



## Higher National Unit Specification

### General information for centres

**Unit title:** Strength and Conditioning

**Unit code:** F4SC 35

**Unit purpose:** This Unit is designed to provide candidates with a sound theoretical and functional knowledge in the application of strength and conditioning methods and techniques, in conjunction with current theory, in order to maximise exercise and sports performance.

On completion of the Unit the candidate should be able to:

- 1 Teach effective strength and power training techniques.
- 2 Teach effective conditioning training techniques.
- 3 Research, explain and critically evaluate periodisation.

**Credit points and level:** 2 HN credits at SCQF level 8: (16 SCQF credit points at SCQF level 8\*)

*\*SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

**Recommended prior knowledge and skills:** Access to this Unit is at the discretion of the centre. However, it is recommended that candidates have completed the following HN Units, prior to undertaking this Unit:

- ◆ *Exercise Principles and Programming (DP8E 34)*
- ◆ *Exercise Physiology and Anatomy (DW60 34)*
- ◆ *Plan, Teach and Evaluate a Gym Based Exercise (DW62 34)*

**Core Skills:** There are opportunities to develop the Core Skills of Written and Oral Communication, *Information Technology*, *Problem Solving* and *Working with Others* in this Unit at SCQF level 6, although there is no automatic certification of Core Skills or Core Skills components.

**Context for delivery:** If this Unit is delivered as part of a Group Award, it is recommended that it should be taught and assessed within the subject area of the Group Award to which it contributes.

**Assessment:** This Unit could be assessed through the practical application of strength, power and conditioning training methods, relevant session plans covering Outcomes 1 and 2 and practical performance checklists. Outcome 3 could be assessed through the utilisation of a relevant case study. There may be an opportunity to assess Outcomes 1 and 2 together.

## **Higher National Unit specification: statement of standard**

**Unit title:** Strength and Conditioning

**Unit code:** F4SC 35

The sections of the Unit stating the Outcomes, Knowledge and/or Skills, and Evidence Requirements are mandatory.

Where evidence for Outcomes is assessed on a sample basis, the whole of the content listed in the Knowledge and/or Skills section must be taught and available for assessment. Candidates should not know in advance the items on which they will be assessed and different items should be sampled on each assessment occasion.

### **Outcome 1**

Teach effective strength and power training techniques

#### **Knowledge and/or Skills**

- ◆ Fixed weight and free weight strength resistance exercises
- ◆ Body weight strength resistance exercises
- ◆ Use of plyometrics in development of power
- ◆ Core stability strength exercises

#### **Evidence Requirements**

Candidates will need to provide evidence to demonstrate their Knowledge and/or Skills by showing that they can:

- ◆ apply safe exercise techniques for a minimum of two exercises
- ◆ identify baseline fitness utilising repetition maximum testing
- ◆ apply appropriate exercise intensity to bring about desired physiological adaptations
- ◆ incorporate appropriate rest intervals
- ◆ utilise intensity monitoring techniques

#### **Assessment Guidelines**

It is suggested that the most relevant form of assessment for this Outcome would be through the practical application of the above strength training methods on a one-to-one basis. Performance checklists may be utilised to record evidence of practical competence on behalf of the candidate when applying each strength and power training technique. In addition, the candidate should complete a strength and power training session plan relating to the observed session which includes Repetition Maximum testing information.

## **Higher National Unit specification: statement of standards (cont)**

**Unit title:** Strength and Conditioning

### **Outcome 2**

Teach effective conditioning training techniques

#### **Knowledge and/or Skills**

- ◆ Fixed weight and free weight endurance resistance exercises
- ◆ Body weight endurance resistance exercises
- ◆ Cardio-respiratory exercises
- ◆ Core stability endurance exercises
- ◆ Flexibility exercises

#### **Evidence Requirements**

Candidates will need to provide evidence to demonstrate their Knowledge and/or Skills by showing that they can apply and interpret measurements relating to joint flexibility:

- ◆ apply safe exercise techniques for: fixed weight, free weight, Cardio-respiratory, Core stability and flexibility (minimum of two stretches)
- ◆ identify baseline fitness utilising repetition maximum testing
- ◆ apply appropriate exercise intensity to bring about desired physiological adaptations
- ◆ incorporate appropriate rest intervals
- ◆ utilise intensity monitoring techniques

#### **Assessment Guidelines**

It is suggested that the most relevant form of assessment for this Outcome would be through the practical application, sampling the above conditioning methods contained within the Knowledge and Skills section. The practical assessment could be performed on a one-to-one basis or group format. Performance checklists may be utilised to record evidence of practical competence on behalf of the candidate when applying each conditioning technique. In addition, the candidate should complete a conditioning session plan relating to the observed session.

## **Higher National Unit specification: statement of standards (cont)**

**Unit title:** Strength and Conditioning

### **Outcome 3**

Research, explain and critically evaluate periodisation

#### **Knowledge and/or Skills**

- ◆ Peaking and tapering
- ◆ Phases of training (microcycles, mesocycles and macrocycles)
- ◆ Training volume, frequency and intensity
- ◆ Data interpretation

#### **Evidence Requirements**

Candidates will need to provide evidence to demonstrate their Knowledge and/or Skills by showing that they can:

- ◆ research, define and give an overview of periodisation in relation to a sport/activity
- ◆ explain various training phases (microcycles, mesocycles and macrocycles)
- ◆ explain training volume, frequency and intensity in relation to the periodised training overview
- ◆ explain peaking and tapering in relation to the periodised training overview
- ◆ critically evaluate the effectiveness of the periodised training overview and provide details of a minimum of two strengths and two weaknesses

#### **Assessment Guidelines**

It is suggested that the most relevant form of assessment for this Outcome would be through a research assignment that incorporates a definition and overview of periodised training, various training phases, training volume, frequency and intensity and peaking and tapering. In addition, a periodised training plan could be used as an example where candidates could critically evaluate the information to provide the strengths and weaknesses.

## Administrative Information

**Unit code:** F4SC 35  
**Unit title:** Strength and Conditioning  
**Superclass category:** MD  
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### History of Changes:

Version	Description of change	Date

**Source:** SQA

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## Higher National Unit specification: support notes

### Unit title: Strength and Conditioning

This part of the Unit specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 80 hours.

### Guidance on the content and context for this Unit

This Unit is primarily intended to prepare candidates for employment within a sports or fitness environment by giving them the knowledge and skills of strength and conditioning exercises to maximise exercise and sports performance.

If candidates undertake this Unit as part of the HND Applied Sport Science it is recommended that it be delivered after the Units:

- ◆ *Exercise Principles and Programming* (DP8E 34)
- ◆ *Exercise Physiology and Anatomy* (DW60 34)
- ◆ *Plan, Teach and Evaluate a Gym Based Exercise* (DW62 34)

The knowledge and skills gained from these Units will allow candidates to build on their knowledge base and apply specific strength, power and conditioning training methods into practical situations.

It is for this reason that the knowledge and skills within Outcomes 1 and 2 should be covered by allowing candidates to practice physically applying various strength, power and conditioning training methods in a practical setting for a given sport/exercise context. Repeated practice in the application of these techniques will be of great benefit to each candidate in building confidence in implementing various training techniques and working with others. Class discussions in on various communication, motivation and training techniques will help to develop coaching and instructing styles and build confidence. The following paragraphs contain suggestions on the types of learning and teaching techniques which may assist in making the learning experience more successful for the candidates.

### Guidance on the delivery and assessment of this Unit

This Unit is likely to form part of a Group Award designed to provide candidates with technical knowledge and skills for a sports/fitness related occupational area.

Outcomes 1 and 2 focus on the teaching/application of strength, power and cardio-respiratory training methods on a one-to-one basis. However, the principles can easily be transferred into a group format. Performance checklists in conjunction with strength, power and conditioning session plans created by the candidate could form the basis of assessment within this Outcome. Relevant strength, power and conditioning training techniques/principles could be taught/demonstrated and explained by the lecturer. Group work could certainly be utilised in order for candidates to gain experience in the quality application of each method. The use of performance checklists would help to minimise the assessment load on the candidate and help to dedicate more time to the quality application of each strength, power and conditioning method.

## Higher National Unit specification: support notes (cont)

### Unit title: Strength and Conditioning

Outcome 3 focuses on periodised training programmes in relation to a given sport/exercise context. It is suggested that the most relevant form of assessment for this Outcome would be through a research assignment that incorporates a definition and overview of periodised training, various training phases, training volume, frequency and intensity and peaking and tapering. In addition, a periodised training plan could be utilised as an example where candidates could interpret information as described within the Evidence Requirements.

#### *Opportunities for developing Core Skills*

Written Communication — through the answers given in the candidate log book you will have the opportunity to develop (SCQF level 6).

Oral Communication — by interacting with test subjects, you will be able to practice their oral communication techniques when explaining test protocols and giving interpretation and evaluation of results (SCQF level 6).

*Problem Solving* — through the physical application of each test and group work activities, you will be involved with the set up, administration and clear up of each measurement. Problem solving will play a part herein terms of time, equipment and space/accommodation requirements. (SCQF level 6).

*Working with Others* — group work will form the basis of class discussions and debates and enhance your ability to work successfully with other class members (SCQF level 6).

### Open learning

Due to the applied and practical nature of this Unit, it is not suited to delivery by distance learning.

### Candidates with disabilities and/or additional support needs

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering alternative Outcomes for Units. Further advice can be found in the SQA document *Guidance on Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs* ([www.sqa.org.uk](http://www.sqa.org.uk)).

## General information for candidates

### Unit title: Strength and Conditioning

This Unit is designed to provide you with a sound theoretical and functional knowledge of various strength and conditioning training techniques that may be utilised in a number of different sports and exercise environments.

The Outcomes that you will cover are:

- 1 Teach effective strength and power training techniques.
- 2 Teach effective conditioning training techniques.
- 3 Research, explain and critically evaluate periodisation.

You will be required to teach a range of strength, power and cardio-respiratory conditioning techniques in a given sporting/exercise context. You will also be required to Interpret, explain and evaluate Periodisation in a sport/exercise context. On successful completion of this Unit, you will be equipped to competently and confidently administer a variety of conditioning techniques within the various leisure/sporting industries and develop/implement periodised training plans.

Access to this Unit is at the discretion of the centre. However, it is recommended that you have completed the following HN units, prior to undertaking this Unit:

- ◆ *Exercise Principles and Programming* (DP8E34)
- ◆ *Exercise Physiology and Anatomy* (DW6034)
- ◆ *Plan, Teach and Evaluate a Gym Based Exercise* (DW62 34)

These units will provide valuable and essential information which will ultimately help you to achieve this Unit. It is important that you draw on the knowledge and skills that you have learned from these units and apply these to the work that you will cover throughout this particular module.

Take the opportunity to become as involved as possible in all practical aspects of the class and in all group discussions. The information and experience gained here will enable you to meet all assessment criteria and achieve a pass for the Unit.

This Unit may be assessed through the practical application of strength, power and conditioning training methods, relevant session plans covering Outcomes 1 and 2 and practical performance checklists. Outcome 3 may be assessed through the utilisation of a research assignment and a relevant Case Study. There may be an opportunity to assess Outcomes 1 and 2 together.

## **General information for candidates (cont)**

### ***Opportunities for developing Core Skills***

Written Communication — through the answers given in the candidate log book you will have the opportunity to develop (SCQF level 6).

Oral Communication — by interacting with test subjects, you will be able to practice their oral communication techniques when explaining test protocols and giving interpretation and evaluation of results (SCQF level 6).

*Problem Solving* — through the physical application of each test and group work activities, you will be involved with the set up, administration and clear up of each measurement. Problem solving will play a part herein terms of time, equipment and space/accommodation requirements. (SCQF level 6).

*Working with Others* — group work will form the basis of class discussions and debates and enhance your ability to work successfully with other class members (SCQF level 6).