

## **COURSE OUTCOME MAPPING**

**2022-2024**

**SEMESTER I**

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

<p><b>COURSE TITLE: Bakery Science</b></p> <p><b>COURSE CODE: MFSN20102</b></p> <p><b>CREDITS: 5</b></p>
<p><b>DEPARTMENT: M.Sc. FOOD SCIENCE AND NUTRITION</b></p>
<p><b>PROGRAMME OUTCOMES Or POS(MDS):</b></p> <p><b>PROGRAM OBJECTIVES (POs)</b> <b>PO 1:</b> Scientific Knowledge <b>PO 2:</b> Problem analysis <b>PO 3:</b> Effective Communication <b>PO 4:</b> Development of skill and attitude <b>PO5:</b> Lifelong learning and social responsibility</p>
<p><b>PROGRAMME SPECIFIC OUTCOME:</b></p> <p><b>PROGRAM SPECIFIC OUTCOMES (PSOs)</b> <b>PSO1:</b> Understand the concept of food science , nutrition and dietetics. <b>PSO2:</b> Analyze the relationships between various nutrients and physiological disorders and various diet therapies. <b>PSO3:</b> Apply the knowledge of processing and preservation techniques in increasing the shelf life of food products <b>PSO4:</b> Combine the knowledge of food science nutrition and dietetics ro overcome food wastage, mal nutrition and lifestyle disorders <b>PSO5:</b> To enable the students to develop skills in planning, calculating, modifying the nutrient requirements and in preparation of therapeutic diets <b>PSO6:</b> understanding of novel and innovative food sciences and emerging technologies to acquire skills in diet counseling and feeding of patients.</p>

	<b>COURSE OUTCOMES</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>CO1</b>	Introduction to bakery	II (UNDERSTAND)
<b>CO2</b>	Biscuits and cookies	II (APPLY)
<b>CO3</b>	Cakes	IV (EVALUATE)
<b>CO4</b>	Pastry	III (CREATE )
<b>CO5</b>	Bakery products- standards and quality control	IV (ANALYZE)

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

outcomes	PO1	PO2	PO3	PO4	PO5	PS01	PSO2	PS03	PSO4	PSO5	PSO6	PSO7	PSO8
C01	H	H	S	S				S	H	S	S	H	H
C02	H	H	S	H		H	H	S	H	H	S	H	H
C03	H	H	S	H	S	S	H	S	H	H	S	S	H
C04	H	H	S	S		S			H	S		S	H
C05	H	H	S	H		S	H	H	H	S		S	S

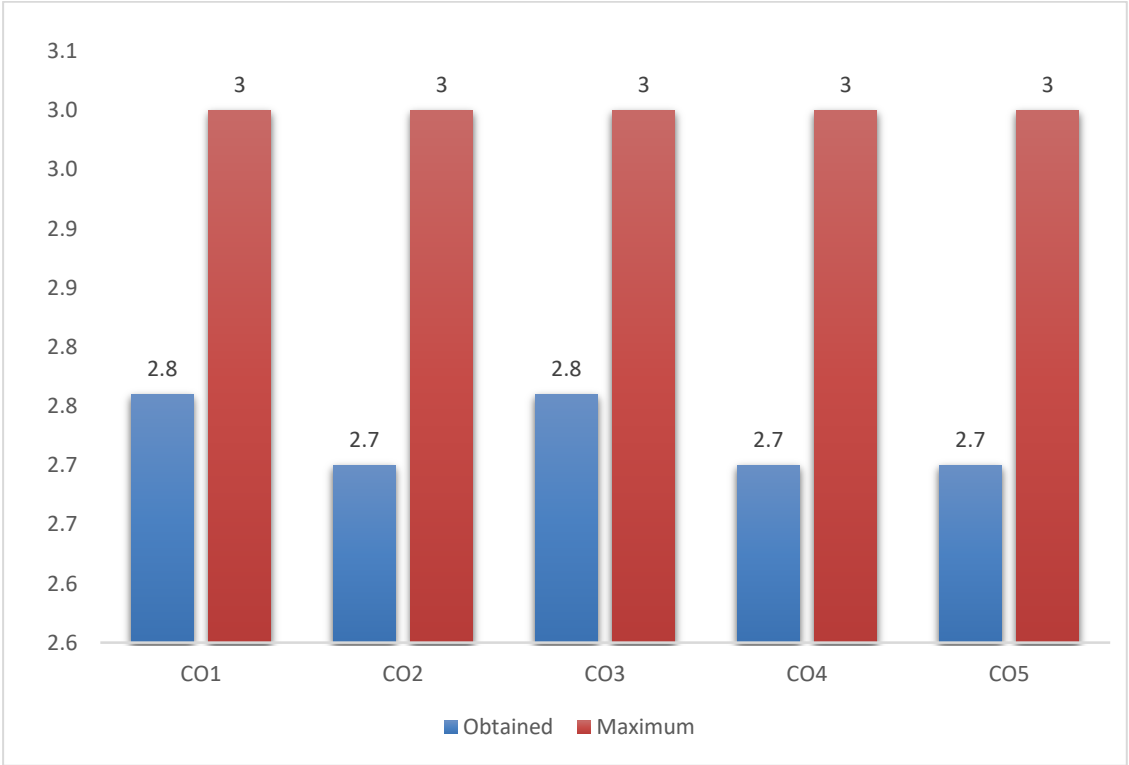
H: Highly Supportive

S: Supportive

**Table 2: COURSE OUTCOME ATTAINMENT**

co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendance		co wise internal average	External Exam			co wise total average
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level		pass%	Attainment level	co wise external average	
CO1	100.0	3.0			88.2	3.0	100.0	3.0	100.0	3.0	47.1	0.0	2.4	97.1	3.0	3.0	2.8
CO2	100.0	3.0			88.2	3.0			100.0	3.0	47.1	0.0	2.3	97.1	3.0	3.0	2.7
CO3	100.0	3.0	100.0	3.0	88.2	3.0			100.0	3.0	47.1	0.0	2.4	97.1	3.0	3.0	2.8
CO4			100.0	3.0	88.2	3.0			100.0	3.0	47.1	0.0	2.3	97.1	3.0	3.0	2.7
CO5			100.0	3.0	88.2	3.0			100.0	3.0	47.1	0.0	2.3	97.1	3.0	3.0	2.7

AVERAGE	AVERAGE
3	2.724



**Table 3: PROGRAMME OUTCOME MAPPING**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 2.76	H 2.76			H 2.76	H 2.76		
CO2	H 2.7	H 2.7			H 2.7	H 2.7		H 2.7
CO3	H 2.76			H 2.76	H 2.76	H 2.76	H 2.76	H 2.76
CO4	H 2.7			H 2.7	H 2.7	H 2.7		H 2.7
CO5	H 2.7	H 2.7		H 2.7	H 2.7	H 2.7	H 2.7	H 2.7
AVERAGE OF COS FOR POS	2.724	2.72		2.72	2.724	2.724	2.73	
AVERAGE OF POS	2.7168	2.706667		2.72	2.7168	2.7168	2.73	2.715
AVERAGE	2.717438095							

**RESULT ANALYSIS: The Total CO attainment of the course is good.**

**COURSE OUTCOME MAPPING**  
**2022-2024**

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

**COURSE TITLE: Human Physiology**

**COURSE CODE: MFSN20103**

**CREDITS: 5**

**DEPARTMENT: M.Sc. FOOD SCIENCE AND NUTRITION**

**PROGRAMME OUTCOMES Or POS(MDS):**

**PROGRAM OBJECTIVES (POs)**

**PO 1:** Scientific Knowledge

**PO 2:** Problem analysis

**PO 3:** Effective Communication

**PO 4:** Development of skill and attitude

**PO5:** Lifelong learning and social responsibility

**PROGRAMME SPECIFIC OUTCOME:**

**PROGRAM SPECIFIC OUTCOMES (PSOs)**

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

**PSO2:** Analyze 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 ro overcome food wastage, mal nutrition and lifestyle disorders

**PSO5:** To enable the students to develop skills in planning, calculating, modifying the nutrient requirements and in preparation of therapeutic diets

**PSO6:** understanding of novel and innovative food sciences and emerging technologies to acquire skills in diet counseling and feeding of patients.

	<b>COURSE OUTCOMES</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>CO1</b>	Blood and Cardio-thoracic physiology	II (UNDERSTAND)
<b>CO2</b>	Excretory Physiology	II (UNDERSTAND)
<b>CO3</b>	Gastro- intestinal Physiology	IV (APPLY)
<b>CO4</b>	Neuro- endocrine physiology	III (ANALYSE)
<b>CO5</b>	Reproductive Physiology	IV (ANALYZE)

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

outcomes	PO1	PO2	PO3	PO4	PO5	PS01	PSO2	PS03	PSO4	PSO5	PSO6	PSO7	PSO8
C01	H	H	S	S				S	H	S	S	H	H
C02	H	H	S	H		H	H	S	H	H	S	H	H
C03	H	H	S	H	S	S	H	S	H	H	S	S	H
C04	H	H	S	S		S			H	S		S	H
C05	H	H	S	H		S	H	H	H	S		S	S

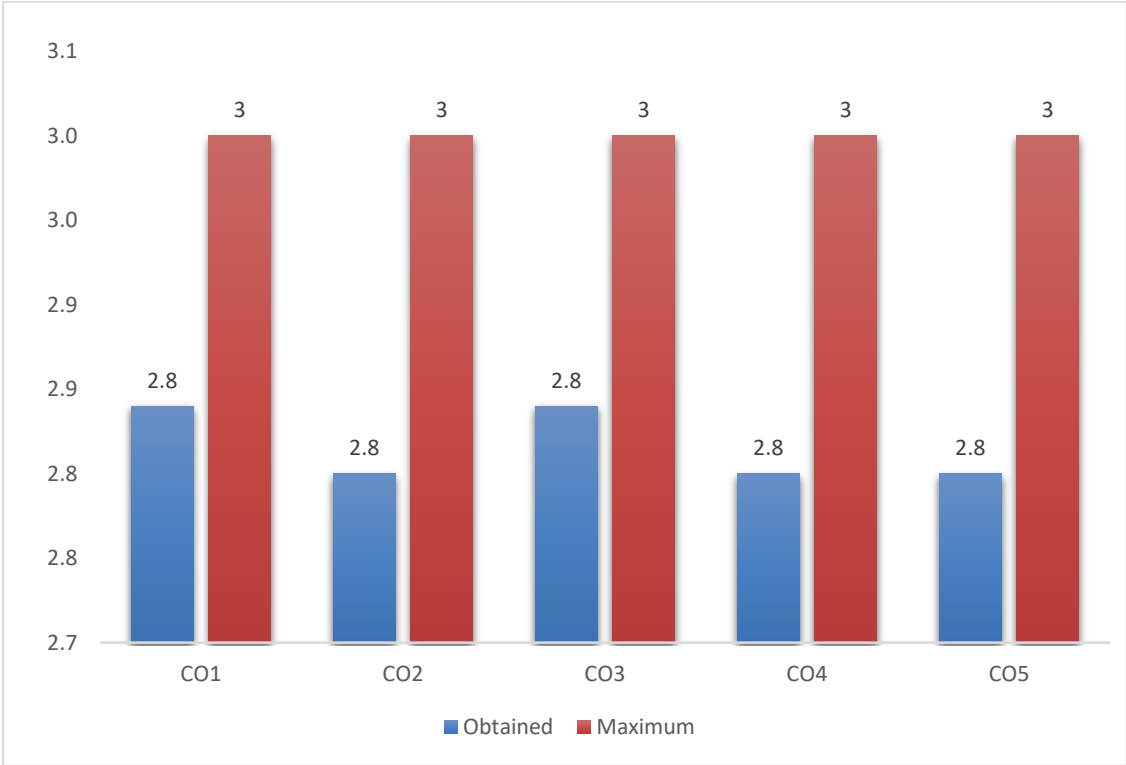
H: Highly Supportive

S: Supportive

**Table 2: COURSE OUTCOME ATTAINMENT**

co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendance		co wise internal average	External Exam		co wise total average	
	pass%	Attainment level	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	72.7	1.0	2.6	93.9	3.0	3.0	2.8
CO2	100.0	3.0			100.0	3.0			100.0	3.0	72.7	1.0	2.5	93.9	3.0	3.0	2.8
CO3	100.0	3.0	97.0	3.0	100.0	3.0			100.0	3.0	72.7	1.0	2.6	93.9	3.0	3.0	2.8
CO4			97.0	3.0	100.0	3.0			100.0	3.0	72.7	1.0	2.5	93.9	3.0	3.0	2.8
CO5			97.0	3.0	100.0	3.0			100.0	3.0	72.7	1.0	2.5	93.9	3.0	3.0	2.8

AVERAGE	AVERAGE
3	2.816



**Table 3: PROGRAMME OUTCOME MAPPING**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 2.84	H 2.84		H 2.84	H 2.84		H 2.84	
CO2	H 2.8	H 2.8			H 2.8		H 2.8	
CO3	H 2.84	H 2.84			H 2.84	H 2.84	H 2.84	
CO4	H 2.8			H 2.8	H 2.8	H 2.8	H 2.8	
CO5	H 2.8			H 2.8	H 2.8	H 2.8	H 2.8	
AVERAGE OF COS FOR POS	2.816	2.826666667		2.813333333	2.816	2.813333333	2.816	
AVERAGE OF POS	2.8112	2.822222		2.804444	2.8112	2.813333	2.8112	
AVERAGE	2.812266667							

**RESULT ANALYSIS: The Total CO attainment of the course is good.**

## **COURSE OUTCOME MAPPING**

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

**COURSE TITLE: PRINCIPLES OF FOOD SCIENCE**

**COURSE CODE: MFSN20104**

**CREDITS: 4**

**DEPARTMENT: M.Sc. FOOD SCIENCE AND NUTRITION**

**PROGRAMME OUTCOMES Or POS(MDS):**

**PROGRAM OBJECTIVES (POs)**

**PO 1:** Scientific Knowledge

**PO 2:** Problem analysis

**PO 3:** Effective Communication

**PO 4:** Development of skill and attitude

**PO5:** Lifelong learning and social responsibility.

**PROGRAMME SPECIFIC OUTCOME:**

**PROGRAM SPECIFIC OUTCOMES (PSOs)**

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

**PSO2:** Analyze 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 ro overcome food wastage, mal nutrition and lifestyle disorders

**PSO5:** To enable the students to develop skills in planning, calculating, modifying the nutrient requirements and in preparation of therapeutic diets

**PSO6:** understanding of novel and innovative food sciences and emerging technologies to acquire skills in diet counseling and feeding of patients

	<b>COURSE OUTCOMES</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>CO1</b>	Food Chemistry	II (UNDERSTAND)
<b>CO2</b>	Food Components	II (EVALUATE )
<b>CO3</b>	Basic Concepts of new products development	IV (ANALYZE)
<b>CO4</b>	Food ingredients and additives	III (APPLY)
<b>CO5</b>	Food ingredients and additives	IV (ANALYZE)

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

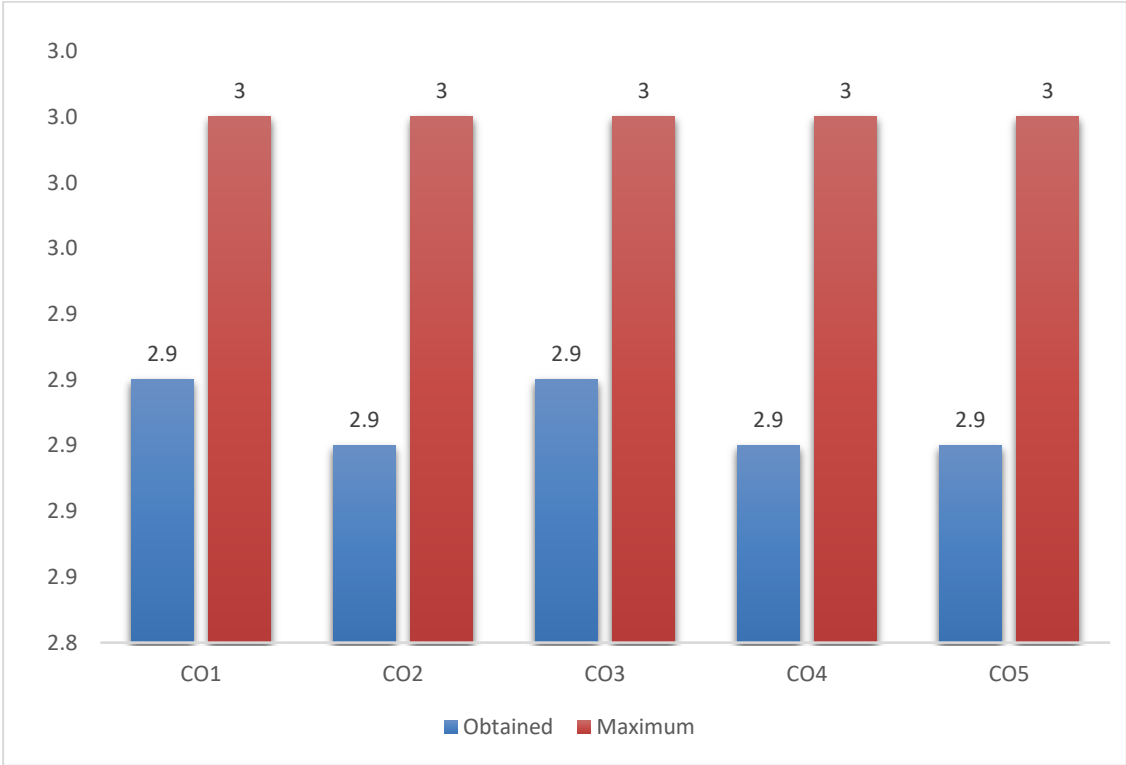
outcomes	PO1	PO2	PO3	PO4	PO5	PS01	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
C01	H	H		S		H	H	H	S	H	H	S	S
C02	H	H		S		H	H	H	S	H	H	S	H
C03	H	H		S		H	H	H	S	H	H	H	H
C04	H	H		S		H	H	H	S	H	H	S	H
C05	H	H		S		H	H	H	S	H	H	S	S

H: Highly Supportive  
S: Supportive

**Table 2: COURSE OUTCOME ATTAINMENT**

co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendance		co wise internal average	External Exam		co wise total average	
	pass%	Attainment level	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	75.8	2.0	2.8	90.9	3.0	3.0	2.9
CO2	100.0	3.0			100.0	3.0			100.0	3.0	75.8	2.0	2.8	90.9	3.0	3.0	2.9
CO3	100.0	3.0	100.0	3.0	100.0	3.0			100.0	3.0	75.8	2.0	2.8	90.9	3.0	3.0	2.9
CO4			100.0	3.0	100.0	3.0			100.0	3.0	75.8	2.0	2.8	90.9	3.0	3.0	2.9
CO5			100.0	3.0	100.0	3.0			100.0	3.0	75.8	2.0	2.8	90.9	3.0	3.0	2.9

AVERAGE	AVERAGE
3	2.908



**Table 3: PROGRAMME OUTCOME MAPPING**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 2.92	H 2.92		H 2.92		H 2.92		
CO2	H 2.9	H 2.9		H 2.9		H 2.9		H 2.9
CO3	H 2.92	H 2.92		H 2.92		H 2.92		H 2.92
CO4	H 2.9	H 2.9		H 2.9		H 2.9		H 2.9
CO5	H 2.9	H 2.9		H 2.9		H 2.9		H 2.9
AVERAGE OF COS FOR POS	2.908	2.908		2.908		2.908		
AVERAGE OF POS	2.9056	2.9056		2.9056		2.9056		2.905
AVERAGE	2.90548							

**RESULT ANALYSIS: The Total CO attainment of the course is good.**

## **COURSE OUTCOME MAPPING**

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

<p><b>COURSE TITLE: ADVANCED NUTRITIONAL BIOCHEMISTRY AND INSTRUMENTATION</b></p> <p><b>COURSE CODE: MFSN20105</b></p> <p><b>CREDITS: 4</b></p> <p><b>DEPARTMENT: M.Sc. FOOD SCIENCE AND NUTRITION</b></p>
<p><b>PROGRAMME OUTCOMES Or POS(MDS):</b></p> <p><b>PROGRAM OBJECTIVES (POs)</b> <b>PO 1:</b> Scientific Knowledge <b>PO 2:</b> Problem analysis <b>PO 3:</b> Effective Communication <b>PO 4:</b> Development of skill and attitude <b>PO5:</b> Lifelong learning and social responsibility.</p>
<p><b>PROGRAMME SPECIFIC OUTCOME:</b></p> <p><b>PROGRAM SPECIFIC OUTCOMES (PSOs)</b> <b>PSO1:</b> Understand the concept of food science , nutrition and dietetics. <b>PSO2:</b> Analyze the relationships between various nutrients and physiological disorders and various diet therapies. <b>PSO3:</b> Apply the knowledge of processing and preservation techniques in increasing the shelf life of food products <b>PSO4:</b> Combine the knowledge of food science nutrition and dietetics ro overcome food wastage, mal nutrition and lifestyle disorders <b>PSO5:</b> To enable the students to develop skills in planning, calculating, modifying the nutrient requirements and in preparation of therapeutic diets <b>PSO6:</b> understanding of novel and innovative food sciences and emerging technologies to acquire skills in diet counseling and feeding of patients</p>

	<b>COURSE OUTCOMES</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>CO1</b>	Carbohydrates lipids and their regulation	II (UNDERSTAND)
<b>CO2</b>	proteins	II (UNDERSTAND)
<b>CO3</b>	Nucleotides and nucleic acids	IV (APPLY)
<b>CO4</b>	Hormones	III (ANALYSE)
<b>CO5</b>	Instrumentation in nutritional biochemistry	IV (EVALUATE)

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

outcomes	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
C01	H	H		S		H	S	H	S	S	H	H	H
C02	H	H		S		H	H	H	S	S	H	H	H
C03	H	H		S		H	H	H	S	S	H	S	H
C04	H	H		S		H	S	H	S	S	H	S	H
C05	H	H		S		H	H	H	S	S	H	S	S

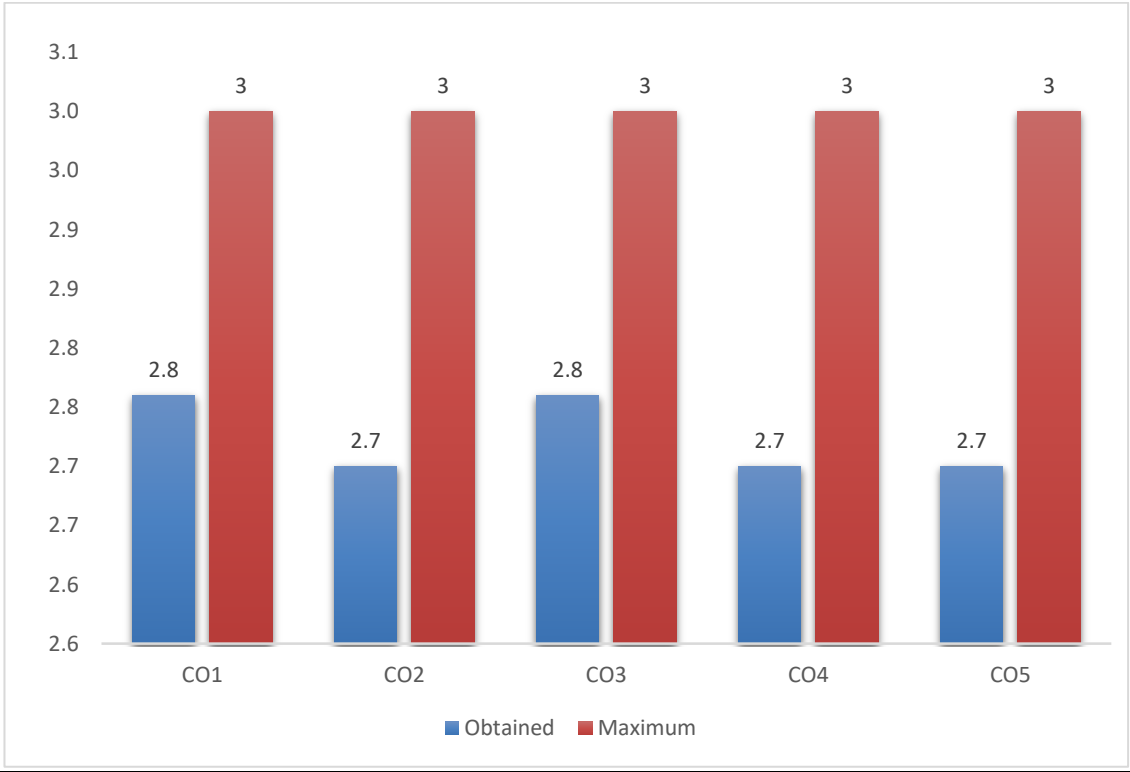
H: Highly Supportive  
S: Supportive

**Table 2: COURSE OUTCOME ATTAINMENT**

co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendance		co wise internal average	External Exam			co wise total average
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level		pass%	Attainment level	co wise external average	
CO1	97.0	3.0			90.9	3.0	100.0	3.0	100.0	3.0	54.5	0.0	2.4	90.9	3.0	3.0	2.8
CO2	97.0	3.0			90.9	3.0			100.0	3.0	54.5	0.0	2.3	90.9	3.0	3.0	2.7
CO3	97.0	3.0	100.0	3.0	90.9	3.0			100.0	3.0	54.5	0.0	2.4	90.9	3.0	3.0	2.8
CO4			100.0	3.0	90.9	3.0			100.0	3.0	54.5	0.0	2.3	90.9	3.0	3.0	2.7
CO5			100.0	3.0	90.9	3.0			100.0	3.0	54.5	0.0	2.3	90.9	3.0	3.0	2.7

□

AVERAGE	AVERAGE
3	2.724



**Table 3: PROGRAMME OUTCOME MAPPING**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6
CO1	H 2.76	H 2.76		H 2.76		H 2.76
CO2	H 2.7	H 2.7		H 2.7		H 2.7
CO3	H 2.76	H 2.76		H 2.76		H 2.76
CO4	H 2.7	H 2.7		H 2.7		H 2.7
CO5	H 2.7	H 2.7		H 2.7		H 2.7
AVERAGE OF COS FOR POS	2.724	2.724		2.724		2.724
AVERAGE OF POS	2.7168	2.7168		2.7168		2.7168
AVERAGE	2.7168					

**RESULT ANALYSIS:** The Total CO attainment of the course is good.

## **COURSE OUTCOME MAPPING**

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

<p><b>COURSE TITLE: ADVANCED HUMAN NUTRITION</b></p> <p><b>COURSE CODE: MFSN20106</b></p> <p><b>CREDITS: 4</b></p>
<p><b>DEPARTMENT: M.Sc. FOOD SCIENCE AND NUTRITION</b></p>
<p><b>PROGRAMME OUTCOMES Or POS(MDS):</b></p> <p><b>PROGRAM OBJECTIVES (POs)</b> <b>PO 1:</b> Scientific Knowledge <b>PO 2:</b> Problem analysis <b>PO 3:</b> Effective Communication <b>PO 4:</b> Development of skill and attitude <b>PO5:</b> Lifelong learning and social responsibility.</p>
<p><b>PROGRAMME SPECIFIC OUTCOME:</b></p> <p><b>PROGRAM SPECIFIC OUTCOMES (PSOs)</b> <b>PSO1:</b> Understand the concept of food science , nutrition and dietetics. <b>PSO2:</b> Analyze the relationships between various nutrients and physiological disorders and various diet therapies. <b>PSO3:</b> Apply the knowledge of processing and preservation techniques in increasing the shelf life of food products <b>PSO4:</b> Combine the knowledge of food science nutrition and dietetics ro overcome food wastage, mal nutrition and lifestyle disorders <b>PSO5:</b> To enable the students to develop skills in planning, calculating, modifying the nutrient requirements and in preparation of therapeutic diets <b>PSO6:</b> understanding of novel and innovative food sciences and emerging technologies to acquire skills in diet counseling and feeding of patients</p>

	<b>COURSE OUTCOMES</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>CO1</b>	Human Nutrient Requirements- Macronutrients	II (UNDERSTAND)
<b>CO2</b>	Human Nutrient Requirements- Micronutrients.	II (UNDERSTAND)
<b>CO3</b>	Nutrition in special Conditions	IV (ANALYZE AND APPLY)
<b>CO4</b>	Interactions of nutrition, immunity and infection and emerging concepts	III (APPLY AND ANALYSE)
<b>CO5</b>	Improving nutritional Quality of diets	IV (ANALYSE AND EVALUATE)

**TABLE 1: OF CO, PO, PSO MAPPING**

outcomes	PO1	PO2	PO3	PO4	PO5	PS01	PSO2	PS03	PSO4	PSO5	PSO6	PSO7	PSO8
C01	H	H		S	S	H	S		H	H	H	H	H
C02	H	S		S	S	H	H		H	H	H	H	S
C03	H	S		S	S	H	H		H	H	H	S	H
C04	H	S		S	S	H	S		H	H	H	H	H
C05	H	S		S	S	H	H		H	H	H	H	S

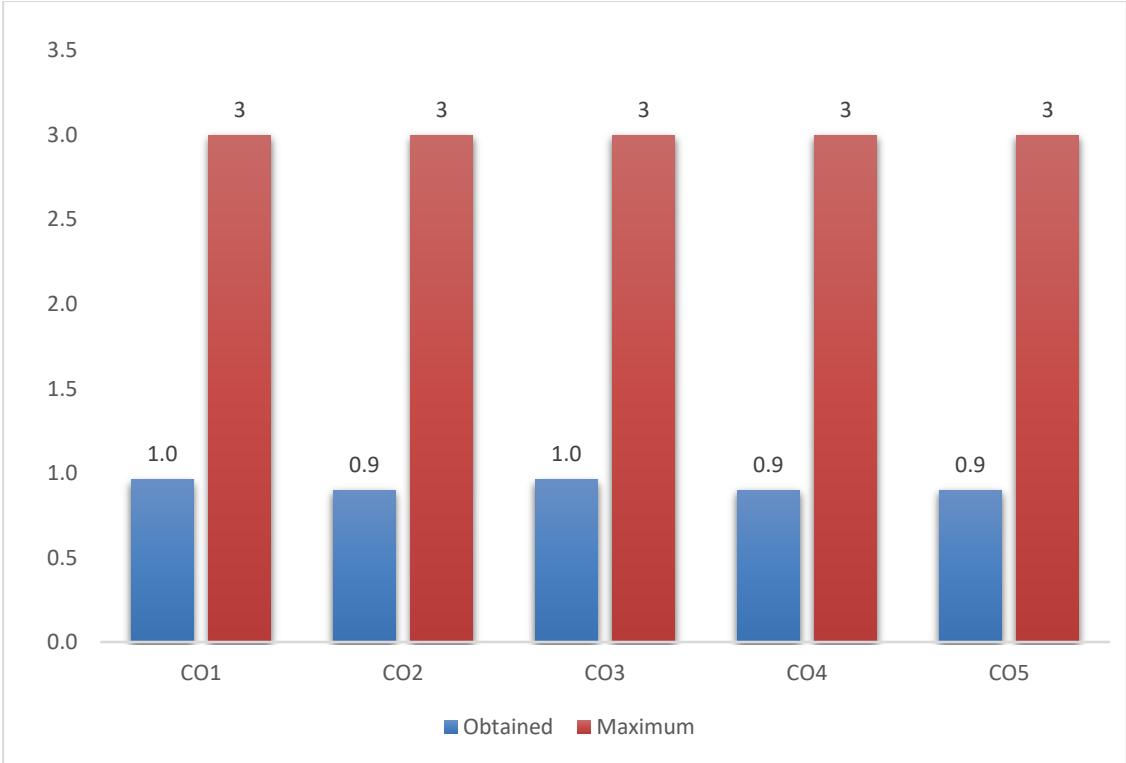
H: Highly Supportive

S: Supportive

**Table 2: COURSE OUTCOME ATTAINMENT**

co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendance		co wise internal average	External Exam		co wise external average	co wise total average
	pass%	Attainment level	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	87.9	3.0	3.0	3.0
CO2	100.0	3.0			100.0	3.0			100.0	3.0	100.0	3.0	3.0	87.9	3.0	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	87.9	3.0	3.0	3.0
CO4			100.0	3.0	100.0	3.0			100.0	3.0	100.0	3.0	3.0	87.9	3.0	3.0	3.0
CO5			100.0	3.0	100.0	3.0			100.0	3.0	100.0	3.0	3.0	87.9	3.0	3.0	3.0

AVERAGE	AVERAGE
3	3



**Table 3: PROGRAMME OUTCOME MAPPING**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 0.96	H 0.96		H 0.96	H 0.96	H 0.96	H 0.96	
CO2	H 0.9	H 0.9		H 0.9	H 0.9	H 0.9	H 0.9	
CO3	H 0.96	H 0.96		H 0.96	H 0.96	H 0.96	H 0.96	
CO4	H 0.9	H 0.9		H 0.9	H 0.9	H 0.9	H 0.9	
CO5	H 0.9	H 0.9		H 0.9	H 0.9	H 0.9	H 0.9	
AVERAGE OF COS FOR POS	0.924	0.924		0.924	0.924	0.924	0.924	
AVERAGE OF POS	0.9168	0.9168		0.9168	0.9168	0.9168	0.9168	
<b>AVERAGE</b>	0.9168							

**RESULT ANALYSIS: The Total CO attainment of the course is satisfied .**

## **COURSE OUTCOME MAPPING**

**2022-2023**

**SEMESTER II**

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

<p><b>COURSE TITLE: Research Methodology</b></p> <p><b>COURSE CODE: MFSN20202</b></p> <p><b>CREDITS: 5</b></p>
<p><b>DEPARTMENT: M.Sc. FOOD SCIENCE AND NUTRITION</b></p>
<p><b>PROGRAMME OUTCOMES Or POS(MDS):</b></p> <p><b>PROGRAM OBJECTIVES (POs)</b></p> <p><b>PO 1:</b> Demonstrate knowledge of the scientific method, purpose, and approaches to research.</p> <p><b>PO 2:</b> Explain research design and research cycle.</p> <p><b>PO 3:</b> Prepare key elements of a research proposal.</p> <p><b>PO 4:</b> Explain ethical principles, issues and procedures.</p>
<p><b>PROGRAMME SPECIFIC OUTCOME:</b></p> <p><b>PROGRAM SPECIFIC OUTCOMES (PSOs)</b></p> <p><b>PSO1:</b> Understand the concept of different food service units.</p> <p><b>PSO2:</b> Fundamentals of research designs</p> <p><b>PSO3:</b> sources of data</p> <p><b>PSO4:</b> data processing and report writing and presentation.</p> <p><b>PSO5:</b> Data collection</p> <p><b>PSO6:</b> sampling</p>

	<b>COURSE OUTCOMES</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>CO1</b>	Evolution of food service industry	II (UNDERSTAND)
<b>CO2</b>	Hypothesis research design	II (UNDERSTAND)
<b>CO3</b>	Data collection	IV (ANALYZE)
<b>CO4</b>	Sampling	III (APPLY)
<b>CO5</b>	Attitude measurement data processing report	IV (ANALYZE)

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

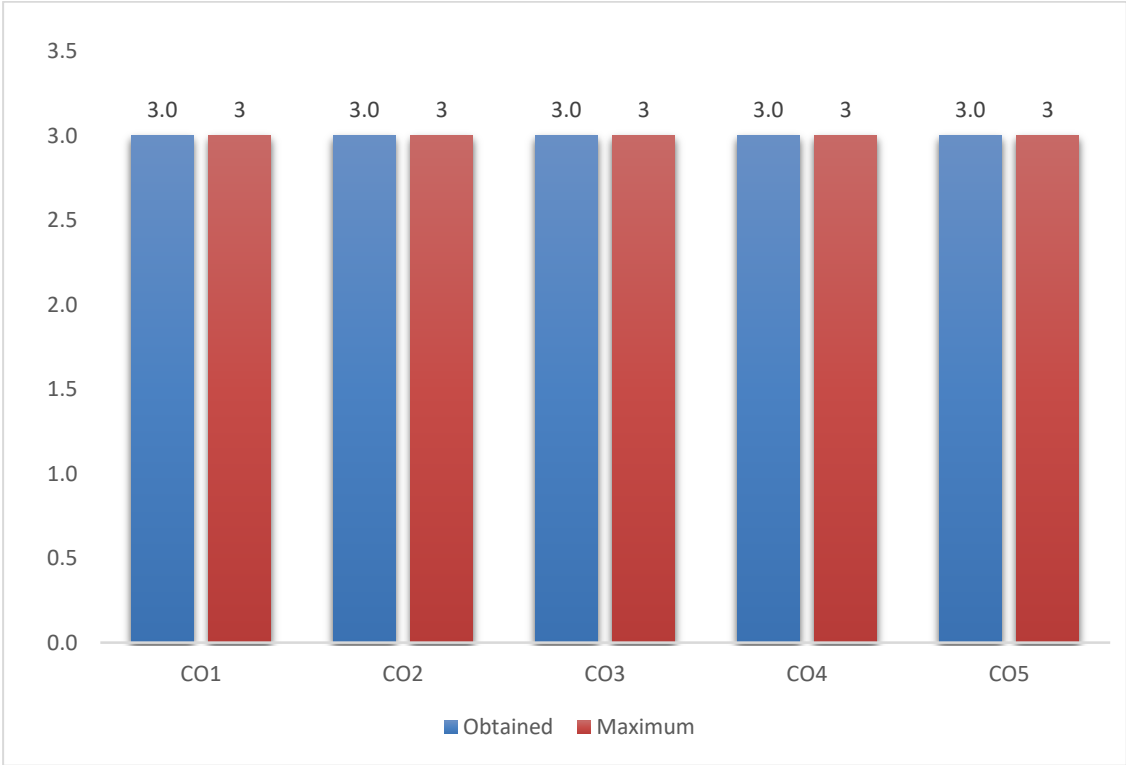
outcomes	PO1	PO2	PO3	PO4	PO5	PS01	PSO2	PSO3	PSO4	PSO5	PSO6
C01	H	H		H	H	S	S	S	H	S	H
C02	H	H		H	H	S	H	H	H	S	H
C03	H	H		H	H	S	S	S	H	S	H
C04	H	H		H	H	S	S	S	H	S	H
C05	H	H		H	H	S	S	H	H	S	H

H: Highly Supportive  
S: Supportive

**Table 2: COURSE OUTCOME ATTAINMENT**

co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendance		co wise internal average	External Exam			
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level		co wise external average	co wise total average		
CO1	100.0	3.0			100.0	3.0	100.0	3.0	100.0	3.0	100.0	3.0	3.0	89.2	3.0	3.0	3.0
CO2	100.0	3.0			100.0	3.0			100.0	3.0	100.0	3.0	3.0	89.2	3.0	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	89.2	3.0	3.0	3.0
CO4			100.0	3.0	100.0	3.0			100.0	3.0	100.0	3.0	3.0	89.2	3.0	3.0	3.0
CO5			100.0	3.0	100.0	3.0			100.0	3.0	100.0	3.0	3.0	89.2	3.0	3.0	3.0

AVERAGE	AVERAGE
3	3



**Table 3: PROGRAMME OUTCOME MAPPING**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 3	H 3		H 3	H 3			
CO2	H 3	H 3		H 3	H 3		H 3	H 3
CO3	H 3	H 3		H 3	H 3			
CO4	H 3	H 3		H 3	H 3			
CO5	H 3	H 3		H 3	H 3			H 3
AVERAGE OF COS FOR POS	3	3		3	3		3	3
AVERAGE OF POS	3	3		3	3		3	3
AVERAGE	3							

**RESULT ANALYSIS: The Total CO attainment of the course is good.**

## **COURSE OUTCOME MAPPING**

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

<p><b>COURSE TITLE: ADVANCED FOOD SCIENCE</b></p> <p><b>COURSE CODE: MFSN20203</b></p> <p><b>CREDITS: 4</b></p>
<p><b>DEPARTMENT: M.Sc. FOOD SCIENCE AND NUTRITION</b></p>
<p><b>PROGRAMME OUTCOMES Or POS(MDS):</b></p> <p><b>PROGRAM OBJECTIVES (POs)</b></p> <p><b>PO 1:</b> To understand the principles of food preservation and its applications.</p> <p><b>PO 2:</b> understand the chemistry of food components like proteins, carbohydrates, and lipids.</p> <p><b>PO 3 :</b> understand nature of various food products development</p> <p><b>PO 4 :</b> understand nature of various food products constituents, additives and adulterants.</p>
<p><b>PROGRAMME SPECIFIC OUTCOME:</b></p> <p><b>PROGRAM SPECIFIC OUTCOMES (PSOs)</b></p> <p><b>PSO1:</b> Understand the concept of food science, nutrition and dietetics.</p> <p><b>PSO2:</b> Analyses the relationships between various nutrients and reservation techniques and its applications</p> <p><b>PSO3:</b> Apply the knowledge of processing and preservation techniques in increasing tie shelf life of food products.</p> <p><b>PSO4:</b> Combine the knowledge of food science, nutrition and dietetics to overcome food wastage, malnutrition and lifestyle disorders.</p>

	<b>COURSE OUTCOMES</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>CO1</b>	Application of heat	II (UNDERSTAND)
<b>CO2</b>	Effects of cold processing on food	II (UNDERSTAND)
<b>CO3</b>	Preservation of food	IV (ANALYZE)
<b>CO4</b>	Approaches/ Strategies for Improving nutritionstatus and health status of the community	III (APPLY)
<b>CO5</b>	Food additives adulterants and foodenrichment	IV (ANALYZE)

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

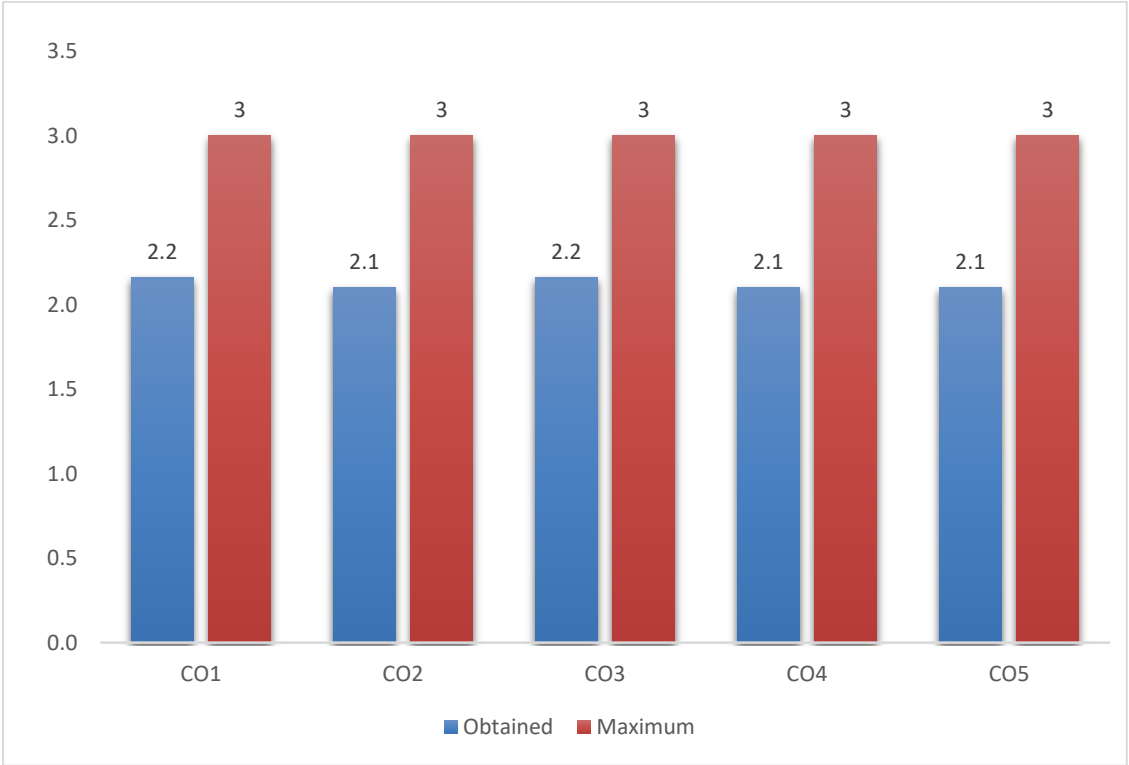
outcomes	PO1	PO2	PO3	PO4	PO5	PS01	PSO2	PSO3	PSO4	PSO5	PSO6	PS04
C01	H	H	H		H	S	S	H	S	S	H	H
C02	H	H	H		H	S	S	H	S	S	H	H
C03	H	H	H		H	S	S	H	H	S	H	H
C04	H	H	H		H	S	S	H	H	S	H	S
C05	H	H	H		H	S	S	H	H	S	H	H

H: Highly Supportive  
S: Supportive

**Table 2: COURSE OUTCOME ATTAINMENT**

co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendance		co wise internal average	External Exam		co wise total average	
	pass%	Attainment level	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	62.2	0.0	2.4	75.7	2.0	2.0	2.2
CO2	100.0	3.0			100.0	3.0			100.0	3.0	62.2	0.0	2.3	75.7	2.0	2.0	2.1
CO3	100.0	3.0	94.6	3.0	100.0	3.0			100.0	3.0	62.2	0.0	2.4	75.7	2.0	2.0	2.2
CO4			94.6	3.0	100.0	3.0			100.0	3.0	62.2	0.0	2.3	75.7	2.0	2.0	2.1
CO5			94.6	3.0	100.0	3.0			100.0	3.0	62.2	0.0	2.3	75.7	2.0	2.0	2.1

AVERAGE	AVERAGE
2	2.124



**Table 3: PROGRAMME OUTCOME MAPPING**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 2.16	H 2.16	H 2.16		H 2.16			H 2.16
CO2	H 2.1	H 2.1	H 2.1		H 2.1			H 2.1
CO3	H 2.16	H 2.16	H 2.16		H 2.16			H 2.16
CO4	H 2.1	H 2.1	H 2.1		H 2.1			H 2.1
CO5	H 2.1	H 2.1	H 2.1		H 2.1			H 2.1
AVERAGE OF COS FOR POS	2.124	2.124	2.124		2.124			2.124
AVERAGE OF POS	2.1168	2.1168	2.1168		2.1168			2.1168
AVERAGE	2.1168							

**RESULT ANALYSIS: The Total CO attainment of the course is good.**

## **COURSE OUTCOME MAPPING**

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

**COURSE TITLE: FOOD**

**MICROBIOLOGY AND FOOD SAFETY**

**COURSE CODE: MFSN20204**

**CREDITS: 4**

**DEPARTMENT: M.Sc. FOOD SCIENCE AND NUTRITION**

**PROGRAMME OUTCOMES Or POS(MDS):**

**PROGRAM OBJECTIVES (POs)**

**PO 1:** Understanding the nature of microorganisms. Involved in food spoilage food infection and intoxications in food biotechnology.

**PO 2:** To gain. Knowledge of principles of various techniques used Prevention & Control of microorganism in foods.

**PO 3:** Understand. Criteria for microbiological safety in various Food operations to avoid public health hazard due to food contamination.

**PO 4:** Understand various. Quality control parameters of food. Through basic prerequisite programmers, national and international food regulations.

**PROGRAMME SPECIFIC OUTCOME:**

**PROGRAM SPECIFIC OUTCOMES (PSOs)**

**PSO1:** Overview of Basic microbiology.

**PSO2:** Food spoilage and preservation

**PSO3:** Microorganisms. In human welfare

**PSO4:** Food Hygiene

	<b>COURSE OUTCOMES</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>CO1</b>	Overview of Basic microbiology.	II (UNDERSTAND)
<b>CO2</b>	Food spoilage	II (UNDERSTAND)
<b>CO3</b>	Microbes in food biotechnology.	IV (ANALYZE)
<b>CO4</b>	Sources of contamination of food	III (APPLY)
<b>CO5</b>	Public health hazards due to microbial contamination of foods.	IV (ANALYZE)

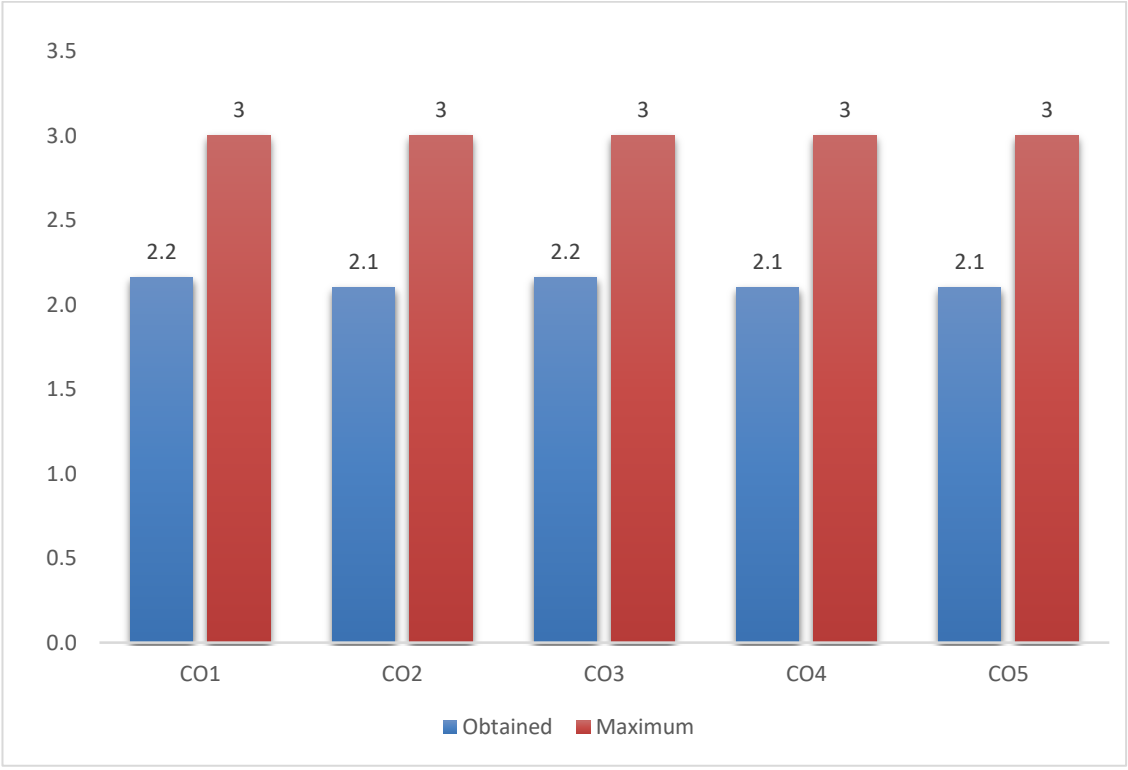
**TABLE 1: CO, PO, PSO MAPPING**

outcomes	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
C01	H	H	H	S	S	H	H	H	S	H	H
C02	H	H	H	H	S	H	H	H	S	H	H
C03	H	H	H	H	S	H	H	H	S	H	H
C04	H	H	H	S	S	H	H	H	S	H	H
C05	H	H	H	S	S	H	H	H	S	H	H

**Table 2: COURSE OUTCOME ATTAINMENT**

co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendance		co wise internal average	External Exam			co wise total average
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level		pass%	Attainment level	co wise external average	
CO1	100.0	3.0			100.0	3.0	100.0	3.0	100.0	3.0	56.8	0.0	2.4	81.1	2.0	2.0	2.2
CO2	100.0	3.0			100.0	3.0			100.0	3.0	56.8	0.0	2.3	81.1	2.0	2.0	2.1
CO3	100.0	3.0	97.3	3.0	100.0	3.0			100.0	3.0	56.8	0.0	2.4	81.1	2.0	2.0	2.2
CO4			97.3	3.0	100.0	3.0			100.0	3.0	56.8	0.0	2.3	81.1	2.0	2.0	2.1
CO5			97.3	3.0	100.0	3.0			100.0	3.0	56.8	0.0	2.3	81.1	2.0	2.0	2.1

AVERAGE	AVERAGE
2	2.124



**Table 3: PROGRAMME OUTCOME MAPPING**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 2.16	H 2.16	H 2.16			H 2.16	H 2.16	H 2.16
CO2	H 2.1	H 2.1	H 2.1	H 2.1		H 2.1	H 2.1	H 2.1
CO3	H 2.16	H 2.16	H 2.16	H 2.16		H 2.16	H 2.16	H 2.16
CO4	H 2.1	H 2.1	H 2.1			H 2.1	H 2.1	H 2.1
CO5	H 2.1	H 2.1	H 2.1			H 2.1	H 2.1	H 2.1
AVERAGE OF COS FOR POS	2.124	2.124	2.124	2.13		2.124	2.124	2.124
AVERAGE OF POS	2.1168	2.1168	2.1168	2.13		2.1168	2.1168	2.1168
AVERAGE	2.118685714							

**RESULT ANALYSIS: The Total CO attainment of the course is good.**

## **COURSE OUTCOME MAPPING**

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

**COURSE TITLE: THERAPEUTIC NUTRITION**

**COURSE CODE: MFSN20205**

**CREDITS: 4**

**DEPARTMENT: M.Sc. FOOD SCIENCE AND NUTRITION**

**PROGRAMME OUTCOMES Or POS(MDS):**

**PROGRAM OBJECTIVES (POs)**

**PO 1:** the causative factors and the metabolic changes in various diseases and disorders.

**PO 2:** Gain knowledge of the principles of diet therapy.

**PO 3:** learn principles of dietary drink counselling.

**PO 4:** understand the rationale of prevention of various diseases or disorders.

**PROGRAMME SPECIFIC OUTCOME:**

**PROGRAM SPECIFIC OUTCOMES (PSOs)**

**PSO1:** Understand the principles of diet therapy and diet counselling.

**PSO2:** Analyze nutritional interpretation of protein. Medical and laboratory data.

**PSO3:** Apply the knowledge of

**PSO4:** Combine the knowledge of Nutrition education and nutrition monitoring.

	<b>COURSE OUTCOMES</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>CO1</b>	Nutritional assessment & care of patients	II (UNDERSTAND& ANALYSE )
<b>CO2</b>	Weight management and diabetes management.	II (EVALUATE)
<b>CO3</b>	Cardiovascular disorders and GI tract disorders	IV (ANALYZE)
<b>CO4</b>	Liver and gall bladder disorders & renal disorders	III (APPLY)
<b>CO5</b>	Overview of some degenerative disorders	IV (ANALYZE)

**TABLE 1: OF CO, PO, PSO MAPPING**

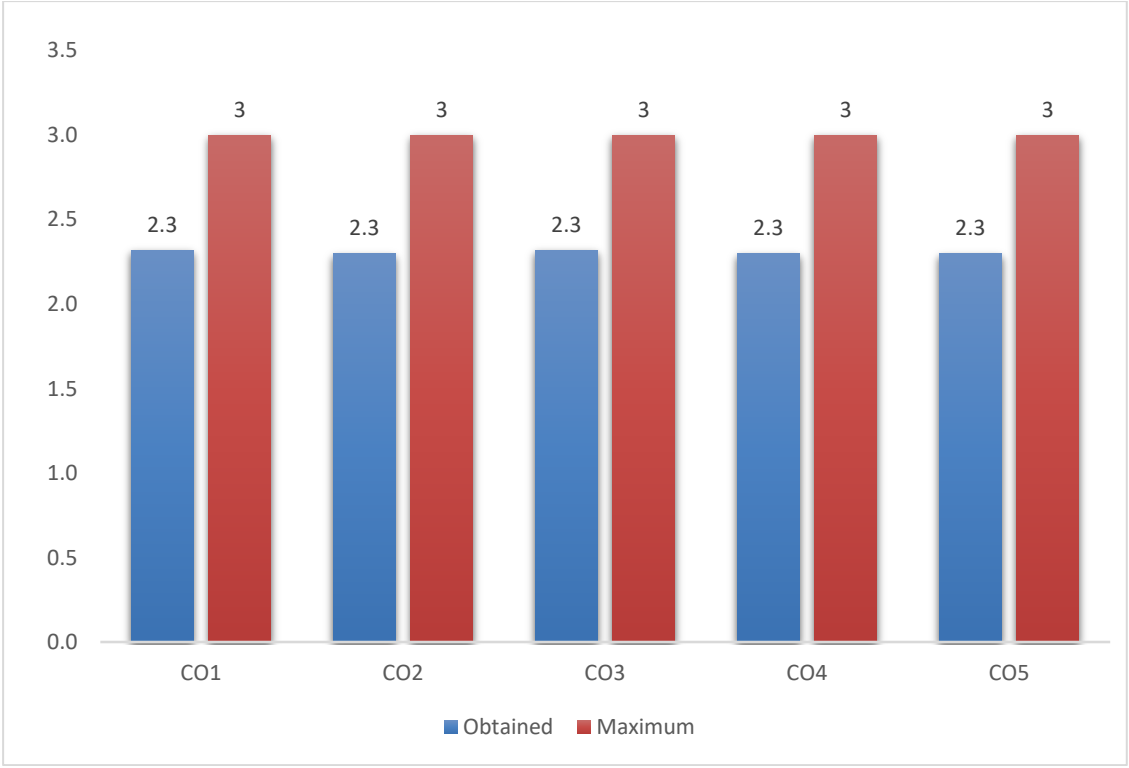
outcomes	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
C01	H	H		S	S	H	H	S	H	H	S
C02	H	H		S	S	H	H	S	H	H	S
C03	H	H		S	S	H	H	S	H	H	S
C04	H	H		S	S	H	H	S	H	H	S
C05	H	H		S	S	H	H	S	H	H	S

H: Highly Supportive  
S: Supportive

**Table 2: COURSE OUTCOME ATTAINMENT**

co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendance		co wise internal average	External Exam		co wise total average	
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level		pass%	Attainment level		
C01	97.3	3.0			100.0	3.0	100.0	3.0	100.0	3.0	81.1	2.0	2.8	83.8	2.0	2.0	2.3
C02	97.3	3.0			100.0	3.0			100.0	3.0	81.1	2.0	2.8	83.8	2.0	2.0	2.3
C03	97.3	3.0	97.3	3.0	100.0	3.0			100.0	3.0	81.1	2.0	2.8	83.8	2.0	2.0	2.3
C04			97.3	3.0	100.0	3.0			100.0	3.0	81.1	2.0	2.8	83.8	2.0	2.0	2.3
C05			97.3	3.0	100.0	3.0			100.0	3.0	81.1	2.0	2.8	83.8	2.0	2.0	2.3

AVERAGE	AVERAGE
2	2.308



**Table 3: PROGRAMME OUTCOME MAPPING**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 2.32	H 2.32				H 2.32	H 2.32	
CO2	H 2.3	H 2.3				H 2.3	H 2.3	
CO3	H 2.32	H 2.32				H 2.32	H 2.32	
CO4	H 2.3	H 2.3				H 2.3	H 2.3	
CO5	H 2.3	H 2.3				H 2.3	H 2.3	
AVERAGE OF COS FOR POS	2.308	2.308				2.308	2.308	
AVERAGE OF POS	2.3056	2.3056				2.3056	2.3056	
AVERAGE	2.3056							

**RESULT ANALYSIS: The Total CO attainment of the course is good.**



## **COURSE OUTCOME MAPPING**

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

<p><b>COURSE TITLE: PUBLIC HEALTH NUTRITION</b></p> <p><b>COURSE CODE: MFSN20206</b></p> <p><b>CREDITS: 4</b></p>
<p><b>DEPARTMENT: M.Sc. FOOD SCIENCE AND NUTRITION</b></p>
<p><b>PROGRAMME OUTCOMES Or POS(MDS):</b></p> <p><b>PROGRAM OBJECTIVES (POs)</b></p> <p><b>PO 1:</b> Understanding and ability to apply these novel technologies in Food nutritional security.</p> <p><b>PO 2:</b> Understanding of novel and innovative development programs in attaining nutrition security.</p> <p><b>PO 3 :</b> Describing food labeling and advertising.</p> <p><b>PO 4:</b> Enable the students to gain knowledge regarding national policies for improving food and nutrition security.</p> <p><b>PO 5:</b> Demographic transition</p>
<p><b>PROGRAMME SPECIFIC OUTCOME:</b></p> <p><b>PROGRAM SPECIFIC OUTCOMES (PSOs)</b></p> <p><b>PSO1:</b> Understand the concept of food and nutrition security.</p> <p><b>PSO2:</b> Analyze the relationship between food and nutrition security.</p> <p><b>PSO3:</b> Apply the knowledge of food production and agriculture policies.</p> <p><b>PSO4:</b> Impact of Development programs on Nutrition security.</p>

	<b>COURSE OUTCOMES</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>CO1</b>	Public health nutrition and health care system	II (UNDERSTAND)
<b>CO2</b>	Population dynamics	II (UNDERSTAND)
<b>CO3</b>	Public health aspects of undernutrition	IV (ANALYZE)
<b>CO4</b>	Approaches strategies for improving nutrition status and health status of the community	III (APPLY)
<b>CO5</b>	Food and nutrition security	IV (ANALYZE)

**TABLE 1: OF CO, PO, PSO MAPPING**

outcomes	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
C01	S	H	S	H	H	H	S		H	H	S
C02	H	H	S	H	H	H	H		H	H	H
C03	H	H	S	H	H	H	H		H	H	H
C04	H	H	S	H	H	H	H		H	H	H
C05	S	H	S	H	H	H	S		H	H	H

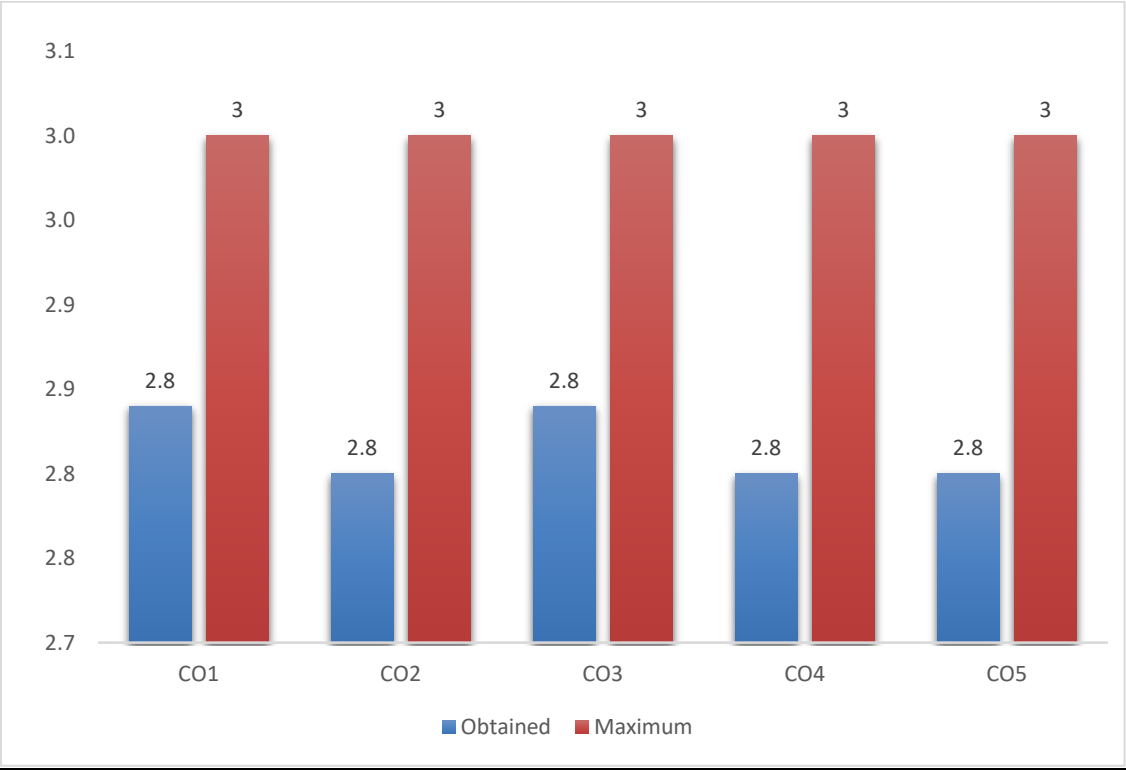


H: Highly Supportive  
S: Supportive

**Table 2: COURSE OUTCOME ATTAINMENT**

co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendance		co wise internal average	External Exam		co wise total average	
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level		pass%	Attainment level		co wise external average
CO1	100.0	3.0			100.0	3.0	100.0	3.0	100.0	3.0	70.3	1.0	2.6	86.5	3.0	3.0	2.8
CO2	100.0	3.0			100.0	3.0			100.0	3.0	70.3	1.0	2.5	86.5	3.0	3.0	2.8
CO3	100.0	3.0	94.6	3.0	100.0	3.0			100.0	3.0	70.3	1.0	2.6	86.5	3.0	3.0	2.8
CO4			94.6	3.0	100.0	3.0			100.0	3.0	70.3	1.0	2.5	86.5	3.0	3.0	2.8
CO5			94.6	3.0	100.0	3.0			100.0	3.0	70.3	1.0	2.5	86.5	3.0	3.0	2.8

AVERAGE	AVERAGE
3	2.816



**Table 3: PROGRAMME OUTCOME MAPPING**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1		H 2.84		H 2.84	H 2.84	H 2.84		
CO2	H 2.8	H 2.8		H 2.8	H 2.8	H 2.8	H 2.8	
CO3	H 2.84	H 2.84		H 2.84	H 2.84	H 2.84	H 2.84	
CO4	H 2.8	H 2.8		H 2.8	H 2.8	H 2.8	H 2.8	
CO5		H 2.8		H 2.8	H 2.8	H 2.8		
AVERAGE OF COS FOR POS	2.813333333	2.816		2.816	2.816	2.816	2.813333333	
AVERAGE OF POS	2.813333	2.8112		2.8112	2.8112	2.8112	2.813333	
AVERAGE	2.811911111							

**RESULT ANALYSIS: The Total CO attainment of the course is good.**

## **COURSE OUTCOME MAPPING**

**2022-2024**

**SEMESTER III**

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

<p><b>COURSE TITLE: INSTITUTIONAL FOOD MANAGEMENT</b></p> <p><b>COURSE CODE: MFSN20302-A (DSE-1)</b></p> <p><b>CREDITS: 4</b></p>
<p><b>DEPARTMENT: M.Sc. FOOD SCIENCE AND NUTRITION</b></p>
<p><b>PROGRAMME OUTCOMES Or POS(MDS):</b></p> <p><b>PROGRAM OBJECTIVES (POs)</b> <b>PO 1:</b> Understanding and ability to apply these novel technologies about different food service units and its evolution. <b>PO2:</b> Understanding the responsibilities of food service managers. <b>PO 3:</b> Equipping practical knowledge in managing food material for food service management. <b>PO 4:</b> To enable the students to develop skills in planning and managing human resources.</p>
<p><b>PROGRAMME SPECIFIC OUTCOME:</b></p> <p><b>PROGRAM SPECIFIC OUTCOMES (PSOs)</b> <b>PSO1:</b> Understand the concept of about different food service units. <b>PSO2:</b> Analyze the relationships between different food service units and food service managers. <b>PSO3:</b> Apply the knowledge of Management and Organizations. <b>PSO4:</b> Understand the concepts of Menu planning and types of menu.</p>

	<b>COURSE OUTCOMES</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>CO1</b>	Evolution of food service industry	II (UNDERSTAND)
<b>CO2</b>	Managerial operations and tools of management	II (UNDERSTAND)
<b>CO3</b>	Manpower planning and placement	IV (ANALYZE)
<b>CO4</b>	Approaches/ Strategies for Improving leadership and motivating skills	III (APPLY)
<b>CO5</b>	Menu planning and purchase	IV (ANALYZE)

**TA  
BL  
E  
1:  
CO  
2  
PO**

**PSO MAPPING**

Course outcomes	Programme Outcomes				Program Specific outcomes				
	PO1	PO2	PO3	PO4	PSO1	PSO2	PSO3	PSO4	PSO5
1	H	H	H	H	S		H	H	H
2	S	H	S	H		H	H	H	S
3	S	H			S	H	H	S	
4	H		S	S	S		H		H
5	H	S	H		H	S	S	H	S

**H:  
Hig  
hly  
Sup**

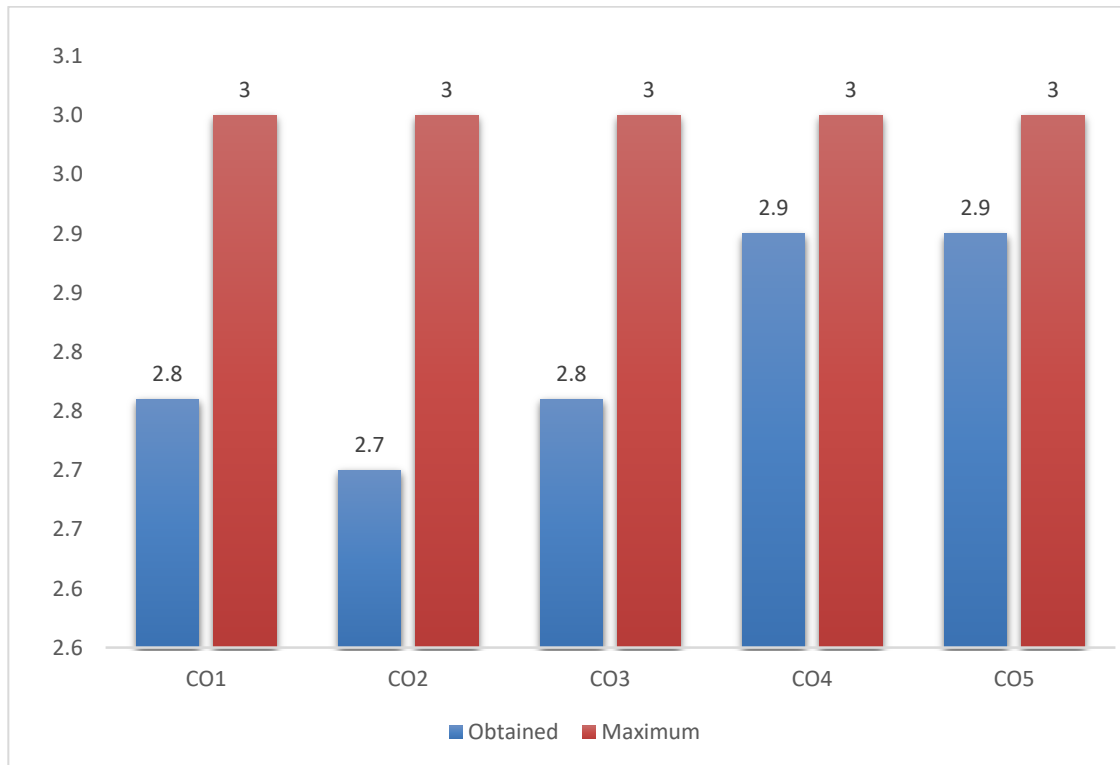
**portive**

**S: Supportive**

**Table 2: COURSE OUTCOME ATTAINMENT**

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDANCE		External Exam				
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co wise internal average	pass%	Attainment level	co wise external average	co wise total average
CO1	70.6	1.0			94.1	3.0	100.0	3.0	100.0	3.0	76.5	2.0	2.4	100.0	3.0	3.0	2.8
CO2	70.6	1.0			94.1	3.0			100.0	3.0	76.5	2.0	2.3	100.0	3.0	3.0	2.7
CO3	70.6	1.0	100.0	3.0	94.1	3.0			100.0	3.0	76.5	2.0	2.4	100.0	3.0	3.0	2.8
CO4			100.0	3.0	94.1	3.0			100.0	3.0	76.5	2.0	2.8	100.0	3.0	3.0	2.9
CO5			100.0	3.0	94.1	3.0			100.0	3.0	76.5	2.0	2.8	100.0	3.0	3.0	2.9

AVERAGE	AVERAGE
3	2.804



**RESULT ANALYSIS: The Total CO attainment of the course is good.**

OUTCOME	PO1	PO2	PO3	PO4	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	H 2.76	H 2.76	H 2.76	H 2.76					
CO2		H 2.7		H 2.7	H 2.92		H 2.9		
CO3		H 2.76					H 2.9		
CO4	H 2.9						H 2.9		
CO5	H 2.9		H 2.9						H 2.9
AVERAGE OF COS FOR POS	2.853333333	2.74	2.83	2.73	2.92		2.90666		
AVERAGE OF POS	2.884444	2.733333	2.865	2.715	2.92		2.906666		
AVERAGE	2.799444								

## **COURSE OUTCOME MAPPING**

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

**COURSE TITLE: PROGRAMME PLANNING IN PUBLIC HEALTH**

**NUTRITION**

**COURSE CODE: MFSN20302-B (DSE-1)**

**CREDITS: 4**

**DEPARTMENT: M.Sc. FOOD SCIENCE AND NUTRITION**

**PROGRAMME OUTCOMES Or POS(MDS):**

**PROGRAM OBJECTIVES (POs)**

**PO 1:** Understanding and ability to apply these novel technologies and the underpinning science to preserve and control the nutritional, microbiological and functional properties of foods.

**PO2:** Understanding of novel and innovative food sciences and emerging technologies to acquire skills in diet counseling and feeding of patients.

**PO 3 :** Describe a healthy diet and food choices, and explain why such choices will help prevent health problems

**PO 4 :** To enable the students to develop skills in planning, calculating, modifying the nutrient requirements and in preparation of diets

**PROGRAMME SPECIFIC OUTCOME:**

**PROGRAM SPECIFIC OUTCOMES (PSOs)**

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

**PSO2:** Analyses 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.

	<b>COURSE OUTCOMES</b>	<b>BLOOM'S TAXONOMY LEVEL</b>	
<b>CO1</b>	Public Health Nutrition and Health Care System	II (UNDERSTAND)	<b>TABLE 1: CO</b>
<b>CO2</b>	Population Dynamics	II (UNDERSTAND)	
<b>CO3</b>	Public Health Aspects of under nutrition	IV (ANALYZE)	
<b>CO4</b>	Approaches/ Strategies for Improving nutritionstatus and health status of the community	III (APPLY)	
<b>CO5</b>	Demography , Nutrition and quality of life	IV (ANALYZE)	

**PO, PSO MAPPING**

Course outcomes	Programme Outcomes				Program Specific outcomes				
	PO1	PO2	PO3	PO4	PSO1	PSO2	PSO3	PSO4	PSO5
1		H		S	S		H	H	S
2	H	S	H	H	H	S	S		
3	S	S		H	S			H	H
4	H		H		S	H	H		H
5	S	H		S	S			S	S

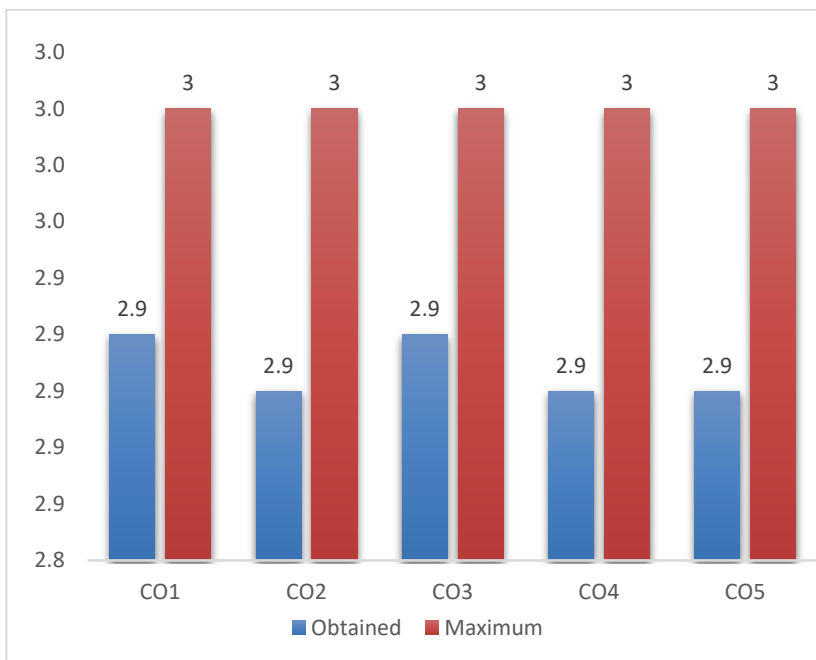
**H:**  
**Hig**  
**hly**  
**Sup**

**portive**

**S: Supportive**

**Table 2: COURSE OUTCOME ATTAINMENT**

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDENCE		co wise internal average	External Exam			co wise total average
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level		pass%	Attainment level	co wise external average	
CO1	88.2	3.0			100.0	3.0	100.0	3.0	100.0	3.0	76.5	2.0	2.8	100.0	3.0	3.0	2.9
CO2	88.2	3.0			100.0	3.0			100.0	3.0	76.5	2.0	2.8	100.0	3.0	3.0	2.9
CO3	88.2	3.0	100.0	3.0	100.0	3.0			100.0	3.0	76.5	2.0	2.8	100.0	3.0	3.0	2.9
CO4			100.0	3.0	100.0	3.0			100.0	3.0	76.5	2.0	2.8	100.0	3.0	3.0	2.9
CO5			100.0	3.0	100.0	3.0			100.0	3.0	76.5	2.0	2.8	100.0	3.0	3.0	2.9



**RESULT ANALYSIS: The Total CO attainment of the course is good.**

OUTCOME	PO1	PO2	PO3	PO4	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	H 2.76	H 2.76	H 2.76	H 2.76					
CO2		H 2.7		H 2.7	H 2.92		H 2.9		
CO3		H 2.76					H 2.9		
CO4	H 2.9						H 2.9		
CO5	H 2.9		H 2.9						H 2.9
AVERAGE OF COS FOR POS	2.853333333	2.74	2.83	2.73	2.92		2.90666		
AVERAGE OF POS	2.884444	2.733333	2.865	2.715	2.92		2.906666		
AVERAGE	2.799444								

## **COURSE OUTCOME MAPPING**

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

<b>COURSE TITLE: CLINICAL NUTRITION</b>
<b>COURSE CODE: MFSN20303</b>
<b>CREDITS: 4</b>
<b>DEPARTMENT: M.Sc. FOOD SCIENCE AND NUTRITION</b>
<b>PROGRAMME OUTCOMES Or POS(MDS):</b>  <b>PROGRAM OBJECTIVES (POs)</b> <b>PO 1:</b> Understanding and ability to apply these novel technologies and the underpinning science to preserve and control the nutritional, microbiological and functional properties of foods. <b>PO2:</b> Understanding of novel and innovative food sciences and emerging technologies to acquire skills in diet counseling and feeding of patients. <b>PO 3 :</b> Describe a healthy diet and food choices, and explain why such choices will help prevent health problems <b>PO 4 :</b> To enable the students to develop skills in planning, calculating, modifying the nutrient requirements and in preparation of therapeutic diets
<b>PROGRAMME SPECIFIC OUTCOME:</b>  <b>PROGRAM SPECIFIC OUTCOMES (PSOs)</b> <b>PSO1:</b> Understand the concept of food science, nutrition and dietetics. <b>PSO2:</b> Analyze the relationships between various nutrients and physiological disorders and various diet therapies. <b>PSO3:</b> Apply the knowledge of processing and preservation techniques in increasing tie shelf life of food products. <b>PSO4:</b> Combine the knowledge of food science, nutrition and dietetics to overcome food wastage, malnutrition and lifestyle disorders.

	<b>COURSE OUTCOMES</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>CO1</b>	Diet and Drug interaction	II (UNDERSTAND)
<b>CO2</b>	Cancer and Metabolic stress	II (UNDERSTAND)
<b>CO3</b>	Cardiovascular Disorders & GI Tract Disorders.	IV (ANALYZE)
<b>CO4</b>	Liver and Gall Bladder Disorders & Renal Disorders.	III (APPLY)
<b>CO5</b>	Overview of Some Degenerative Disorders.	IV (ANALYZE)

**TA  
BL  
E  
1:  
CO  
PO**

**PSO MAPPING**

Course outcomes	Programme Outcomes				Program Specific outcomes				
	PO1	PO2	PO3	PO4	PSO1	PSO2	PSO3	PSO4	PSO5
1	S				H	H	H	S	H
2	H	H	H	H	S				H
3	H				H		S	S	
4	H		S	S	S	H	S	H	H
5	H	S	H	H	H				S

**H:  
Hig  
hly  
Sup**

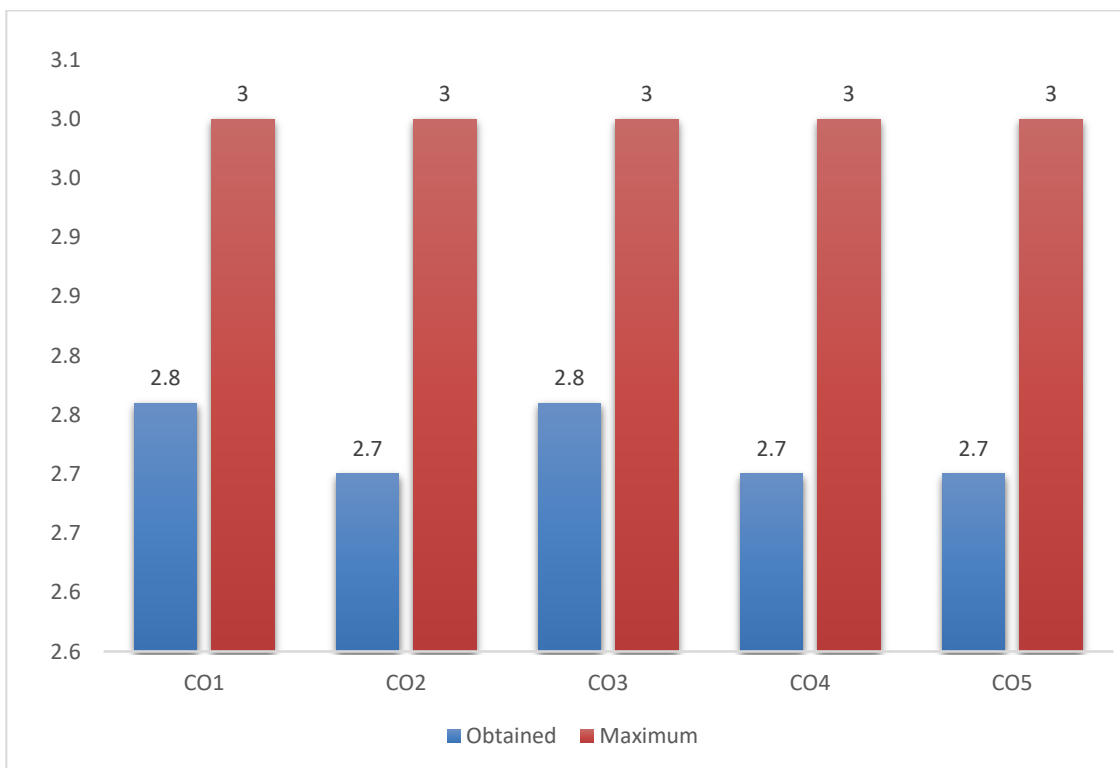
**portive**

**S: Supportive**

**Table 2: COURSE OUTCOME ATTAINMENT**

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDENCE		External Exam				
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co wise internal average	pass%	Attainment level	co wise external average	co wise total average
CO1	86.1	3.0			94.4	3.0	97.2	3.0	97.2	3.0	22.2	0.0	2.4	100.0	3.0	3.0	2.8
CO2	86.1	3.0			94.4	3.0			97.2	3.0	22.2	0.0	2.3	100.0	3.0	3.0	2.7
CO3	86.1	3.0	94.4	3.0	94.4	3.0			97.2	3.0	22.2	0.0	2.4	100.0	3.0	3.0	2.8
CO4			94.4	3.0	94.4	3.0			97.2	3.0	22.2	0.0	2.3	100.0	3.0	3.0	2.7
CO5			94.4	3.0	94.4	3.0			97.2	3.0	22.2	0.0	2.3	100.0	3.0	3.0	2.7

AVERAGE	AVERAGE
3	2.724



**RESULT ANALYSIS: The Total CO attainment of the course is good.**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1					H 2.76	H 2.76	H 2.76	
CO2	H 2.7	H 2.7	H 2.7	H 2.7				
CO3	H 2.76				H 2.76			
CO4	H 2.7					H 2.7		H 2.7
CO5	H 2.7		H 2.7	H 2.7	H 2.7			
AVERAGE OF COS FOR POS	2.715	2.7	2.7	2.7	2.74	2.73	2.76	2.7
AVERAGE OF POS	2.715	2.7	2.7	2.7	2.733333	2.715	2.76	2.7
AVERAGE	2.715416667							



## **COURSE OUTCOME MAPPING**

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

**COURSE TITLE: COMMUNITY NUTRITION**

**COURSE CODE: MFSN20304**

**CREDITS: 4**

**DEPARTMENT: M.Sc. FOOD SCIENCE AND NUTRITION**

**PROGRAMME OUTCOMES Or POS(MDS):**

**PROGRAM OBJECTIVES (POs)**

**PO 1:** Understanding and ability to apply these novel technologies in latest Nutritional policies.

**PO2:** Understanding of novel and innovative food sciences to familiarize over nutrition and under nutrition.

**PO 3 :** Describe a healthy diet and food choices, and explain why such choices will help prevent health problems

**PO 4:** To enable the students to gain knowledge about National and International agencies and improve community nutrition.

**PROGRAMME SPECIFIC OUTCOME:**

**PROGRAM SPECIFIC OUTCOMES (PSOs)**

**PSO1:** Understand the concept of fortification, supplementation.

**PSO2:** Analyze the relationships between various nutrients and physiological disorders and various diet therapies to improve community nutrition

**PSO3:** Apply the knowledge of different nutritional policies in controlling the health problems.

**PSO4:** Combine the knowledge of Nutrition education and nutrition monitoring.

	<b>COURSE OUTCOMES</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>CO1</b>	Nutritional of a Community.	II (UNDERSTAND)
<b>CO2</b>	Methods to improve Nutritional quality.	II (UNDERSTAND)
<b>CO3</b>	Nutrition deficiency disorders.	IV (ANALYZE)
<b>CO4</b>	Nutrition monitoring and surveillance.	III (APPLY)
<b>CO5</b>	Community nutrition programme planning	IV (ANALYZE)

**TA  
BL  
E  
1:  
CO  
2**

**PO, PSO MAPPING**

Course outcomes	Programme Outcomes				Program Specific outcomes				
	PO1	PO2	PO3	PO4	PSO1	PSO2	PSO3	PSO4	PSO5
1	H	H		H	S	H	H	H	H
2	S		H	S	H	S	S		
3		H		H	S	H			H
4	H	H	H	S	S	S	S	H	S
5	S	S	H		H			H	H

**H:  
Hig  
hly  
Sup**

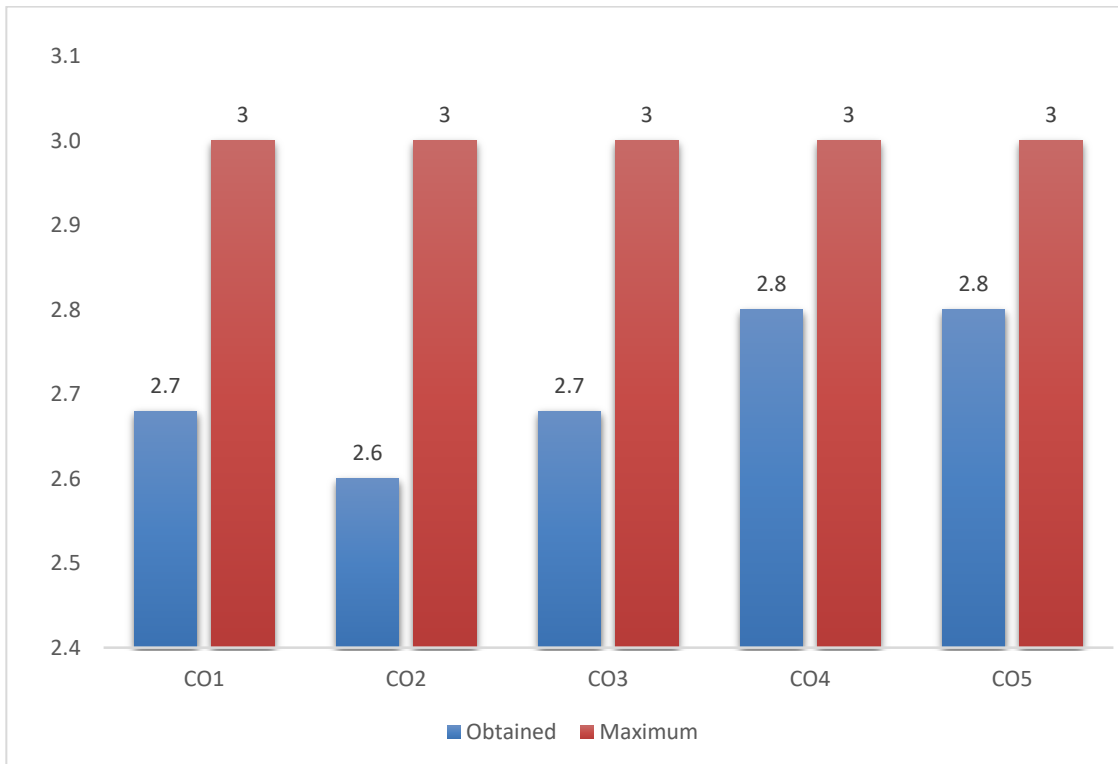
**portive**

**S: Supportive**

**Table 2: COURSE OUTCOME ATTAINMENT**

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDANCE		co wise internal average	External Exam			co wise total average
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level		pass%	Attainment level	co wise external average	
CO1	75.0	1.0			97.2	3.0	97.2	3.0	97.2	3.0	69.4	1.0	2.2	100.0	3.0	3.0	2.7
CO2	75.0	1.0			97.2	3.0			97.2	3.0	69.4	1.0	2.0	100.0	3.0	3.0	2.6
CO3	75.0	1.0	94.4	3.0	97.2	3.0			97.2	3.0	69.4	1.0	2.2	100.0	3.0	3.0	2.7
CO4			94.4	3.0	97.2	3.0			97.2	3.0	69.4	1.0	2.5	100.0	3.0	3.0	2.8
CO5			94.4	3.0	97.2	3.0			97.2	3.0	69.4	1.0	2.5	100.0	3.0	3.0	2.8

AVERAGE	AVERAGE
3	2.712



**RESULT ANALYSIS: The Total CO attainment of the course is good.**

**Table 3: PROGRAMME OUTCOME MAPPING**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 2.68	H 2.68		H 2.68		H 2.68	H 2.68	H 2.68
CO2			H 2.6		H 2.6			
CO3		H 2.68		H 2.68		H 2.68		
CO4	H 2.8	H 2.8	H 2.8					H 2.8
CO5			H 2.8		H 2.8			H 2.8
AVERAGE OF COS FOR POS	2.74	2.72	2.733333333	2.68	2.7	2.68	2.68	2.76
AVERAGE OF POS	2.77	2.733333	2.733333	2.68	2.7	2.68	2.68	2.786667
AVERAGE	2.720416667							



## **COURSE OUTCOME MAPPING**

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

**COURSE TITLE: PROGRAMMES AND PLANNING FOR FOOD**

**AND NUTRITIONAL SECURITY**

**COURSE CODE: MFSN20305**

**CREDITS: 4**

**DEPARTMENT: M.Sc. FOOD SCIENCE AND NUTRITION**

**PROGRAMME OUTCOMES Or POS(MDS):**

**PROGRAM OBJECTIVES (POs)**

**PO 1:** Understanding and ability to apply these novel technologies in Food nutritional security

**PO2:** Understanding of novel and innovative development programmes in attaining nutrition security.

**PO 3 :** Describing food labeling and advertising.

**PO 4:** Enable the students to gain knowledge regarding national policies for improving food and nutrition security.

**PROGRAMME SPECIFIC OUTCOME:**

**PROGRAM SPECIFIC OUTCOMES (PSOs)**

**PSO1:** Understand the concept of food and nutrition security.

**PSO2:** Analyze the relationships between food and nutrition security.

**PSO3:** Apply the knowledge of food production and agriculture policies.

**PSO4:** Impact of Development programmes on Nutrition security.

	<b>COURSE OUTCOMES</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>CO1</b>	Food and nutrition security	II (UNDERSTAND)
<b>CO2</b>	National and Public sector policies	II (UNDERSTAND)
<b>CO3</b>	Impact of Development programmes on Nutrition security	IV (ANALYZE)
<b>CO4</b>	Food labeling and advertising	III (APPLY)
<b>CO5</b>	Food production and agriculture policy	IV (ANALYZE)

**TA  
BL  
E  
1:  
CO  
PO**

### **PSO MAPPING**

Course outcomes	Programme Outcomes				Program Specific outcomes				
	PO1	PO2	PO3	PO4	PSO1	PSO2	PSO3	PSO4	PSO5
1	H	H		H	S	H	H	S	H
2	H				H				
3	S			S	S		H	H	S
4	H	S		H	H	S		H	
5	S			S	H		S		H

**H:  
Hig  
hly  
Sup**

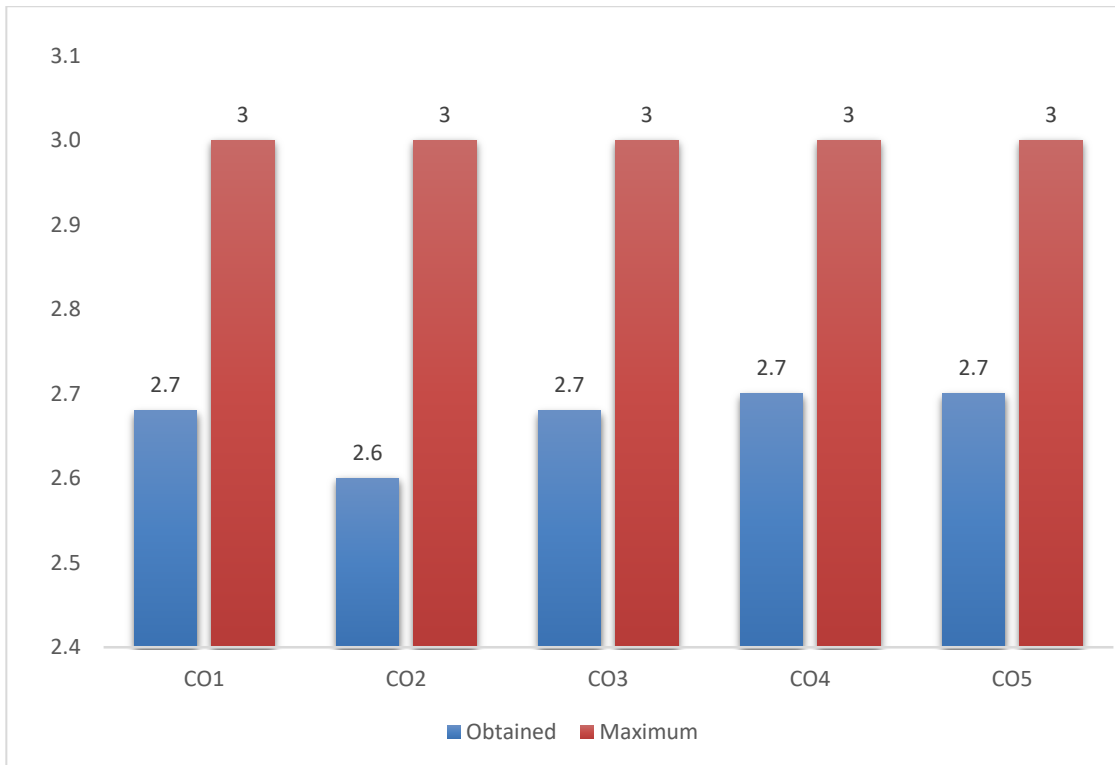
**portive**

**S: Supportive**

**Table 2: COURSE OUTCOME ATTAINMENT**

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDENCE		External Exam				
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co wise internal average	pass%	Attainment level	co wise external average	co wise total average
CO1	80.6	2.0			97.2	3.0	97.2	3.0	97.2	3.0	47.2	0.0	2.2	100.0	3.0	3.0	2.7
CO2	80.6	2.0			97.2	3.0			97.2	3.0	47.2	0.0	2.0	100.0	3.0	3.0	2.6
CO3	80.6	2.0	91.7	3.0	97.2	3.0			97.2	3.0	47.2	0.0	2.2	100.0	3.0	3.0	2.7
CO4			91.7	3.0	97.2	3.0			97.2	3.0	47.2	0.0	2.3	100.0	3.0	3.0	2.7
CO5			91.7	3.0	97.2	3.0			97.2	3.0	47.2	0.0	2.3	100.0	3.0	3.0	2.7

AVERAGE	AVERAGE
3	2.672



**RESULT ANALYSIS: The Total CO attainment of the course is good.**

**Table 3: PROGRAMME OUTCOME MAPPING**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 2.68	H 2.68		H 2.68		H 2.68	H 2.68	H 2.68
CO2			H 2.6		H 2.6			
CO3		H 2.68		H 2.68		H 2.68		
CO4	H 2.8	H 2.8	H 2.8					H 2.8
CO5			H 2.8		H 2.8			H 2.8
AVERAGE OF COS FOR POS	2.74	2.72	2.733333333	2.68	2.7	2.68	2.68	2.76
AVERAGE OF POS	2.77	2.733333	2.733333	2.68	2.7	2.68	2.68	2.786667
AVERAGE	2.720416667							



## **COURSE OUTCOME MAPPING**

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

**COURSE TITLE: NUTRACEUTICALS AND FUNCTIONAL**

**FOODS**

**COURSE CODE: MFSN20306**

**CREDITS: 4**

**DEPARTMENT: M.Sc. FOOD SCIENCE AND NUTRITION**

**PROGRAMME OUTCOMES Or POS(MDS):**

**PROGRAM OBJECTIVES (POs)**

**PO 1:** Understanding and ability to apply these novel technologies in Nutraceuticals and functional foods

**PO2:** Understanding of novel and innovative development of some functional foods.

**PO 3:** Describing sources of functional foods and nutraceuticals.

**PO 4:** Enable the students to gain knowledge on nutraceuticals rich supplements

**PROGRAMME SPECIFIC OUTCOME:**

**PROGRAM SPECIFIC OUTCOMES (PSOs)**

**PSO1:** Understand the concept of Nutraceuticals and Functional foods

**PSO2:** Analyze the relationships between foods and drugs.

**PSO3:** Apply the knowledge of functional foods.

**PSO4:** Impact of functional foods and nutraceuticals for common disorders

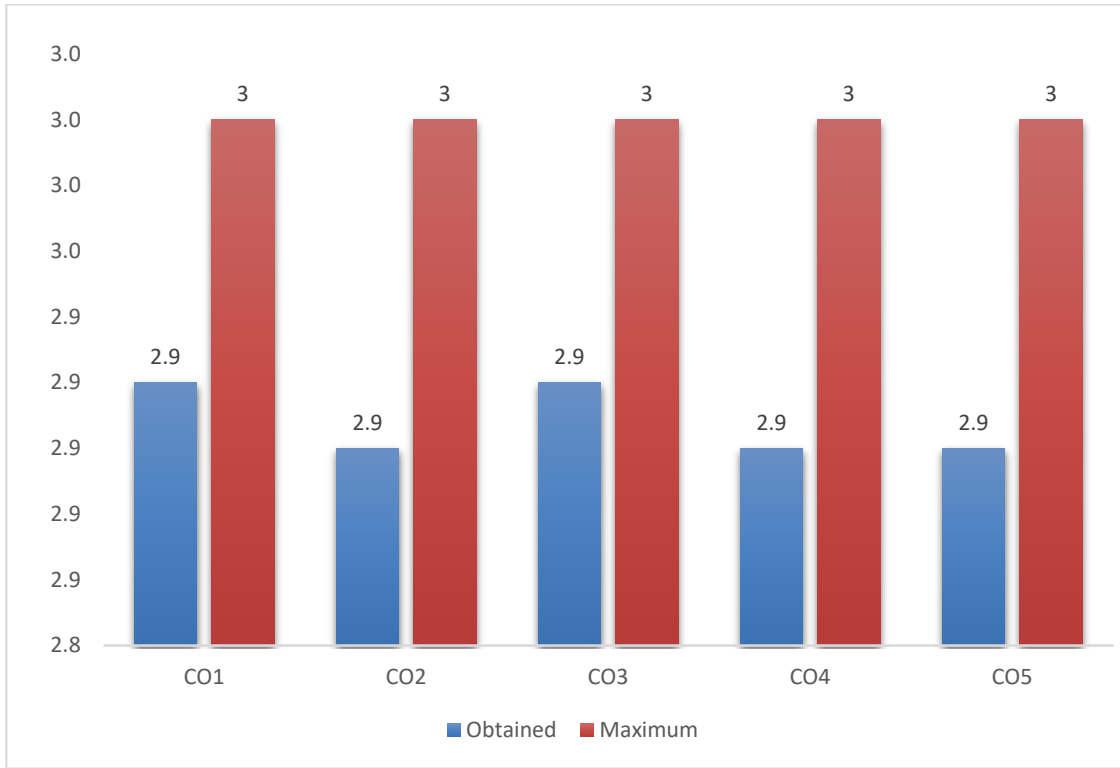
	<b>COURSE OUTCOMES</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>CO1</b>	Nutraceuticals and Functional foods	II (UNDERSTAND)
<b>CO2</b>	Nutraceutical rich supplements	II (UNDERSTAND)
<b>CO3</b>	Functional foods as Remedies for Common disorders	IV (ANALYZE)
<b>CO4</b>	Nutraceuticals as Remedies for Common disorders	III (APPLY)
<b>CO5</b>	Role of Dietary fibers in disease prevention	IV (ANALYZE)

Course outcomes	Programme Outcomes				Program Specific outcomes				
	PO1	PO2	PO3	PO4	PSO1	PSO2	PSO3	PSO4	PSO5
1	H	H		H	S	H	H	S	H
2	S				H				
3	S			S	H		S	H	S
4	H	S		H	H	S		H	
5	S			S	H		S		H

**Table 2: COURSE OUTCOME ATTAINMENT**

co	WEEKLY TEST		MID SEM		PREFINAL		ASSIGNMENT		VIVA-VOCE		ATTENDENCE		co wise internal average	External Exam			co wise total average
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level		pass%	Attainment level	co wise external average	
<b>CO1</b>	88.9	3.0			97.2	3.0	97.2	3.0	97.2	3.0	83.3	2.0	2.8	100.0	3.0	3.0	2.9
<b>CO2</b>	88.9	3.0			97.2	3.0			97.2	3.0	83.3	2.0	2.8	100.0	3.0	3.0	2.9
<b>CO3</b>	88.9	3.0	94.4	3.0	97.2	3.0			97.2	3.0	83.3	2.0	2.8	100.0	3.0	3.0	2.9
<b>CO4</b>			94.4	3.0	97.2	3.0			97.2	3.0	83.3	2.0	2.8	100.0	3.0	3.0	2.9
<b>CO5</b>			94.4	3.0	97.2	3.0			97.2	3.0	83.3	2.0	2.8	100.0	3.0	3.0	2.9

AVERAGE	AVERAGE
3	2.908



**Table 3: PROGRAMME OUTCOME MAPPING**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 2.92	H 2.92		H 2.92		H 2.92	H 2.92	
CO2					H 2.9			
CO3					H 2.92			H 2.92
CO4	H 2.9			H 2.9	H 2.9			H 2.9
CO5					H 2.9			
AVERAGE OF COS FOR POS	2.91	2.92		2.91	2.905	2.92	2.92	2.91
AVERAGE OF POS	2.905	2.92		2.905	2.905	2.92	2.92	2.91
AVERAGE	2.912142857							

**RESULT ANALYSIS: The Total CO attainment of the course is good.**

**COURSE OUTCOME MAPPING**

**2022-2024**

**SEMESTER IV**

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

**COURSE TITLE: FOOD PRESERVATION**

**TECHNIQUES**

**COURSE CODE: MFSN20401**

**CREDITS: 5**

**DEPARTMENT: M.Sc. FOOD SCIENCE AND NUTRITION**

**PROGRAMME OUTCOMES Or POS(MDS):**

**PROGRAM OBJECTIVES (POs)**

**PO 1:** Scientific Knowledge

**PO 2:** Problem analysis

**PO 3:** Effective Communication

**PO 4:** Development of skill and attitude

**PO5:** Lifelong learning and social responsibility

**PROGRAMME SPECIFIC OUTCOME:**

**PROGRAM SPECIFIC OUTCOMES (PSOs)**

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

**PSO2:** Analyze 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 ro overcome food wastage, mal nutrition and lifestyle disorders

**PSO5:** To enable the students to develop skills in planning, calculating, modifying the nutrient requirements and in preparation of therapeutic diets

**PSO6:** understanding of novel and innovative food sciences and emerging technologies to acquire skills in diet counseling and feeding of patients.

	<b>COURSE OUTCOMES</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>CO1</b>	Introduction & high temperature processing	II (UNDERSTAND)
<b>CO2</b>	Low temperature processing	II (APPLY)
<b>CO3</b>	Food additives	IV (EVALUATE)
<b>CO4</b>	Membrane technology	III (CREATE )
<b>CO5</b>	New techniques of preservation	IV (ANALYZE)

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

outcomes	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
C01	H	H		H	S	H	S	H	H		H
C02	H	H		H	S	H	S	H	H		H
C03	H	H		H	S	S	S	H	H		H
C04	H	H		H	S	S	S	H	H		H
C05	H	H		H	S	H	S	H	H		H

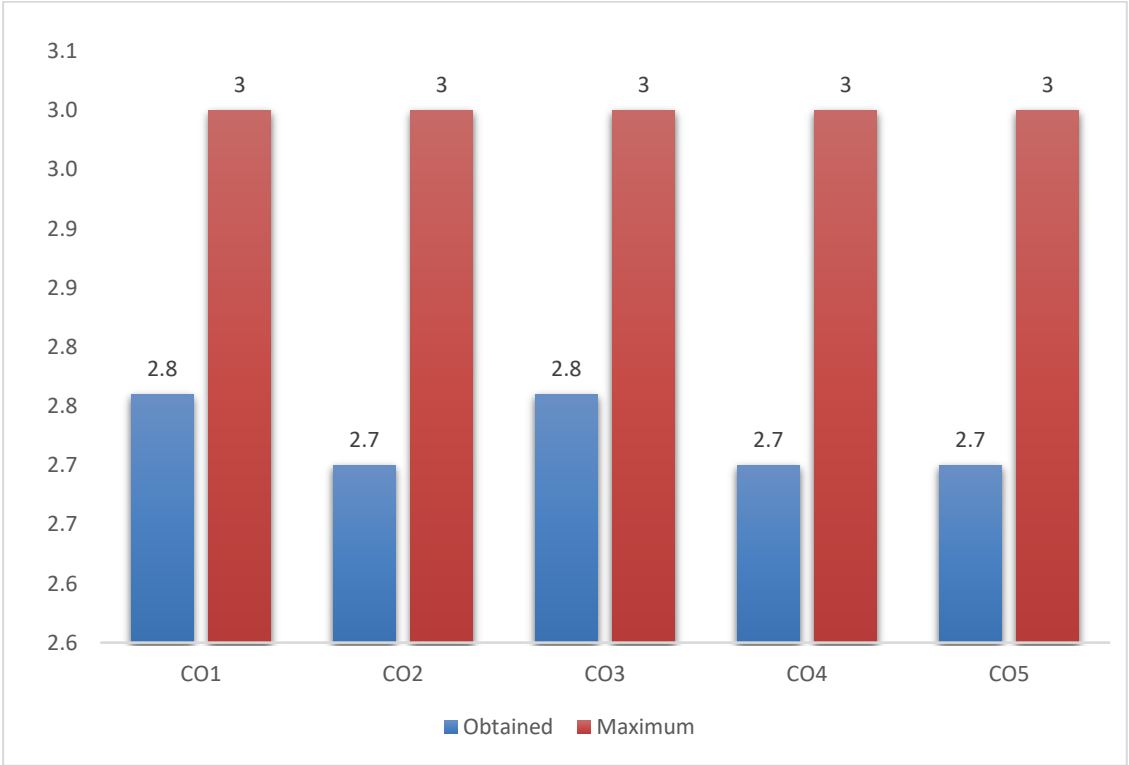
H: Highly Supportive

S: Supportive

**Table 2: COURSE OUTCOME ATTAINMENT**

co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendance		co wise internal average	External Exam			co wise total average
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level		pass%	Attainment level	co wise external average	
CO1	100.0	3.0			88.2	3.0	100.0	3.0	100.0	3.0	47.1	0.0	2.4	97.1	3.0	3.0	2.8
CO2	100.0	3.0			88.2	3.0			100.0	3.0	47.1	0.0	2.3	97.1	3.0	3.0	2.7
CO3	100.0	3.0	100.0	3.0	88.2	3.0			100.0	3.0	47.1	0.0	2.4	97.1	3.0	3.0	2.8
CO4			100.0	3.0	88.2	3.0			100.0	3.0	47.1	0.0	2.3	97.1	3.0	3.0	2.7
CO5			100.0	3.0	88.2	3.0			100.0	3.0	47.1	0.0	2.3	97.1	3.0	3.0	2.7

AVERAGE	AVERAGE
3	2.724



**Table 3: PROGRAMME OUTCOME MAPPING**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 2.76	H 2.76			H 2.76	H 2.76		
CO2	H 2.7	H 2.7			H 2.7	H 2.7		H 2.7
CO3	H 2.76			H 2.76	H 2.76	H 2.76	H 2.76	H 2.76
CO4	H 2.7			H 2.7	H 2.7	H 2.7		H 2.7
CO5	H 2.7	H 2.7		H 2.7	H 2.7	H 2.7	H 2.7	H 2.7
AVERAGE OF COS FOR POS	2.724	2.72		2.72	2.724	2.724	2.73	
AVERAGE OF POS	2.7168	2.706667		2.72	2.7168	2.7168	2.73	2.715
<b>AVERAGE</b>	2.717438095							

**RESULT ANALYSIS: The Total CO attainment of the course is good.**



## **COURSE OUTCOME MAPPING**

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

<p><b>COURSE TITLE: NUTRITION COMMUNICATION FOR HEALTH</b></p> <p><b>PROMOTION</b></p> <p><b>COURSE CODE: MFSN20403A</b></p> <p><b>CREDITS: 4</b></p> <p><b>DEPARTMENT: M.Sc. FOOD SCIENCE AND NUTRITION</b></p>
<p><b>PROGRAMME OUTCOMES Or POS(MDS):</b></p> <p><b>PROGRAM OBJECTIVES (POs)</b> <b>PO 1:</b> Scientific Knowledge <b>PO 2:</b> Problem analysis <b>PO 3:</b> Effective Communication <b>PO 4:</b> Development of skill and attitude <b>PO5:</b> Lifelong learning and social responsibility.</p>
<p><b>PROGRAMME SPECIFIC OUTCOME:</b></p> <p><b>PROGRAM SPECIFIC OUTCOMES (PSOs)</b> <b>PSO1:</b> Understand the concept of food science , nutrition and dietetics. <b>PSO2:</b> Analyze the relationships between various nutrients and physiological disorders and various diet therapies. <b>PSO3:</b> Apply the knowledge of processing and preservation techniques in increasing the shelf life of food products <b>PSO4:</b> Combine the knowledge of food science nutrition and dietetics ro overcome food wastage, mal nutrition and lifestyle disorders <b>PSO5:</b> To enable the students to develop skills in planning, calculating, modifying the nutrient requirements and in preparation of therapeutic diets <b>PSO6:</b> understanding of novel and innovative food sciences and emerging technologies to acquire skills in diet counseling and feeding of patients</p>

	<b>COURSE OUTCOMES</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>CO1</b>	Dietary guidelines	II (UNDERSTAND)
<b>CO2</b>	Nutrition and behavior change	II (EVALUATE )
<b>CO3</b>	Evaluation of communication	IV (ANALYZE)
<b>CO4</b>	Planning of communication strategies	III (APPLY)
<b>CO5</b>	Nutrition advocacy	IV (ANALYZE)

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

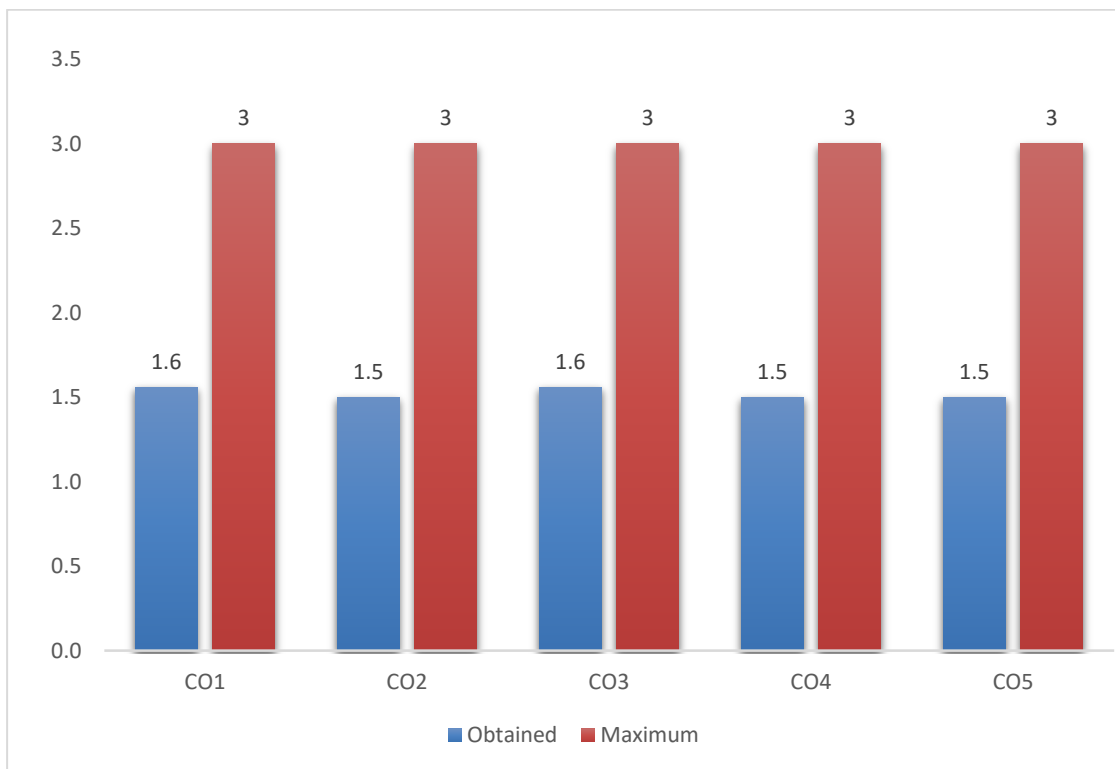
outcomes	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
C01	H	S	H	S	H	S	H	H	H	S	H
C02	H	S	H	H	H	S	H	H	H	S	H
C03	H	S	H	S	H	S	S	S	H	S	H
C04	H	S	H	H	H	S	H	S	H	S	H
C05	H	S	H	H	H	S	S	H	H	S	H

H: Highly Supportive  
S: Supportive

**Table 2: COURSE OUTCOME ATTAINMENT**

co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendance		External Exam				
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	co wise internal average	pass%	Attainment level	co wise external average	co wise total average
CO1	100.0	3.0			100.0	3.0	100.0	3.0	100.0	3.0	12.5	0.0	2.4	68.8	1.0	1.0	1.6
CO2	100.0	3.0			100.0	3.0			100.0	3.0	12.5	0.0	2.3	68.8	1.0	1.0	1.5
CO3	100.0	3.0	93.8	3.0	100.0	3.0			100.0	3.0	12.5	0.0	2.4	68.8	1.0	1.0	1.6
CO4			93.8	3.0	100.0	3.0			100.0	3.0	12.5	0.0	2.3	68.8	1.0	1.0	1.5
CO5			93.8	3.0	100.0	3.0			100.0	3.0	12.5	0.0	2.3	68.8	1.0	1.0	1.5

AVERAGE	AVERAGE
1	1.524



**Table 3: PROGRAMME OUTCOME MAPPING**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 1.56		H 1.56		H 1.56		H 1.56	H 1.56
CO2	H 1.5		H 1.5	H 1.5	H 1.5		H 1.5	H 1.5
CO3	H 1.56		H 1.56		H 1.56			
CO4	H 1.5		H 1.5	H 1.5	H 1.5		H 1.5	
CO5	H 1.5		H 1.5	H 1.5	H 1.5			H 1.5
AVERAGE OF COS FOR POS	1.524		1.524	1.5	1.524		1.52	1.52
AVERAGE OF POS	1.5168		1.5168	1.5	1.5168		1.506667	1.506667
AVERAGE	1.510622222							

**RESULT ANALYSIS: The Total CO attainment of the course is good.**

## **COURSE OUTCOME MAPPING**

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

<p><b>COURSE TITLE: NUTRITION</b></p> <p><b>COMMUNICATION AND DIET COUNSELING</b></p> <p><b>COURSE CODE: MFSN20403B</b></p> <p><b>CREDITS: 4</b></p>
<p><b>DEPARTMENT: M.Sc. FOOD SCIENCE AND NUTRITION</b></p>
<p><b>PROGRAMME OUTCOMES Or POS(MDS):</b></p> <p><b>PROGRAM OBJECTIVES (POs)</b> <b>PO 1:</b> Scientific Knowledge <b>PO 2:</b> Problem analysis <b>PO 3:</b> Effective Communication <b>PO 4:</b> Development of skill and attitude <b>PO5:</b> Lifelong learning and social responsibility.</p>
<p><b>PROGRAMME SPECIFIC OUTCOME:</b></p> <p><b>PROGRAM SPECIFIC OUTCOMES (PSOs)</b> <b>PSO1:</b> Understand the concept of food science , nutrition and dietetics. <b>PSO2:</b> Analyze the relationships between various nutrients and physiological disorders and various diet therapies. <b>PSO3:</b> Apply the knowledge of processing and preservation techniques in increasing the shelf life of food products <b>PSO4:</b> Combine the knowledge of food science nutrition and dietetics ro overcome food wastage, mal nutrition and lifestyle disorders <b>PSO5:</b> To enable the students to develop skills in planning, calculating, modifying the nutrient requirements and in preparation of therapeutic diets <b>PSO6:</b> understanding of novel and innovative food sciences and emerging technologies to acquire skills in diet counseling and feeding of patients</p>

	<b>COURSE OUTCOMES</b>	<b>BLOOM'S TAXONOMY LEVEL</b>
<b>CO1</b>	Nutrition and behavior change	II (UNDERSTAND)
<b>CO2</b>	Implementing behavior change communication	II (UNDERSTAND)
<b>CO3</b>	Planning of communication strategies	IV (APPLY)
<b>CO4</b>	Medical teams and outreach services	III (ANALYSE)
<b>CO5</b>	Motivating Patients	IV (EVALUATE)

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

outcomes	PO1	PO2	PO3	PO4	PO5	PS01	PSO2	PS03	PSO4	PSO5	PSO6
C01	H	S		H	H	H	H	S	S	H	H
C02	H	S		H	H	H	H	S	S	H	H
C03	S	S		H	H	S	S		S	H	H
C04	H	S		H	H	H	S		S	H	H
C05	H	S		H	H	H	S	S	S	H	H

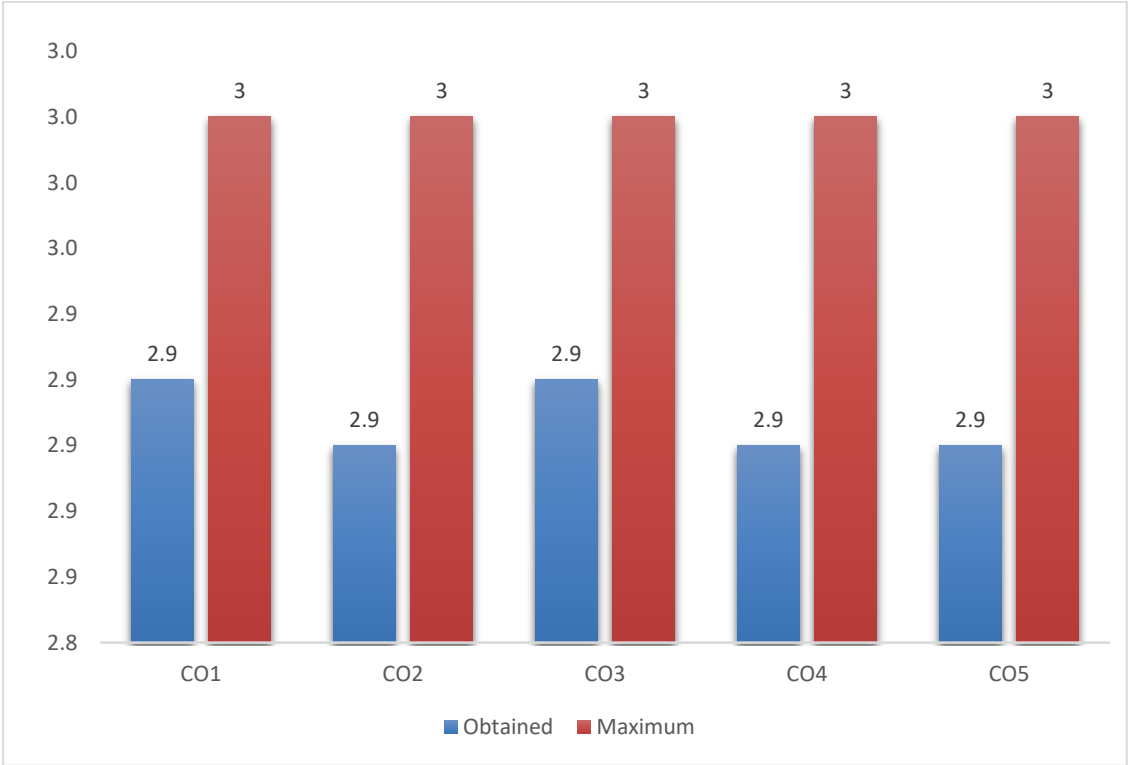
H: Highly Supportive  
S: Supportive

**Table 2: COURSE OUTCOME ATTAINMENT**

co	mid exam 1		mid exam 2		group discussion		assignment		viva		Attendance		co wise internal average	External Exam		co wise total average	
	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level	pass%	Attainment level		pass%	Attainment level		co wise external average
CO1	100.0	3.0			100.0	3.0	100.0	3.0	100.0	3.0	82.4	2.0	2.8	88.2	3.0	3.0	2.9
CO2	100.0	3.0			100.0	3.0			100.0	3.0	82.4	2.0	2.8	88.2	3.0	3.0	2.9
CO3	100.0	3.0	100.0	3.0	100.0	3.0			100.0	3.0	82.4	2.0	2.8	88.2	3.0	3.0	2.9
CO4			100.0	3.0	100.0	3.0			100.0	3.0	82.4	2.0	2.8	88.2	3.0	3.0	2.9
CO5			100.0	3.0	100.0	3.0			100.0	3.0	82.4	2.0	2.8	88.2	3.0	3.0	2.9

AVERAGE	AVERAGE
3	2.908

┌



**Table 3: PROGRAMME OUTCOME MAPPING**

OUTCOME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	H 2.92			H 2.92	H 2.92	H 2.92	H 2.92	
CO2	H 2.9			H 2.9	H 2.9	H 2.9	H 2.9	
CO3				H 2.92	H 2.92			
CO4	H 2.9			H 2.9	H 2.9	H 2.9		
CO5	H 2.9			H 2.9	H 2.9	H 2.9		
AVERAGE OF COS FOR POS	2.905			2.908	2.908	2.905	2.91	
AVERAGE OF POS	2.90125			2.9056	2.9056	2.90125	2.905	
AVERAGE	2.90374							

**RESULT ANALYSIS: The Total CO attainment of the course is good.**

