FACULTY OF ENGINEERING & TECHNOLOGY

Effective from Academic Batch: 2020-21

Programme: **Bachelor of Engineering (Information Technology)**

Semester: **VI**

Course Code: **102070621**

Course Title: **Food Nutrition and Health**

Course Group: **Open Elective - II**

Course Objectives: The course will provide insight on the available food groups and to make choice for healthy food products. It will also deliberate on the importance and role of nutrients in maintaining health.

Teaching & Examination Scheme:

Contact hours per week			Course Credits	Examination Marks (Maximum / Passing)				
				Theory		J/V/P*		Total
Lecture	Tutorial	Practical		Internal	External	Internal	External	
3	0	0	3	40/14	60/21	NA	NA	100/35

* **J**: Jury; **V**: Viva; **P**: Practical

Detailed Syllabus:

Sr.	Contents	Hours
1	**Food and Nutrition:** Introduction to Nutrition, Definition and classification of food, Functions of food, Food guide pyramid, Nutrient Wheel	06
2	**Constituents of food:** Classification, Properties and Significance of Carbohydrate, Protein, fat, Dietary fiber, water, vitamins and minerals	09
3	**Nutritive Aspects of Foods:** Food constituents, Food and energy, Nutritive value of Foods, Bioavailability of nutrients, BMR.	06
4	**Diseases/Disorders:** Malnutrition & its classification: Kwashiorkar, Marasmus; Osteoporosis,Anaemia and Goiter, Food fortification and supplementation.	06
5	**Diet:** Balanced Diet requirement for various age groups, Infant, Child, adolescence, Adult & old age; Healthy lifestyle practices	07

6	**Food Adulteration:** Food adulteration, Food Poisoning, Food Infection and Intoxication, Anti-nutritional factors naturally present in food, Common food adulterants:Identification and detection.	**08**
	Total	**42**

Reference Books:

1	Food and Nutrition by M. Swaminathan, Vol-I, Bangalore Printing and Publishing Co.
2	Nutrition and Dietetics By Shubhangini Joshi, Tata Mc-graw Hill Co. Ltd.
3	Food Facts and Principles by N. Shakuntala Manay& M. Shadaksharaswamy, NewAge International (P) Ltd. Publishers
4	Food Preservation and Processing by ManoranjanKalia and SagitaSood, KalyaniPublishers.

Supplementary learning Material:	
1	https://www.hsph.harvard.edu/nutritionsource/healthy-eating-plate/
2	https://www.who.int/health-topics/nutrition
3	https://fssai.gov.in/cms/fortified-food.php

Pedagogy:

- Direct classroom teaching
- Audio Visual presentations/demonstrations
- Assignments/Quiz
- Continuous assessment
- Interactive methods
- Industrial/ Field visits

Suggested Specification table with Marks (Theory) (Revised Bloom's Taxonomy):

Distribution of Theory Marks in %						**R**: Remembering; **U**: Understanding; **A**: Applying; **N**: Analyzing; **E**: Evaluating; **C**: Creating
R	**U**	**A**	**N**	**E**	**C**	
25%	40%	10%	10%	15%	---	

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the question paper may vary slightly from above table.

Course Outcomes (CO):

Sr.	Course Outcome Statements	%weightage
CO-1	Understand food functions and recommended serving sizes of various food groups as per human body requirement	**30**
CO-2	Comprehend the significance of macro and micronutrients in human nutrition	**30**
CO-3	Comprehend the role of specific nutrients and overall daily diet in developing diseases/disorders	**20**
CO-4	Conceptualize food adulteration and its consequences on human health	**20**

Curriculum Revision:	
Version:	1.0
Drafted on (Month-Year):	June-2020
Last Reviewed on (Month-Year):	-
Next Review on (Month-Year):	June-2025