

Module specification

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Module Code	SIR705
Module Title	Applied Strength & Conditioning Principles 2 – Programme Design & Implementation
Level	7
Credit value	20
Faculty	FSLS
HECoS Code	100098
Cost Code	GACM
Pre-requisite module	N/A

Programmes in which module to be offered

Programme title	Core/Optional/Standalone
MSc Strength & Conditioning	CORE
MSc Sport & Exercise Sciences (Sport Performance Science)	OPTION

Breakdown of module hours

Learning and teaching hours	9 hrs
Placement tutor support hours	0 hrs
Supervised learning hours e.g. practical classes, workshops	12 hrs
Project supervision hours	0 hrs
Active learning and teaching hours total	21 hrs
Placement hours	0 hrs
Guided independent study hours	179 hrs
Module duration (Total hours)	200 hrs

Module aims

- Develop an in-depth understanding of periodisation and underpinning principles
- Create knowledge of training principles
- Expose students to different training modalities (e.g., strength, power, speed etc.)
- Develop understanding of acute and chronic programming principles
- Expose students to athlete-facing problem solving in relation to S&C implementation
- Develop programming and prescription skills

Module Learning Outcomes

At the end of this module, students will be able to:

1	Design an evidence-based strength and conditioning macrocycle
2	Implement appropriate training structures based on scientific reasoning
3	Plan a range of realistic training stimulus that enhances athletic performance
4	Critically evaluate the effectiveness of a training program
5	Disseminate concise information appropriately

Assessment

Indicative Assessment Tasks:

This section outlines the type of assessment task the student will be expected to complete as part of the module. More details will be made available in the relevant academic year module handbook.

Assessment: The student will be asked to submit two linked tasks:

Presentation: Requires students to present a 10 minute case study which will be followed up by 10 minutes of questioning. The case study will outline and reflect on the students direct delivery of Strength & Conditioning support for a single athlete. The presentation must include information on the following:

- A needs analysis of the athlete, sport and current training regime e.g. off-season, end stage rehab, full training etc.
- Objective data to monitor and guide programming
- Programme rationale
- Example training plans (Macro, Meso and Microcycles)
- Programme evaluation and ongoing monitoring

Portfolio: The student will then submit documents in the form of a portfolio that supplement and rationalise the presentation. This will include:

- Evaluation of the effectiveness of the training programme (500 words).
- A proposed 4 week macrocycle for the next stage of training
- Evidence of athlete and/or coach feedback
- Examples of any subjective or objective monitoring

Assessment number	Learning Outcomes to be met	Type of assessment	Duration/Word Count	Weighting (%)	Alternative assessment, if applicable
1	2, 5	Presentation	20 mins	70	N/A
2	1, 3, 4	Portfolio	Equivalent of 1500 words	30	N/A

Derogations

N/A

Learning and Teaching Strategies

This module provides a mixture of lecture and workshop opportunities for students. The learning and teaching strategies for this module are mixed because it is important that the student understands the theoretical underpinning that supports practical application.

Welsh Elements

The programmes will be delivered through the medium of English. Students are entitled to submit assessments in the medium of Welsh. If students wish to converse in Welsh, they will be assigned a Welsh speaking personal tutor. Support can also be made available for Welsh language students via Coleg Cymraeg Cenedlaethol where students can present their research at their conferences through the Welsh Language. Students will be sign posted to relevant opportunities via the VLE and MS Teams page.

Indicative Syllabus Outline

- Training principles
- Adaptations to training
- Theories and applied implementation of kinematic and kinetic variables
- Periodisation theories and programme prescription
- Tapering and recovery strategies

Indicative Bibliography:

Please note the essential reads and other indicative reading are subject to annual review and update.

Essential reading

Bompa, T.O. and Haff, G.G. (2018). *Periodization: Theory and Methodology of Training*. 6th ed. Champaign, IL: Human Kinetics.

Other indicative reading

Cardinale, M., Newton, R. and Nosaka, K. (2011), *Strength and Conditioning: Biological Principles and Practical Applications*. Chichester: Wiley-Blackwell.



DeWeese, B.H., Hornsby, W.G., Stone, M.E. and Stone, M.H., (2015), 'The Training Process: Planning for Strength-Power Training in Track and Field. Part 1: Theoretical Aspects', *Journal of Sport and Health Science*, Vol.4, No.4, pp. 308-317.

Issurin, V. B. (2013), *Block periodization 2: Fundamental Concepts and Training Design*. Michigan: Ultimate Athlete Publications.

Issurin, V.B., (2010), 'New Horizons for the Methodology and Physiology of Training Periodization', *Sports Medicine*, Vol.40, No.3, pp. 189-206.

Jeffreys, I. and Moody, J. (2021), *Strength and Conditioning for Sports Performance*. 2nd Edition. London: Routledge.

Rhea, M.R., Alvar, B.A., Burkett, L.N. and Ball, S.D. (2003), 'A Meta-analysis to Determine the Dose Response for Strength Development', *Medicine and Science in Sports and Exercise*, Vol.35, No.3, pp. 456-464.

Stone, M.H., Stone, M.E. and Sands, W.A. (2007), *Principles and Practice of Resistance Training*. Champaign, IL: Human Kinetics.

Turner, A.N., (2011), 'The Science and Practice of Periodization: A Brief Review', *Strength and Conditioning Journal*, Vol.33, No.1, pp. 34-46.

UK Strength and Conditioning Association (UKSCA), 2024. *UK Strength and Conditioning Association*. Available from: <https://www.ukzca.org.uk/> . [Accessed 24th June 2024.]

Administrative Information

For office use only	
Initial approval date	20/11/2024
With effect from date	September 2025
Date and details of revision	
Version number	1.0

