

**COURSE NAME:** NUTRITION & EXERCISE

**CREDITS:** 3 CREDITS

**SYNOPSIS:** This course provides an understanding of the principles of nutrition applied to exercise and health of a range of population groups throughout the lifespan. It will describe the roles of macro and micro-nutrients for general health and during exercise and outline the relationship of nutrition and exercise and its role in the prevention and treatment of chronic metabolic conditions such as obesity, diabetes and heart disease. The course will also provide students with the opportunity to develop knowledge and skills associated with various age groups and special populations with regards to nutrition and exercise.

Nutrition guidelines and any relevant exercise strategies for optimal health will be provided in relation to weight loss, eating disorders, and the requirements of special populations. The course will outline the special requirements of people engaged in various sports and physical activities and address a range of issues relevant to this group. The role of dietary supplements, sports drinks, vitamins and ergogenic aids as they relate to athletes and other groups will be outlined. A focus will be on outlining a healthy lifestyle where nutrition and exercise are important components.

**LECTURER:** DR ROXANA DEV OMAR DEV

**LEARNING:  
OUTCOME** Upon completion of this course, graduates will be able to:

1. Describe the basic functions of macronutrients and micronutrients, their common sources, and their role in energy balance and health across the lifespan.
2. Describe and evaluate commonly used methods for measuring and analysing dietary intake.
3. Describe a basic dietary analysis and discuss its implications for general health and well-being.

4. Evaluate common methods for measuring and analysing body composition and predict body composition differences and changes in various groups across the lifespan and as a result of exercise.

5. Recognise signs of inappropriate dietary behaviours and energy availability in relation to physical activity and exercise requirements and refer onwards as appropriate.

6. Describe the role of diet in the aetiology of chronic conditions and obesity and explain the metabolic and chronic health consequences of obesity.

7. Describe the evidence for the efficacy of common nutritional supplements and ergogenic aids and demonstrate awareness of prescribed or illegal supplements.

8. Identify and use current Malaysian and other countries' guidelines to provide appropriate general advice on nutrition, including strategies to improve exercise performance and recovery, and body composition while integrating other study areas of exercise science with knowledge and skills related to nutrition and sport.

**TOPICS:**

1. Macronutrients and micronutrients.
2. Energy intake, energy expenditure and energy balance.
3. Dietary intake assessment methods.
4. Nutrition across the lifespan. Malaysian Dietary Guidelines and Guide to Healthy Eating.
5. Nutrition and hydration for general health and well-being.
6. Nutrition and hydration for physically active individuals.
7. Weight management and body composition.
8. Nutrition and chronic conditions and obesity.
9. Inappropriate dietary behaviours and appropriate referral pathways.
10. Nutritional supplements and ergogenic aids.

**ASSESSMENT:**

Quiz	30%
PBL Project	40%
Class summaries	30%

**LEARNING:**

Whitney, E., Rolfes, S. R., Crowe, T., & Walsh, A. (2022). Understanding nutrition. 5<sup>th</sup> Edition. Cengage Learning.

**RESOURCES**