

DEBRA THANA S.K.S. MAHAVIDYALAYA (AUTONOMUS)

Chakshyampur , Debra, Paschim Medinipur, West Bengal



PROPOSED CURRICULUM & SYLLABUS (DRAFT) OF

**BACHELOR OF SCIENCE WITH NUTRITION
(MULTIDISCIPLINARY STUDIES)**

3-YEAR UNDERGRADUATE PROGRAMME
(w.e.f. Academic Year 2024-2025)

Based on

**Curriculum & Credit Framework for Undergraduate Programmes
(CCFUP), 2023 & NEP, 2020**

DEBRA THANA SAHID KSHUDIRAM SMRITI MAHAVIDYALAYA.
MAHAVIDYALAYA
BACHELOR OF SCIENCE IN LIFE SCIENCES with NUTRITION
(under CCFUP, 2023)

Level	YR.	SEM	Course Type	Course Code	Course Title	Credit	L-T-P	Marks				
								CA	ESE	TOTAL		
B.Sc. in Life Sc. with Nutrition	1 st	I	SEMESTER-I									
			Major (Disc.-A1)	NUTPMJ101	T: Basic concept of Food and Nutrition; P: Practical <i>(To be studied by the students taken Nutrition as Discipline-A)</i>			4	3-0-1	15	60	75
			SEC	SEC01	<i>To be chosen from SEC-01 of Discipline A/B/C of their Hons. prog.</i>			3	0-0-3	10	40	50
			AEC	AEC01	Communicative English-1 (<i>common for all programmes</i>)			2	2-0-0	10	40	50
			MDC	MDC01	Multidisciplinary Course-1 (<i>to be chosen from the list</i>)			3	3-0-0	10	40	50
			VAC	VAC01	VAC-01: ENVS (<i>common for all programmes</i>)			4	2-0-2	50	50	100
			Minor (Disc.-C1)	NUT MI 01/C1	T: Basic concept of Food and Nutrition; P: Practical <i>(To be studied by the students taken Nutrition as Discipline-C)</i>			4	3-0-1	15	60	75
		Semester-I Total						20				400
		II	SEMESTER-II									
			Major (Disc.-B1)		T :Basic concept of Public Health and Nutrition <i>(Same as like A1 for students taken Nutrition as Discipline-B)</i>			4	3-0-1	15	60	75
			SEC	SEC02	<i>To be chosen from SEC-02 of Discipline A/B/C of their Hons. prog.</i>			3	0-0-3	10	40	50
			AEC	AEC02	MIL-1 (<i>common for all programmes</i>)			2	2-0-0	10	40	50
			MDC	MDC02	Multi Disciplinary Course-02 (<i>to be chosen from the list</i>)			3	3-0-0	10	40	50
			VAC	VAC02	VAC-02 (<i>to be chosen from the list</i>)			4	4-0-0	10	40	50
			Minor (Disc.-C2)	NUT MI 02/C2	T: Basic concept of Public Health and Nutrition (<i>To be studied by the students taken Nutrition as Discipline-C</i>)			4	3-0-1	15	60	75
			Summer Intern.	CS	Community Service			4	0-0-4	-	-	50
		Semester-II Total						24				400
		TOTAL of YEAR-1						44	-	-	-	800

P MJ= Major Programme (Multidisciplinary), MI = Minor, A/B = Choice of Major Discipline; C= Choice of Minor Discipline; SEC = Skill Enhancement Course, AEC = Ability Enhancement Course, MDC = Multidisciplinary Course, VAC = Value Added Course; CA= Continuous Assessment, ESE= End Semester Examination, T = Theory, P= Practical, L-T-P = Lecture-Tutorial-Practical, MIL = Modern Indian Language, ENVS = Environmental Studies

MAJOR (MJ)

MJ A1/B1: Basic concept of Food and Nutrition Credits 04 (FM: 75)

MJ A1/B1T: Basic concept of Food and Nutrition

**Credits 03
[45L]**

Course contents:

Course contents:

1. Food and Nutrition : Basic concepts

- Concept and definition of terms Nutrition, Nutrients, Nutritional status, Malnutrition and Health. Interrelationship in maintaining good health and well-being
- Food as source of nutrients, function of food, classification of food, Food groups. Food pyramid.
- Energy in Human Nutrition: Idea of energy and its unit, energy balance, Assessment of energy requirements, Deficiency and Excess, Determination of energy in food, BMI, BMR & influencing factors, S.D.A.
- Minimum Nutritional Requirements and RDA : Formulation of RDA and Dietary Guidelines: Reference Man and Reference Woman

2. Nutrition awareness and Public Health:

- Nutritional awareness generation process.
- Concept of Public health, determinants of public health.

3. Under nutrition management from intrauterine life to adulthood:

- PEM in the context of underweight, stunting, wasting,
- SAM; Nutritional Anaemia with special reference to Iron Deficiency Anaemia; Vitamin A deficiency (Xerophthalmia); Iodine Deficiency Disorders;

MJ A1/B1P: Basic concept of Food and Nutrition (Practical)

Credits 01

Course Outline:

1. Under-nutrition and obesity risk assessment using BMI, weight for age, height for age, waist to hip ratio, MUAC.
2. Preparation of visual aids for nutrition awareness((PPT, Poster, Model &Chart)
3. Computation of BMI and BMR, from the provided data.

MJ-2: Basic concept of Public Health and Nutrition

Credits 04 (Full Marks: 75)

MI-2T: Basic concept of Public Health and Nutrition

Credits 03

Course contents:

1. Nutrition Education, Communication and Behaviour Change:

- Behaviour Change: Definition and importance. Nutrition Education: Need, Scope and Importance.
- IEC: Definition, Importance and various concepts.
- Various Methods of imparting nutrition education (Individual, Group, and mass approach) Types (Interpersonal communication: Individual and group approach; Mass Media, Traditional Media)

2. Health Care System:

- Health care system: Definition, importance and functions. Types-Primary, secondary, tertiary health care system.
- Prevention of diseases; primordial, primary, secondary, and tertiary prevention
- Role of anganwadi workers, ASHA workers, multipurpose health workers, role of subcenters, ICDS centers.

3. Mother Child health care:

- Definition of health care, and types.
- Adolescent pregnancy and its complications.
- Antenatal care and its schedule and importance
- Child immunization

4. Food Safety and Quality Control:

- Types of Food Hazards. Food borne Diseases: Cholera, Typhoid, Diarrhoea and botulism (causes, mode of transmission, symptoms, prevention strategies)
- Personal Hygiene, Food Hygiene and Sanitation and Environmental Sanitation and Safety (Water supply, Waste Disposal) at home level.
- Food Adulteration: Concept/Definition as given by FSSAI, Common adulterants present in foods (cereals, pulses, milk and milk products, fats and oils, sugar, honey, spices and condiments), Ill effect of adulterants (metanil yellow, argemone, kesari dal) on human health common methods for detecting adulteration at home)

MJ-2P: Basic concept of Public Health and Nutrition (Practical) Credits 01

Course Outline:

1. Prepare a best practice list for lactating mothers.
2. Common food adulteration detection test.
3. Visit an anganwadi centre/ICDS centre. Prepare a report

MINOR (MI)

MI – 1: Basic concept of Food and Nutrition

Credits 04 (Full Marks: 75)

MI – 1T: Basic concept of Food and Nutrition

Credits 04

COURSE LEARNING OUTCOMES:

After the completion of the course, students will have ability to

1. Importance of nutrients for basic requirement of life.
2. Importance of nutrition awareness for prevention of diseases and early recovery.
3. Dietary management of under nutrition act different phases of human lifecycle.
4. Understand the impact of digestive system in nutrition.

Course contents:

1. Food and Nutrition : Basic concepts

- Concept and definition of terms Nutrition, Nutrients , Nutritional status ,Malnutrition and Health. Interrelationship in maintaining good health and well-being
- Food as source of nutrients, function of food, classification of food, Food groups. Food pyramid.
- Energy in Human Nutrition: Idea of energy and its unit, energy balance, Assessment of energy requirements, Deficiency and Excess, Determination of energy in food, BMI , BMR & influencing factors, S.D.A.
- Minimum Nutritional Requirements and RDA : Formulation of RDA and Dietary Guidelines: Reference Man and Reference Woman

2. Nutrition awareness and Public Health:

- Nutritional awareness generation process.
- Concept of Public health, determinants of public health.

3. Under nutrition management from intrauterine life to adulthood:

- PEM in the context of underweight, stunting, wasting,
- SAM; Nutritional Anaemia with special reference to Iron Deficiency Anaemia; Vitamin A deficiency (Xerophthalmia); Iodine Deficiency Disorders;

MI-1P Basic concept of Food and Nutrition (Practical)

Credits 01

Course Outline:

1. Undernutrition and obesity risk assessment using BMI, weight for age, height for age, waist to hip ratio, MUAC.
2. Preparation of visual aids for nutrition awareness (PPT, Poster, Model &Chart)
3. Computation of BMI and BMR from the provided data.

MI-2: Basic concept of Public Health and Nutrition **Credits 04 (Full Marks: 75)**

MI-2T: Basic concept of Public Health and Nutrition Credits 03

Course contents:

5. Nutrition Education, Communication and Behaviour Change:

- Behaviour Change: Definition and importance. Nutrition Education: Need, Scope and Importance.
- IEC: Definition, Importance and various concepts.
- Various Methods of imparting nutrition education (Individual, Group, and mass approach) Types (Interpersonal communication: Individual and group approach; Mass Media, Traditional Media)

6. Health Care System:

- Health care system: Definition, importance and functions. Types-Primary, secondary, tertiary health care system.
- Prevention of diseases; primordial, primary, secondary, and tertiary prevention
- Role of anganwadi workers, ASHA workers, multipurpose health workers, role of subcenters, ICDS centers.

7. Mother Child health care:

- Definition of health care, and types.
- Adolescent pregnancy and its complications.
- Antenatal care and its schedule and importance
- Child immunization

8. Food Safety and Quality Control:

- Types of Food Hazards. Food borne Diseases: Cholera, Typhoid, Diarrhoea and botulism (causes, mode of transmission, symptoms, prevention strategies)
- Personal Hygiene, Food Hygiene and Sanitation and Environmental Sanitation and Safety (Water supply, Waste Disposal) at home level.
- Food Adulteration: Concept/Definition as given by FSSAI, Common adulterants present in foods (cereals, pulses, milk and milk products, fats and oils, sugar, honey, spices and condiments), Ill effect of adulterants (metanil yellow, argemone, kesari dal) on human health common methods for detecting adulteration at home)

MI-2P: Basic concept of Public Health and Nutrition (Practical) **Credits 01**

Course Outline:

4. Prepare a best practice list for lactating mothers.
5. Common food adulteration detection test.
6. Visit an anganwadi centre/ICDS centre. Prepare a report.

SKILL ENHANCEMENT COURSE (SEC)

SEC 1: Community Nutrition

Credits 03 (Full Marks: 50)

COURSE LEARNING OUTCOMES:

After the completion of the course, students will have ability to

1. To know programme formulation and its different components.
2. To understand the programme planning, designing and implementation.
3. To know the programme management and evaluation.

SEC1P: Community Nutrition (ICDS/ MDMP /SNP) (Practical) Course

Outline:

Programme formulation-different components

- Pre-program survey
- Policy decision and plan of action
- Program designing
- Program implementation
- Program Management
- Program evaluation
- Program formulation to be done using secondary data set and primary data set.

SEC 2: Food Adulteration

Credits 03 (Full Marks: 50)

COURSE LEARNING OUTCOMES:

After the completion of the course, students will have ability to

1. To understand the detection of food additives and adulteratives in different food items.
2. To understand the impact of food adulteration on different health hazards.

SEC 2P: Food Adulteration (Practical) Course Outline:

1. Food adulterants : Definition, types, concepts of additives, adulteratives and contaminants with example
2. Basic concepts of determination of adulterants- cereal powder, jam, jelly, spices, butter and oil, dairy products, beverages., fast foods, junk foods, processed and preserved food.
3. Adulterants for using odour, colour, taste and palatability of food.

