MODULE SPECIFICATION PROFORMA

Module Title:	Introduction Anatomy and Physiology	**Level**:	4	**Credit Value**:	20

Module code:	FAW403	**Is this a new module?**	Yes	**Code of module being replaced**:	SPT403

Cost Centre:	GASP	**JACS3 code**:	C600

Trimester(s) in which to be offered:	1, 2, and 3	**With effect from:**	September 2016

School:	School of Social and Life Sciences	**Module Leader:**	Dr Sue Taylor

Scheduled learning and teaching hours	40 hrs
Guided independent study	160 hrs
Placement	0 hrs
Module duration (total hours)	200 hrs

Programme(s) in which to be offered	Core	Option
BSc (Hons) Football Coaching and the Performance Specialist	✓	☐
BSc (Hons) Sports Coaching and Performance Development	✓	☐
BSc (Hons) Sport and Exercise Sciences	✓	☐

Pre-requisites
None

Office use only

Initial approval: August 2016

APSC approval of modification: September 2016 Version: 2

Have any derogations received SQC approval? Yes ☐ No ✓

Module Aims
This module will: - introduce the student to applied anatomy & physiology and enhance their knowledge and understanding of the complex systems within the human body - develop an understanding of the long-term athlete development (LTAD) model and explore the critical windows of opportunity to maximise sporting performance - investigate how the body responds to sport/exercise and explores the methods used to monitor the development of the bodily systems within a sporting context.

Intended Learning Outcomes

Key skills for employability

KS1	Written, oral and media communication skills
KS2	Leadership, team working and networking skills
KS3	Opportunity, creativity and problem solving skills
KS4	Information technology skills and digital literacy
KS5	Information management skills
KS6	Research skills
KS7	Intercultural and sustainability skills
KS8	Career management skills
KS9	Learning to learn (managing personal and professional development, self-management)
KS10	Numeracy

At the end of this module, students will be able to		Key Skills	
1	Demonstrate an understanding of how the various systems of the body (e.g. skeletal, muscular, respiratory and energy transfer) function in relation to sport / exercise.	KS1	KS2
		KS3	KS4
		KS6	
2	Examine the physiological adaptations in relation to specific stages of maturation.	KS3	KS10
		KS6	KS4
3	Identify and demonstrate how to conduct age specific field based physiological tests.	KS1	KS2
		KS3	KS4
		KS6	KS10
4	Demonstrate an understanding of the long tern athlete development (LTAD) concept.	KS1	KS4

Transferable/key skills and other attributes
Key skills need adding Working independently, working in groups, academic writing skills, practical and laboratory skills, numeracy and the use of IT.

Derogations
N/A

Assessment:

Assessment 1: **Group Project**
Undertake a physiological needs analysis of a specific sport and outline how the performance of an athlete might be monitored over a season using 2 specific field based tests. Group task, presented in an appropriate format e.g. powerpoint, video format.

Assessment 2: **Report**
Analyse a nutritional diary of an athlete and broadly examine the nutritional content in line with the needs analysis of the sport (performed in assessment 1) in relation to a particular athlete (age, gender, standard, maturity etc). Individual task, presented in a written format.

Assessment number	Learning Outcomes to be met	Type of assessment	Weighting (%)	Duration (if exam)	Word count (or equivalent if appropriate)
1	1 and 3	Group Project	40%		2000 word equivalent
2	2 and 4	Report	60%		2000 words

Learning and Teaching Strategies:
The learning and teaching strategies will include lectures, seminars, practicals, peer-led discussions, tutorials, online based quizzes/tasks.

Syllabus outline:

- An introduction the physiological aspects to the long-term athlete development plan (LTAD)
- Growth and maturation in relation to working with children and youth athletes
- Musculoskeletal system
- Neuromuscular responses to sport/exercise
- Cardiovascular responses to sport/exercise
- Energy systems and the impact on the performer
- Digestive system, nutrition and the endocrine responses to sport/exercise
- An introduction to monitoring performance in the field (specifically in relation to children and youth)
- Undertaking a needs analysis in sport from a physiological perspective

Bibliography:

Essential reading

McArdle, W.D., Katch, F.I. and Katch, V.L. (2015), *Exercise Physiology: Energy, Nutrition & Human Performance*. 8th ed. Philadelphia: Williams and Wilkins.

Heyward, V.H. and Gibson, A.L. (2014), *Advanced Fitness Assessment and Exercise Prescription.* 7th ed. Champaign, Il: Human Kinetics.

Malina, R., Bouchard, C. and Bar-Or, O. (2004), *Growth, Maturation and Physical Activity*. 2nd ed. Champaign, Il: Human Kinetics.

Other indicative reading

Hagens, V.G. and Lee, J.A. (2005), *Anatomy for Beginners*. Channel 4, 6th March, 2005.

Martini, F.H. (2015), *Fundamentals of Anatomy and Physiology.*10th ed. New Jersey: Prentice Hall.

Marieb, E.N. (2013), *Human Anatomy and Physiology.* 9th ed. San Francisco: Benjamin Cummins.

Powers, S.K. and Howley, E.T. (2014), *Exercise Physiology: Theory and Application to Fitness and Performance.* 9th ed. Boston: McGraw-Hill.