SYLLABUS FOR UG COURSE BACHELOR OF SCIENCE
FOOD AND NUTRITION (Semester-V&VI)
Disciplinary Minor Course
[AS PER NEP, 2020]

[DRAFT]

(With effect from - Session 2023-24 onwards)

UNIVERSITY OF GOUR BANGA

MALDA

WEST BENGAL, INDIA

SEMESTER WISE BREAKUP

Semester	Course Code & Title of the Course	Credits	Full Marks	Marks Division		
		L,P		Th.	Pr.	Cont. Evaluation
V	**Course Code: FNTMN MNC-05** **Course Name : Nutrition and Phases of Human Life**	**4 (3,1)**	**75**	**30**	**20**	**25**
VI	**Course Code: FNTMN MNC-06** **Course Name- Diet Therapy**	**4 (3,1)**	**75**	**30**	**20**	**25**

Evaluation details.

Course type	Full marks	Cont. Evaluation.	Semester End Examination	
Minor Core	**75**	**25**	**Theory:30** **(2×4=8, out of 6 questions)** **(4×3=12, out of 6)** **[10×1= out of 2, {at least 2 parts, maximum 3 parts, but a single part of question should not exceed 6 marks.}]**	**Practical** **20**

- **Continuous evaluation for Minor courses:**
  Attendance: 05, Class performance: 05, Presentation/ Project: 10, Viva: 05.

- **Parameters of evaluation of class performance:**

- Class performance: Regularity, Punctuality, Interactive, Cooperative, Carefulness, Timely assignment submission, Endorsement of Practical note book.
- Participation in the cleanliness of the laboratory.
- Departmental involvement: Cleanliness, Wall magazine, Science exhibition; Health awareness camp; community study, participation in departmental seminar and workshop.
- Co-curricular activity; Blood donation camp, participation in cultural and sports activities. Essay and quiz competition.

- **Practical Examination:**

Direction from Board of Studies and Controller of Examination department will be followed.

SEMESTER-V

Course Code- FNTMN MNC-05
Course Name- Nutrition and Phases of Human Life

Course Objectives:

1. To gain knowledge about the nutritional requirement during different age groups and physical condition.
2. To know about RDA, meal planning and the effect of age on food choices.

Course Outcome:

This course deals with actual requirement of an individual throughout the normal life span. Students obtain knowledge about the importance of breast feeding and weaning in infancy, childhood, adolescence and adulthood. Understanding the importance of additional nutritional demand during pregnancy and lactation and dietary management of Athletes and old aged people is essential for formulating an adequate diet for them.

Module-1: Nutrition for infant, children

- Breast feeding, Formula feeding, Weaning, Supplementary foods, Nutritional management of Preterm baby.
- Diet in early childhood, elementary school age, high school age.

Module-2: Nutrition for adolescents and athletes:

- Nutritional requirement and dietary management.
- Nutritional problems and eating disorder.
- Nutritional requirements and dietary management for sportsman and athletes, Meal planning for athletes, Carbohydrate loading.

Module-3: Nutrition during pregnancy, lactation and geriatric nutrition:

- Nutritional demands of Pregnancy, Food selection during Pregnancy, Complications of pregnancy and dietary management, Diet during Lactation.
- Planning of meals for older people, Nutrition of aged

persons, Physiological complications in geriatric group and dietary modifications required, role of antioxidative nutrients in geriatric health.

Module-4: PRACTICAL:

- Growth chart: Plotting and Interpretation using primary or secondary data in accordance with both ICMR and WHO chart.
- Clinical assessment and sign of nutrient deficiency disorders: Protein energy malnutrition (PEM), Anaemia, Rickets, Goiter, Vitamin A, Vitamin C and Vitamin B complex (Slide/Photography).

Suggested Readings:

- Hoar WS (1984). General and comparative Physiology. 3rd ed. Prentice-Hall ofIndia.
- Indian Council of Medical Research (2003). Nutrient Requirements andRecommended-Dietary Allowance for Indians. New Delhi.
- Sherwood L (2004). Human Physiology: From cells to systems. 5th ed. ThomsonBrooks Cole.
- Swaminathan M (2009). Essentials of Foods and Nutrition, Vols -1 and II. Ganeshand Co. Madras.
- Walker WA and Watkins JB (Ed.) (1985). Nutrition in Pediatrics, Boston, LittleBrown & Co.
- WHO (1979). A growth chart for international use in Material and Children HealthCare. Geneva.
- Wilson(1989). Anatomy and Physiology in Health and Illness. Edinburgh, ChurchillLivingstone.

SEMESTER-VI

Course Code- FNTMN MNC-06
Course Name: Diet Therapy

Course Objectives:

1. To give knowledge about pathophysiology of various diseases.
2. To know about dietary management of diabetes, cardiovascular diseases and renal diseases.

Learning Outcome:

Students will be able to comprehend the pathophysiology and diet therapy of various types ofdiabetes, cardiovascular diseases and renal diseases, Students will be able to correlate physiology with these disorders, their pathogenesis and dietary management.

Module-I: Pathophysiology, clinical symptoms, risk factors, diagnostic tests and dietary management of Diabetes:

- Types of Diabetes (Type 1, Type 2, Gestational), complications.
- Diagnosis (Oral glucose tolerance test,Blood glucose test, Glycosylated hemoglobin test).
- Diet in Diabetes and management.

Module-II: Pathophysiology, clinical symptoms, diagnostic tests and dietary management ofcardiovascular disorder/diseases:

- Brief review of lipoproteins (TC, TG, LDL, HDL, VLDL)
- Hypertension
- Atherosclerosis–etiology and risk factor.
- Dietary care: ischemic heart disease.

Module-III: Pathophysiology, risk factors, clinical features, diagnosis and dietary management of Renal diseases:

- Renal diseases (Glomeurlonehiritis, Uremia, Kidney failure, Nephrolithiasis).

Module-IV:Practical: Planning and preparation of Diet chart and menu for the following diseases (Case specific):

- Hypertension
- Diabetes
- Atherosclerosis

Suggested Readings:

- Anderson L, Dibble MV, Tukki PR, Mitchall HS, and Rynbergin HJ. Nutrition in Health and Disease. 17th edition, JB Lipincott& Co. Philadelphia.
- Anita FP. Clinical Dietetics and Nutrition. Second Edition, Oxford University Press, Delhi.
- Davis J and Sherer K (1994). Applied Nutrition and Diet Therapy for Nurses, 2nd Edition, WB Saunders Co.
- Escott-Stump S (1998). Nutrition and Diagnosis Related Care, 4th Edition, Williams andWilkinson
- Garrow JS, James WPT and Ralph A (2000). Human Nutrition and Diabetics, 10th Edition, Churchill Livingstone.
- Gibney MJ, Elia M, Ljungqvist&Dowsett J. (2005) Clinical Nutrition. The Nutrition Society Textbook Series. Blackwell Publishing Company
- Gibson SR. (2005). Principles of Nutritional Assessment. 2nd Edition. Oxford University press · Joshi YK. Basics of Clinical Nutrition. 2nd Edition. Jaypee Brothers Medical Publishers.
- Lee RD & Neiman DC. (2009). Nutritional Assessment. 5th Edition. Brown & Benchmark.
- Mahan, L. K. and Escott Stump. S. (2016) Krause's Food & Nutrition Therapy 14th ed. Saunders-Elsevier ·Shils, M.E., Shike, M, Ross, A.C., Caballero B and Cousins RJ (2005) Modern Nutrition in Health and Disease. 10th ed. Lipincott, William and Wilkins.
- Williams, S.R. (2001) Basic Nutrition and Diet Therapy. 11th ed. Times Mirror Mosby College Publishing
- World Cancer Research Fund & American Institute for Cancer Research (2007) Food, Nutrition, Physical Activity and the Prevention of Cancer- A Global Perspective. Washington E.D. WCRF.