OUTCOME ANALYSIS
(MAPPING OF CO- PO AND ATTAINMENT)
PROGRAMME
M.SC. HOME SCIENCE (FOOD AND NUTRITION)
SESSION 2022-2024
DEPARTMENT OF HOME SCIENCE
SWAMI VIVEKANAND SUBHARTI UNIVERSITY

Programme Objectives-

1. To impart the understanding of the concepts of the biochemistry, food- chemistry and food microbiology, and applicability of various settings.
2. To enable the students to learn the human nutritional need and methods to assess them for required paining of therapeutic diets.
3. To apply theoretical concepts in laboratory settings as per standards methods in area of biochemistry, food- chemistry and food microbiology.
4. To understand the application of nutritional sciences in clinical settings and ways to counsel and educate the population for improved health outcomes and better organizational management.
5. To acquire skills to undertake systematic research in areas of food science and nutrition.

Programme Outcomes

PO1. The post-graduates will be able to understand the concepts of biochemistry, food chemistry and food microbiology
PO2. The post-graduates will be able to learn the methods of assessing human nutritional requirements, nutritional assessment and diet planning
PO3. The post-graduates will be able to apply theoretical concepts in laboratory setting as per standard methods
PO4. The post-graduates will be able to understand the applications of nutritional sciences in clinical interventions, communication for health promotion, food service management, food science and processing
PO5. The post-graduates will be able to acquire skills to undertake systematic research in the area of food science and nutrition

MAPPING OF COURSE OUTCOMES

Assessment, Attainment Criteria and Levels

1. Direct Assessment- 80%
   a. University Exams- 70%
   b. Sessional Exams- 30 %
2. Indirect Assessment – 20% (Course Exit Survey)

Sessional Examination

1. Attainment Level I: 60% of students scoring more than 50% marks out of the maximum marks
2. Attainment Level II: 70% of students scoring more than 50% marks out of the maximum marks
3. Attainment Level III: 80% of students scoring more than 50% marks out of the maximum marks

University Examination

1. Attainment Level I: 60% of students scoring more than 50% marks out of the maximum marks
2. Attainment Level II: 70% of students scoring more than 50% marks out of the maximum marks
3. Attainment Level III: 80% of students scoring more than 50% marks out of the maximum marks

Course Exit Survey

1. Attainment Level I: Average Score of 60% of students more than 3 (scale of 5)
2. Attainment Level II: Average Score of 70% of students more than 3 (scale of 5)
3. Attainment Level III: Average Score of 80% of students more than 3 (scale of 5)

SEMESTER I

M.Sc. FOOD & NUTRITION

SEMESTER I

RESEARCH METHODOLOGY (M.Sc.-HS-101)

Course Objectives:

1. Recognize the role of statistics and research methodology in Home Science.
2. Explore various research types, tools, and methods.
3. Create effective data-gathering instruments for research.
4. Use appropriate statistical methods for analysis.
5. Implement research designs that ensure accurate measurement and analysis.

Course Outcomes

1. To understand the concept of the field

2. To unable the students to learn the methods of assessment and plan the diet

3. To apply the theoretical concepts in laboratory setting

4. To understand the applications of nutritional sciences in clinical interventions,

communication for health promotion, food service management, food science and processing

5. To acquire skills to undertake systematic research in the area of food science and nutrition

CO-PO Mapping Course Outcomes of M.Sc. HS-101

Course Outcomes

	PO1	PO2	PO3	PO4	P05
CO1	2	2	2	2	0
CO2	2	2	2	0	3
CO3	2	0	1	1	2
CO4	2	0	2	0	3
CO5	2	2	2	0	3
Total	**10**	6	9	3	11
Average of filled	**2**	**2**	**1.6**	**1.5**	**2.75**

Direct Assessment of M.Sc. HS 101

Total Number of Students	% of marks expected	Sessional	End Semester Exams
13	50	100% of students secured more than 50% of marks	100 % of students secured more than 50% of marks
Scored Attainment		**3**	3

Calculated Value for Direct Assessment-

Sessional- 30% of 3= 30x3/ 100= .9

University End Semester Exams- 70% of 3= 70x3/ 100= 2.1

Total Direct Assessment Value= 2.1+0.9 = 3

Overall Calculated Direct Assessment Value= 80% of 3= 80x3/ 100= 2.4

Indirect Assessment (Course Exit Survey on 5 Scale)

Total Student:-13

S.No.	Average score of Course Exit Survey (student wise)
1.	4.2
2.	4.8
3.	4.6
4.	4.2
5.	3.6
6.	4.1
7.	4.8
8.	4.2
9.	4.2
10.	4.1
11.	4.2
12.	4.2
13.	4.2
100% of responses are more than 3 scale	
Level	3

Calculated Value for Indirect Assessment - 20% of 3= 20x3/ 100= 0.6

Overall Assessment of Attainment of Direct and Indirect Value= 0.6+2.4= 3

Matrix to Calculate the Attainment Score of M.Sc. Home Science

M.Sc. HS 101	Calculated Attainment	PO1	PO2	PO3	PO4	PO5
		2	2	1.63	1.5	2.75
Attainment Score	**3**	3x2/3 = 2	3x2/3 = 2	3x1.63/3 = 1.63	3x1.5/3 = 1.5	3x2.75/3 =2.75
Status of Attainment		Yes	Yes	Yes	Yes	Yes

Action Plan for Attainment of CO-PO For the next year

S. No.	
1	Improve the learning experience
2	Increase the use of ICT in teaching, learning and assessment so that learns are equipped with the necessary skills to meet the challenges of a rapidly changing learning environment

M.Sc. FOOD & NUTRITION

SEMESTER I

ADVANCED NUTRITIONAL BIOCHEMISTRY (M.Sc.-FN-102)

Course Objectives

1. To enhance the biochemistry knowledge
2. To understand the mechanisms adopted by the human body for regulation of metabolic pathways.
3. To understand the mechanisms adopted by the human body for regulation of metabolic pathways.
4. To understand the principles and use of Instruments used for biochemical analysis.

Course Outcomes

1. To impart the understanding of the concepts of biochemistry, food chemistry and food Microbiology.
2. To enable the students to learn the methods of assessing human nutritional requirements,
3. nutritional assessment and diet planning
4. To understand the applications of nutritional sciences in clinical interventions,

CO-PO Mapping Course Outcomes of M.Sc. HS-102

Course Outcomes

	PO1	PO2	PO3	PO4	PO5
CO1	2	1	2	2	2
CO2	1	2	2	2	2
CO3	1	2	2	1	2
CO4	2	2	2	2	2
Total	6	7	8	7	8
Average of filled	**1.5**	**1.75**	**2**	**1.75**	**2**

Direct Assessment of M.Sc. FN-102

Total Number of Students	% of marks expected	Sessional	End Semester Exams
13	50	92% of students secured more than 50% of marks	100 % of students secured more than 50% of marks
Scored Attainment		**3**	3

Calculated Value for Direct Assessment-

Sessional- 30% of 3= 30x3/ 100= .9

University End Semester Exams- 70% of 3= 70x3/ 100= 2.1

Total Direct Assessment Value= 2.1+0.9 = 3

Overall Calculated Direct Assessment Value= 80% of 3= 80x3/ 100= 2.4

Indirect Assessment (Course Exit Survey on 5 scale)

Total Student: -13

S. No.	Average score of Course Exit Survey(student wise)
1.	4.7
2.	3.7
3.	4
4.	3.5
5.	4.7
6.	4
7.	4.5
8.	4.7
9.	3.7
10.	4
11.	3.5
12.	4.7
13	4
100% of responses are more than 3 scale	
Level	3

Calculated Value for Indirect Assessment - 20% of 3= 20x3/ 100= 0.6

Overall Assessment of Attainment of Direct and Indirect Value= .6+2.4= 3

Matrix to Calculate the Attainment Score of M.Sc. Home Science

	Calculated Attainment	PO1	PO2	PO3	PO4	PO5
Average CO-PO mapped Value	**3**	**1.5**	**1.75**	**2**	**1.75**	**2**
Attainment Score		**3X1.5/3 =1.5**	**3x1.75/3 = 1.75**	**3x2/3 = 2**	**3x1.75/3 = 1.75**	**3x2/3 = 2**
Status of Attainment		**Yes**	**Yes**	**Yes**	**Yes**	**Yes**

Action Plan for Attainment of CO-PO For the next year

S. No.	
1	Improve the learning experience
2	Increase the use of ICT in teaching, learning and assessment so that learns are equipped with the necessary skills to meet the challenges of a rapidly changing learning environment

M.Sc. FOOD & NUTRITION
HUMAN PHYSIOLOGY
M.Sc.-FN-103

Course Objectives

1. Understand the physiology of the human body.
2. Develop insight of normal functioning of all the organ systems of the body and their interactions.
3. Comprehend the path physiology of commonly occurring diseases.

Course Outcomes

1. To gain knowledge about the human body and assess the normal functioning of all the organ systems of the body and their interactions.
2. To know the proper working of specific organ and related their hormone
3. Apply the knowledge of physiology of body in their life routine.

CO-PO Mapping course Outcomes of M.Sc. HS-103

Course Outcomes

	PO1	PO2	PO3	PO4	PO5
CO1	1	1	3	1	0
CO2	1	1	1	1	0
CO3	1	0	0	0	0
Total	3	2	4	**2**	**0**
Average of filled	**1**	**1**	**2**	**1**	**0**

Direct Assessment of M.Sc. 103

Total Number of Students	% of marks expected	Sessional	End Semester Exams
13	50	100% of students secured more than 50% of marks	92% of students secured more than 50% of marks

Scored Attainment	3	3

Calculated Value for Direct Assessment-

Sessional- 30% of 3= 30x3/ 100= .9

University End Semester Exams- 70% of 3= 70x3/ 100= 2.1

Total Direct Assessment Value= 2.1+0.9 = 3

Overall Calculated Direct Assessment Value= 80% of 3= 80x3/ 100= 2.4

Indirect Assessment (Course Exit Survey on 5 scale)

Total Students-13

S.No.	Average score of Course Exit Survey(student wise)
1.	4.7
2.	3.25
3.	3.5
4.	3.5
5.	4.5
6.	3.75
7.	3.75
8.	4.7
9.	3.25
10.	3.5
11.	3.5
12.	4.5
13.	3.75
100% of responses are more than 3 scale	
Level	3

Calculated Value for Indirect Assessment - 20% of 3= 20x3/ 100= 0.6

Overall Assessment of Attainment of Direct and Indirect Value= 2.4+0.6= 3

Matrix to Calculate the Attainment Score of M.Sc. Home Science

	Calculated Attainment					
		PO1	PO2	PO3	PO4	PO5
Average CO-PO mapped Value		1	1	2	1	0

Attainment Score		3X1/3 = 1	3X1/3 = 1	3X2/3 = 2	3X1/3 = 1	3X0/3 = 0
	3					
Status of Attainment		**Yes**	Yes	Yes	Yes	Yes

Action Plan for Attainment of CO-PO For the next year

S. No.	
1	Improve the learning experience
2	Increase the use of ICT in teaching, learning and assessment so that learns are equipped with the necessary skills to meet the challenges of a rapidly changing learning environment

M.Sc. FOOD & NUTRITION

ADVANCES IN FOOD MICROBIOLOGY

M.Sc.-FN-104

Course Objective

1. Understand the microbial flora associated with food
2. Acquire knowledge on beneficial role of microorganism and relevance of microbiological safety of food
3. Understand the conventional and rapid methods for detection of food borne pathogens and their toxins.
4. Understand the role of microbes in microbial contamination of food.

Course Outcomes

1. To impart the understanding of the concepts of food microbiology **and** enable the students to learn the methods of assessing microorganism in food industry.
2. To apply theoretical concepts in laboratory setting as per standard methods of Food Microbiology
3. To understand the applications of microorganism in food science and processing
4. To acquire skills to undertake systematic research in the area of food microbiology, food

CO-PO Mapping course Outcomes of M.Sc. HS-104

Course Outcomes

	PO1	PO2	PO3	PO4	PO5
CO1	2	2	1	1	2
CO2	2	2	1	1	3
CO3	2	2	1	2	3
CO4	2	2	1	2	3
Total	8	**8**	4	6	**11**
Average of filled	**2**	**2**	**1.25**	**1.5**	**2.75**

Direct Assessment of M.Sc. FN 104

Total Number of Students	% of marks expected	Sessional	End Semester Exams
07	50	100 % of students secured more than 50% of marks	100 % of students secured more than 50% of marks
Scored Attainment		**3**	**3**

Calculated Value for Direct Assessment-

Sessional- 30% of 3= 30x3/ 100= .9

University End Semester Exams- 70% of 3= 70x3/ 100= 2.1

Total Direct Assessment Value= 2.1+0.9 = 3

Overall Calculated Direct Assessment Value= 80% of 3= 80x3/ 100= 2.4

Indirect Assessment (on 5 scale)

Total Students-13

S.No.	Average score of Course Exit Survey(student wise)
1.	4.7
2.	4
3.	4.2
4.	3.7
5.	4.7
6.	4
7.	3.7
8.	4.7
9.	4
10.	4.2
11.	3.7
12.	4.7
13.	4
78.57% of responses are more than 3 scale	
Level	3

Calculated Value for Indirect Assessment - 20% of 3= 20x3/ 100= 0.6

Overall Assessment of Attainment of Direct and Indirect Value= 2.4+0.6= 3

Matrix to Calculate the Attainment Score of M.Sc. Home Science

	Calculated Attainment	PO1	PO2	PO3	PO4	PO5
Average CO-PO mapped Value	3	**2**	**2**	**1.25**	**1.5**	**2.75**
Attainment Score		**3X2/3= 2**	**3X2/3= 2**	**3x1.25/3= 1.25**	**3x1.5/3= 1.5**	**3x2.75/3= 2.75**
Status of Attainment		**Yes**	**Yes**	**Yes**	**Yes**	**Yes**

Action Plan for Attainment of CO-PO For the next year

S. No.	
1	Improve the learning experience
2	Increase the use of ICT in teaching, learning and assessment so that learns are equipped with the necessary skills to meet the challenges of a rapidly changing learning environment

M.Sc. FOOD & NUTRITION

METHODS OF INVESTIGATION

M.Sc.-FN-105

Course Objectives

1. To familiarize with the applications of the above techniques.
2. To understand the principles of various analytical techniques available for nutrition research.
3. To apply the principles of various analytical techniques available for nutrition research.

Course Outcomes

1. To unable the students to learn the methods of assessment and plan the diet

2. Applications of nutritional sciences in clinical interventions, communication for health promotion, food service management, food science and processing

3. To acquire skills to undertake systematic research in the area of food science and nutrition

CO-PO Mapping course Outcomes of M.Sc.-HS-105

Course Outcomes

	PO1	PO2	PO3	PO4	PO5
CO1	2	2	2	2	2
CO2	2	2	3	2	3
CO3	2	3	2	2	3
Total	6	7	7	6	**8**
Average of filled	**2**	**2.3**	**2.3**	**2**	**2.6**

Direct Assessment of M.Sc. HS105

Total Number of Students	% of marks expected	Sessional	End Semester Exams

13	50	100% of students secured more than 50% of marks	100% of students secured more than 50% of marks
Scored Attainment		**3**	**3**

Calculated Value for Direct Assessment-

Sessional- 30% of 3= 30x3/ 100= .9

University End Semester Exams- 70% of 3= 70x3/ 100= 2.1

Total Direct Assessment Value= 2.1+0.9 = 3

Overall Calculated Direct Assessment Value= 80% of 3= 80x3/ 100= 2.4

Indirect Assessment (Course Exit Survey on 5 scale)

Total Students-13

S.No.	Average score of Course Exit Survey (student wise)
1.	4.6
2.	3.6
3.	4.3
4.	4
5.	5
6.	4.7
7.	4
8.	4.3
9.	4
10.	5
11.	4.7
12.	4.6
13.	3.6
85.71% of responses are more than 3 scale	
Level	3

Calculated Value for Indirect Assessment - 20% of 3= 20x3/ 100= 0.6

Overall Assessment of Attainment of Direct and Indirect Value= 2.4+0.6= 3

Matrix to Calculate the Attainment Score of M.Sc. Home Science

	Calculated Attainment	PO1	PO2	PO3	PO4	PO5
Average CO-PO mapped Value	3	2	2.3	2.3	2	2.6
Attainment Score		**3x2/3 = 2**	**3x2.3/3 = 2.3**	**3x2.3/3 = 2.3**	**3x2/3 = 2**	**3x2.6/3 = 2.6**
Status of Attainment		**Yes**	**Yes**	**Yes**	**Yes**	**Yes**

SEMESTER II

M.Sc. FOOD & NUTRITION

Statistics and computer application

SEMESTER II

(M.Sc.-HS-201)

Course Objectives:

1. Comprehend the importance of statistics and research methodology in Home Science research.
2. Familiarize with various types, tools, and methods of research.
3. Gain skills to construct data-gathering instruments that align with research design.
4. Learn to select and apply appropriate statistical methods for analyzing research data.
5. Understand and evaluate different research designs to ensure effective measurement and analysis.

Course Outcomes

1. To understand the concept of the field

2. To unable the students to learn the methods of assessment and plan the diet

3.To apply the theoretical concepts in laboratory setting

4. To understand the applications of nutritional sciences in clinical interventions,

communication for health promotion, food service management, food science and processing

5. To acquire skills to undertake systematic research in the area of food science and nutrition

CO-PO Mapping Course Outcomes of M.Sc. HS-201

Course Outcomes

	PO1	PO2	PO3	PO4	P05
CO1	2	2	2	2	0
CO2	2	2	2	0	3
CO3	2	0	1	1	2
CO4	2	0	2	0	3
CO5	2	2	2	0	3
Total	**10**	6	9	3	11
Average of filled	**2**	**2**	**1.6**	**1.5**	**2.75**

M.Sc. Home Science FN Sem II- 201

Direct Assessment

Total Number of Students	% of marks expected	Sessional	End Semester Exams
13	50	100 % of students secured more than 50% of marks	76% of students secured more than 50% of marks
Scored Attainment	3	3	3

Calculated Value for Direct Assessment-

Sessional- 30% of 3= 30x3/ 100= 0.9

University End Semester Exams- 70% of 3= 70x3/ 100= 2.1

Total Direct Assessment Value= 0.9+2.1=3

Overall Calculated Direct Assessment Value= 80% of 3= 80x3/ 100= 2.4

Indirect Assessment (on 5 scale) No. of Students-13

Sl. No.	Average score of course exit survey (student wise)
1	4.8
2	3.8
3	3.8
4	3.8
5	4.8
6	4.2
7	4.2
8	3.8
9	3.8
10	4.8
11	4.2
12	4.2
13	3.8
100% of responses are more than 3 scale	

Level	3

Calculated Value for Indirect Assessment - 20% of 3= 20x3/ 100= 0.6

Overall Assessment of Attainment of Direct and Indirect Value= 2.4+0.6= 3

Matrix to Calculate the Attainment Score of M.Sc. Home Science

M.Sc. HS 101	**Calculated Attainment**	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**
		2	2	1.6	1.5	2.75
Attainment Score	**3**	**2x3/3 = 2**	**2x3/3 = 2**	**1.6x3/3 = 1.6**	**1.5x3/3 = 1.5**	**2.75x3/3 = 2.75**
Status of Attainment		**Yes**	**Yes**	**Yes**	**Yes**	**Yes**

Action Plan for Attainment of CO-PO For the next year

S. No.	
1	Improve the learning experience
2	Increase the use of ICT in teaching, learning and assessment so that learns are equipped with the necessary skills to meet the challenges of a rapidly changing learning environment

M.Sc. FOOD & NUTRITION

SEMESTER II

Advance Nutrition

(M.Sc.-FN-202)

Course Objectives

1. To enhance the biochemistry knowledge
2. To understand the mechanisms adopted by the human body for regulation of metabolic pathways.
3. To understand the mechanisms adopted by the human body for regulation of metabolic pathways.
4. To understand the principles and use of Instruments used for biochemical analysis.

Course Outcomes

1. To impart the understanding of the concepts of biochemistry, food chemistry and food microbiology
2. To enable the students to learn the methods of assessing human nutritional requirements, nutritional assessment and diet planning
3. To understand the applications of nutritional sciences in clinical interventions, communication for health promotion, food service management, food science and processing
4. To acquire skills to undertake systematic research in the area of food science and nutrition

CO-PO Mapping course Outcomes of M.Sc. FN-202

Course Outcomes

	PO1	PO2	PO3	PO4	PO5
CO1	2	1	2	2	2
CO2	1	2	2	2	2
CO3	1	2	2	1	2
CO4	2	2	2	2	2
Total	6	7	8	7	8

Average of filled	1.5	1.75	2	1.75	2

Direct Assessment

Total Number of Students	% of marks expected	Sessional	End Semester Exams
13	50	100 % of students secured more than 50% of marks	84 % of students secured more than 50% of marks
Scored Attainment	3	3	3

Calculated Value for Direct Assessment-

Sessional- 30% of 3= 30x3/ 100= 0.9

University End Semester Exams- 70% of 3= 70x3/ 100= 2.1

Total Direct Assessment Value= 2.1+ 0.9= 3

Overall Calculated Direct Assessment Value= 80% of 3= 80x3/ 100= 2.4

Indirect Assessment (on 5 scale) Total no. of Students- 13

Sl. No.	Average score of course exit survey (student wise)
1	5
2	4
3	3.7
4	4.2
5	4.7
6	4.2
7	3.5
8	4.2
9	4.7
10	4.2
11	3.5
12	4.2
13	4.2

100% of responses are more than 3 scale	
Level	3

Calculated Value for Indirect Assessment - 20% of 3= 20x3/ 100= 0.6

Overall Assessment of Attainment of Direct and Indirect Value= 0.6+2.4= 3

Matrix to Calculate the Attainment Score of M.Sc. FN

	Calculated Attainment	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**
Average CO-PO mapped Value	**3**	**1.5**	**1.75**	**2**	**1.75**	**2**
Attainment Score		3X1.5/3 = 1.5	3x1.75/3 = 1.75	3x2/3 =2	3x1.75/3 = 1.75	3x2/3 =2
Status of Attainment		**Yes**	**Yes**	**Yes**	**Yes**	**Yes**

Action Plan for Attainment of CO-PO For the next year

S. No.	
1	Improve the learning experience
2	Increase the use of ICT in teaching, learning and assessment so that learns are equipped with the necessary skills to meet the challenges of a rapidly changing learning environment

Course Objectives:

1. Gain a foundational knowledge of the physiology of the human body.
2. Develop an understanding of the normal functioning and interactions of various organ systems.
3. Comprehend the pathophysiology of common diseases and their impact on the body.
4. Apply knowledge of physiology and pathophysiology to understand health and disease processes.

Course Outcomes

1. To gain knowledge about the human body and assess the normal functioning of all the organ systems of the body and their interactions.

2. To know the proper working of specific organ and related their hormone

3. Apply the knowledge of physiology of body in their life routine.

4. To acquires the skill to undertake systematic area of bio-chemistry.

CO-PO Mapping course Outcomes of M.Sc.FN-203

Course Outcomes

	PO1	PO2	PO3	PO4	PO5
CO1	1	1	3	1	0
CO2	1	1	1	1	0
CO3	1	0	0	0	0
CO4	1	0	0	1	0
Total	4	2	4	3	**0**
Average of filled	**1**	**0.5**	**2**	**0.75**	**0**

Total Number of Students	% of marks expected	Sessional	End Semester Exams
13	50	100% of students secured more than 50% of marks	92% of students secured more than 50% of marks
Scored Attainment	3	3	3

Calculated Value for Direct Assessment-

Sessional- 30% of 3= 30x3/ 100= .9

University End Semester Exams- 70% of 3= 70x3/ 100= 2.1

Total Direct Assessment Value= 2.1+0.9 = 3

Overall Calculated Direct Assessment Value= 80% of 3= 80x3/ 100= 2.4

Indirect Assessment (Course Exit Survey on 5 scales) Indirect Assessment (Course Exit Survey on 5 scales) Total no. of Students- 13

Sl. No.	Average score of course exit survey (student wise)
1	4.7
2	3.5
3	4
4	4
5	4.25
6	4.5
7	4.25
8	4
9	4
10	4.25
11	4.5
12	4.25
13	4.25
100% of responses are more than 3 scale	
Level	3

Calculated Value for Indirect Assessment - 20% of 3= 20x3/ 100= 0.6

Overall Assessment of Attainment of Direct and Indirect Value= 2.4+0.6= 3

Matrix to Calculate the Attainment Score of M.Sc. Food and Nutrition

	Calculated Attainment	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**
Average CO-PO mapped Value		1	0.5	2	0.75	0
Attainment Score	**3**	**3X1/3= 1**	**0.5X1/3= 1**	**2X2/3= 2**	**0.75X1/3= 1**	**3X0/3= 0**
Status of Attainment		**Yes**	Yes	Yes	Yes	NO

Action Plan for Attainment of CO-PO For the next year

S. No.	
1	Improve the learning experience
2	Increase the use of ICT in teaching, learning and assessment so that learns are equipped with the necessary skills to meet the challenges of a rapidly changing learning environment

Food Packaging and Sensory Evaluation

M.Sc.-FN-204

Course Objective

1. Understand the microbial flora associated with food
2. Acquire knowledge on beneficial role of microorganism and relevance of microbiological safety of food
3. Understand the conventional and rapid methods for detection of food borne pathogens and their toxins.
4. Understand the role of microbes in microbial contamination of food.

Course Outcomes

1. To impart the understanding of the concepts of food microbiology **and** enable the students to learn the methods of assessing microorganism in food industry.

2. To apply theoretical concepts in laboratory setting as per standard methods of food Microbiology.

3. To understand the applications of microorganism in food science and processing

4. To acquire skills to undertake systematic research in the area of food microbiology, food science and nutrition

CO-PO Mapping course Outcomes of M.Sc. FN -204

Course Outcomes

	PO1	PO2	PO3	PO4	PO5
CO1	2	2	1	1	2
CO2	2	2	1	1	3
CO3	2	2	1	2	3
CO4	2	2	1	2	3
Total	8	**8**	4	6	**11**
Average of filled	**2**	**2**	**1.25**	**1.5**	**2.75**

Direct Assessment

Total Number of Students	% of marks expected	Sessional	End Semester Exams
13	50	92%of students secured more than 50% of marks	92% of students secured more than 50% of marks
Scored Attainment	3	3	3

Calculated Value for Direct Assessment-

 Sessional- 30% of 3= 30x3/ 100= 0.9

University End Semester Exams- 70% of 3= 70x3/ 100= 2.1

Total Direct Assessment Value= 2.1+0.9 = 3

Overall Calculated Direct Assessment Value= 80% of 3= 80x3/ 100= 2.4

Indirect Assessment (on 5 scale) , Total no. of students-13

Sl. No.	Average score of course exit survey (student wise)
1	4.7
2	3.5
3	4.7
4	3.7
5	4.7
6	4.25
7	4.25
8	3.5
9	4.7
10	3.7
11	4.7
12	4.25
13	4.25
100%of responses are more than 3 scale	
Level	3

 Calculated Value for Indirect Assessment - 20% of 3= 20x3/ 100= 0.6

Overall Assessment of Attainment of Direct and Indirect Value= 2.4+0.6=3

Matrix to Calculate the Attainment Score of M.Sc. FN

	Calculated Attainment	PO1	PO2	PO3	PO4	PO5
Average CO-PO mapped Value	3	2	**2**	1.25	1.5	2.75
Attainment Score		**3X2/3 = 2**	**3X2/3 = 2**	**3X1.25/3 = 1.25**	**3X1.5/3 = 1.5**	**3X2.75/3 = 2.75**
Status of Attainment		**Yes**	**Yes**	**Yes**	**Yes**	**Yes**

Action Plan for Attainment of CO-PO For the next year

S. No.	
1	Improve the learning experience
2	Increase the use of ICT in teaching, learning and assessment so that learns are equipped with the necessary skills to meet the challenges of a rapidly changing learning environment

M.Sc. FOOD & NUTRITION

Current Trends and Issues in Food and Nutrition

M.Sc.-FN-205

Course Objectives

1. To familiarize with the applications of the above techniques.
2. To understand the principles of various analytical techniques available for nutrition research.
3. To apply the principles of various analytical techniques available for nutrition research.

Course Outcomes

1. To unable the students to learn the methods of assessment and plan the diet

2. Applications of nutritional sciences in clinical interventions, communication for health promotion, food service management, food science and processing

3. To acquire skills to undertake systematic research in the area of food science and nutrition

CO-PO Mapping course Outcomes of M.Sc.FN-205

Course Outcomes

	PO1	PO2	PO3	PO4	PO5
CO1	2	2	2	2	2
CO2	2	2	3	2	3
CO3	2	3	2	2	3
Total	6	7	7	6	**8**
Average of filled	**2**	**2.3**	**2.3**	**2**	**2.6**

Direct Assessment

Total Number of Students	% of marks expected	Sessional	End Semester Exams

7	50	100%of students secured more than 50% of marks	84%of students secured more than 50% of marks
Scored Attainment	3	3	3

Calculated Value for Direct Assessment-

 Sessional- 30% of 3= 30x3/ 100= 0.9

University End Semester Exams- 70% of 3 = 70x3 / 100= 2.1

Total Direct Assessment Value= 0.9+2.1 = 3

Overall Calculated Direct Assessment Value= 80% of 3 = 80x 3/ 100= 2.4

 Indirect Assessment (Course Exit Survey on 5 scale)

Indirect Assessment (on 5 scale), total number of students -13

Sl. No.	Average score of course exit survey (student wise)
1	4.6
2	4
3	4.6
4	4
5	5
6	4.3
7	4.3
8	4
9	4.6
10	4
11	5
12	4.3
13	4.3
100% of responses are more than 3 scale	
Level	3

Calculated Value for Indirect Assessment - 20% of 3= 20x3/ 100= 0.6

Overall Assessment of Attainment of Direct and Indirect Value= 2.4+0.6= 3

Matrix to Calculate the Attainment Score of M.Sc. FOOD AND NUTRITION

	Calculated Attainment					
		PO1	**PO2**	**PO3**	**PO4**	**PO5**
Average CO-PO mapped Value	3	**2**	**2.3**	2.3	2	2.6
Attainment Score		**2x 3/3= 2**	**2.3x3/3 = 2.3**	**2.3x 3/3=2. 3**	**2x3/3 =2**	**2.6x3/3=2.6**
Status of Attainment		**yes**	**yes**	**yes**	**yes**	**yes**

Action Plan for Attainment of CO-PO For the next year

S.No.	
1	Strength strategic oversight and focus on delivery of instructions
2	Deliver appropriate infrastructure for learning environments

M.Sc. FOOD & NUTRITION

NUTRITION FOR HEALTH & FITNESS

M.Sc.-FN- 206

OBJECTIVES:

This course aims to:

1. Explore the components of health and fitness and understand the integral role of nutrition in achieving these goals.
2. Formulate nutritional, dietary, and physical activity recommendations to enhance fitness and overall well-being.
3. Cultivate skills to evaluate and assess fitness levels and overall health status effectively.

COURSE OUTCOMES:

1. Identify and explain the essential components of health and fitness and their interconnections with nutritional strategies to achieve optimal health outcomes.
2. Create individualized nutritional, dietary, and physical activity recommendations that promote enhanced fitness and overall well-being based on evidence-based principles.
3. Apply effective assessment techniques to evaluate fitness levels and overall health status, using this data to make informed decisions for improving personal and others' health and fitness.

CO-PO Mapping course Outcomes of M.Sc.FN-206

Course Outcomes

	PO1	PO2	PO3	PO4	PO5
CO1	2	2	2	2	2
CO2	2	2	3	2	3
CO3	2	3	2	2	3

Total	6	7	7	6	8
Average of filled	**2**	**2.3**	**2.3**	**2**	**2.6**

Direct Assessment

Total Number of Students	% of marks expected	Sessional	End Semester Exams
13	50	76% of students secured more than 50% of marks	100% of students secured more than 50% of marks
Scored Attainment	3	3	3

Calculated Value for Direct Assessment-

Sessional- 30% of 3= 30x3/ 100= 0.9

University End Semester Exams- 70% of 3 = 70x3 / 100= 2.1

Total Direct Assessment Value= 0.9+2.1 = 3

Overall Calculated Direct Assessment Value= 80% of 3 = 80x 3/ 100= 2.4

Indirect Assessment (Course Exit Survey on 5 scale)

Indirect Assessment (on 5 scale), total number of students-13

Sl. No.	Average score of course exit survey (student wise)
1	4.6
2	4
3	4.6
4	4
5	5
6	4.3
7	4.3
8.	4.6
9.	4
10	4.6

11.	4
12	5
13	4.3
100% of responses are more than 3 scale	
Level	3

Calculated Value for Indirect Assessment - 20% of 3= 20x3/ 100= 0.6

Overall Assessment of Attainment of Direct and Indirect Value= 2.4+0.6= 3

Matrix to Calculate the Attainment Score of M.Sc. FOOD AND NUTRITION

	Calculated Attainment					
		PO1	**PO2**	**PO3**	**PO4**	**PO5**
Average CO-PO mapped Value	3	**2**	**2.3**	2.3	2	2.6
Attainment Score		**2x 3/3= 2**	**2.3x3/3 = 2.3**	**2.3x 3/3=2. 3**	**2x3/3 =2**	**2.6x3/3=2.6**
Status of Attainment		**yes**	**yes**	**yes**	**yes**	**yes**

Action Plan for Attainment of CO-PO For the next year

S.No.	
1	Strength strategic oversight and focus on delivery of instructions
2	Deliver appropriate infrastructure for learning environments

M.Sc. FOOD & NUTRITION

NUTRITION IN EMERGENCIES AND DISASTER

M.Sc.-FN-302

Course Objectives

1. This course will make the students familiar with the process of planning and management of public health nutrition programmes.
2. It will help them understand the concept of monitoring of programmes and nutritional surveillance.
3. The students will also learn about nutrition in emergency and disaster situations.

Course Outcomes

1. Get acquainted with the nutritional problems during emergencies/ disasters and the strategies to tackle them.
2. To familiarize students with various natural and manmade emergencies and disasters having an impact on nutrition and health status.
3. Understand strategies for nutritional rehabilitation management of the health of emergency affected populations.

CO-PO Mapping course Outcomes of M.Sc.HS-302

Course Objectives	PO1	PO2	PO3	PO4	PO5
CO1	3	2	1	2	2
CO2	3	2	1	1	2
CO3	3	2	1	2	1
Total	9	6	3	5	5
Average of filled	**3**	**2**	**1**	**1.6**	**1.6**

Direct Assessment

Total Number of Students	% of marks expected	Sessional	End Semester Exams

14	50	85% of students secured more than 50% of marks	100 % of students secured more than 50% of marks
Scored Attainment	**3**	3	3

Calculated Value for Direct Assessment-

 Sessional- 30% of 3= 30x3/ 100= .9

University End Semester Exams- 70% of 3= 70x3/ 100= 2.1

Total Direct Assessment Value= 2.1+0.9 = 3

Overall Calculated Direct Assessment Value= 80% of 3= 80x3/ 100= 2.4

Indirect Assessment (Course Exit Survey on 5 scale)

Indirect Assessment (on 5 scale), total number of students-14

Sl. No.	Average score of course exit survey (student wise)
1	3.5
2	4.5
3	4
4	4.5
5	5
6	3.6
7	3.5
8	4.5
9	4
10	4.5
11	5
12	3.6
13	3.6
14	3.6
100% of responses are more than 3 scale	
Level	3

Calculated Value for Indirect Assessment - 20% of 3= 20x3/ 100= 0.6

Overall Assessment of Attainment of Direct and Indirect Value= 2.4+.6= 3

Matrix to Calculate the Attainment Score of M.Sc. FOOD AND NUTRITION

	Calculated Attainment	PO1	PO2	PO3	PO4	PO5
Average CO-PO mapped Value		3	**2**	1	1.6	1.6
Attainment Score	**3**	**3x3/3 =3**	**3x2/3 =3**	**3x1/3 =1**	**3x1.6/3 =1.6**	**3x1.6/3 =1.6**
Status of Attainment		Yes	Yes	Yes	Yes	Yes

Action Plan for Attainment of CO-PO For the next year

S. No.	
1	Improve the learning experience
2	Increase the use of ICT in teaching, learning and assessment so that learns are equipped with the necessary skills to meet the challenges of a rapidly changing learning environment

Course Objectives:

1. To provide a comprehensive understanding of the role of nutrition in promoting health and preventing diseases in clinical settings.

2. To develop the knowledge and skills necessary to assess, diagnose, and manage nutrition-related conditions in patients.

3. To enhance critical thinking and problem-solving abilities in applying evidence-based nutrition interventions for therapeutic purposes.

Program Outcomes:

1. Graduates will demonstrate proficiency in conducting nutrition assessments and formulating individualized dietary plans for patients with specific medical conditions.

2. Graduates will exhibit a deep understanding of nutrition-related diseases, their pathophysiology, and the role of nutrition therapy in their management.

3. Graduates will possess the ability to effectively communicate and collaborate with healthcare professionals in interdisciplinary settings to optimize patient outcomes through nutrition interventions.

CO-PO Mapping course Outcomes of M.Sc. FN -303A

Course Outcomes

	PO1	**PO2**	**PO3**	**PO4**	**PO5**
CO1	3	3	3	2	2
CO2	3	3	3	3	2
CO3	3	3	3	2	2
Total	9	9	9	7	6
Average of filled	**3**	**3**	**3**	**2.3**	**2**

Direct Assessment

Total Number of Students	% of marks expected	Sessional	End Semester Exams
14	50	92% of students secured more than 50% of marks	100 % of students secured more than 50% of marks
Scored Attainment	3	3	3

Calculated Value for Direct Assessment-

Sessional- 30% of 3= 30x3/ 100= .9

University End Semester Exams- 70% of 3= 70x3/ 100= 2.1

Total Direct Assessment Value= 2.1+0.9 = 3

Overall Calculated Direct Assessment Value= 80% of 3= 80x3/ 100= 2.4

Indirect Assessment (Course Exit Survey on 5 scale)

Indirect Assessment (on 5 scale), total number of students-14

Sl. No.	Average score of course exit survey (student wise)
1	3.89
2	2.07
3	3.92
4	4.67
5	5
6	4.60
7.	3.89
8.	2.07
9	3.92
10	4.67
11	5

12	3.92
13	4.67
14	5
100% of responses are more than 3 scale	
Level	**3**

Calculated Value for Indirect Assessment - 20% of 3= 20x3/ 100= 0.6

Overall Assessment of Attainment of Direct and Indirect Value= 2.4+0.6= 3

Matrix to Calculate the Attainment Score of M.Sc. FN

	Calculated Attainment	PO1	PO2	PO3	PO4	PO5
Average CO-PO mapped Value		**3**	**3**	**3**	**2.3**	**2**
Attainment Score	**3**	**3x3/3 = 3**	**3x3/3 = 3**	**3x3/3 = 3**	**3x2.3/3 = 2.3**	**3x2/3 = 2**
Status of Attainment		Yes	Yes	Yes	Yes	Yes

Action Plan for Attainment of CO-PO For the next year

S. No.	
1	Improve the learning experience
2	Increase the use of ICT in teaching, learning and assessment so that learns are equipped with the necessary skills to meet the challenges of a rapidly changing learning environment

M.Sc. FOOD & NUTRITION

SPECIALIZATION A

INSTITUTIONAL FOOD MANAGEMENT

M.Sc.-FN-304A

Course Objectives

1. To develop a knowledge base about the facilities required for different types of food service units.
2. To equip individuals in understanding and managing resources in a food service institution.
3. Develop specific skills to apply the most widely used methods in different food production units.

Course Outcomes

1 . Develop knowledge in managing various food service systems.

2. Understand and manage resources in a food service institution.

3. Provide practical experience in managing food material for food service management.

CO-PO Mapping course Outcomes of M.Sc. FN -304A

Course Outcomes

	PO1	PO2	PO3	PO4	PO5
CO1	3	2	3	2	2
CO2	2	2	2	2	3
CO3	3	2	3	2	2
Total	8	6	8	6	7
Average of filled	**2.6**	**2**	**2.6**	**2**	**2.3**

Direct Assessment

Total Number of Students	% of marks expected	Sessional	End Semester Exams

14	50	100% of students secured more than 50% of marks	100% of students secured more than 50% of marks
Scored Attainment	3	3	3

Calculated Value for Direct Assessment-

 Sessional- 30% of 3= 30x3/ 100= .9

University End Semester Exams- 70% of 3= 70x3/ 100= 2.1

Total Direct Assessment Value= 2.1+0.9 = 3

Overall Calculated Direct Assessment Value= 80% of 3= 80x3/ 100= 2.4

Indirect Assessment (Course Exit Survey on 5 scale)

     Indirect Assessment (Course Exit Survey on 5 scale)

Indirect Assessment (on 5 scale), total number of students-14

Sl. No.	Average score of course exit survey (student wise)
1	4.60
2	5
3	4.67
4	3.92
5	2.07
6	3.89
7	4.60
8	5
9	4.67
10	3.92
11	2.07
12	3.89
13	2.07
14	3.89
100% of responses are more than 3 scale	
Level	3

Calculated Value for Indirect Assessment - 20% of 3= 20x3/ 100= 0.6

Overall Assessment of Attainment of Direct and Indirect Value= 2.4+0.6= 3

Matrix to Calculate the Attainment Score of M.Sc. FOOD AND NUTRITION

	Calculated Attainment	PO1	PO2	PO3	PO4	PO5
Average CO-PO mapped Value		2.6	2	2.6	2	2.3
Attainment Score	**3**	3x2.6/3 =2.6	3x2/3 = 2	3x2.6/3 =2.6	3x2/3 =2	3x2.3/3 =2.3
Status of Attainment		Yes	Yes	Yes	Yes	Yes

Action Plan for Attainment of CO-PO For the next year

S. No.	
1	Improve the learning experience
2	Increase the use of ICT in teaching, learning and assessment so that learns are equipped with the necessary skills to meet the challenges of a rapidly changing learning environment

M.Sc. FOOD & NUTRITION

ASSESSMENT OF NUTRITIONAL STATUS

M.Sc.-FN-305A

Course Objectives

1. Identify individuals at risk for malnutrition.

2. Determine individuals' specific nutritional needs.

3. Monitor the effectiveness of nutritional interventions.

Program outcomes

1. Improved nutritional status of individuals.

2. Increased awareness and knowledge about nutrition.

3. Enhanced collaboration and communication among healthcare professionals.

CO-PO Mapping course Outcomes of M.Sc.FN -305A

Course Outcomes

	PO1	PO2	PO3	PO4	PO5
CO1	3	3	2	2	3
CO2	2	3	2	2	2
CO3	3	3	3	3	2
Total	8	9	7	7	7
Average of filled	**2.6**	**3**	**2.3**	**2.3**	**2.3**

Direct Assessment

Total Number of Students	% of marks expected	Sessional	End Semester Exams
14	50	85 % of students secured more than 50% of marks	100 % of students secured more than 50% of marks
Scored Attainment	**3**	**3**	3

Calculated Value for Direct Assessment-

Sessional- 30% of 3= 30x3/ 100= .9

University End Semester Exams- 70% of 3= 70x3/ 100= 2.1

Total Direct Assessment Value= 2.1+0.9 = 3

Overall Calculated Direct Assessment Value= 80% of 3= 80x3/ 100= 2.4

Indirect Assessment (Course Exit Survey on 5 scale)

Indirect Assessment (on 5 scale), total number of students

Sl. No.	Average score of course exit survey (student wise)
1	4.1
2	2.6
3	3.8
4	4.7
5	5
6	4.5
7	4.1
8	2.6
9	3.8
10	4.7
11	5
12	4.5
13	4.1
14	4.5
100 % of responses are more than 3 scale	
Level	3

Calculated Value for Indirect Assessment - 20% of 3= 20x3/ 100= 0.6

Overall Assessment of Attainment of Direct and Indirect Value= 2.4+0.6= 3

Matrix to Calculate the Attainment Score of M.Sc. FOOD AND NURTITION

	Calculated Attainment	PO1	PO2	PO3	PO4	PO5
Average CO-PO mapped Value		2.6	3	2.3	2.3	2.3

Attainment Score	**3**	**3x2.6/3= 2.6**	**3x3/3= 3**	**3x2.3/3= 2.3**	**3x2.3 /3= 2.3**	**3x2.3/3= 2.3**
Status of Attainment		**YES**	**YES**	**YES**	**YES**	**YES**

M.Sc. FOOD & NUTRITION

Pediatric Nutrition

M.Sc.-FN-306A

Course objectives of pediatrics nutrition:

1. Understand the nutritional needs of infants, children, and adolescents.

2. Identify and assess common nutritional issues in pediatric populations.

3. Develop skills in providing appropriate nutrition interventions for pediatric patients.

Course outcomes of pediatrics nutrition:

1. Competence in assessing and addressing the nutritional needs of pediatric patients.

2. Increased knowledge and understanding of pediatric nutrition.

3. Ability to provide effective nutrition counseling and education to pediatric patients and their families.

CO-PO Mapping course Outcomes of M.Sc.FN -306A

Course Outcomes

	PO1	**PO2**	**PO3**	**PO4**	**PO5**
CO1	3	3	2	2	3
CO2	2	3	2	2	2
CO3	3	3	3	3	2
Total	8	9	7	7	7
Average of filled	**2.6**	**3**	**2.3**	**2.3**	**2.3**

Direct Assessment

Total Number of Students	% of marks expected	Sessional	End Semester Exams
14	50	85 % of students secured more than 50% of marks	76% of students secured more than 50% of marks

Scored Attainment	3	3	3

Calculated Value for Direct Assessment-

Sessional- 30% of 3= 30x3/ 100= .9

University End Semester Exams- 70% of 3= 70x3/ 100= 2.1

Total Direct Assessment Value= 2.1+0.9 = 3

Overall Calculated Direct Assessment Value= 80% of 3= 80x3/ 100= 2.4

Indirect Assessment (Course Exit Survey on 5 scale)

Indirect Assessment (on 5 scale), total number of students-14

Sl. No.	Average score of course exit survey (student wise)
1	4.3
2	4.1
3	4.7
4	2.6
5	5
6	4.6
7	4.3
8	4.1
9	4.7
10	2.6
11	5
12	4.6
13	4.3
14	4.3
100 % of responses are more than 3 scale	
Level	3

Calculated Value for Indirect Assessment - 20% of 3= 20x3/ 100= 0.6

Overall Assessment of Attainment of Direct and Indirect Value= 2.4+0.6= 3

Matrix to Calculate the Attainment Score of M.Sc. FOOD AND NURTITION

	Calculated Attainment	PO1	PO2	PO3	PO4	PO5
Average CO-PO mapped Value		2.6	3	2.3	2.3	2.3
Attainment Score	**3**	3x2.6/3= 2.6	3x3/3= 3	3x2.3/3= 2.3	3x2.3/3= 2.3	3x2.3/3= 2.3
Status of Attainment		**YES**	**YES**	**YES**	**YES**	**YES**

Course Objectives:

1. Teach students to choose a topic, set objectives, and create a research plan with hypothesis and sampling design.
2. Train students to select tools, standardize procedures, and analyze data statistically.
3. Guide students in proper referencing, citations, and presenting research professionally.

Course Outcomes:

1. Students will select a topic, set objectives, and design a research plan with hypothesis and sampling.
2. Students will develop data collection tools, standardize methods, and perform statistical analysis.
3. Students will present research using APA Style and maintain a professional format.

CO-PO Mapping course Outcomes of M.Sc.FN -401

Course Outcomes

	PO1	PO2	PO3	PO4	PO5
CO1	3	3	2	2	3
CO2	2	3	2	2	2
CO3	3	3	3	3	2
Total	8	9	7	7	7
Average of filled	2.6	3	2.3	2.3	2.3

Direct Assessment

Total Number of Students	% of marks expected	Sessional	End Semester Exams
14	50	92 % of students secured more than 50% of marks	92% of students secured more than 50% of marks
Scored Attainment	**3**	**3**	3

Calculated Value for Direct Assessment-

Sessional- 30% of 3= 30x3/ 100= .9

University End Semester Exams- 70% of 3= 70x3/ 100= 2.1

Total Direct Assessment Value= 2.1+0.9 = 3

Overall Calculated Direct Assessment Value= 80% of 3= 80x3/ 100= 2.4

Indirect Assessment (Course Exit Survey on 5 scale)

Indirect Assessment (on 5 scale), total number of students-14

Sl. No.	Average score of course exit survey (student wise)
1	4.5
2	5
3	4
4	3.5
5	4
6	4.5
7	4.5
8	5
9	4
10	3.5
11	4
12	4.5
13	4.5
14	4.5
100 % of responses are more than 3 scale	

Level	3

Calculated Value for Indirect Assessment - 20% of 3= 20x3/ 100= 0.6

Overall Assessment of Attainment of Direct and Indirect Value= 2.4+0.6= 3

Matrix to Calculate the Attainment Score of M.Sc. FOOD AND NURTITION

	Calculated Attainment	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**
Average CO-PO mapped Value	**3**	2.6	3	2.3	2.3	2.3
Attainment Score		**3x2.6/3= 2.6**	**3x3/3= 3**	**3x2.3/3= 2.3**	**3x2.3/3= 2.3**	**3x2.3/3= 2.3**
Status of Attainment		**YES**	**YES**	**YES**	**YES**	**YES**

Action Plan for Attainment of CO-PO For the next year

S. No.	
1	Improve the learning experience
2	Increase the use of ICT in teaching, learning and assessment so that learns are equipped with the necessary skills to meet the challenges of a rapidly changing learning environment

OBJECTIVES:

1. To enable the students to acquire an in-depth understanding of the practical aspects of knowledge and skills acquired during the coursework in the relevant subjects.
2. To gain hands-on experience for higher proficiency in their selected area of expertise.
3. To help the students to develop and enhance their analytical abilities for situation analysis and bringing about improvements.

COURSE OUTCOMES:

1. Demonstrate an in-depth understanding of the practical applications of concepts and skills learned during coursework in real-world settings related to food and nutrition.
2. Gain hands-on experience that enhances proficiency and practical skills in the selected area of specialization, preparing for professional practice in the field.
3. Strengthen analytical abilities by effectively assessing situations, identifying areas for improvement, and implementing strategies for enhancement based on practical experience.

CO-PO Mapping Course Outcomes of M.Sc. HS-402

Course Outcomes

	PO1	PO2	PO3	PO4	PO5
CO1	3	3	2	2	3
CO2	2	3	2	2	2
CO3	3	3	3	3	2
Total	8	9	7	7	7
Average of filled	**2.6**	**3**	**2.3**	**2.3**	**2.3**

Direct Assessment

Total Number of Students	% of marks expected	Sessional	End Semester Exams
14	50	92 % of students secured more than 50% of marks	92 % of students secured more than 50% of marks
Scored Attainment	**3**	**3**	3

Calculated Value for Direct Assessment-

Sessional- 30% of 3= 30x3/ 100= .9

University End Semester Exams- 70% of 3= 70x3/ 100= 2.1

Total Direct Assessment Value= 2.1+0.9 = 3

Overall Calculated Direct Assessment Value= 80% of 3= 80x3/ 100= 2.4

Indirect Assessment (Course Exit Survey on 5 scale)

Indirect Assessment (on 5 scale), total number of students-14

Sl. No.	Average score of course exit survey (student wise)
1	5
2	4
3	4
4	4.5
5	4.5
6	5
7	5
8	4
9	4
10	4.5
11	4.5
12	5
13	5
14	5
100 % of responses are more than 3 scale	

Level	3

Calculated Value for Indirect Assessment - 20% of 3= 20x3/ 100= 0.6

Overall Assessment of Attainment of Direct and Indirect Value= 2.4+0.6= 3

Matrix to Calculate the Attainment Score of M.Sc. FOOD AND NURTITION

	Calculated Attainment	PO1	PO2	PO3	PO4	PO5
Average CO-PO mapped Value	**3**	2.6	3	2.3	2.3	2.3
Attainment Score		3x2.6/3= 2.6	3x3/3= 3	3x2.3/3= 2.3	3x2.3/3= 2.3	3x2.3/3= 2.3
Status of Attainment		**YES**	**YES**	**YES**	**YES**	**YES**

Target of CO-PO For the next year

M.Sc. (F&N) Batch (2023-24)						
S. No.	**Course Name**	**PO 1**	**PO 2**	**PO 3**	**PO 4**	**PO 5**
1	Research Methodology (M.Sc.-HS-101)	2	2	1.6	1.5	2.75
2	Advanced Nutritional Biochemistry (M.Sc.-FN-102)	**1.5**	**1.75**	**2**	**1.75**	**2**
3	Human Physiology (M.Sc.-FN-103)	**1**	**1**	**2**	**1**	**0**
4	Advances in Food Microbiology (M.Sc.-FN-104)	**2**	**2**	**1.25**	**1.5**	**2.75**
5	Methods of Investigation (M.Sc.-FN-105)	**2**	**2.3**	**2.3**	**2**	**2.6**
6	Statistics and Computer Application (M.Sc.-HS-201)	**2**	**2**	**1.6**	**1.5**	**2.75**
7	Advance Nutrition (M.Sc.-FN-202)	**1.5**	**1.75**	**2**	**1.75**	**2**
8	Food Science (M.Sc.-FN-203)	**1**	**0.5**	**2**	**0.75**	**0**
9	Food Packaging and Sensory Evaluation (M.Sc.-FN-204)	**2**	**2**	**1.25**	**1.5**	**2.75**

10	Current Trends & Issues in Food & Nutrition (M.Sc.-FN-205)	**2**	**2.3**	**2.3**	**2**	**2.6**
11	**NUTRITION FOR HEALTH & FITNESS M.Sc.-FN- 206**	**2**	**2.3**	**2.3**	**2**	**2.6**
12	Nutrition in Emergencies & Disaster (M.Sc.-FN-302)	**3**	**2**	**1**	**1.6**	**1.6**
13	Clinical and Therapeutic Nutrition (M.Sc.-FN-303A)	**3**	**3**	**3**	**2.3**	**2**
14	Institutional Food Management (M.Sc.-FN-304A)	**2.6**	**2**	**2.6**	**2**	**2.3**
15	Assessment of Nutritional Status (M.Sc.-FN-305A)	**2.6**	**3**	**2.3**	**2.3**	**2.3**
16	Pediatric Nutrition M.Sc.-FN-306A	**2.6**	**3**	**2.3**	**2.3**	**2.3**
17	DISSERTATION M.Sc.HS-401	**2.6**	**3**	**2.3**	**2.3**	**2.3**
18	INTERNSHIP M.Sc.HS-402	**2.6**	**3**	**2.3**	**2.3**	**2.3**
	Average(Target Value)	2.1	2.1	2.0	1.7	2.1

S. No.	Course Name	Attainment	PO1	PO2	PO3	PO 4	PO 5
1	Research Methodology (M.Sc.-HS-101)	3	2	2	1.6	1.5	2.75
2	Advanced Nutritional Biochemistry (M.Sc.-FN-102)	3	**1.5**	**1.75**	**2**	**1.75**	**2**
3	Human Physiology (M.Sc.-FN-103)	3	**1**	**1**	**2**	**1**	**0**
4	Advances in Food Microbiology (M.Sc.-FN-104)	3	**2**	**2**	**1.25**	**1.5**	**2.75**
5	Methods of Investigation (M.Sc.-FN-105)	3	**2**	**2.3**	**2.3**	**2**	**2.6**
6	Statistics and Computer Application (M.Sc.-HS-201)	3	**2**	**2**	**1.6**	**1.5**	**2.75**
7	Advance Nutrition (M.Sc.-FN-202)	3	**1.5**	**1.75**	**2**	**1.75**	**2**
8	Food Science (M.Sc.-FN-203)	3	**1**	**0.5**	**2**	**0.75**	**0**
9	Food Packaging and Sensory Evaluation (M.Sc.-FN-204)	3	**2**	**2**	**1.25**	**1.5**	**2.75**
10	Current Trends & Issues in Food & Nutrition (M.Sc.-FN-205)	3	**2**	**2.3**	**2.3**	**2**	**2.6**
11	**NUTRITION FOR HEALTH & FITNESS M.Sc.-FN- 206**	3	**2**	**2.3**	**2.3**	**2**	**2.6**

No	Course		PO1	PO2	PO3	PO4	PO5
12	Nutrition in Emergencies & Disaster (M.Sc.-FN-302)	3	**3**	**2**	**1**	**1.6**	**1.6**
13	Clinical and Therapeutic Nutrition (M.Sc.-FN-303A)	3	**3**	**3**	**3**	**2.3**	**2**
14	Institutional Food Management (M.Sc.-FN-304A)	3	**2.6**	**2**	**2.6**	**2**	**2.3**
15	Assessment of Nutritional Status (M.Sc.-FN-305A)	3	**2.6**	**3**	**2.3**	**2.3**	**2.3**
16	Pediatric Nutrition M.Sc.-FN-306A	3	**2.6**	**3**	**2.3**	**2.3**	**2.3**
17	DISSERTATION M.Sc.HS-401	3	**2.6**	**3**	**2.3**	**2.3**	**2.3**
18	INTERNSHIP M.Sc.HS-402	3	**2.6**	**3**	**2.3**	**2.3**	**2.3**
	PO Attainment through Results	3	2.1	2.1	2.0	1.7	2.1
	80 % of PO Attainment through results (A)		1.68	1.68	1.6	1.36	1.68
	Alumni Survey		3.5	3.5	3.25	3.25	4
	10 % of Alumni Survey (B)		0.35	0.35	0.32	0.35	0.4
	Employer/ Professional Survey		3.8	4	4	4.2	4.4
	10 % of Employer Survey (C)		0.38	0.4	0.4	0.42	0.44
	PO Attainment Value A+B+C		2.41	2.43	2.32	2.13	2.52
	Target Value		2.1	2.1	2.0	1.7	2.1
	Gap Value		0.31	0.33	0.32	0.43	0.42

PO	Gap Value	Strategies
PO1	0.31	Combine biochemistry, food chemistry, and food microbiology in cohesive courses and labs to enhance postgraduate understanding.
PO2	0.33	Provide practical workshops and labs focused on assessing nutritional needs, conducting nutritional assessments, and planning diets.
PO3	0.32	Implement regular lab sessions where postgraduates apply theoretical concepts using standardized methods.
PO4	0.43	Engage postgraduates in projects that connect nutritional science with clinical interventions, health communication, and food service management.
PO5	0.42	Provide structured research methodologies and hands-on experience in food science and nutrition.

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