND)
<b>CO2</b>	Explain roles of shelf life of foods.	IV(ANALYZE) I (REMEMBER)
<b>CO3</b>	Explains about properties of different packaging materials	IV(ANALYZE)
<b>CO4</b>	Explains the latest packaging techniques like active packaging, intelligent packaging	IV(ANALYZE)
<b>CO5</b>	Demonstrates the interaction between food and packaging material Demonstrates the interaction between food and packaging material	II (UNDERSTAND)

**Table 1: CO, PO, PSO MAPPING**

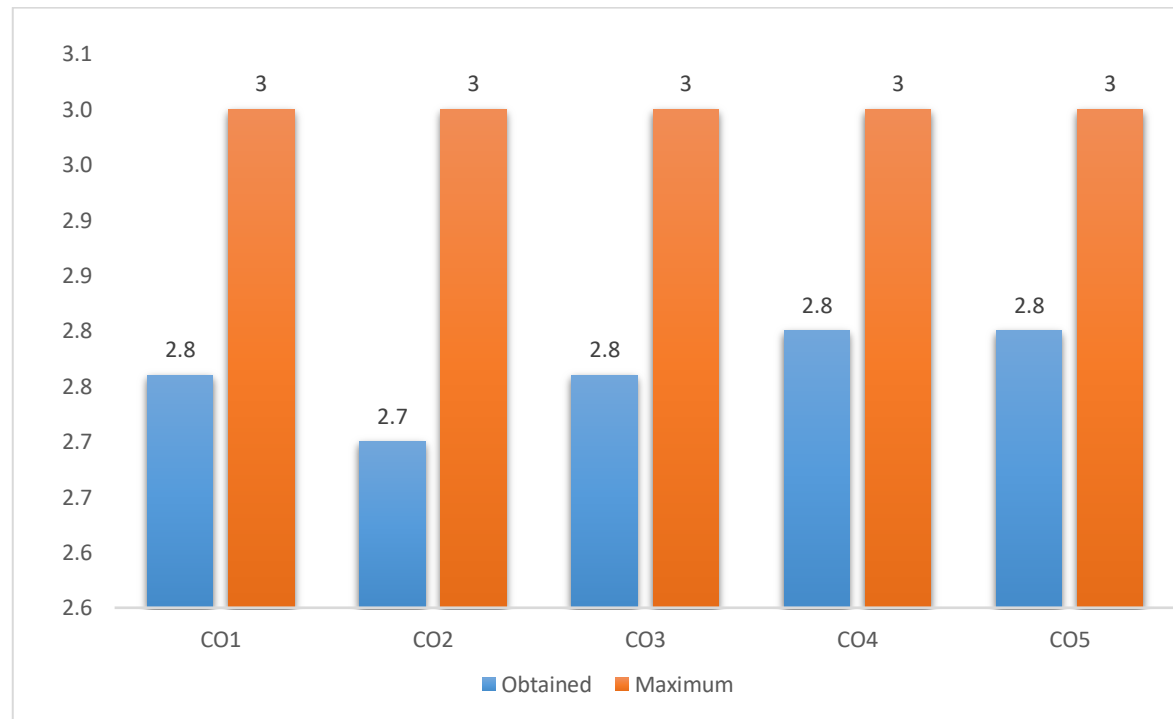
outcomes	PO1	PO2	PO3	PO4	PO5	PS01	PS02	PS03	PS04
<b>C01</b>	H		H						H
<b>C02</b>		H		S			S		H
<b>C03</b>	S			H					S
<b>C04</b>	H			H			H		
<b>C05</b>	H				H	S	H		

**H: Highly Supportive**

**S: Supportive**

**Table 2: COURSE OUTCOME ATTAINMENT**

	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co
CO1	84.8	2.0			100.0	3.0	100.0	3.0	84.8	2.0	75.8	2.0	
CO2	84.8	2.0			100.0	3.0			84.8	2.0	75.8	2.0	
CO3	84.8	2.0	100.0	3.0	100.0	3.0			84.8	2.0	75.8	2.0	
CO4			100.0	3.0	100.0	3.0			84.8	2.0	75.8	2.0	
CO5			100.0	3.0	100.0	3.0			84.8	2.0	75.8	2.0	



**Table 3: PROGRAMME OUTCOME MAPPING**

OUTCOME	PO1	PO2	PO3	PO4	PO5
CO1	H 2.76		H 2.76		
CO2		H 2.7			
CO3				H 2.76	
CO4	H 2.8			H 2.8	
CO5	H 2.8				H 2.8
AVERAGE OF COS FOR POS	2.786666667	2.7	2.76	2.78	2.8
AVERAGE OF POS	2.795556	2.7	2.76	2.78	2.8
AVERAGE	2.767111111				

## COURSE OUTCOME MAPPING

### MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

**COURSE TITLE: ENERGY CONSERVATION AND AUDITING**

**COURSE CODE: MFT13306**

**CREDITS: 4**

**DEPARTMENT: M.SC FOOD TECHNOLOGY AND MANAGEMENT**

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

**PO1: Scientific Knowledge:** Ability to build a strong foundation of knowledge, integrated with the latest developments in science and technology which help students develop critical thinking, reasoning, decision making in process of quality education.

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**PO5: Life Long Learning and Social Responsibility:** Recognise the need and ability to engage in life long learning and work effectively as an individual and as a member of diverse team. Students get the ability to act with an informed awareness of issues to participate in civic life through volunteering.

**PROGRAMME SPECIFIC OUTCOME ( DEPARTMENT WISE) or PSOs**

PSO1: Formulate environment friendly innovative food products

PSO2.Acquire entrepreneurial skills and skill based knowledge in the field of food science and to establish a food service outlet

PSO3.Devise research strategies for empowering and promoting healthy living in the community

PSO4.Develop comprehensive and analytical skills to take up careers in academics, Food industry and health sectors

	<b>COURSE OUTCOMES</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>CO1</b>	Knowledge on principles of milling and baking science	II (UNDERSTAND)
<b>CO2</b>	learn the measures taken to conserve energy from being wasted to provide it for future industrial growth.	IV(ANALYZE) I (REMEMBER)
<b>CO3</b>	Understands about the thermal efficiency by designing suitable systems for heat recovery & co-generation.	IV(ANALYZE)
<b>CO4</b>	To analyse & optimize the energy consumption in an organization	IV(ANALYZE)
<b>CO5</b>	Understand how to conduct the Cost Benefit Analysis	II (UNDERSTAND)

**Table 1: CO, PO, PSO MAPPING**

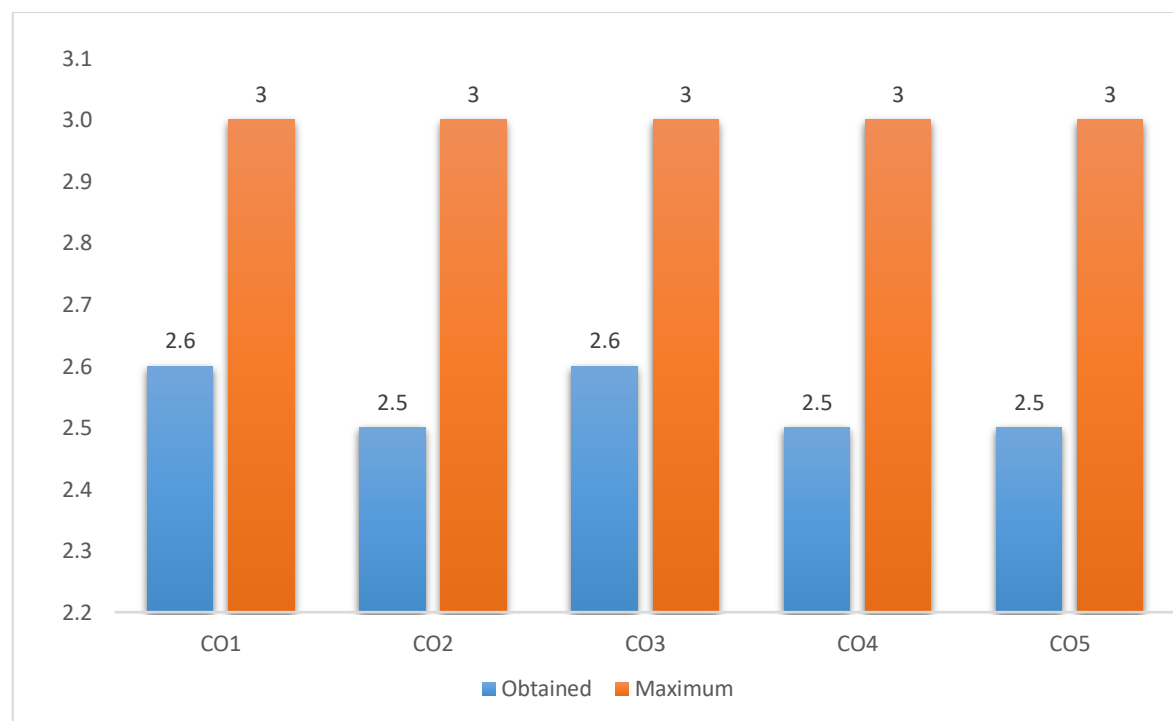
outcomes	PO1	PO2	PO3	PO4	PO5	PS01	PS02	PS03	PS04
<b>C01</b>	H		H						H
<b>C02</b>		H		S			S		H
<b>C03</b>	S			H					S
<b>C04</b>	H			H			H		
<b>C05</b>	H				H	S	H		

**H: Highly Supportive**

**S: Supportive**

**Table 2: COURSE OUTCOME ATTAINMENT**

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDENCE		co
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	
CO1	87.9	3.0			100.0	3.0	100.0	3.0	66.7	1.0	54.5	0.0	
CO2	87.9	3.0			100.0	3.0			66.7	1.0	54.5	0.0	
CO3	87.9	3.0	100.0	3.0	100.0	3.0			66.7	1.0	54.5	0.0	
CO4			100.0	3.0	100.0	3.0			66.7	1.0	54.5	0.0	
CO5			100.0	3.0	100.0	3.0			66.7	1.0	54.5	0.0	



**Table 3: PROGRAMME OUTCOME MAPPING**

OUTCOME	PO1	PO2	PO3	PO4	PO5
CO1	H 2.6		H 2.6		
CO2		H 2.5			
CO3				H 2.6	
CO4	H 2.5			H 2.5	
CO5	H 2.5				H 2.5
AVERAGE OF COS FOR POS	2.533333333	2.5	2.6	2.55	2.5
AVERAGE OF POS	2.511111	2.5	2.6	2.55	2.5
AVERAGE	2.53222222				

## COURSE OUTCOME MAPPING

### MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

**COURSE TITLE: EXTRUSION TECHNOLOGY**

**COURSE CODE: MFT13303**

**CREDITS: 4**

**DEPARTMENT: M.SC FOOD TECHNOLOGY AND MANAGEMENT**

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

**PO1: Scientific Knowledge:** Ability to build a strong foundation of knowledge, integrated with the latest developments in science and technology which help students develop critical thinking, reasoning, decision making in process of quality education.

**PO2: Problem Analysis:** Identify, formulate and analyse the complex scientific problems using the knowledge gained across various streams of science and technology.

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**PROGRAMME SPECIFIC OUTCOME ( DEPARTMENT WISE) or PSOs**

PSO1: Formulate environment friendly innovative food products

PSO2.Acquire entrepreneurial skills and skill based knowledge in the field of food science and to establish a food service outlet

PSO3.Devise research strategies for empowering and promoting healthy living in the community

PSO4.Develop comprehensive and analytical skills to take up careers in academics, Food industry and health sectors

	<b>COURSE OUTCOMES</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>CO1</b>	knowledge about the technology involved in the development of varied extruded products.	II (UNDERSTAND)
<b>CO2</b>	Demonstrate the extraction process and identify different part of extruder.	IV(ANALYZE) I (REMEMBER)
<b>CO3</b>	Explain cereal based and breakfast cereal product	IV(ANALYZE)
<b>CO4</b>	Demonstrate packaging of cereal based extruded product.	IV(ANALYZE)
<b>CO5</b>	Demonstrate the factors affecting extrusion cooking.	II (UNDERSTAND)

**Table 1: CO, PO, PSO MAPPING**

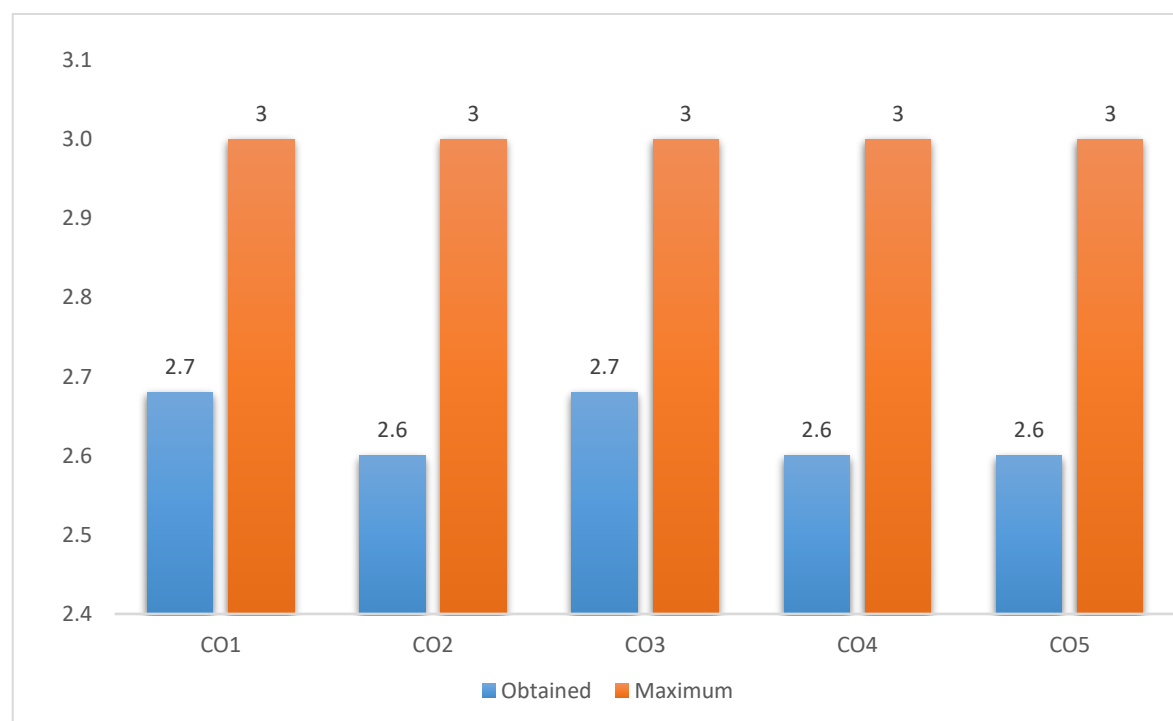
outcomes	PO1	PO2	PO3	PO4	PO5	PS01	PS02	PS03	PS04
<b>C01</b>	H		H						H
<b>C02</b>		H		S			S		H
<b>C03</b>	S			H					S
<b>C04</b>	H			H			H		
<b>C05</b>	H				H	S	H		

**H: Highly Supportive**

**S: Supportive**

**Table 2: COURSE OUTCOME ATTAINMENT**

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDENCE		co wise intern average
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	
CO1	93.9	3.0			100.0	3.0	100.0	3.0	84.8	2.0	54.5	0.0	2.2
CO2	93.9	3.0			100.0	3.0			84.8	2.0	54.5	0.0	2.0
CO3	93.9	3.0	100.0	3.0	100.0	3.0			84.8	2.0	54.5	0.0	2.2
CO4			100.0	3.0	100.0	3.0			84.8	2.0	54.5	0.0	2.0
CO5			100.0	3.0	100.0	3.0			84.8	2.0	54.5	0.0	2.0



**Table 3: PROGRAMME OUTCOME MAPPING**

OUTCOME	PO1	PO2	PO3	PO4	PO5
CO1	H 2.68		H 2.68		
CO2		H 2.6			
CO3				H 2.68	
CO4	H 2.6			H 2.6	
CO5	H 2.6				H 2.6
AVERAGE OF COS FOR POS	2.626666667	2.6	2.68	2.64	2.6
AVERAGE OF POS	2.608889	2.6	2.68	2.64	2.6
AVERAGE	2.625777778				

## COURSE OUTCOME MAPPING

### MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

**COURSE TITLE:** FOOD MICROBIOLOGY (PRACTICAL)

**COURSE CODE:** MFT13208

**CREDITS:** 4

**DEPARTMENT:** M.SC FOOD TECHNOLOGY AND MANAGEMENT

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

**PO1: Scientific Knowledge:** Ability to build a strong foundation of knowledge, integrated with the latest developments in science and technology which help students develop critical thinking, reasoning, decision making in process of quality education.

**PO2: Problem Analysis:** Identify, formulate and analyse the complex scientific problems using the knowledge gained across various streams of science and technology.

**PO3: Effective Communication:** Ability to articulate ideas, communicate effectively using current tools in the field of ICT along with effective report writing and documentation.

**PO4: Development of Skill and Attitude:** Enabling the students with the required skill, right attitude, time management and self discipline for prominent career in industry, research institutes and for further academic study.

**PO5: Life Long Learning and Social Responsibility:** Recognise the need and ability to engage in life long learning and work effectively as an individual and as a member of diverse team. Students get the ability to act with an informed awareness of issues to participate in civic life through volunteering.

**PROGRAMME SPECIFIC OUTCOME ( DEPARTMENT WISE) or PSOs**

PSO1: Formulate environment friendly innovative food products

PSO2.Acquire entrepreneurial skills and skill based knowledge in the field of food science and to establish a food service outlet

PSO3.Devise research strategies for empowering and promoting healthy living in the community

PSO4.Develop comprehensive and analytical skills to take up careers in academics, Food industry and health sectors

	<b>COURSE OUTCOMES</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>CO1</b>	Understand the quality aspects of food	II (UNDERSTAND)
<b>CO2</b>	Analyse the food for food pathogens load	IV(ANALYZE) I (REMEMBER)
<b>CO3</b>	Microbial Examination of natural and processed foods	IV(ANALYZE)
<b>CO4</b>	Identify the hazard of the food chain to ensure food safety	IV(ANALYZE)
<b>CO5</b>	Create a knowledge on various hazards	II (UNDERSTAND)

**Table 1: CO, PO, PSO MAPPING**

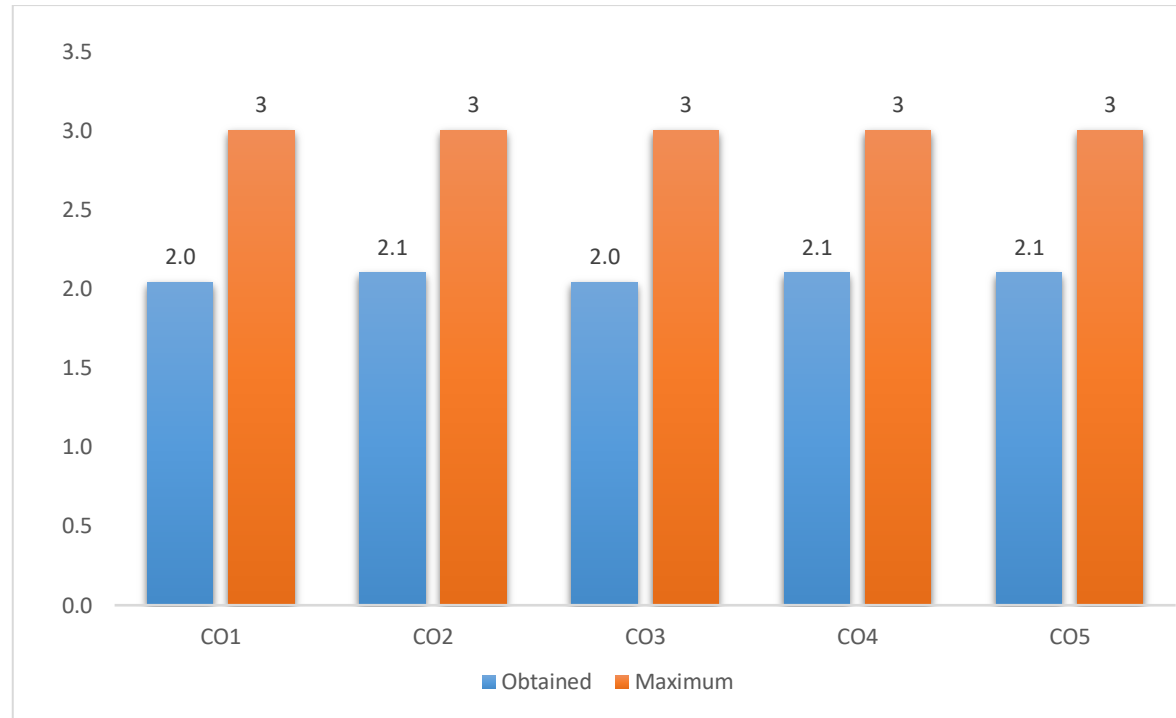
outcomes	PO1	PO2	PO3	PO4	PO5	PS01	PS02	PS03	PS04
C01	H		H						H
C02		H		S			S		H
C03	S			H					S
C04	H			H			H		
C05	H				H	S	H		

**H: Highly Supportive**

**S: Supportive**

**Table 2: COURSE OUTCOME ATTAINMENT**

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDENCE		co wise intern average
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	
C01	0.0	0.0			100.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
C02	0.0	0.0			100.0	3.0			0.0	0.0	0.0	0.0	0.8
C03	0.0	0.0	0.0	0.0	100.0	3.0			0.0	0.0	0.0	0.0	0.6
C04			0.0	0.0	100.0	3.0			0.0	0.0	0.0	0.0	0.8
C05			0.0	0.0	100.0	3.0			0.0	0.0	0.0	0.0	0.8



**Table 3: PROGRAMME OUTCOME MAPPING**

OUTCOME	PO1	PO2	PO3	PO4	PO5
CO1	H 2.04		H 2.04		
CO2		H 2.1			
CO3				H 2.04	
CO4	H 2.1			H 2.1	
CO5	H 2.1				H 2.1
AVERAGE OF COS FOR POS	2.08	2.1	2.04	2.07	2.1
AVERAGE OF POS	2.093333	2.1	2.04	2.07	2.1
AVERAGE	2.08066667				

## COURSE OUTCOME MAPPING

### MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

**COURSE TITLE:** FOOD MICROBIOLOGY(THEORY)

**COURSE CODE:** MFT13204

**CREDITS:** 4

**DEPARTMENT:** M.SC FOOD TECHNOLOGY AND MANAGEMENT

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

**PO1: Scientific Knowledge:** Ability to build a strong foundation of knowledge, integrated with the latest developments in science and technology which help students develop critical thinking, reasoning, decision making in process of quality education.

**PO2: Problem Analysis:** Identify, formulate and analyse the complex scientific problems using the knowledge gained across various streams of science and technology.

**PO3: Effective Communication:** Ability to articulate ideas, communicate effectively using current tools in the field of ICT along with effective report writing and documentation.

**PO4: Development of Skill and Attitude:** Enabling the students with the required skill, right attitude, time management and self discipline for prominent career in industry, research institutes and for further academic study.

**PO5: Life Long Learning and Social Responsibility:** Recognise the need and ability to engage in life long learning and work effectively as an individual and as a member of diverse team. Students get the ability to act with an informed awareness of issues to participate in civic life through volunteering.

**PROGRAMME SPECIFIC OUTCOME ( DEPARTMENT WISE) or PSOs**

PSO1: Formulate environment friendly innovative food products

PSO2.Acquire entrepreneurial skills and skill based knowledge in the field of food science and to establish a food service outlet

PSO3.Devise research strategies for empowering and promoting healthy living in the community

PSO4.Develop comprehensive and analytical skills to take up careers in academics, Food industry and health sectors

	<b>COURSE OUTCOMES</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>CO1</b>	knowledge about the role and importance of quality control systems	II (UNDERSTAND)
<b>CO2</b>	Understand the techniques used to safeguard foods from several contaminants and make is safer for human consumption	IV(ANALYZE) I (REMEMBER)
<b>CO3</b>	Explain the application of food quality and food safety system	IV(ANALYZE)
<b>CO4</b>	Identify the hazard of the food chain to ensure food safety	IV(ANALYZE)
<b>CO5</b>	Review of legislative approaches for the management of food safety	II (UNDERSTAND)

**Table 1: CO, PO, PSO MAPPING**

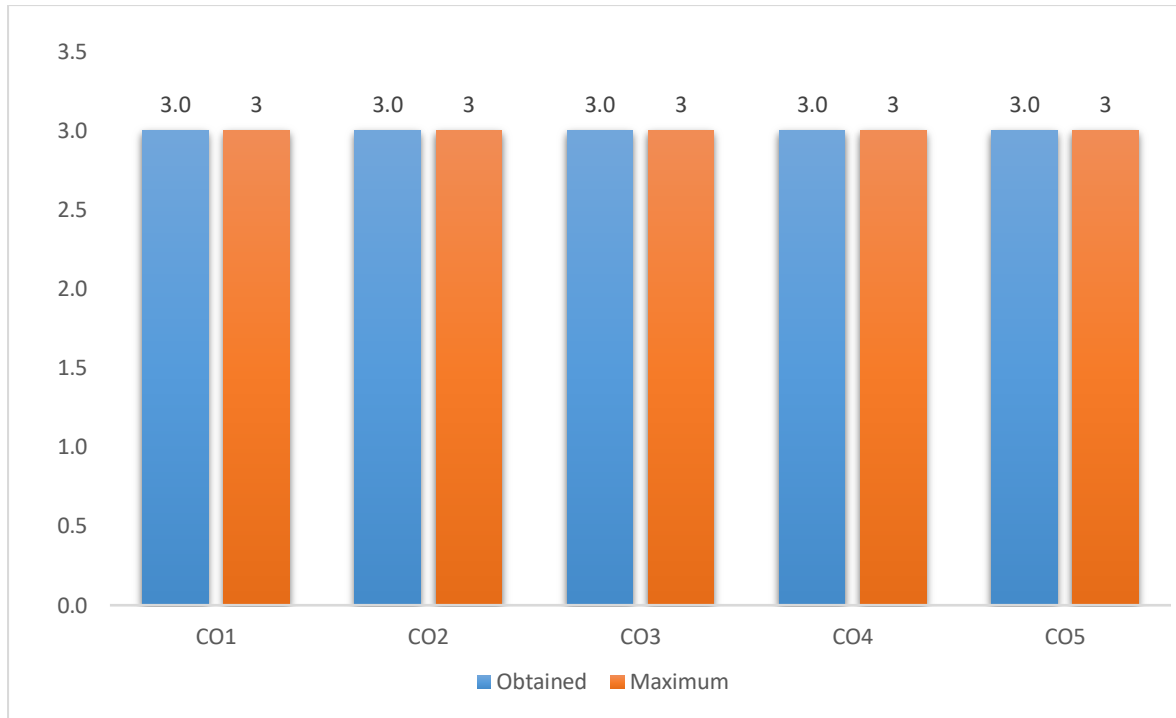
outcomes	PO1	PO2	PO3	PO4	PO5	PS01	PS02	PS03	PS04
C01	H		H						H
C02		H		S			S		H
C03	S			H					S
C04	H			H			H		
C05	H				H	S	H		

**H: Highly Supportive**

**S: Supportive**

**Table 2: COURSE OUTCOME ATTAINMENT**

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDENCE		co wise intern average
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	
CO1	85.7	3.0			100.0	3.0	100.0	3.0	97.1	3.0	85.7	3.0	3.0
CO2	85.7	3.0			100.0	3.0			97.1	3.0	85.7	3.0	3.0
CO3	85.7	3.0	97.1	3.0	100.0	3.0			97.1	3.0	85.7	3.0	3.0
CO4			97.1	3.0	100.0	3.0			97.1	3.0	85.7	3.0	3.0
CO5			97.1	3.0	100.0	3.0			97.1	3.0	85.7	3.0	3.0



**Table 3: PROGRAMME OUTCOME MAPPING**

OUTCOME	PO1	PO2	PO3	PO4	PO5
CO1	H 3		H 3		
CO2		H 3			
CO3				H 3	
CO4	H 3			H 3	
CO5	H 3				H 3
AVERAGE OF COS FOR POS	3	3	3	3	3
AVERAGE OF POS	3	3	3	3	3
AVERAGE	3				

## COURSE OUTCOME MAPPING

### MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

**COURSE TITLE:** FOOD PROCESS ENGINEERING-I (THEORY)

**COURSE CODE:** MFT13103

**CREDITS:** 4

**DEPARTMENT:** M.SC FOOD TECHNOLOGY AND MANAGEMENT

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

PO1: **Scientific Knowledge:** Ability to build a strong foundation of knowledge, integrated with the latest developments in science and technology which help students develop critical thinking, reasoning, decision making in process of quality education.

PO2: **Problem Analysis:** Identify, formulate and analyse the complex scientific problems using the knowledge gained across various streams of science and technology.

PO3: **Effective Communication:** Ability to articulate ideas, communicate effectively using current tools in the field of ICT along with effective report writing and documentation.

PO4: **Development of Skill and Attitude:** Enabling the students with the required skill, right attitude, time management and self discipline for prominent career in industry, research institutes and for further academic study.

PO5: **Life Long Learning and Social Responsibility:** Recognise the need and ability to engage in life long learning and work effectively as an individual and as a member of diverse team. Students get the ability to act with an informed awareness of issues to participate in civic life through volunteering.

**PROGRAMME SPECIFIC OUTCOME ( DEPARTMENT WISE) or PSOs**

PSO1: Formulate environment friendly innovative food products

PSO2.Acquire entrepreneurial skills and skill based knowledge in the field of food science and to establish a food service outlet

PSO3.Devise research strategies for empowering and promoting healthy living in the community

PSO4.Develop comprehensive and analytical skills to take up careers in academics, Food industry and health sectors

	<b>COURSE OUTCOMES</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>CO1</b>	Enumerate the units and dimensions of various physical quantities	II (UNDERSTAND)
<b>CO2</b>	Express the laws and theory of gases and vapours.	IV(ANALYZE) I (REMEMBER)
<b>CO3</b>	Describe the types and properties of fluid flow	IV(ANALYZE)
<b>CO4</b>	Calculate the material balance in food processing units	IV(ANALYZE)
<b>CO5</b>	Appraise the performance of processing units	II (UNDERSTAND)

**Table 1: CO, PO, PSO MAPPING**

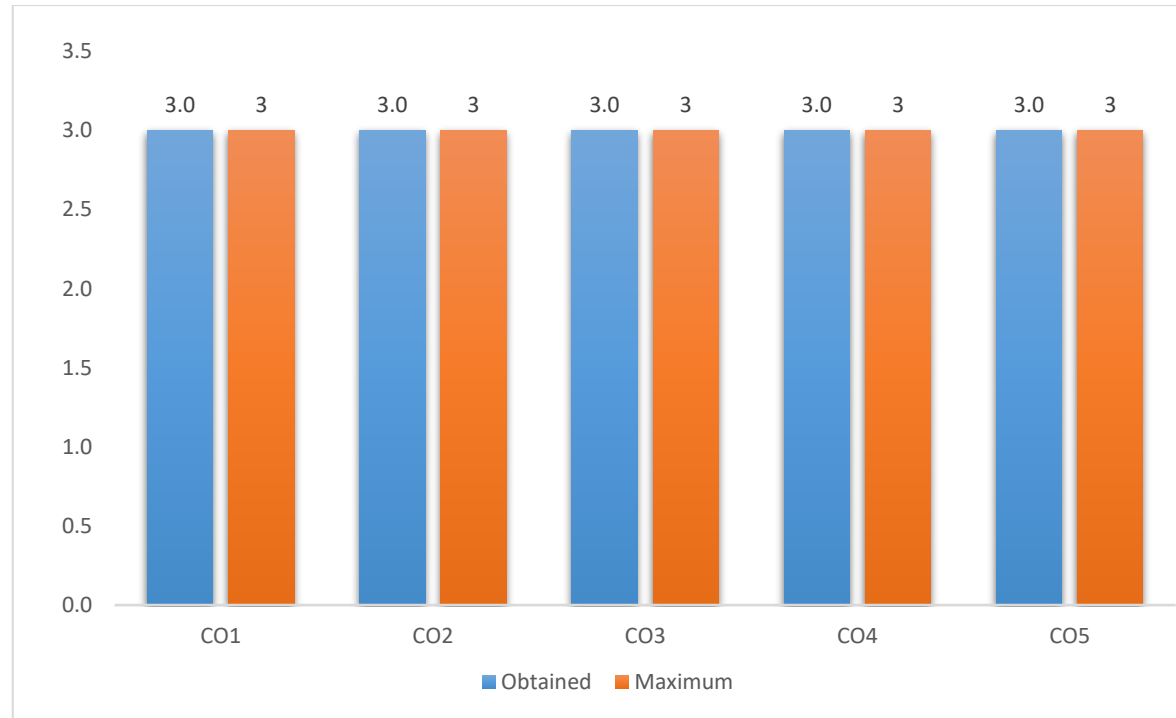
outcomes	PO1	PO2	PO3	PO4	PO5	PS01	PS02	PS03	PS04
C01	H		H						H
C02		H		S			S		H
C03	S			H					S
C04	H			H			H		
C05	H				H	S	H		

**H: Highly Supportive**

**S: Supportive**

**Table 2: COURSE OUTCOME ATTAINMENT**

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDENCE		co wise intern average
	pass%	Attainment level	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	100.0	3.0	3.0
C02	100.0	3.0			100.0	3.0			100.0	3.0	100.0	3.0	3.0
C03	100.0	3.0	100.0	3.0	100.0	3.0			100.0	3.0	100.0	3.0	3.0
C04			100.0	3.0	100.0	3.0			100.0	3.0	100.0	3.0	3.0
C05			100.0	3.0	100.0	3.0			100.0	3.0	100.0	3.0	3.0



**Table 3: PROGRAMME OUTCOME MAPPING**

OUTCOME	PO1	PO2	PO3	PO4	PO5
CO1	H 3		H 3		
CO2		H 3			
CO3				H 3	
CO4	H 3			H 3	
CO5	H 3				H 3
AVERAGE OF COS FOR POS	3	3	3	3	3
AVERAGE OF POS	3	3	3	3	3
AVERAGE	3				

## COURSE OUTCOME MAPPING

### MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

**COURSE TITLE:** FOOD PROCESS ENGINEERING-II (THEORY)

**COURSE CODE:** MFT13204

**CREDITS:** 4

**DEPARTMENT:** M.SC FOOD TECHNOLOGY AND MANAGEMENT

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

PO1: **Scientific Knowledge:** Ability to build a strong foundation of knowledge, integrated with the latest developments in science and technology which help students develop critical thinking, reasoning, decision making in process of quality education.

PO2: **Problem Analysis:** Identify, formulate and analyse the complex scientific problems using the knowledge gained across various streams of science and technology.

PO3: **Effective Communication:** Ability to articulate ideas, communicate effectively using current tools in the field of ICT along with effective report writing and documentation.

PO4: **Development of Skill and Attitude:** Enabling the students with the required skill, right attitude, time management and self discipline for prominent career in industry, research institutes and for further academic study.

PO5: **Life Long Learning and Social Responsibility:** Recognise the need and ability to engage in life long learning and work effectively as an individual and as a member of diverse team. Students get the ability to act with an informed awareness of issues to participate in civic life through volunteering.

**PROGRAMME SPECIFIC OUTCOME ( DEPARTMENT WISE) or PSOs**

PSO1: Formulate environment friendly innovative food products

PSO2.Acquire entrepreneurial skills and skill based knowledge in the field of food science and to establish a food service outlet

PSO3.Devise research strategies for empowering and promoting healthy living in the community

PSO4.Develop comprehensive and analytical skills to take up careers in academics, Food industry and health sectors

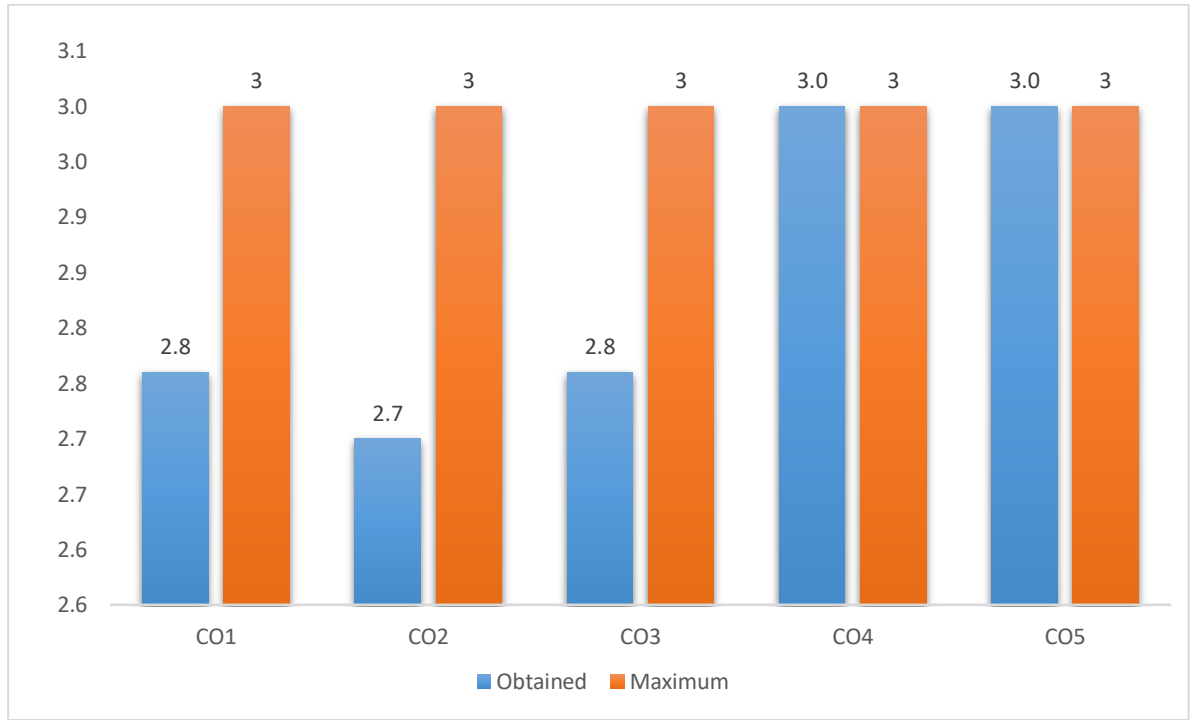
	<b>COURSE OUTCOMES</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>CO1</b>	Explain the Basic Principles of Material Balances	II (UNDERSTAND)
<b>CO2</b>	Explain the Basic Principles of Energy Balances and Heat properties	IV(ANALYZE) I (REMEMBER)
<b>CO3</b>	Analyze the concept of Thermodynamics	IV(ANALYZE)
<b>CO4</b>	Judge the changes in thermodynamic properties associated with work and heat	IV(ANALYZE)
<b>CO5</b>	Distinguish various Rheological & Colligative properties of food materials	II (UNDERSTAND)

**Table 1: CO, PO, PSO MAPPING**

outcomes	PO1	PO2	PO3	PO4	PO5	PSO 1	PSO2	PSO3	PSO4
C01	H		H						H
C02		H		S			S		H
C03	S			H					S
C04	H			H			H		
C05	H				H	S	H		

**H: Highly Supportive****S: Supportive****Table 2: COURSE OUTCOME ATTAINMENT**

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDENCE		co wise intern average
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	
CO1	0.0	0.0			100.0	3.0	100.0	3.0	100.0	3.0	97.1	3.0	2.4
CO2	0.0	0.0			100.0	3.0			100.0	3.0	97.1	3.0	2.3
CO3	0.0	0.0	100.0	3.0	100.0	3.0			100.0	3.0	97.1	3.0	2.4
CO4			100.0	3.0	100.0	3.0			100.0	3.0	97.1	3.0	3.0
CO5			100.0	3.0	100.0	3.0			100.0	3.0	97.1	3.0	3.0



**Table 3: PROGRAMME OUTCOME MAPPING**

OUTCOME	PO1		PO2		PO3		PO4		PO5		PO6		PO7	
CO1	H	2.76			H	2.76								
CO2			H	2.7										
CO3							H	2.76						
CO4	H	3					H	3					H	3
CO5	H	3							H	3			H	3
AVERAGE OF COS FOR POS	2.92		2.7		2.76		2.88		3				3	
AVERAGE OF POS		2.973333		2.7		2.76		2.88		3				3
AVERAGE	2.88555556													

## COURSE OUTCOME MAPPING

### MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

**COURSE TITLE:** FOOD PROCESS ENGINEERING LAB

**COURSE CODE:** MFT13207

**CREDITS:** 4

**DEPARTMENT:** M.SC FOOD TECHNOLOGY AND MANAGEMENT

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

PO1: **Scientific Knowledge:** Ability to build a strong foundation of knowledge, integrated with the latest developments in science and technology which help students develop critical thinking, reasoning, decision making in process of quality education.

PO2: **Problem Analysis:** Identify, formulate and analyse the complex scientific problems using the knowledge gained across various streams of science and technology.

PO3: **Effective Communication:** Ability to articulate ideas, communicate effectively using current tools in the field of ICT along with effective report writing and documentation.

PO4: **Development of Skill and Attitude:** Enabling the students with the required skill, right attitude, time management and self discipline for prominent career in industry, research institutes and for further academic study.

PO5: **Life Long Learning and Social Responsibility:** Recognise the need and ability to engage in life long learning and work effectively as an individual and as a member of diverse team. Students get the ability to act with an informed awareness of issues to participate in civic life through volunteering.

**PROGRAMME SPECIFIC OUTCOME ( DEPARTMENT WISE) or PSOs**

PSO1: Formulate environment friendly innovative food products

PSO2.Acquire entrepreneurial skills and skill based knowledge in the field of food science and to establish a food service outlet

PSO3.Devise research strategies for empowering and promoting healthy living in the community

PSO4.Develop comprehensive and analytical skills to take up careers in academics, Food industry and health sectors

	<b>COURSE OUTCOMES</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>CO1</b>	Explain the Basic Principles of Material Balances	II (UNDERSTAND)
<b>CO2</b>	Explain the Basic Principles of Energy Balances and Heat properties	IV(ANALYZE) I (REMEMBER)
<b>CO3</b>	Analyze the concept of Thermodynamics	IV(ANALYZE)
<b>CO4</b>	Judge the changes in thermodynamic properties associated with work and heat	IV(ANALYZE)
<b>CO5</b>	Distinguish various Rheological & Colligative properties of food materials	II (UNDERSTAND)

**Table 1: CO, PO, PSO MAPPING**

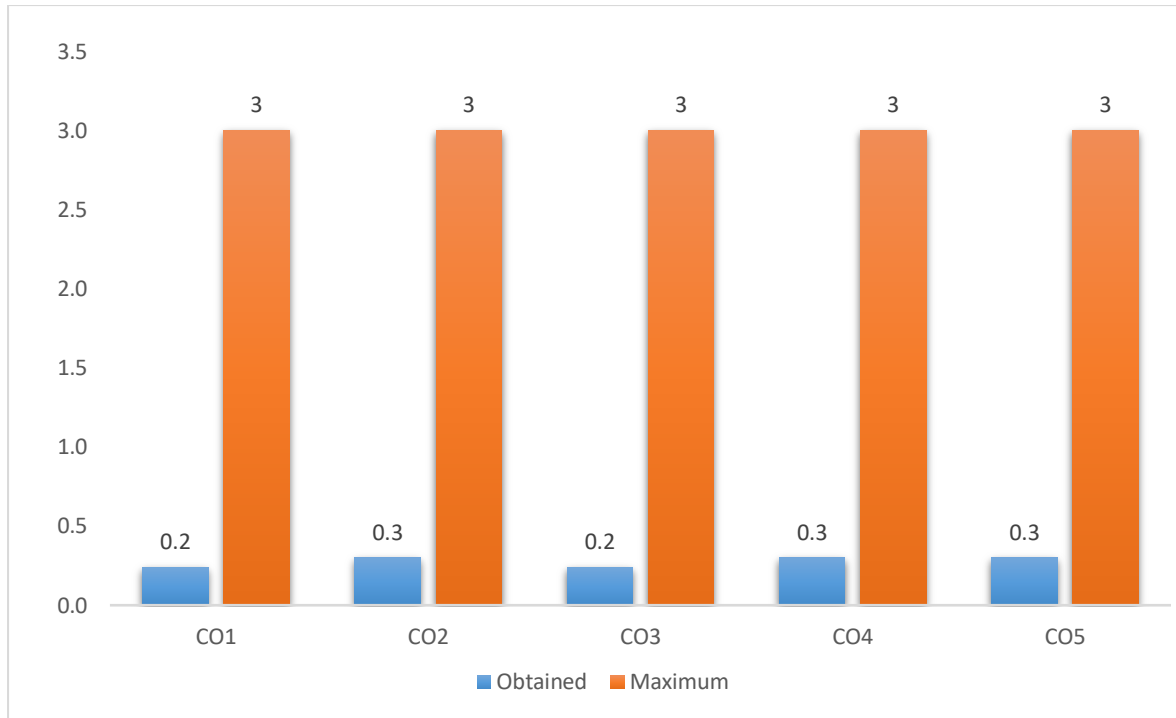
outcomes	PO1	PO2	PO3	PO4	PO5	PSO 1	PSO2	PSO3	PSO4
C02	H		H						H
C03		H		S			S		H
C04	S			H					S
C05	H			H			H		
	H				H	S	H		

**H: Highly Supportive**

**S: Supportive**

**Table 2: COURSE OUTCOME ATTAINMENT**

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDENCE	
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level
CO1	0.0	0.0			100.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0
CO2	0.0	0.0			100.0	3.0			0.0	0.0	0.0	0.0
CO3	0.0	0.0	0.0	0.0	100.0	3.0			0.0	0.0	0.0	0.0
CO4			0.0	0.0	100.0	3.0			0.0	0.0	0.0	0.0
CO5			0.0	0.0	100.0	3.0			0.0	0.0	0.0	0.0



**Table 3: PROGRAMME OUTCOME MAPPING**

OUTCOME	PO1		PO2		PO3		PO4		PO5		PO6		PO7	
CO1	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!
CO2	H	0.3			H	0.3								
CO3			H	0.24										
CO4							H	0.3						
CO5	H	0.3					H	0.3					H	0.3
AVERAGE OF COS FOR POS														
AVERAGE OF POS		0.3		0.24		0.3		0.3						0.3
AVERAGE	0.288													

## COURSE OUTCOME MAPPING

### MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

**COURSE TITLE: FOOD QUALITY SYSTEMS & MANAGEMENT PRACTICALS**

**COURSE CODE: MFT13308**

**CREDITS: 4**

**DEPARTMENT: M.SC FOOD TECHNOLOGY AND MANAGEMENT**

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

**PO1: Scientific Knowledge:** Ability to build a strong foundation of knowledge, integrated with the latest developments in science and technology which help students develop critical thinking, reasoning, decision making in process of quality education.

**PO2: Problem Analysis:** Identify, formulate and analyse the complex scientific problems using the knowledge gained across various streams of science and technology.

**PO3: Effective Communication:** Ability to articulate ideas, communicate effectively using current tools in the field of ICT along with effective report writing and documentation.

**PO4: Development of Skill and Attitude:** Enabling the students with the required skill, right attitude, time management and self discipline for prominent career in industry, research institutes and for further academic study.

**PO5: Life Long Learning and Social Responsibility:** Recognise the need and ability to engage in life long learning and work effectively as an individual and as a member of diverse team. Students get the ability to act with an informed awareness of issues to participate in civic life through volunteering.

**PROGRAMME SPECIFIC OUTCOME ( DEPARTMENT WISE) or PSOs**

PSO1: Formulate environment friendly innovative food products

PSO2.Acquire entrepreneurial skills and skill based knowledge in the field of food science and to establish a food service outlet

PSO3.Devise research strategies for empowering and promoting healthy living in the community

PSO4.Develop comprehensive and analytical skills to take up careers in academics, Food industry and health sectors

	<b>COURSE OUTCOMES</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>CO1</b>	<b>To understand the quality policy and documentation of food sector</b>	II (UNDERSTAND)
<b>CO2</b>	Perform the testing and evaluation of quality attributes	IV(ANALYZE) I (REMEMBER)
<b>CO3</b>	Application of HACCP to industry and food products	IV(ANALYZE)
<b>CO4</b>	Preparation the certifications and records to industry	IV(ANALYZE)
<b>CO5</b>	<b>Visit to plants to understand and implement the various methodologies</b>	II (UNDERSTAND)

**Table 1: CO, PO, PSO MAPPING**

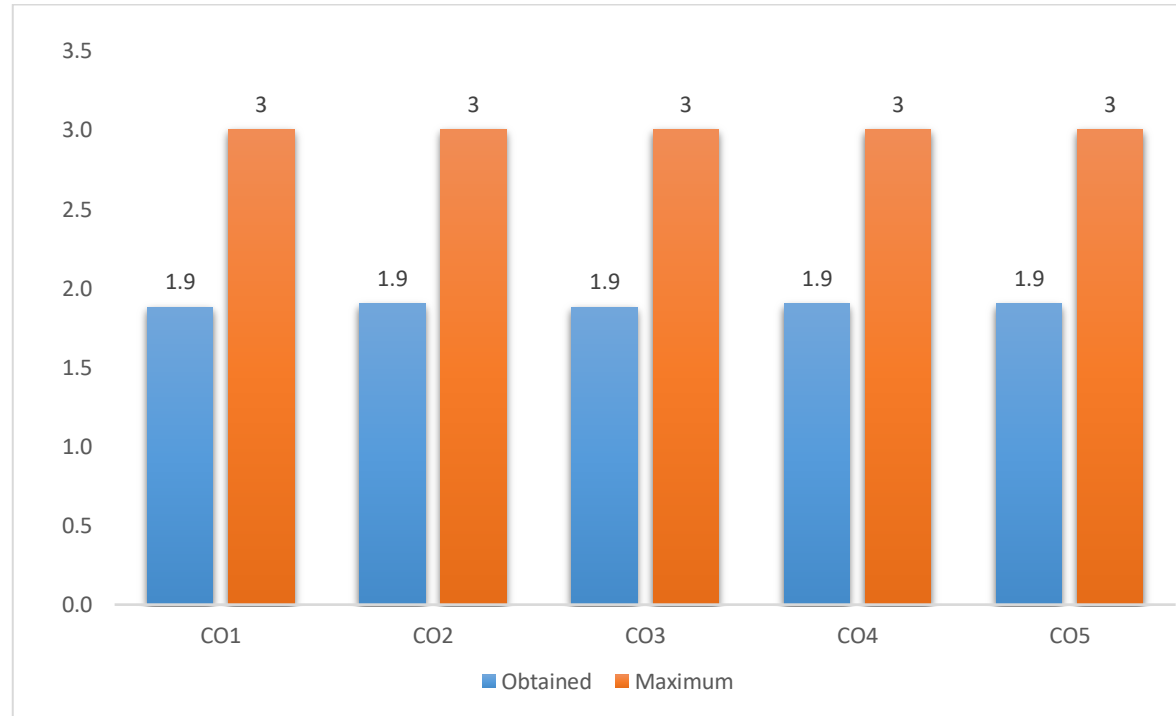
outcomes	PO1	PO2	PO3	PO4	PO5	PS01	PS02	PS03	PS04
<b>C01</b>	H		H						H
<b>C02</b>		H		S			S		H
<b>C03</b>	S			H					S
<b>C04</b>	H			H			H		
<b>C05</b>	H				H	S	H		

**H: Highly Supportive**

**S: Supportive**

**Table 2: COURSE OUTCOME ATTAINMENT**

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE	
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level
CO1	0.0	0.0			68.8	1.0	0.0	0.0	0.0	0.0
CO2	0.0	0.0			68.8	1.0			0.0	0.0
CO3	0.0	0.0	0.0	0.0	68.8	1.0			0.0	0.0
CO4			0.0	0.0	68.8	1.0			0.0	0.0
CO5			0.0	0.0	68.8	1.0			0.0	0.0



**Table 3: PROGRAMME OUTCOME MAPPING**

OUTCOME	PO1	PO2	PO3	PO4	PO5
CO1	H 1.88		H 1.88		
CO2		H 1.9			
CO3				H 1.88	
CO4	H 1.9			H 1.9	
CO5	H 1.9				H 1.9
AVERAGE OF COS FOR POS	1.893333333	1.9	1.88	1.89	1.9
AVERAGE OF POS	1.897778	1.9	1.88	1.89	1.9
AVERAGE	1.89355556				

## COURSE OUTCOME MAPPING

### MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

**COURSE TITLE: FOOD QUALITY SYSTEMS & MANAGEMENT**

**COURSE CODE: MFT13305**

**CREDITS: 4**

**DEPARTMENT: M.SC FOOD TECHNOLOGY AND MANAGEMENT**

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

**PO1: Scientific Knowledge:** Ability to build a strong foundation of knowledge, integrated with the latest developments in science and technology which help students develop critical thinking, reasoning, decision making in process of quality education.

**PO2: Problem Analysis:** Identify, formulate and analyse the complex scientific problems using the knowledge gained across various streams of science and technology.

**PO3: Effective Communication:** Ability to articulate ideas, communicate effectively using current tools in the field of ICT along with effective report writing and documentation.

**PO4: Development of Skill and Attitude:** Enabling the students with the required skill, right attitude, time management and self discipline for prominent career in industry, research institutes and for further academic study.

**PO5: Life Long Learning and Social Responsibility:** Recognise the need and ability to engage in life long learning and work effectively as an individual and as a member of diverse team. Students get the ability to act with an informed awareness of issues to participate in civic life through volunteering.

**PROGRAMME SPECIFIC OUTCOME ( DEPARTMENT WISE) or PSOs**

PSO1: Formulate environment friendly innovative food products

PSO2.Acquire entrepreneurial skills and skill based knowledge in the field of food science and to establish a food service outlet

PSO3.Devise research strategies for empowering and promoting healthy living in the community

PSO4.Develop comprehensive and analytical skills to take up careers in academics, Food industry and health sectors

	<b>COURSE OUTCOMES</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>CO1</b>	knowledge about the role and importance of quality control systems	II (UNDERSTAND)
<b>CO2</b>	Understand the techniques used to safeguard foods from several contaminants and make is safer for human consumption	IV(ANALYZE) I (REMEMBER)
<b>CO3</b>	Explain the application of food quality and food safety system	IV(ANALYZE)
<b>CO4</b>	Identify the hazard of the food chain to ensure food safety	IV(ANALYZE)
<b>CO5</b>	Review of legislative approaches for the management of food safety	II (UNDERSTAND)

**Table 1: CO, PO, PSO MAPPING**

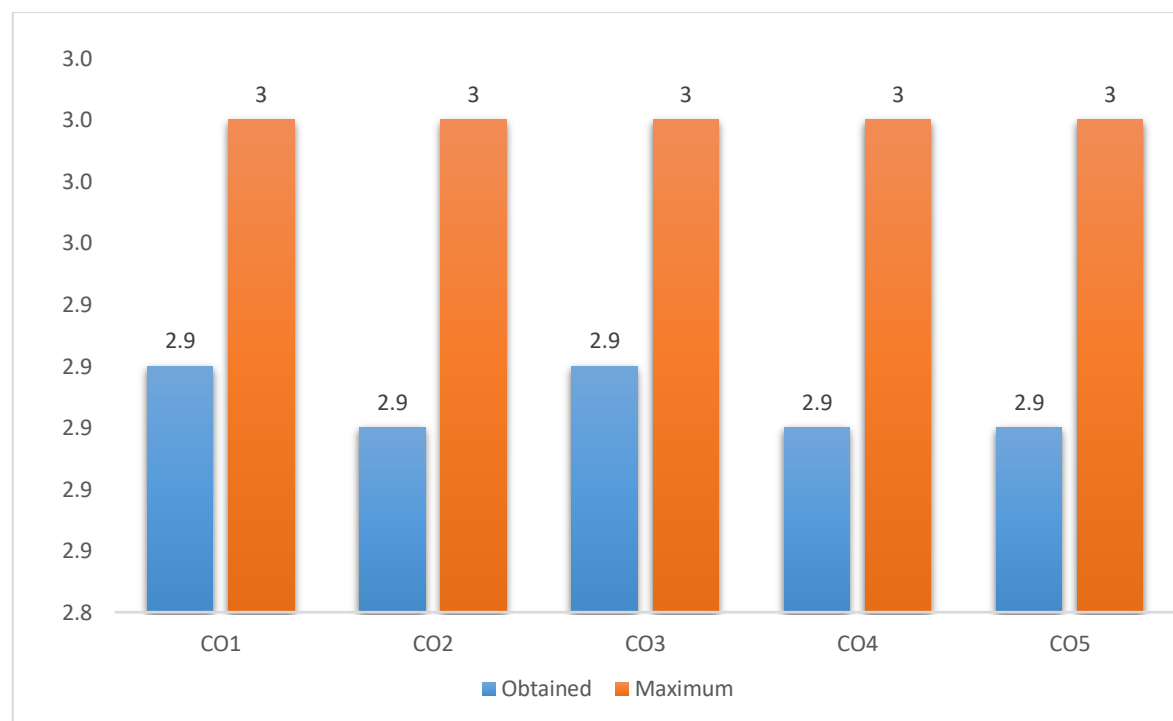
outcomes	PO1	PO2	PO3	PO4	PO5	PS01	PS02	PS03	PS04
C01	H		H						H
C02		H		S			S		H
C03	S			H					S
C04	H			H			H		
C05	H				H	S	H		

**H: Highly Supportive**

**S: Supportive**

**Table 2: COURSE OUTCOME ATTAINMENT**

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDENCE		co wise intern average
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	
CO1	93.9	3.0			100.0	3.0	100.0	3.0	100.0	3.0	78.8	2.0	2.8
CO2	93.9	3.0			100.0	3.0			100.0	3.0	78.8	2.0	2.8
CO3	93.9	3.0	100.0	3.0	100.0	3.0			100.0	3.0	78.8	2.0	2.8
CO4			100.0	3.0	100.0	3.0			100.0	3.0	78.8	2.0	2.8
CO5			100.0	3.0	100.0	3.0			100.0	3.0	78.8	2.0	2.8



**Table 3: PROGRAMME OUTCOME MAPPING**

OUTCOME	PO1	PO2	PO3	PO4	PO5
CO1	H 2.92		H 2.92		
CO2		H 2.9			
CO3				H 2.92	
CO4	H 2.9			H 2.9	
CO5	H 2.9				H 2.9
AVERAGE OF COS FOR POS	2.906666667	2.9	2.92	2.91	2.9
AVERAGE OF POS	2.902222	2.9	2.92	2.91	2.9
AVERAGE	2.906444444				

## COURSE OUTCOME MAPPING

MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

**COURSE TITLE:** POST-HARVEST TECHNOLOGY OF PLANTATION CROPS  
**COURSE CODE:** MFT13202  
**CREDITS:** 4

**DEPARTMENT:** M.SC FOOD TECHNOLOGY AND MANAGEMENT

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

**PO1: Scientific Knowledge:** Ability to build a strong foundation of knowledge, integrated with the latest developments in science and technology which help students develop critical thinking, reasoning, decision making in process of quality education.

**PO2: Problem Analysis:** Identify, formulate and analyse the complex scientific problems using the



PSO3.Devise research strategies for empowering and promoting healthy living in the community PSO4.Develop comprehensive and analytical skills to take up careers in academics, Food industry and health sectors																0 . 6 ) = 3
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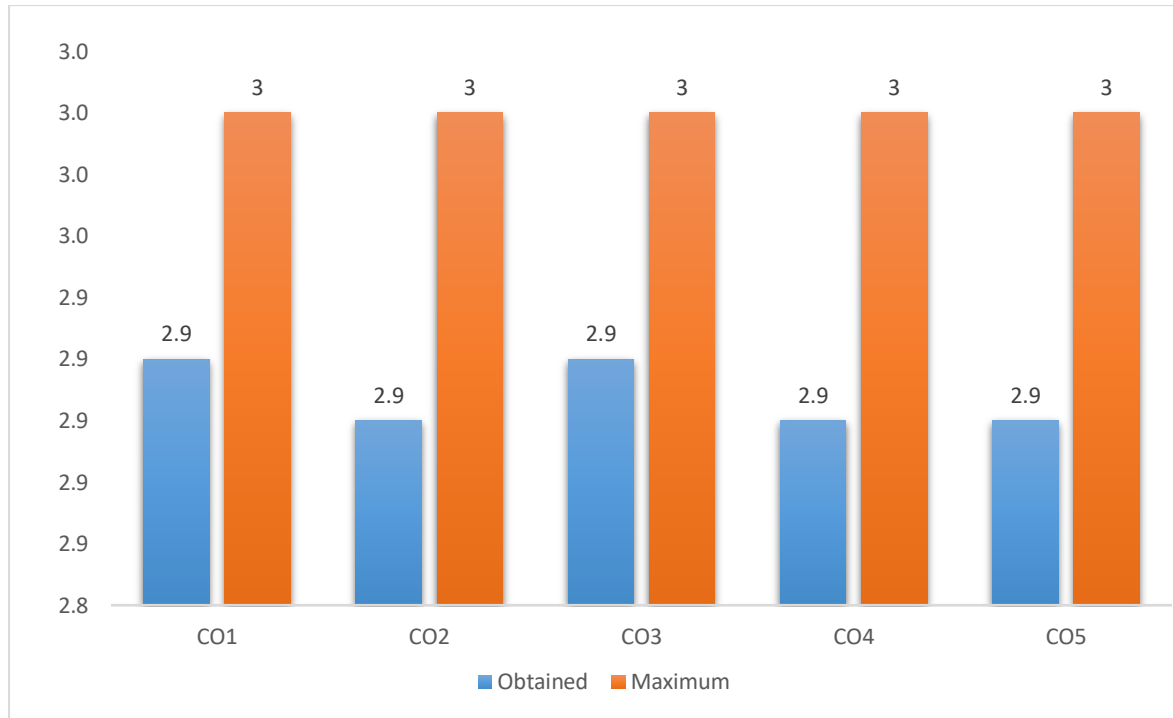
	<b>COURSE OUTCOMES</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>CO1</b>	Identify various classifications and biochemical changes related to microorganisms	IV (ANALYZE)
<b>CO2</b>	Judge the Contamination and spoilage of perishable food commodities	II (UNDERSTAND)
<b>CO3</b>	Categorize various food borne infections and hygiene-sanitation control practices	VI (CREATE)
<b>CO4</b>	Distinguish qualitative and quantitative assay for detection and characterization of microorganisms	IV (ANALYZE)
<b>CO5</b>	Generalize microbial fermentation in Food Industry	III(APPLY)

**Table 1: CO, PO, PSO MAPPING**

outcomes	PO1	PO2	PO3	PO4	PO5	PS01	PS02	PS03	PS04
C01	H				S	H			S
C02		H					S	H	
C03	H			H		H			H
C04		H	S				H		
C05	H					S			

**H: Highly Supportive****S: Supportive****Table 2: COURSE OUTCOME ATTAINMENT**

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDENCE		co wise intern average
	pass%	Attainment level	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	77.1	2.0	2.8
CO2	100.0	3.0			100.0	3.0			100.0	3.0	77.1	2.0	2.8
CO3	100.0	3.0	94.3	3.0	100.0	3.0			100.0	3.0	77.1	2.0	2.8
CO4			94.3	3.0	100.0	3.0			100.0	3.0	77.1	2.0	2.8
CO5			94.3	3.0	100.0	3.0			100.0	3.0	77.1	2.0	2.8



**Table 3: PROGRAMME OUTCOME MAPPING**

OUTCOME	PO1		PO2		PO3		PO4		PO5	
CO1	H	2.92								
CO2			H	2.9						
CO3	H	2.92					H	2.92		
CO4			H	2.9						
CO5	H	2.9								
AVERAGE OF COS FOR POS	2.913333333		2.9				2.92			
AVERAGE OF POS		2.911111		2.9				2.92		
AVERAGE	2.91037037									

## COURSE OUTCOME MAPPING

### MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

**COURSE TITLE: RESEARCH METHODOLOGY**

**COURSE CODE: MFT19203**

**CREDITS: 4**

**DEPARTMENT: M.SC FOOD TECHNOLOGY AND MANAGEMENT**

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

PO1: **Scientific Knowledge:** Ability to build a strong foundation of knowledge, integrated with the latest developments in science and technology which help students develop critical thinking, reasoning, decision making in process of quality education.

PO2: **Problem Analysis:** Identify, formulate and analyse the complex scientific problems using the knowledge gained across various streams of science and technology.

PO3: **Effective Communication:** Ability to articulate ideas, communicate effectively using current tools in the field of ICT along with effective report writing and documentation.

PO4: **Development of Skill and Attitude:** Enabling the students with the required skill, right attitude, time management and self discipline for prominent career in industry, research institutes and for further academic study.

PO5: **Life Long Learning and Social Responsibility:** Recognise the need and ability to engage in life long learning and work effectively as an individual and as a member of diverse team. Students get the ability to act with an informed awareness of issues to participate in civic life through volunteering.

**PROGRAMME SPECIFIC OUTCOME ( DEPARTMENT WISE) or PSOs**

PSO1: Formulate environment friendly innovative food products

PSO2.Acquire entrepreneurial skills and skill based knowledge in the field of food science and to establish a food service outlet

PSO3.Devise research strategies for empowering and promoting healthy living in the community

PSO4.Develop comprehensive and analytical skills to take up careers in academics, Food industry and health sectors

	<b>COURSE OUTCOMES</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>CO1</b>	Explain the procedures and prerequisites for research	II (UNDERSTAND)
<b>CO2</b>	Describe the process of research design	I (REMEMBER)
<b>CO3</b>	Determine the methods of data collection	IV (ANALYZE)
<b>CO4</b>	Distinguish various sampling techniques	II (UNDERSTAND)
<b>CO5</b>	Demonstrate various methods for measuring attitude for data processing and report writing	I (REMEMBER)

**Table 1: CO, PO, PSO MAPPING**

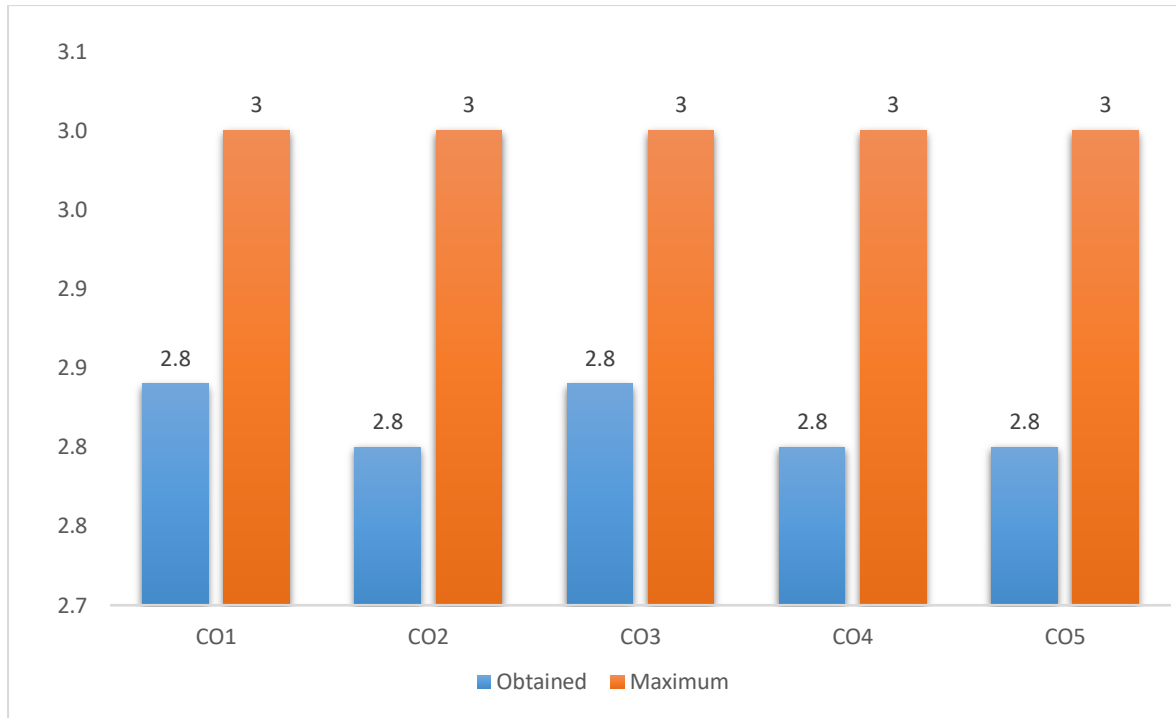
outcomes	PO1	PO2	PO3	PO4	PO5	PS01	PS02	PS03	PS04
C01	H			S		H		S	
C02	H			S		H		S	
C03		H	H				H		
C04				H	S				H
C05	H			S					H

**H: Highly Supportive**

**S: Supportive**

**Table 2: COURSE OUTCOME ATTAINMENT**

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDENCE		co wise intern average
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	
CO1	94.3	3.0			100.0	3.0	100.0	3.0	100.0	3.0	68.6	1.0	2.6
CO2	94.3	3.0			100.0	3.0			100.0	3.0	68.6	1.0	2.5
CO3	94.3	3.0	97.1	3.0	100.0	3.0			100.0	3.0	68.6	1.0	2.6
CO4			97.1	3.0	100.0	3.0			100.0	3.0	68.6	1.0	2.5
CO5			97.1	3.0	100.0	3.0			100.0	3.0	68.6	1.0	2.5



**Table 3: PROGRAMME OUTCOME MAPPING**

OUTCOME	PO1		PO2		PO3		PO4		PO5	
CO1	H	2.84								
CO2	H	2.8								
CO3			H	2.84	H	2.84				
CO4							H	2.8		
CO5	H	2.8								
AVERAGE OF COS FOR POS	2.813333333		2.84		2.84		2.8			
AVERAGE OF POS		2.804444		2.84		2.84		2.8		
AVERAGE	2.821111111									

## COURSE OUTCOME MAPPING

### MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

**COURSE TITLE: TECHNOLOGY OF CEREALS & MILLING**

**COURSE CODE: MFT19206**

**CREDITS: 4**

**DEPARTMENT: M.SC FOOD TECHNOLOGY AND MANAGEMENT**

**PROGRAMME OUTCOMES Or POs :**

PO1: **Scientific Knowledge:** Ability to build a strong foundation of knowledge, integrated with the latest developments in science and technology which help students develop critical thinking, reasoning, decision making in process of quality education.

PO2: **Problem Analysis:** Identify, formulate and analyse the complex scientific problems using the knowledge gained across various streams of science and technology.

PO3: **Effective communication** Ability to articulate ideas, communicate effectively using current tools in the field of ICT along with effective report writing and documentation.

PO4: **Development of Skill and Attitude:** Enabling the students with the required skill, right attitude, time management and self discipline for prominent career in industry, research institutes and for further academic study.

PO5: **Life Long Learning and Social Responsibility:** Recognise the need and ability to engage in life long learning and work effectively as an individual and as a member of diverse team. Students get the ability to act with an informed awareness of issues to participate in civic life through volunteering.

**PROGRAMME SPECIFIC OUTCOME ( DEPARTMENT WISE) or PSO**

PSO1: Formulate environment friendly innovative food products

PSO2. Acquire entrepreneurial skills and skill based knowledge in the field of food science and to establish a food service outlet

PSO3. Devise research strategies for empowering and promoting healthy living in the community

PSO4. Develop comprehensive and analytical skills to take up careers in academics, Food industry and health sectors

	<b>COURSE OUTCOMES</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>CO1</b>	Explain the criteria of wheat flour quality and dough rheology	IV (ANALYZE)
<b>CO2</b>	Classify the structure and composition of grains	IV (ANALYZE)
<b>CO3</b>	<b>Identify</b> the Manufacturing practices of flour	III(APPLY)
<b>CO4</b>	<b>Describe</b> the general technical aspects of confectionery and its raw materials	IV (ANALYZE)
<b>CO5</b>	<b>Identify</b> the Manufacturing practices of sugar confectionery products	II (UNDERSTAND)

**Table 1: CO, PO, PSO MAPPING**

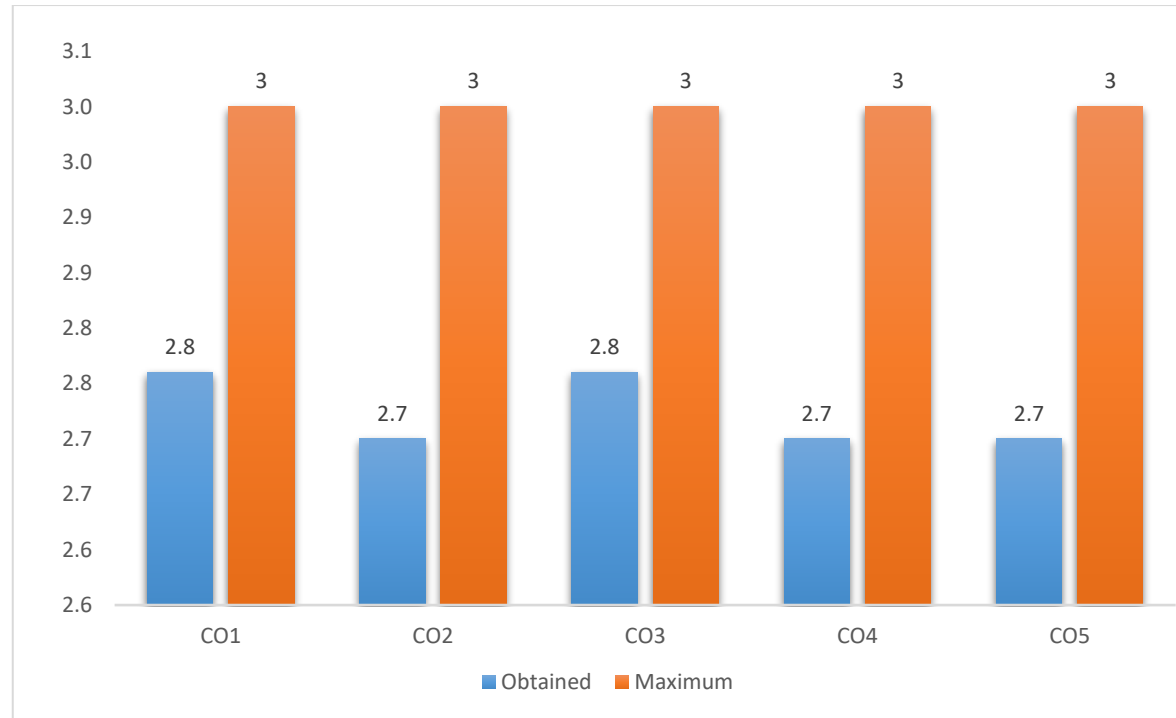
outcomes	PO1	PO2	PO3	PO4	PO5	PS01	PS02	PS03	PS04
C01	H				S	H			S
C02	H					H		S	
C03		H	S				H		H
C04	H			S		H			
C05	H				S		H		

**H: Highly Supportive**

**S: Supportive**

**Table 2: COURSE OUTCOME ATTAINMENT**

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDENCE		co wise intern average
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	
CO1	94.3	3.0			100.0	3.0	100.0	3.0	100.0	3.0	45.7	0.0	2.4
CO2	94.3	3.0			100.0	3.0			100.0	3.0	45.7	0.0	2.3
CO3	94.3	3.0	100.0	3.0	100.0	3.0			100.0	3.0	45.7	0.0	2.4
CO4			100.0	3.0	100.0	3.0			100.0	3.0	45.7	0.0	2.3
CO5			100.0	3.0	100.0	3.0			100.0	3.0	45.7	0.0	2.3



**Table 3: PROGRAMME OUTCOME MAPPING**

OUTCOME	PO1		PO2		PO3		PO4		PO5	
CO1	H	2.76								
CO2	H	2.7								
CO3			H	2.76						
CO4	H	2.7								
CO5	H	2.7								
AVERAGE OF COS FOR POS	2.715		2.76							
AVERAGE OF POS		2.70375		2.76						
AVERAGE	2.731875									

## COURSE OUTCOME MAPPING

### MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

**COURSE TITLE:** TECHNOLOGY OF FOOD FERMENTATION

**COURSE CODE:** MFT13302

**CREDITS:** 4

**DEPARTMENT:** M.SC FOOD TECHNOLOGY AND MANAGEMENT

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

**PO1: Scientific Knowledge:** Ability to build a strong foundation of knowledge, integrated with the latest developments in science and technology which help students develop critical thinking, reasoning, decision making in process of quality education.

**PO2: Problem Analysis:** Identify, formulate and analyse the complex scientific problems using the knowledge gained across various streams of science and technology.

**PO3: Effective Communication:** Ability to articulate ideas, communicate effectively using current tools in the field of ICT along with effective report writing and documentation.

**PO4: Development of Skill and Attitude:** Enabling the students with the required skill, right attitude, time management and self discipline for prominent career in industry, research institutes and for further academic study.

**PO5: Life Long Learning and Social Responsibility:** Recognise the need and ability to engage in life long learning and work effectively as an individual and as a member of diverse team. Students get the ability to act with an informed awareness of issues to participate in civic life through volunteering.

**PROGRAMME SPECIFIC OUTCOME ( DEPARTMENT WISE) or PSOs**

PSO1: Formulate environment friendly innovative food products

PSO2.Acquire entrepreneurial skills and skill based knowledge in the field of food science and to establish a food service outlet

PSO3.Devise research strategies for empowering and promoting healthy living in the community

PSO4.Develop comprehensive and analytical skills to take up careers in academics, Food industry and health sectors

	<b>COURSE OUTCOMES</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>CO1</b>	Understanding about the levels of fermentation and its impact on food development.	II (UNDERSTAND)
<b>CO2</b>	To study the cell growth and product formation	IV(ANALYZE) I (REMEMBER)
<b>CO3</b>	To evaluate the kinetics and mechanism of microbial growth	IV(ANALYZE)
<b>CO4</b>	Highlights the application of fermentation in food technology industry	IV(ANALYZE)
<b>CO5</b>	Knowledge on purpose and functions of fermented foods	II (UNDERSTAND)

**Table 1: CO, PO, PSO MAPPING**

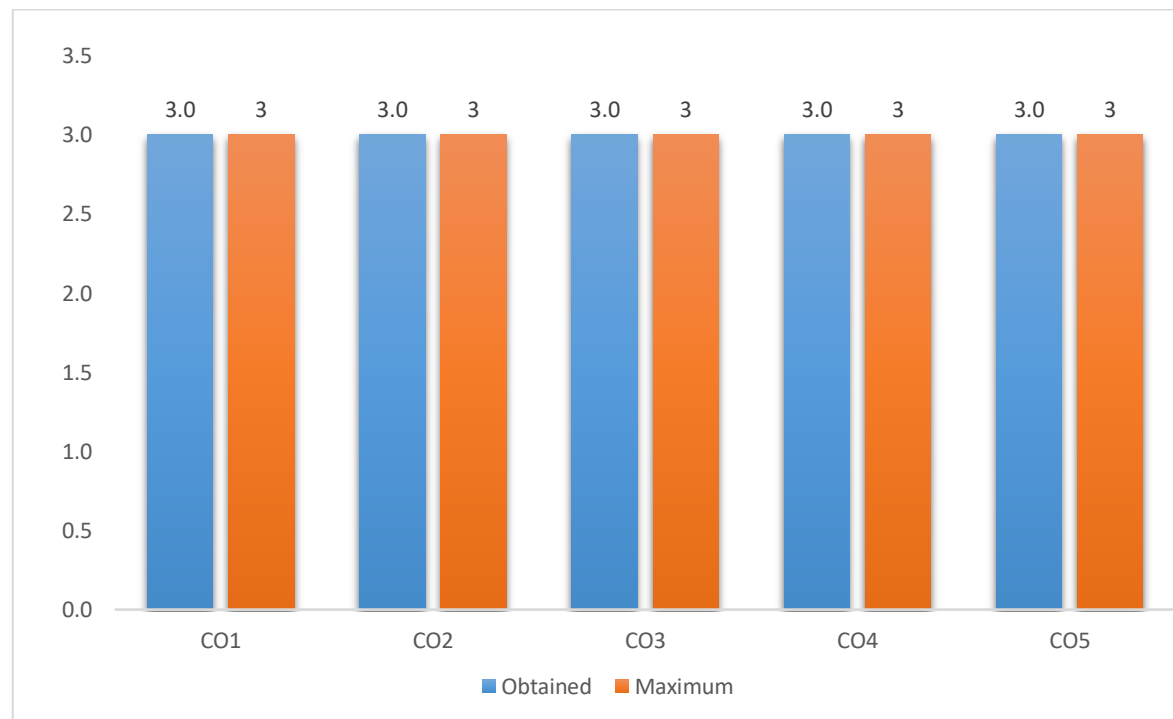
outcomes	PO1	PO2	PO3	PO4	PO5	PS01	PS02	PS03	PS04
<b>C01</b>	H		H						H
<b>C02</b>		H		S			S		H
<b>C03</b>	S			H					S
<b>C04</b>	H			H			H		
<b>C05</b>	H				H	S	H		

**H: Highly Supportive**

**S: Supportive**

**Table 2: COURSE OUTCOME ATTAINMENT**

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDANCE		co wise intern average
	pass%	Attainment level	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	100.0	3.0	3.0
CO2	100.0	3.0			100.0	3.0			100.0	3.0	100.0	3.0	3.0
CO3	100.0	3.0	100.0	3.0	100.0	3.0			100.0	3.0	100.0	3.0	3.0
CO4			100.0	3.0	100.0	3.0			100.0	3.0	100.0	3.0	3.0
CO5			100.0	3.0	100.0	3.0			100.0	3.0	100.0	3.0	3.0



**Table 3: PROGRAMME OUTCOME MAPPING**

OUTCOME	PO1	PO2	PO3	PO4	PO5
CO1	H 3		H 3		
CO2		H 3			
CO3				H 3	
CO4	H 3			H 3	
CO5	H 3				H 3
AVERAGE OF COS FOR POS	3	3	3	3	3
AVERAGE OF POS	3	3	3	3	3
AVERAGE	3				

## COURSE OUTCOME MAPPING

### MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

**COURSE TITLE: TECHNOLOGY OF FOOD PRESERVATION & PROCESSING**

**COURSE CODE:** MFT19102

**CREDITS:** 4

**DEPARTMENT:** M.SC FOOD TECHNOLOGY AND MANAGEMENT

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

**PO1: Scientific Knowledge:** Ability to build a strong foundation of knowledge, integrated with the latest developments in science and technology which help students develop critical thinking, reasoning, decision making in process of quality education.

**PO2: Problem Analysis:** Identify, formulate and analyse the complex scientific problems using the knowledge gained across various streams of science and technology.

**PO3: Effective Communication:** Ability to articulate ideas, communicate effectively using current tools in the field of ICT along with effective report writing and documentation.

**PO4: Development of Skill and Attitude:** Enabling the students with the required skill, right attitude, time management and self discipline for prominent career in industry, research institutes and for further academic study.

**PO5: Life Long Learning and Social Responsibility:** Recognise the need and ability to engage in life long learning and work effectively as an individual and as a member of diverse team. Students get the ability to act with an informed awareness of issues to participate in civic life through volunteering.

**PROGRAMME SPECIFIC OUTCOME ( DEPARTMENT WISE) or PSOs**

PSO1: Formulate environment friendly innovative food products

PSO2.Acquire entrepreneurial skills and skill based knowledge in the field of food science and to establish a food service outlet

PSO3.Devise research strategies for empowering and promoting healthy living in the community

PSO4.Develop comprehensive and analytical skills to take up careers in academics, Food industry and health sectors

	<b>COURSE OUTCOMES</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>CO1</b>	The basics of various food processing and preservation technologies.	II (UNDERSTAND)
<b>CO2</b>	Demonstrate an understanding of the principles and application of food processing and preservation technologies	IV(ANALYZE) I (REMEMBER)
<b>CO3</b>	Describe the technologies used to effect preservation	IV(ANALYZE)
<b>CO4</b>	Demonstrate an understanding of the basic unit and factory operations used in food processing.	IV(ANALYZE)
<b>CO5</b>	Evaluate processing technologies for their appropriate application	II (UNDERSTAND)

**Table 1: CO, PO, PSO MAPPING**

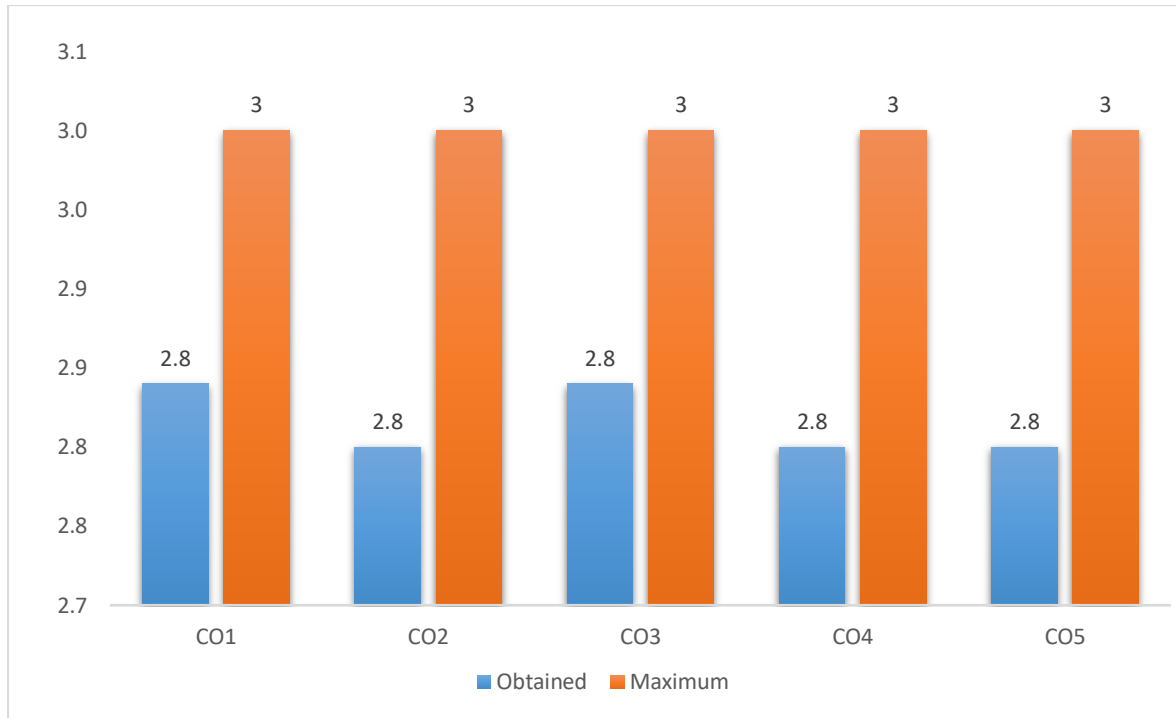
outcomes	PO1	PO2	PO3	PO4	PO5	PS01	PS02	PS03	PS04
<b>C01</b>	H		H						H
<b>C02</b>		H		S			S		H
<b>C03</b>	S			H					S
<b>C04</b>	H			H			H		
<b>C05</b>	H				H	S	H		

**H: Highly Supportive**

**S: Supportive**

**Table 2: COURSE OUTCOME ATTAINMENT**

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDENCE		co wise intern average
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	
CO1	91.4	3.0			97.1	3.0	100.0	3.0	97.1	3.0	74.3	1.0	2.6
CO2	91.4	3.0			97.1	3.0			97.1	3.0	74.3	1.0	2.5
CO3	91.4	3.0	97.1	3.0	97.1	3.0			97.1	3.0	74.3	1.0	2.6
CO4			97.1	3.0	97.1	3.0			97.1	3.0	74.3	1.0	2.5
CO5			97.1	3.0	97.1	3.0			97.1	3.0	74.3	1.0	2.5



**Table 3: PROGRAMME OUTCOME MAPPING**

OUTCOME	PO1	PO2	PO3	PO4	PO5
CO1	H 2.84		H 2.84		
CO2		H 2.8			
CO3				H 2.84	
CO4	H 2.8			H 2.8	
CO5	H 2.8				H 2.8
AVERAGE OF COS FOR POS	2.813333333	2.8	2.84	2.82	2.8
AVERAGE OF POS	2.804444	2.8	2.84	2.82	2.8
AVERAGE	2.812888889				

## COURSE OUTCOME MAPPING

### MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

**COURSE TITLE:** TECHNOLOGY OF SUGAR CONFECTIONARY & CHOCOLATE PROCESSING

**COURSE CODE:** MFT13302 (B)

**CREDITS:** 4

**DEPARTMENT:** M.SC FOOD TECHNOLOGY AND MANAGEMENT

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

**PO1: Scientific Knowledge:** Ability to build a strong foundation of knowledge, integrated with the latest developments in science and technology which help students develop critical thinking, reasoning, decision making in process of quality education.

**PO2: Problem Analysis:** Identify, formulate and analyse the complex scientific problems using the knowledge gained across various streams of science and technology.

**PO3: Effective Communication:** Ability to articulate ideas, communicate effectively using current tools in the field of ICT along with effective report writing and documentation.

**PO4: Development of Skill and Attitude:** Enabling the students with the required skill, right attitude, time management and self discipline for prominent career in industry, research institutes and for further academic study.

**PO5: Life Long Learning and Social Responsibility:** Recognise the need and ability to engage in life long learning and work effectively as an individual and as a member of diverse team. Students get the ability to act with an informed awareness of issues to participate in civic life through volunteering.

**PROGRAMME SPECIFIC OUTCOME ( DEPARTMENT WISE) or PSOs**

PSO1: Formulate environment friendly innovative food products

PSO2.Acquire entrepreneurial skills and skill based knowledge in the field of food science and to establish a food service outlet

PSO3.Devise research strategies for empowering and promoting healthy living in the community

PSO4.Develop comprehensive and analytical skills to take up careers in academics, Food industry and health sectors

	<b>COURSE OUTCOMES</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>CO1</b>	knowledge about the role of confectionery industry	II (UNDERSTAND)
<b>CO2</b>	learn the processing techniques of several Indian confectioneries.	IV(ANALYZE) I (REMEMBER)
<b>CO3</b>	Lists the characteristics and functions of each ingredients used.	IV(ANALYZE)
<b>CO4</b>	Study includes preparation of candies, toffees, chocolates.	IV(ANALYZE)
<b>CO5</b>	Demonstrate working knowledge of Chocolate and Sugar confectionery.	II (UNDERSTAND)

**Table 1: CO, PO, PSO MAPPING**

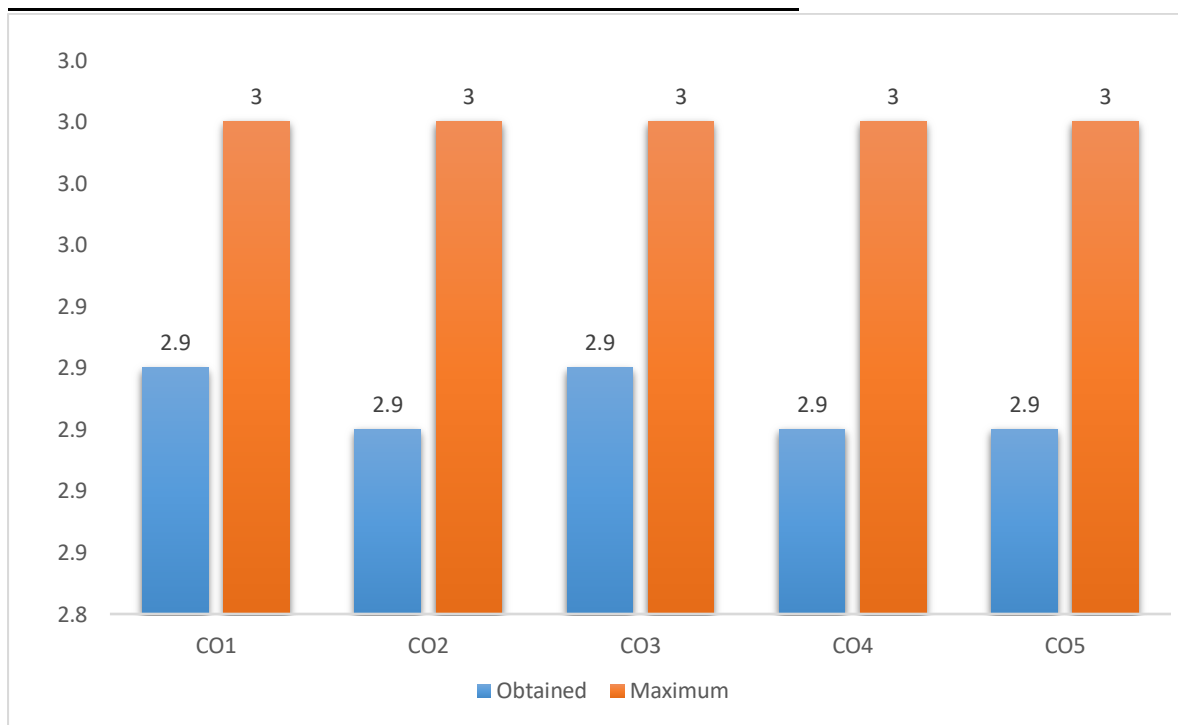
outcomes	PO1	PO2	PO3	PO4	PO5	PS01	PS02	PS03	PS04
<b>C01</b>	H		H						H
<b>C02</b>		H		S			S		H
<b>C03</b>	S			H					S
<b>C04</b>	H			H			H		
<b>C05</b>	H				H	S	H		

**H: Highly Supportive**

**S: Supportive**

**Table 2: COURSE OUTCOME ATTAINMENT**

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDENCE		co wise intern average
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	
CO1	92.3	3.0			100.0	3.0	100.0	3.0	100.0	3.0	84.6	2.0	2.8
CO2	92.3	3.0			100.0	3.0			100.0	3.0	84.6	2.0	2.8
CO3	92.3	3.0	100.0	3.0	100.0	3.0			100.0	3.0	84.6	2.0	2.8
CO4			100.0	3.0	100.0	3.0			100.0	3.0	84.6	2.0	2.8
CO5			100.0	3.0	100.0	3.0			100.0	3.0	84.6	2.0	2.8



**Table 3: PROGRAMME OUTCOME MAPPING**

OUTCOME	PO1	PO2	PO3	PO4	PO5
CO1	H 2.92		H 2.92		
CO2		H 2.9			
CO3				H 2.92	
CO4	H 2.9			H 2.9	
CO5	H 2.9				H 2.9
AVERAGE OF COS FOR POS	2.906666667	2.9	2.92	2.91	2.9
AVERAGE OF POS	2.902222	2.9	2.92	2.91	2.9
AVERAGE	2.906444444				

## COURSE OUTCOME MAPPING

### MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

**COURSE TITLE: INSTRUMENTAL METHODS OF FOOD ANALYSIS**

**COURSE CODE: MFT13205**

**CREDITS: 4**

**DEPARTMENT: M.SC FOOD TECHNOLOGY AND MANAGEMENT**

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

PO1: **Scientific Knowledge:** Ability to build a strong foundation of knowledge, integrated with the latest developments in science and technology which help students develop critical thinking, reasoning, decision making in process of quality education.

PO2: **Problem Analysis:** Identify, formulate and analyse the complex scientific problems using the knowledge gained across various streams of science and technology.

PO3: **Effective Communication:** Ability to articulate ideas, communicate effectively using current tools in the field of ICT along with effective report writing and documentation.

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PO5: **Life Long Learning and Social Responsibility:** Recognise the need and ability to engage in life long learning and work effectively as an individual and as a member of diverse team. Students get the ability to act with an informed awareness of issues to participate in civic life through volunteering.

**PROGRAMME SPECIFIC OUTCOME ( DEPARTMENT WISE) or PSOs**

PSO1: Formulate environment friendly innovative food products

PSO2. Acquire entrepreneurial skills and skill based knowledge in the field of food science and to establish a food service outlet

PSO3. Devise research strategies for empowering and promoting healthy living in the community

PSO4. Develop comprehensive and analytical skills to take up careers in academics, Food industry and health sectors

	<b>COURSE OUTCOMES</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>CO1</b>	Explain the calibration and standardization of different instruments	I (REMEMBER)
<b>CO2</b>	Analyse different spectroscopic and Refractometric techniques	IV (ANALYZE)
<b>CO3</b>	Distinguish various microscopic techniques in food analysis	II (UNDERSTAND)
<b>CO4</b>	Distinguish various chromatographic techniques in food analysis	II (UNDERSTAND)
<b>CO5</b>	Generalize various Separation techniques in food analysis	IV (ANALYZE)

**Table 1: CO, PO, PSO MAPPING**

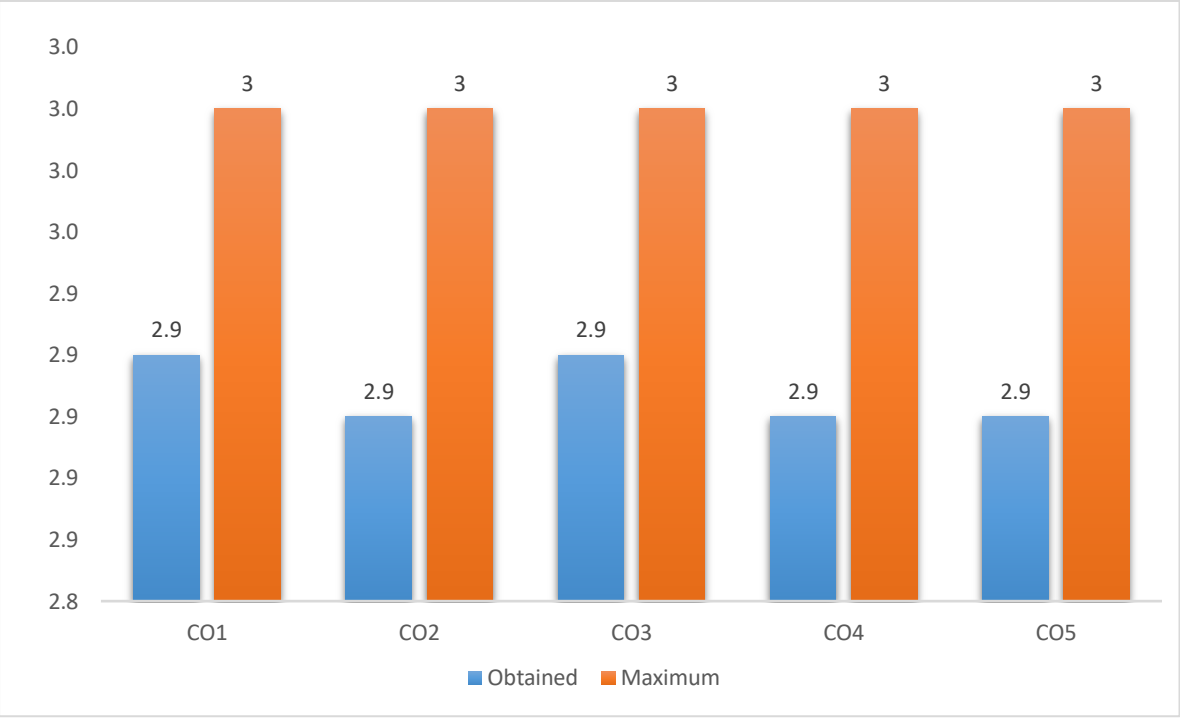
outcomes	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4
C01	H				S			S	H
C02		H		H				H	
C03	H		S				H		
C04	H			H				H	
C05		H				S			H

**H: Highly Supportive**

**S:supportive**

**Table 2: COURSE OUTCOME ATTAINMENT**

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDENCE		co wise intern average
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	
CO1	88.6	3.0			100.0	3.0	100.0	3.0	100.0	3.0	80.0	2.0	2.8
CO2	88.6	3.0			100.0	3.0			100.0	3.0	80.0	2.0	2.8
CO3	88.6	3.0	100.0	3.0	100.0	3.0			100.0	3.0	80.0	2.0	2.8
CO4			100.0	3.0	100.0	3.0			100.0	3.0	80.0	2.0	2.8
CO5			100.0	3.0	100.0	3.0			100.0	3.0	80.0	2.0	2.8



**Table 3: PROGRAMME OUTCOME MAPPING**

OUTCOME	PO1		PO2		PO3		PO4		PO5		PO6		PO7	
CO1	H	2.92												
CO2			H	2.9			H	2.9						
CO3	H	2.92											H	2.92
CO4	H	2.9					H	2.9						
CO5			H	2.9										
AVERAGE OF COS FOR POS	2.913333333		2.9				2.9						2.92	
AVERAGE OF POS		2.911111		2.9				2.9						2.92
AVERAGE		2.906222222												



## COURSE OUTCOME MAPPING

### MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

**COURSE TITLE: TECHNOLOGY OF CEREALS & MILLING (LAB)**

**COURSE CODE: MFT19208**

**CREDITS: 2**

**DEPARTMENT: M.SC FOOD TECHNOLOGY AND MANAGEMENT**

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

PO1: **Scientific Knowledge:** Ability to build a strong foundation of knowledge, integrated with the latest developments in science and technology which help students develop critical thinking, reasoning, decision making in process of quality education.

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**PROGRAMME SPECIFIC OUTCOME ( DEPARTMENT WISE) or PSOs**

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	<b>COURSE OUTCOMES</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>CO1</b>	<b>Describe</b> the general technical aspects of confectionery and its raw materials	I (REMEMBER)
<b>CO2</b>	<b>Identify</b> the Manufacturing practices of flour	IV (ANALYZE)
<b>CO3</b>	<b>Identify</b> the Manufacturing practices of sugar confectionery products	IV (ANALYZE)
<b>CO4</b>	<b>Identify</b> the Manufacturing practices of Fruit confectionery products	IV (ANALYZE)
<b>CO5</b>	<b>Explain</b> the chocolate processing technology	II (UNDERSTAND)

**Table 1: CO, PO, PSO MAPPING**

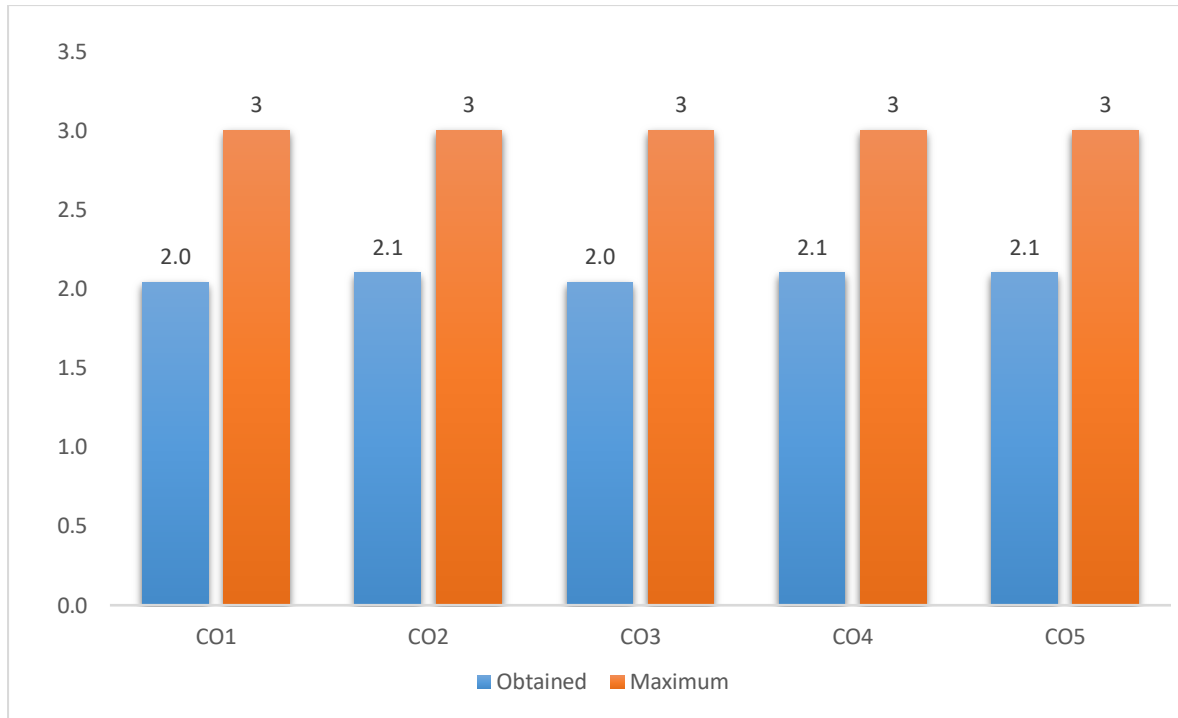
outcomes	PO1	PO2	PO3	PO4	PO5	PS01	PS02	PS03	PS04
C01	H			S		H		S	
C02	H			S		H		S	
C03		H	H				H		
C04				H	S				H
C05	H			S					H

**H: Highly Supportive**

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**Table 2: COURSE OUTCOME ATTAINMENT**

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDENCE	
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level
C01	0.0	0.0			100.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0
C02	0.0	0.0			100.0	3.0			0.0	0.0	0.0	0.0
C03	0.0	0.0	0.0	0.0	100.0	3.0			0.0	0.0	0.0	0.0
C04			0.0	0.0	100.0	3.0			0.0	0.0	0.0	0.0
C05			0.0	0.0	100.0	3.0			0.0	0.0	0.0	0.0



**Table 3: PROGRAMME OUTCOME MAPPING**

OUTCOME	PO1		PO2		PO3		PO4		PO5	
CO1	H	2.04								
CO2	H	2.1								
CO3			H	2.04	H	2.04				
CO4							H	2.1		
CO5	H	2.1								
AVERAGE OF COS FOR POS	2.08		2.04		2.04		2.1			
AVERAGE OF POS		2.093333		2.04		2.04		2.1		
AVERAGE	2.068333333									



## COURSE OUTCOME MAPPING

### MAPPING COURSE OUTCOMES LEADING TO THE ATTAINMENT OF PROGRAM OUTCOMES:

**COURSE TITLE:** TECHNOLOGY OF ANIMAL BASED & FOOD PRODUCTS (THEORY)

**COURSE CODE:** MFT13104

**CREDITS:** 4

**DEPARTMENT:** M.SC FOOD TECHNOLOGY AND MANAGEMENT

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

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	<b>COURSE OUTCOMES</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>CO1</b>	Understand the technology for raw material characteristics, handling, processing, and preservation.	II (UNDERSTAND)
<b>CO2</b>	Grasp by-product utilization of meat, poultry, fish and egg products.	IV(ANALYZE) I (REMEMBER)
<b>CO3</b>	Apprehend the hygiene, sanitation and mechanized practices of meat, fish, poultry and egg industry	IV(ANALYZE)
<b>CO4</b>	Comprehend the food standards in relation to these food commodities. Prepare various value-added products	IV(ANALYZE)
<b>CO5</b>	Perceive the knowledge regarding transportation and storage practices.	II (UNDERSTAND)

**Table 1: CO, PO, PSO MAPPING**

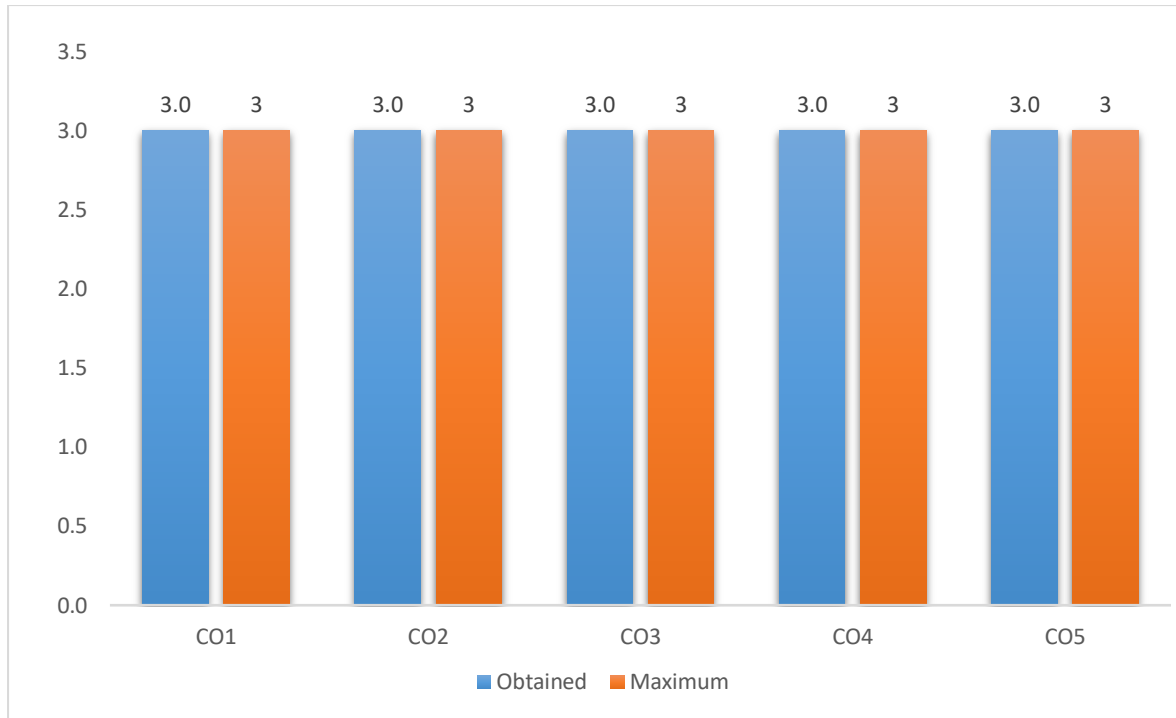
outcomes	PO1	PO2	PO3	PO4	PO5	PS01	PS02	PS03	PS04
C01	H		H						H
C02		H		S			S		H
C03	S			H					S
C04	H			H			H		
C05	H				H	S	H		

**H: Highly Supportive**

**S: Supportive**

**Table 2: COURSE OUTCOME ATTAINMENT**

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDENCE		co wise intern average
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	
C01	97.1	3.0			100.0	3.0	100.0	3.0	100.0	3.0	85.7	3.0	3.0
C02	97.1	3.0			100.0	3.0			100.0	3.0	85.7	3.0	3.0
C03	97.1	3.0	97.1	3.0	100.0	3.0			100.0	3.0	85.7	3.0	3.0
C04			97.1	3.0	100.0	3.0			100.0	3.0	85.7	3.0	3.0
C05			97.1	3.0	100.0	3.0			100.0	3.0	85.7	3.0	3.0



**Table 3: PROGRAMME OUTCOME MAPPING**

OUTCOME	PO1	PO2	PO3	PO4	PO5
CO1	H 3		H 3		
CO2		H 3			
CO3				H 3	
CO4	H 3			H 3	
CO5	H 3				H 3
AVERAGE OF COS FOR POS	3	3	3	3	3
AVERAGE OF POS	3	3	3	3	3
AVERAGE	3				