

**SARDAR PATEL UNIVERSITY**  
**Programme: B.Sc (Home Science)**  
**Semester: IV**  
**(Food Science & Quality Control-Vocational)**  
**Syllabus with effect from: November/December-2012**

**Objectives:**

This course will enable the students to:

- Understand the functions and sources of nutrients.
- Apply the knowledge in maintenance of good health for the individual and the community.
- Be familiar with the factors affecting availability and requirements.

<b>Paper Code:UH04CFDN01</b>	<b>Total Credit: 3</b>
<b>Title Of Paper: Human Nutrition</b>	

<b>Unit</b>	<b>Description in detail</b>	<b>Weighting (%)</b>
I	Concept and definition of terms Nutrition, malnutrition and health Brief history of Nutritional Science. Scope of Nutrition. Water- functions and requirements	05%
II	Minimal nutrition requirements and RDA- formulation of RDA and dietary guidelines- Reference man and reference woman.	10%
III	Body composition and changes through the life cycle.	15%
IV	Energy in Human Nutrition- Energy Balance, Assessment of energy requirements.	10%
V	Proteins- Assessment of protein quality (BV, PER, NPU), digestion and absorption, Factors affecting bioavailability.	10%
VI	Lipids- digestion and absorption, intestinal resynthesis of triglycerides. types of fatty acids.	10%
VII	Carbohydrates- digestion and absorption, blood glucose and effect of different Carbohydrates on blood glucose, Glycemic index.	10%
VIII	Minerals and Trace elements- digestion, absorption and bioavailability Calcium, Phosphorus, Iron, Fluoride, Zinc, Selenium, Iodine	05%
IX	Vitamins- Fat soluble and Water soluble.	5%

**Basic Text & Reference Books**

- Guthrie A.H. (1986) Introductory Nutrition 6<sup>th</sup> Ed. The C.V. Mos by company.
- Robinsin C.H. Lawler M.N. Chenoweth W.L. and Garwicl A.E. (1986) Normal and therapeutic  
nutrition 17<sup>th</sup> Ed. Mac Milan publishing Co.
- Indian counsil of medical research (198) Nutrient requirements and recommended dietary allowances  
for Indians, New Delhi.
- FAO/WHO/UNU: Technical report series, 74 (1985) energy and protein requirements Geneva.
- WHO Technical reports series for different nutrients

