

Principles of Human Nutrition

Course No.	Title of Course	Credit Hours
HND-212	Principles of Human Nutrition	3(3-0)

Learning Outcomes:

- To familiarize with the role of macro- and micro-nutrients in human nutrition
- To understand the absorption, digestion and metabolism of nutrients in the human
- To abreast knowledge about the health disorders due to consumption of non-optimal quantities of the nutrients

Theory:

Introduction: food, nutrients, nutrition, malnutrition - global and local scenario, diet, balanced diet, food groups, foundations of healthy diet, meal planning; Water: functions, regulation in body, dietary requirements, electrolytes and acidbase balance; Carbohydrates: types, role in body, dietary fiber, bulk and alternative sweeteners, recommended intake and energy value; Fats and oils: types, functions, recommendations concerning fat intake, fat substitutes; Proteins: amino acids, protein synthesis and degradation, classification, functions, quality of proteins, dietary requirements; Vitamins: classification, types, sources, role in body; Mineral elements: types, requirements, sources, role in body; Digestion: alimentary tract, digestive juices, secretions; Absorption and metabolism of nutrients: carbohydrates, protein, lipids; Nutrient and dietary deficiency disorders and special nutrient requirements.

Suggested Readings:

1. Awan, J.A. 2011. Elements of Food and Nutrition. Unitech Communications, Faisalabad, Pakistan.
2. Bamji, M.S., K. Krishnaswamy and G.N.V. Brahmam. 2009. Textbook of Human Nutrition, 3rd ed. Oxford and IBH Publishing Co. Pvt. Ltd., New Delhi, India. 17
3. Eastwood, M. 2003. Principles of Human Nutrition, 2nd ed. John Wiley & Sons, Inc., New York, USA.
4. Geissler, C. and H. Powers. 2011. Human Nutrition, 12th ed. Churchill Livingstone, London, UK