

Module specification

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| Module Code | SIR706 |
| Module Title | Strength and Conditioning: Programme Design and 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) | Core |

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:

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|---|---|
| 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.

The student will be asked to submit two linked tasks:

Assessment 1:

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

Assessment 2:

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 minutes | 70% | N/A |
| 2 | 1, 3, 4 | Portfolio | Equivalent of 1,500 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 module 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 Reads:

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.uk sca.org.uk/> . [Accessed 24th June 2024.]

Administrative Information

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| For office use only | |
| Initial approval date | 20/11/2024 |
| With effect from date | September 2025 |
| Date and details of revision | February 2026: AM2 major modification. Reclassified module from optional to core; updated module title and module code (previously SIR705 Applied Strength and Conditioning Principles 2). |
| Version number | |

