



CLUSTER UNIVERSITY SRINAGAR

SYLLABUS (FYUP UNDER NEP 2020)

Offered By Department Of BIO-CHEMISTRY

Semester 1st to 3rd (Multi-Disciplinary Course)

Course Title: Nutritional Bio-Chemistry

Course Code: UGBCH22D101

Credits: 3

Contact Hrs: 45

Max. Marks: 75

External: 55; Min Marks: 22

Internal (Continuous Assessment): 20 Marks, Min Marks: 08

Course objectives

To give knowledge about energy requirements and the Recommended Dietary Allowances of various foods. To understand the functions and role of macronutrients, their requirements and the effect of deficiency and excess

Course outcomes:

After the completion of the semester the student should be able to:

1. Understand the impact of various functional foods on our health
2. Able to apply basic nutrition knowledge in making foods choices and obtaining an adequate diet.
3. Able to connect the role of various nutrients in maintaining health and learn to enhance traditional recipes.

UNIT I:

15 Hrs

BASIC CONCEPTS OF NUTRITION

Basic principles of a balanced diet, composition and calorific value of foods. Basal Metabolic Rate (BMR). Specific dynamic action of food, energy requirements and recommended dietary allowance (RDA) for infants, children, and pregnant women.

UNIT II:

15 Hrs

MACRONUTRIENTS AND VITAMINS

Carbohydrates-Digestible and non-digestible, Dietary fibres, Essential fatty acids, lipoproteins and cholesterol. Essential amino acids. Vitamins: Sources, requirements, functions and deficiency symptoms.

UNIT III:

15 Hrs

MICRONUTRIENTS AND MATERNAL NUTRITION

Microminerals: Source, Daily requirement, functions and deficiency disease symptoms.

Nutritional requirements in pregnancy, Nutrient intervention for mother and children, nutritional requirements of lactation. Protein calorie malnutrition.

SUGGESTED READINGS

1. Clinical Dietetics and Nutrition, 2002, 4 th Edition, Antia FP and Abraham P, Oxford University Press; ISBN-10: 9780195664157.
2. Oxford Handbook of Nutrition and Dietetics, 2011, Webster-Gandy J, Madden A and Holdsworth M. Oxford University Press, Print ISBN13:9780199585823.
3. Krause's Food, Nutrition and Diet therapy, 2003, Mahan KL and Escott-Stump S., Elsevier, ISBN: 9780721697840.
4. Human Nutrition and Dietetics.1986, Passmore R. and Davidson S. Churchill Livingstone Publications, ISBN-10: 0443024863.