

Module Title	Reference AS3036
Nutritional Science for Sport	SCQF SCQF
Keywords	Level 9
Physiological and metabolic adaptations,	SCQF Points 15
physiological and metabolic assessment, nutritional	ECTS Points 7.5
requirements in sport, sports supplements and	Created April 2014
ergogenic aids	Approved May
	2014
	Amended
	Version No. 1

This Version is No Longer Current

The latest version of this module is available [here](#)

Prerequisites for Module

None, in addition to SHE3 entry requirements

Corequisite Modules

None.

Precluded Modules

None.

Aims of Module

To provide students with knowledge and understanding of the physiological, biochemical and nutritional principles applicable to the management of diet and performance in exercise and sport.

Learning Outcomes for Module

Indicative Student Workload

<i>Contact Hours</i>	Full Time
Lectures	36
Tutorials	4
Assessment	3

Directed Study

Reading	8
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Private Study

Private study	99
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Mode of Delivery

Theoretical material is delivered by lectures and tutorials, and supported by practicals.

Assessment Plan

Learning Outcomes Assessed

On completion of this module, students are expected to be able to:

1. Discuss the principles of exercise physiology and physiological methods of assessing performance.
2. Discuss the principles of exercise biochemistry and biochemical methods of assessing performance.
3. Discuss the nutritional requirements and dietary assessment in exercise and sports.
4. Evaluate nutritional interventions to improve performance in exercise and sport, including nutritional supplements and ergogenic aids.

Indicative Module Content

Physiological adaptations to exercise of varying intensity and duration to include neural, endocrine, musculoskeletal, cardiorespiratory, immunological and water homeostatic mechanisms; metabolic adaptations to exercise of varying intensity and duration to include fat, carbohydrate and protein metabolising pathways; physiological and biochemical mechanisms of exercise fatigue; nutritional consequences of

Component 1	1,2,3,4
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Component 1 is an unseen, closed book examination.

Indicative Bibliography

1. CAMPBELL, B., 2013. Sports nutrition: enhancing athletic performance. 1st ed. CRC Press Inc.
2. POSTGATE, J.R. 2013. *Microbes and man*. 4th ed. Cambridge University Press.
3. MAUD, P.J. and FOSTER C., 2005. Physiological assessment of human fitness. 2nd ed. Human Kinetics.
4. MAUGHAN, R.J., 2013. The encyclopaedia of sports medicine: an IOC medical commission publication, volume XIX. Sports nutrition. Wiley-Blackwell.
5. MAUGHAN, R.J., 2008. The Olympic textbook of science in sport. Wiley-Blackwell
6. MAUGHAN, R.J. and GLEESON, M., 2010. The biochemical basis of sports performance. 2nd ed. Oxford University Press.
7. MACLAREN, D. and MORTON, J., 2011. Biochemistry for sports and exercise metabolism. Wiley.

nutritional consequences of physiological and metabolic demands in exercise and sport; hydration in exercise and sport; nutritional interventions to improve performance, such as carbohydrate loading, nutritional supplements and ergogenic aids; physiological, biochemical and nutritional means applicable to assessment of performance; any regulations applicable to relevant performance-enhancing strategies.

8. McARDLE, W.D., KATCH, F.I. and KATCH, V.L., 2012. Sports and Exercise Nutrition. 4th ed. Lippincott, Williams and Wilkins.