VIDYASAGAR UNIVERSITY

Midnapore, West Bengal

PROPOSED CURRICULUM & SYLLABUS (DRAFT) OF

BACHELOR OF SCIENCE WITH NUTRITION

(MULTIDISCIPLINARY STUDIES)

3-YEAR UNDERGRADUATE PROGRAMME

(w.e.f. Academic Year 2023-2024)

Based on

Curriculum & Credit Framework for Undergraduate Programmes

(CCFUP), 2023 & NEP, 2020

Downloaded from Vidyasagar University by 14.139.211.194 on 09 Nov 2026 21:52:44 PM; Copyright (c) : Vidyasagar University
http://download.vidyasagar.ac.in/OpenLink.aspx?LINKID=206

VIDYASAGAR UNIVERSITY
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	2nd	III	**SEMESTER-III**							
			Major-A2	NUTPMJ02	**T: Fundamental Nutrition Part-II; P: Practical** ***(To be studied by students taken Nutrition as Discipline- A)***	4	3-0-1	15	60	75
			Major-A3	NUTPMJ03	**T: Food Sciences; P: Practical** ***(To be studied by students taken Nutrition as Discipline- A)***	4	3-0-1	15	60	75
			SEC	SEC03	***To be taken from SEC-03 of Discipline C.***	3	0-0-3	10	40	50
			AEC	AEC03	Communicative English-2 (***common for all programmes***)	2	2-0-0	10	40	50
			MDC	MDC03	Multidisciplinary Course-3 (***to be chosen from the list***)	3	3-0-0	10	40	50
			Minor-3 (Disc.-C3)	NUTMIN03	**T: Concept of Food and Nutrition; P: Practical** ***(To be studied by students taken Nutrition as Discipline- C)***	4	3-0-1	15	60	75
			Semester-III Total			20				375
		IV	**SEMESTER-IV**							
			Major-B2		***To be decided*** ***(Same as MajorA2 for Nutrition taken as Discipline-B)***	4	3-0-1	15	60	75
			Major-B3		***To be decided*** ***(Same as Major–A3 for Nutrition taken as Discipline-B)***	4	3-0-1	15	60	75
			Major (Elective) -1	NUTMJE-01	**T: Nutrition: Life Cycle Approach P: Practical** ***(To be studied by students taken Nutrition as Discipline- A)***	4	3-0-1	15	60	75
			AEC	AEC04	MIL-2 (***common for all programmes***)	2	2-0-0	10	40	50
			Minor -4 (Disc.-C4)	NUTMIN04	**T: Nutrition during Physiological State; P: Practical** ***(To be studied by students taken Nutrition as Discipline- C)***	4	3-0-1	15	60	75
			Summer Intern.	IA	Internship / Apprenticeship- **activities to be decided by the Colleges following the guidelines to be given later**	4	0-0-4	-	-	50
			Semester-IV Total			22				400
			TOTAL of YEAR-2			42	-	-	-	775

MJP = 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, CA= Continuous Assessment, ESE= End Semester Examination, T = Theory, P= Practical, L-T-P = Lecture-Tutorial-Practical, MIL = Modern Indian Language

Downloaded from Vidyasagar University by 14.139.211.194 on 09 Nov 2026 21:52:44 PM; Copyright (c) : Vidyasagar University
http://download.vidyasagar.ac.in/OpenLink.aspx?LINKID=206

MAJOR (MJ)

MJ A2/B2: Fundamental Nutrition Part-II **Credits 04 (Full Marks: 75)**

MJ A2/B2T: Fundamental Nutrition Part-II **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 Adulteration and Quality Control:

- 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).
- Types of Food Hazards. Food borne Diseases: Cholera, Typhoid, Diarhhoea 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.

MJ A2/B2 P: Fundamental Nutrition Part-II (Practical) **Credits 01**

Course Outline:

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

Downloaded from Vidyasagar University by 14.139.211.194 on 09 Nov 2026 21:52:44 PM; Copyright (c) : Vidyasagar University
http://download.vidyasagar.ac.in/OpenLink.aspx?LINKID=206

MJ A3/B3: Food Sciences **Credits 04 (FM: 75)**

MJ A3/B3T: Food Sciences **Credits 03 [45L]**

Course contents:

1. Cereals, Millets, **Pulses and legumes:**
Nutritional aspects of wheat, rice, oats, rye, barley, millets, maize or corn, jowar, ragi and bajra.
Fermented products, unfermented products,
Types of pulses and legumes, uses, and nutritional aspects.

2. Milk and milk Products:
Nutritive value and composition of milk,
Types of processed milk, milk products (butter, curd, paneer and cheese).

3. Egg, **Fish and meat:**
Nutritional aspects of edible fish and meat, concept of red and white meat,
Cookery of egg, fish and meat (effect of heat in various component of egg, changes during cooking of meat), role of egg in cookery.

4. Vegetables and fruits:
Uses and nutritional aspect of commonly available vegetables.
Fresh fruits and dry fruits– raw and processed product.
Vegetable cookery (preliminary preparation, changes during cooking, loss of nutrient during cooking, effects of cooking on pigment)

5. Fats and oils:
Specific fats and oils (lard, butter, margarine, cotton seed oil, groundnut oil, coconut oil, soyabean oil, olive oil, rice bran oil, sesame oil, rape seed oil and mustard oil, palm oil),
Effect of heating on fat (smoke point, flash point and fire point, changes in fat on heating)
Role of fat/oil in cookery (fat or oil used as medium of cooking, fat improves the texture of foods, fat improves palatability, improves quality of the product).

6. Nuts and oil Seeds:
Specific nuts and oil seeds (almonds, coconut, flaxseed, gardencress seeds, groundnut, soyabean, sunflower seeds, walnuts, oilseed cakes)

MJ A3/B3P: Food Sciences (Practical) **Credits 01**

Course Outline:

1. Preparation and analysis of nutritive value:
   i. Breakfast cereals
   ii. Milk and milk products
   iii. Poultry products
   iv. Vegetables

Downloaded from Vidyasagar University by 14.139.211.194 on 09 Nov 2026 21:52:44 PM; Copyright (c) : Vidyasagar University
http://download.vidyasagar.ac.in/OpenLink.aspx?LINKID=206

v. Fruits

2. Determination of colour for various food grains, fruits, vegetables, spices and processed foods.

3. Visit to local Food processing plants like, floor mill, dal mill, rice mill, oil extraction mill etc.

Major Elective (MJE)-01: Nutrition: Life Cycle Approach **Credits 04 (FM: 75)**

Major Elective (MJE)-01T: Nutrition: Life Cycle Approach **Credits 03 [45L]**

Course contents:

1. **Nutrition during infancy:**
   Breast feeding, Formula feeding, Weaning, Supplementary foods, Nutritional management of Preterm baby.

2. **Nutrition for children:**
   Diet in early childhood, elementary school age, high school age**.**

3. **Nutrition during pregnancy and lactation:**
   Nutritional demands of Pregnancy, Food selection during Pregnancy, Complications of pregnancy and dietary management, Diet during Lactation.

4. **Nutrition to athletes:**
   Nutritional requirements and dietary management in sports man and athletes, Meal planning for athletes.

5. **Geriatric nutrition:**
   Planning of meals for older people, Nutrition of aged persons, Physiological complications in geriatric group and dietary modifications required.

Major Elective (MJE)-01P: Nutrition: Life Cycle Approach (Practical) **Credits 01**

Course Outline:

1. Preparation of normal diet chart for infant (6-12 months).
2. Preparation of normal diet chart for preschool children.
3. Preparation of normal diet chart for college student.
4. Preparation of normal diet chart for pregnant lady and lactating mother.

Note: In laboratory note book, calculation of nutritive value should be recorded according to portion size of specific diet for particular individual.

Downloaded from Vidyasagar University by 14.139.211.194 on 09 Nov 2026 21:52:44 PM; Copyright (c) : Vidyasagar University
http://download.vidyasagar.ac.in/OpenLink.aspx?LINKID=206

MINOR (MI)

(To be studied by students taken Nutrition as Discipline- C)

MI-3/C3: Same as Minor-3 (NUTMIN03) of Nutrition (Hons) programme **Credits 04**
Full Marks: 75

MI-4/C4: Same as Minor-4 (NUTMIN04) of Nutrition (Hons) programme **Credits 04**
Full Marks: 75

SKILL ENHANCEMENT COURSE (SEC)

(To be studied by students taken Nutrition as Discipline- C)

SEC-03 P: Same as SEC-03 (NUTSEC03) of Nutrition (Hons) prog. **Credits 03**
Full Marks: 50

Downloaded from Vidyasagar University by 14.139.211.194 on 09 Nov 2026 21:52:44 PM; Copyright (c) : Vidyasagar University
http://download.vidyasagar.ac.in/OpenLink.aspx?LINKID=206