

Certificate Course on

Food and Nutrition

Organized and conducted by

Department of Chemistry, North Gauhati College

Course duration: 36 hours (3 hours per week for 3 months)

Number of Seats: 30

Target group of students: UG and PG students having Science (Chemistry, Zoology and Botany) in 10+2.

Objective of the course: The course targets to familiarize the students with the specific contribution of food in maintaining healthy lifestyle for the individual, family and society. It includes features like food selection and preparation, nutrition from infancy to old age, economics of food, food adulteration, safety and education, etc. The course lays primary emphasis on Nutrition with relevance to present day scenario, cost effectiveness, environment friendly approaches that reaches to almost the entire nation, hence making the learners responsible and aware citizens of tomorrow. The Certificate in Food and Nutrition program provides a foundation for further studies and career advancement in the field of nutrition. Individuals can pursue higher-level degrees in nutrition or related fields, such as a Bachelor's or Master's degree. This certificate program also opens up opportunities for employment in various sectors, including healthcare facilities, community organizations, food service establishments, wellness centres, and educational institutions.

Learning outcome:

- The course teaches applicants in the fields of diet, food, wellness, and management .By the end of this course, students can learn expertise and skills in food science, cooking, meal planning or preparing, advances and technologies in modern balanced meals, special diets, catering, and cafeterias.
- The course focuses on learning nutritional science, raising knowledge about nutrition, its function, and benefits, interpreting nutrition, people's nutrition needs, educating others, and applying the nutrition curriculum.

Syllabus:

Theory: (36 hours)

1. Basic concept on Food, Nutrition and Nutrients. Classification of foods and nutrients. (3 hours)
2. Carbohydrates, Lipids and Proteins (CLPs): Definitions, Classifications, Structures, Source and Properties. The role and nutritional significance of CLPs. (6 hours)
3. Dietary Fibres: Classification, source, composition, properties and nutritional significance. (4 hours)
4. Minerals and Trace elements: Biochemical and Biophysical role, Bio-availability and requirements, sources, deficiency and excess (Calcium, Sodium, Potassium Phosphorus, Iron, Fluoride, Zinc, Selenium, Iodine, Chromium) (5 hours)
5. Vitamins: Bio-chemical and physiological role, Bioavailability, Source, Deficiency and Excess. (4 hours)
6. Water: Functions, daily requirements and water balance. (2 hours)
7. Concept of Nutrition, Malnutrition and Health issues: Scope of Nutrition. (3 hours)
8. Minimum nutritional requirements and RDA: formulation of RDA and Dietary guidelines Reference Man and Reference Woman, Adult consumption unit. (4 hours)
9. Growth and Development from infancy to adulthood: Somatic, physical, brain and mental development, puberty, pre-pubertal and pubertal changes, Factors affecting growth and development. Importance of Nutrition for ensuring adequate development. (5 hours).

Evaluation: Oral test and Assignment submission.

Course Fee: Nil

Budget of the course: 5000.00 (Books, Accessories, Certificate, Refreshments)

Course Co-ordinator: Dr. Sourav Kalita, Assistant Professor, Department of Chemistry, North Gauhati College, Guwahati, Assam.