

MANGALORE UNIVERSITY
Department of Bioscience
MSc Food Science and Nutrition

FNS 554 SPORTS NUTRITION

39 Hr (13× 3 units)

Course outcome:

- Describe nutrition, exercise, physical fitness and their inter relationship.
- List the importance of nutrition and diet in different sports.
- Describe importance of different macro- and micro- nutrients in pre- and post- exercise.
- Write down the nutrition requirements of exercise, ideal body composition for different sports and events, nutrition in sports and also about dietary supplements and ergogenic aids.

Unit I: Approaches to the management of fitness and health: Nutrition, exercise, physical fitness and health- their inter relationship. Significance of physical fitness and nutrition in prevention and management of weight control regimes. Ideal body composition for different sports and events. Nutritional guidelines for maintenance of health and fitness.

Unit II: Nutritional requirements of exercise: Effect of specific nutrients on work performance and physical fitness. Nutrients that support physical activity, Mobilization of fuel stores during exercise. Fluid, carbohydrate and electrolyte requirements and balance. Nutrition in sports: Sports specific requirements- Importance of carbohydrate loading, pre game and post game meals, Diets for persons with high energy requirements, stress fracture and injury.

Unit III: Dietary supplements and Ergogenic aids: Definitions, Use of different nutrigenic / ergogenic aids and commercial supplements, Sports drinks, sports bars etc. Guidelines for selection of ergogenic aids. Ill effects of soft and energy drinks, processed foods, energy food and drinks, alcohol and its abuse, drugs and rehabilitation techniques and its nutrition requirements.

REFERENCES

- Falkner F & Tanner JM. 1978 Human Growth - Principles and Prenatal Growth. vol. I. Bailliere Tindall.
- Falkner F & Tanner JM. 1980 Nutrition - An Integrated Approach. John Wiley & Sons.
- Passmore R & Eastwood MA. 1986. Human Growth Methodology. Ecological, Genetic, and Nutritional Effects on Growth. Vol. III. Plenum Press
- Pike RL & Brown ML. 1988. Human Nutrition and Dietetics. ELBS Churchill Livingstone