Module Title	Sport and Exercise Nutrition
Level	5
Reference No.	ASC_5_429
Credit Value	20 CAT points
Student Study Hours	Total Learning Hours: 200 Contact hours: 45 Lecture / tutorial 36 Practical 9 Student managed learning hours: 155
Pre-requisite learning	Core Studies (Level 4) Nutrition Health and Disease (Level 4)
Co-requisites	None
Excluded Combinations	None
Module Coordinator	Adam Cunliffe
School/Division	Applied Science/Human Sciences
Short Description	This module will develop the student's knowledge and understanding of the nutritional requirements of athletes and the metabolic responses and adaptations to acute and chronic exercise. In particular it will focus on fuel utilisation during endurance, and the nutritional requirements of different 'athlete types' will be explored. Evidence supporting the use of nutritional strategies in optimising performance and training will also be referenced
Aims	1. To illustrate the effects of acute and chronic exercise on metabolic processes. 2. To develop an appreciation of the important links between exercise, energy needs and energy generation and utilization. 3. To develop a critical understanding of the role of macronutrients in supporting and optimising training and performance. 4. To develop an understanding of the practical procedures involved in body composition assessment, dietary analysis prescription and energy expenditure during exercise.
Learning Outcomes	1. Explain the acute effects of different forms of exercise on metabolism. 2. Explain the chronic effects of different forms of exercise on metabolism. 3. Develop an ability to evaluate the relationship between fuel utilization during exercise and recovery. 4. Evaluate the role of nutrition and recommend nutritional strategies to optimize the response to acute and chronic exercise. 5. Understand key guidelines in relation to nutrition and how to collect nutritional information. 6. Reflective skills.
Employability	This module contains specification content required by the register of exercise

	professionals (REPS) L2 and L3 Gym Instructor course in the areas of nutrition, exercise and fitness knowledge, cardiovascular and respiratory systems, muscular and neuromuscular systems, training principles and practices.
Teaching & Learning Pattern	Teaching strategies employed within this module require students to work effectively in both small groups and independently, to synthesise and apply knowledge provided in keynote lectures. A variety of teaching resources will be utilised depending upon the subject being considered. Students are expected to participate in seminar discussions for the benefit of all group members. There will also be a series of laboratory based sessions.
Indicative Content	1. Non-oxidative and oxidative energy pathways; 2. Catabolic pathways – lipolysis and proteolysis; 3. Anabolic pathways – glycogen, protein and lipid synthesis; 4. Metabolism during and after acute endurance and high intensity exercise; 5. Chronic metabolic adaptations to different forms of exercise; 6. Role of different macronutrients in optimising performance and training. 7. Analysing athlete diets, body composition and energy expenditure. Designing dietary and nutritional interventions for athletes.
Assessment *Elements and Weightings*	Case study (50%) The analysis and design of a dietary intervention for a pre-specified athlete. (1500 words) Laboratory report (50%) - write up of a laboratory experiment (1500 words)
Indicative Sources	Hargreaves M.: & Spriet L.; (2006) *Exercise Metabolism* 2nd Ed, Human Kinetics Publishers Ltd; Chapaign, Ill, USA. Jeukendrup, A.E., & Gleeson, M. (2004) Sport Nutrition – An Introduction to Energy Production and Performance Leeds, UK, Human Kinetics. Manore, M.M. & Thompson, J. (2000) Sport Nutrition for Health and Performance. Human Kinetics, Leeds, UK. McArdle W D, Katch F, Katch V.L. (2009) *Exercise Physiology: Energy, nutrition and human performance 7th Ed*. Philadelphia. Lippincot, Williams and Wilkins. McArdle WD, & Katch V.L., (2012) Sport and Exercise Nutrition 4ed. Philadelphia. Lippincot, Williams and Wilkins.
Attendance	Minimum attendance is 80% of all sessions.