

**Maulana Abul Kalam Azad University of Technology, West Bengal**  
**(Formerly known as West Bengal University of Technology)**  
**Syllabus of B.Sc. (Dietetics and Nutrition)**  
**Effective from academic session 2023–2024**

**Semester VII**

**FYBDN 701 Nutritional management and diet counselling**

**4 credits, Total-40 hours d+ 20 Tutorial hours**

**Course Objectives:**

1. To become aware of the fact that diet plays an important role in the treatment of the disease.
2. To educate the patient regarding the nature of the disease, its hazards, how a disease can be recognized and prevented. It is essential to advise the patient on personal hygiene, individual instructions on diet and any specific therapy needed.

<b>Sl. No.</b>	<b>Course Outcomes (COs):</b>
1	Appraise the term Dietician in real life context
2	Develop the concept of dietician in hospital and community
3	Evaluate the concept of nutritional diagnosis, assessment, and care process.
4	Examine the concept of nutrition vs. medical diagnosis, Nutrition Interventions
5	Conclude the Monitoring & Evaluation of the Nutritional aspects

**Maulana Abul Kalam Azad University of Technology, West Bengal**  
**(Formerly known as West Bengal University of Technology)**  
**Syllabus of B.Sc. (Dietetics and Nutrition)**  
**Effective from academic session 2023–2024**

**Unit I:** **2hrs**

Introduction to term Dietician: Definition of Dietician, Difference between registered dietician & Nutritionist.

**Unit II:** **2hrs**

Role of Dietician: Role of dietician in hospital, work area of hospital dietician, role of dietician in hospital, interpersonal relationship with patient,

**Unit III:** **4hrs**

Role of dietician in community: Function and working area of community dietician.

**Unit IV:** **6hrs**

Definition of nutritional care, planning and implementary dietary care, Team approach to nutritional care. Steps of Nutrition Care Process.

**Unit V:** **4hrs**

Nutrition Assessment: Definition, Nutrition assessment component, Critical thinking.

**Unit VI:** **5hrs**

Nutrition Diagnosis: nutrition diagnosis domain: intake, clinical, behavioral – environmental.

**Unit VII:** **5hrs**

Nutrition diagnosis, component nutrition vs. medical diagnosis

**Maulana Abul Kalam Azad University of Technology, West Bengal**  
**(Formerly known as West Bengal University of Technology)**  
**Syllabus of B.Sc. (Dietetics and Nutrition)**  
**Effective from academic session 2023–2024**

**Unit VIII:**

**6hrs**

Nutrition Interventions: Definition and objectives

**Unit IX:**

**6hrs**

Nutrition Monitoring & Evaluation: Definition, Nutrition monitoring & evaluation components, nutrition goals & objectives.  
Evaluation of nutrition care.

**Reference Books:**

1. Mahan LK and Escott-Stump S(2007): Krause's Food and Nutrition Therapy. 12th Ed. WB Saunders Company, London.
2. Robinson. CH, Lawler MR, Chenoweth WL and Garwick, AE(1986): Normal and Therapeutic Nutrition. 17th Ed.,Macmilian Publishing Co.
3. Williams SR (1989): Nutrition & Diet Therapy, 6th Ed. Times Mirror/Mosby College Publishing, St. Louis.

**Maulana Abul Kalam Azad University of Technology, West Bengal**  
**(Formerly known as West Bengal University of Technology)**  
**Syllabus of B.Sc. (Dietetics and Nutrition)**  
**Effective from academic session 2023–2024**

**FYBDN 702 Research Methodology I**

**5 credits, Total- 50 hours + 10 Tutorial hours**

Student will be able to -

1. Impart knowledge of scientific method, purpose and approaches to different research
2. To understand the significance of research methods in food and nutrition
3. Study the comparison and contrast quantitative and qualitative research
4. Demonstrate different research design and the research cycle
5. Gather knowledge on ethical principles, issues and procedures
6. To appreciate the importance of scientific writing and develop competence
7. in writing skills.
8. To draft a research proposal and write a scientific paper.

Unit I      6hrs

- Introduction to Research Methodology
- Application of Research Methodology
- Types of research, qualitative & quantitative

Unit 2      6hrs

- Definition & Identification of Research Problem
- Selection of research problem
- Jusstification
- Theory
- Hypothesis
- Basic assumption
- Limitation & delimitation of the problems

**Maulana Abul Kalam Azad University of Technology, West Bengal**  
**(Formerly known as West Bengal University of Technology)**  
**Syllabus of B.Sc. (Dietetics and Nutrition)**  
**Effective from academic session 2023–2024**

- Types of variables

Unit 3        6hrs

- Elements of Research Design  
Exploratory, descriptive & causal research.
- Research Strategies
- Data Collection
- Methods Of Data Collection

Unit 4        6hrs

Sampling

- Simple Random Systematic, Random Sampling
- Two stages & multistage sampling
- Non-probability sampling : purpose
- Quota & Volunteer Sampling/Screwball sampling

Unit 5        7hrs

- Qualitative research in food and nutrition
- Type of quality of research
- Tools
- Techniques and methodology
- Rapid assessment procedure

**Maulana Abul Kalam Azad University of Technology, West Bengal**  
**(Formerly known as West Bengal University of Technology)**  
**Syllabus of B.Sc. (Dietetics and Nutrition)**  
**Effective from academic session 2023–2024**

- Project reorientation and
- evaluation

Unit 6. Quantitative research method 7hrs

- Theory and design in quantitative research
- Definition and quantitative research
- Methods and techniques of data collection
- Group discussion
- Interviews: key information, in depth interview
- Critical analysis of research
- Writing a research proposal
- Analysis of data and research

Unit 7 6hrs

- Write a research report / frame a research report

Unit 8 6hrs

- Ethics of research

**Maulana Abul Kalam Azad University of Technology, West Bengal**  
**(Formerly known as West Bengal University of Technology)**  
**Syllabus of B.Sc. (Dietetics and Nutrition)**  
**Effective from academic session 2023–2024**

**RECOMMENDED READINGS**

- Best, JW and Kahn, JV (1992) Research in Education.6th ed. New Delhi, Prentice Hall of India Pvt. Ltd.,
- Kothari, CR (2004) Research Methodology, Methods & Techniques, 2nd ed. New Age International Publishers.
- Goode, WJ and Hatt, PK (1981) Methods in Social Research, McGraw Hill International Editions, Sociology Series.
- Kerlinger, FN (1983) Foundations of Educational Research. 2nd ed.
- Marjory L. Joseph, William D Joseph (1996) Research Fundamentals in Home Economics / Human Ecology. Plycon Press.
- WHO (2001) Health Research Methodology – A Guide for Training in Research Methods.
- Stennberg, R J (1991) The Psychologist’s Companion : A Guide to Scientific Writing for students and Researchers. Cambridge: CUP.
- Scrimshaw NS and Gleason GR: Rapid Assessment Procedures, Qualitative Methodologies for Planning and Evaluation of Health Related Programmes. International Nutrition Foundation for Developing Countries, Boston.
- Cresswell J : Research Design : Qualitative and quantitative Approaches Thousand Oaks CA, Sage Publications.

**Maulana Abul Kalam Azad University of Technology, West Bengal**  
**(Formerly known as West Bengal University of Technology)**

**Syllabus of B.Sc. (Dietetics and Nutrition)**  
**Effective from academic session 2023–2024**

**FYBDN 703 Geriatric Nutrition**

**3 credits**

Course Objectives:

1. To know the Geriatric nutrition and its management.
2. To know and understand the nutritional requirements of the elderly.

Course Outcome (CO)

- 1 Make use of the concept of gerontology, geriatrics, and geriatric nutrition.
- 2 Demonstrate the concept of the Physiological and biochemical changes during old age.
- 3 Examine and explain the concept of the nutritional status of older adults.
4. Construct and apply the knowledge and skills required for preparation of dietary guidelines for elderly people according to their nutritional requirements.
- 5 Evaluate the concept of the major nutritional and health problems during old age.

Unit I: 8 hrs

Introduction to ageing. Definition of ageing, senescence, old age or aged people, gerontology, geriatrics, and Geriatric nutrition. Classification of the old population.

Unit II: 9hrs

Metabolic syndrome, Physiological and biochemical changes during old age. Implication of ageing population for rehabilitation: Demography, mortality and morbidity.

Unit III: 9hrs

Assessment of nutritional status of older adults. Weight disorders, Obesity, Underweight and malnutrition.

Unit IV: 12hrs

Nutritional requirements and general dietary guidelines for elderly, Presenting oral health exam for the elderly.

**Maulana Abul Kalam Azad University of Technology, West Bengal**  
**(Formerly known as West Bengal University of Technology)**  
**Syllabus of B.Sc. (Dietetics and Nutrition)**  
**Effective from academic session 2023–2024**

Unit V: 12hrs

Major nutritional and health problems during old age. Dementia and Parkinson's disease: physiology, diagnosis, therapy, nutrition dementia, artificial feeding and bedsores, osteoporosis.

Reference Books:

1. Human Nutrition by H. Guthrie and M.F. Piccianom, WCB McGrawHill,1995.
2. Robinson CH, Lawler MR, Chenoweth WL, GarwickAE(1991): Normal And Therapeutic Nutrition, 17th Ed, MacMillan Publishing Company, New York,
3. Insel PM, Turner RE and RossD (2004): Nutrition ,Jones & Bartlett Learning,
4. Morley JE and Thomas DR(2007): Geriatric Nutrition, 1st Ed. CRC Press.
5. Watson RR (2008):Handbook of Nutrition in the Aged, 4th Ed. CRC Press.
6. Chernoff R(2013):Geriatric Nutrition : The Health Professional's Handbook, 4th Revised Ed. Jones and Bartlett Publishers.

**FYBDN 793 Geriatric Nutrition (Practical)**

**2 credits, Total-20 hours + 20 self-paced practice hours**

1. Assessment of Nutritional Status of elderly population by using Mini Nutritional Assessment Tool (Free living/old age home)
2. Assessment of Functional Status of elderly population by using Barthel Index Tool (Free living/old age home)
3. Assessment of Depression Status of elderly population by using Geriatric Depression Scale (Free living/old age home)
4. Assessment of Cognitive Function of elderly population by using MMSE Tool (Free living/old age home)