

## Nutritional Assessment

Course Code	Title of Course	Credit Hours
HND-317	Nutritional Assessment	3(2-1)

### Learning Outcomes:

Students will be able to:

- Understand the scope and application of Nutrition assessment techniques.
- Understand and apply dietary guidelines for standard nutrient intake.
- Select an appropriate method for measuring the dietary needs of hospitalized patients.
- Impart hands-on training in nutritional assessment techniques to diagnose health problems

### Course Contents:

#### Theory:

Introduction to Nutritional Assessment: scope, applications, and types of nutritional assessment, NCP; Overview of Nutrition Care Process (NCP): assessment within the NCP framework, ABCD NCP application; PES statement; Anthropometric Assessment: Conduction and evaluation of BMI, interpretation, MUAC, skinfolds, height including types and specialized height measurement for amputation, weight including IBW, UBW, %UBW, adjusted body weight, head, waist, and hip circumferences, growth charts, body composition analysis tools; Biochemical Assessment: key biomarkers and their interpretations in health/disease; Clinical Signs & NFPE; Identification of physical signs linked with micronutrient deficiencies, nutrient deficiencies, muscle wasting; Dietary Assessment Methods: Individual Methods - Application of 24-hour recall, food records, and diet histories, strengths/ limitations of each individual tool, Population-Level Methods - FFQs, food balance sheets, and household surveys, strengths/ limitations of each individual tool, Comparison of Assessment Methods (individual vs population methods); Energy Requirement Estimation: Mifflin-St. Jeor, Harris-Benedict and other energy equations, factors influencing energy requirements. Interpret outputs, exchange list; Case Analysis Using ABCD Framework.

#### Practical:

Practical Application of Anthropometric measurement; PES diagnostic statement; Screening tools; Application and understanding of SOAP and ADIME; Understanding and interpreting the growth charts case-based studies; Body composition measures; MRI, Dual-energy X-ray Absorptiometry, Ultrasound, BIA; BIA-Inbody: practical application, principle and interpretation; OGTT, and HBA1C: basic principle, significance and

interpretation; Biochemical report reading; 24-Hr, Dietary recall and FFQ development and data collection for dietary assessment

**Suggested Readings**

**Textbooks:**

1. Krause's Food & the Nutrition Care Process, 16th Edition

**Reference Books:**

1. Understanding Nutrition- 14<sup>th</sup> edition
2. Advanced Medical Nutrition Therapy
3. Principles of Nutritional assessment-2<sup>nd</sup> edition, Lecture Notes, WHO/FAO Guidelines, NFPE Manual.