

SPORTS NUTRITION

(3+0 Cr. Hr)

COURSE OBJECTIVES

Health of the athlete is of paramount importance and needs due considerations. The knowledge regarding different components of nutrition and their implications upon human body in general and loss or gain of weight, appetite, use of different components of foods to remove the deficiencies of sodium and calcium or any other basic ingredients will prove helpful to the Physical Educators.

COURSE CONTENTS:

i INTRODUCTION

- a. Definition, Importance of Food and Nutrients obtained from food
- b. Sports nutrition for maintaining health and improving sports performance

ii CONCEPT OF HUMAN ENERGY

- a. Definition and types of energy
- b. Human Energy systems

iii CARBOHYDRATES

- a. Types and Sources
- b. Metabolism and functions of carbohydrates
- c. Carbohydrate loading
- d. Glycemic Index

iv LIPIDS

- a. Role of lipid in the body
- b. Lipid as energy source and reserve
- c. Use of lipid during exercise

v PROTEINS

- a. Functions, sources, recommended intake
- b. Metabolism
- c. Protein and exercise
- d. BMI
- e. BMR

vi VITAMINS

- a. Introduction, sources
- b. Types, importance
- c. Supplements its uses and importance

vii MINERALS

- a. Introduction, sources
- b. Types, Importance
- c. Mineral intake, supplements

viii WATER

- a. Recommended water intake
- b. Functions, Regulation of Body Temperature
- c. Fuel & Electrolyte losses and replacements
- d. Body regulation during exercise

ix WEIGHT MANAGEMENT

- a. Concepts of dieting
- b. Physiological factors of weight management
- c. Obesity

x NUTRITION FOR OPTIMAL HEALTH & PHYSICAL PERFORMANCE

- a. Balanced diet
- b. Pre, during and post contest meal
- c. Dietary recommendations for health & physical performance
- d. Food supplements

xi EATING DISORDERS

- a. Eating disorders of depressed athlete
- b. Caffeine's effects on metabolism

RECOMMENDED BOOKS

1. Fink, H. H., & Mikesky, A. E. (2017). *Practical applications in sports nutrition*. Jones & Bartlett Learning.
2. Bean, A. (2017). *The complete guide to sports nutrition*. Bloomsbury Publishing.
3. Harris, S. S., Anderson, S. J., & American Academy of Orthopaedic Surgeons. (2018). *Care of the young athlete*.
4. Thompson, J. J., & Manore, M. (2015). *Nutrition for Life: Books a la Carte Edition*. Benjamin-Cummings.
5. Nutrition for All: Hamid I B & Zafar Iqbal Butt