



## Higher National Unit specification

### General information

**Unit title:** Applied Fitness Assessment for Special Population Groups

**Unit code:** H4T6 35

**Superclass:** MD

**Publication date:** August 2013

**Source:** Scottish Qualifications Authority

**Version:** 02

### Unit purpose

This Unit aims to provide learners with the knowledge and understanding of the key issues relating to the fitness assessment of special population groups. This Unit combines theoretical and practical elements relating to the selection, adaptation, application and evaluation of appropriate fitness testing protocol. It is mainly aimed at health tests and adapted dynamic fitness testing for special population groups.

### Outcomes

On successful completion of the Unit the learner will be able to:

- 1 Design adapted dynamic fitness tests for a selected special population group.
- 2 Select, justify and apply appropriate fitness tests or adapted fitness tests for a client from a special population group.
- 3 Analyse, interpret and provide feedback on fitness test results.
- 4 Make recommendations and provide a rationale for a physical activity programme based on fitness test results.

### Credit points and level

1.5 Higher National Unit credits at SCQF level 8: (12 SCQF credit points at SCQF level 8)

### Recommended entry to the Unit

Whilst entry is at the discretion of the centre, learners should possess good written and oral communication skills. Other knowledge skills or experience relevant to the Unit would also be beneficial, for example *Health Screening, Fitness Testing for Sport and Exercise Principles and Programming*.

## **Higher National Unit specification: General information (cont)**

**Unit title:** Applied Fitness Assessment for Special Population Groups

### **Core Skills**

Opportunities to develop aspects of Core Skills are highlighted in the Support Notes for this Unit specification.

There is no automatic certification of Core Skills or Core Skill components in this Unit.

### **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.

The Assessment Support Pack (ASP) for this Unit provides assessment and marking guidelines that exemplify the national standard for achievement. It is a valid, reliable and practicable assessment. Centres wishing to develop their own assessments should refer to the ASP to ensure a comparable standard. A list of existing ASPs is available to download from SQA's website (<http://www.sqa.org.uk/sqa/46233.2769.html>)

### **Equality and inclusion**

This Unit specification has been designed to ensure that there are no unnecessary barriers to learning or assessment. The individual needs of learners should be taken into account when planning learning experiences, selecting assessment methods or considering alternative evidence.

Further advice can be found on our website [www.sqa.org.uk/assessmentarrangements](http://www.sqa.org.uk/assessmentarrangements)

## **Higher National Unit specification: Statement of standards**

**Unit title:** Applied Fitness Assessment for Special Population Groups

Acceptable performance in this Unit will be the satisfactory achievement of the standards set out in this part of the Unit specification. All sections of the statement of standards are mandatory and cannot be altered without reference to SQA.

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. Learners 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**

Design adapted dynamic fitness tests for a selected special population group.

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

- ◆ Purpose and benefits of fitness testing for special population groups
- ◆ Purpose and protocol of adapted dynamic fitness tests
- ◆ Mean, mode and median norms for adapted dynamic fitness tests

### **Outcome 2**

Select, justify and apply appropriate fitness tests or adapted fitness tests for a client from a special population group.

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

- ◆ Screening procedures
- ◆ Appropriate fitness tests
- ◆ Testing protocols
- ◆ Recording of results

### **Outcome 3**

Analyse, interpret and provide feedback on fitness test results.

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

- ◆ Accurate analysis and interpretation of test results
- ◆ Appropriate feedback of test results

## Higher National Unit specification: Statement of standards (cont)

**Unit title:** Applied Fitness Assessment for Special Population Groups

### Outcome 4

Make recommendations and provide a rationale for a physical activity programme based on fitness test results.

#### Knowledge and/or Skills

- ◆ Client strengths and weaknesses
- ◆ Fitness needs and goals
- ◆ Physical Activity guidelines

#### Evidence Requirements for this Unit

It is strongly recommended that this Unit is assessed by a portfolio, in which the Learner selects a client from a special population group and devises, selects and administers a series of fitness tests. Feedback should be given on test results to their selected client, and recommendations made regarding future physical activity.

For the purpose of this Unit the following Special Population Groups should include: children, post natal, older adult, disabled, rehabilitation patient, obese clients, sports person(s).

Learners will need to provide evidence to demonstrate their Knowledge and/or skills across all Outcomes by showing that they can:

**Outcome 1** — Design adapted dynamic fitness tests for a selected special population group.

- ◆ Explain the purpose and benefits of fitness testing for special population groups.
- ◆ Identify perceived and actual barriers to carrying out dynamic fitness tests with special population groups.
- ◆ Explain the purpose of the adapted fitness tests for a selected special population group.
- ◆ State the protocol of the adapted fitness tests (minimum of two).
- ◆ Demonstrate how the mean, mode and median results would be calculated for the adapted fitness tests.

**Assignment:** Outcome 1 should take the form of written and/or oral recorded evidence obtained by a report based on a specific special population group. A minimum of two adapted fitness test should be undertaken.

## Higher National Unit specification: Statement of standards (cont)

**Unit title:** Applied Fitness Assessment for Special Population Groups

**Outcome 2** Select, justify and apply appropriate fitness tests or adapted fitness tests for a client from a special population group.

- ◆ Carry out appropriate screening procedures.
- ◆ Select, justify and administer a minimum of four appropriate static health tests from: height; weight; BMI; waist-hip ratio; resting heart rate; blood pressure; lung function; peak flow; anthropometric measurements; and body composition.
- ◆ Select and deliver four appropriate dynamic fitness tests or adapted fitness tests from: power; flexibility; strength; cardio-vascular endurance; local muscular endurance; speed; agility; balance.
- ◆ Adhere to testing procedures and protocol.
- ◆ Record client details in an appropriate format.

**Practical Assessment:** Outcome 2 should take the form of an assessor checklist which should be completed when the learner is carrying out fitness tests with their selected special population client. This evidence may be supported by video recordings.

Each learner will be required to demonstrate competence in selecting and applying screening procedures and appropriate fitness tests. The assessment will take the form of a practical test where the learner is required to administer a minimum of four appropriate static health tests from: height; weight; BMI; waist-hip ratio; resting heart rate; blood pressure; lung function; peak flow; anthropometric measurements; and body compositions.

The learner should then deliver four appropriate dynamic fitness tests or adapted fitness tests from: power; flexibility; strength; cardio-vascular endurance; local muscular endurance; speed; agility and balance specific to their special population group. The learner must also submit an evidence portfolio, which contains: (i) a completed informed consent form; (ii) a completed health screening questionnaire; (iii) fitness test results.

**Outcome 3** Analyse, interpret and provide feedback on fitness test results.

- ◆ Analyse test results.
- ◆ Provide accurate feedback based on suitable norms.

**Assignment:** Outcome 3 should take the form of written and/or oral recorded evidence in the form of a report, where the learner must present their analysis and feedback information from fitness test results gathered in Outcome 2. This will be given to and discussed with their client.

## Higher National Unit specification: Statement of standards (cont)

**Unit title:** Applied Fitness Assessment for Special Population Groups

**Outcome 4** Make recommendations and provide a rationale for a physical activity programme based on fitness test results.

- ◆ Identify client strengths and weaknesses (minimum of three for each).
- ◆ Explain client fitness needs and goals.
- ◆ Provide a rationale for the programme of physical activity recommended to the special population client.
- ◆ Explain how the client's needs and goals are met by the programme.

**Assignment:** Outcome 4 should take the form of written and/or oral recorded evidence in the form of a report in which the learner identifies fitness needs, goals, and strength and weaknesses of their special population client. The clients programme should clearly state how the needs and goals of the client are met by detailing suitable targets. Targets should be set and guidelines for further physical activity must be stated.



## Higher National Unit Support Notes

**Unit title:** Applied Fitness Assessment for Special Population Groups

Unit Support Notes are offered as guidance and are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 60 hours.

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

This Unit should emphasise both the importance of theoretical knowledge and sound practical skills in relation to fitness testing for special populations. Ideally, the learner will work through the Unit, applying the principles and knowledge gained to a case study for their special population client.

#### Outcome 1

Special population groups: Children, post natal, older adult, disabled, rehabilitation patient, obese clients, sports person(s).

Purpose and benefits: construction of fitness profiles; designing physical activity programmes; goal setting; evaluation of programme effectiveness; assess improvements in individual's fitness; benchmark fitness data for use during rehabilitation.

Objectivity: definition; clear testing protocols; adherence to protocols and scoring criteria.

#### Outcome 2

Choice of test: power, flexibility, strength, cardio-vascular endurance, local muscular endurance, speed, agility, balance.

Recording of results: pre-prepared form; accurate recording of results.

#### Outcome 3

Analysis and interpretation: use of appropriate norms for specific special population group; previous test results.

Written feedback: accuracy of information; clear layout of results; appropriate comments relating to test results.

#### Outcome 4

Physical activity needs and goals: specific fitness requirements for their activity needs.

Strengths and weaknesses: use of appropriate norms.

Guidelines: suggested physical activity goals and recommendations.

## Higher National Unit Support Notes (cont)

**Unit title:** Applied Fitness Assessment for Special Population Groups

### Guidance on approaches to delivery of this Unit

The Unit will be delivered as one of a number of Units that will fully prepare the learner for work as a Fitness, Health and Exercise professional. It will specifically prepare learners to work with special population groups.

This Unit would be best delivered in the second year of the HND Fitness, Health and Exercise programme, and should ideally be sequenced after learners have completed the following three Units: *Exercise Principles and Programming*, *Health Screening and Anatomy and Exercise Physiology*. There are opportunities to link this Unit with *Applied Exercise Prescription for Special Population Groups* and *Applied Nutrition Assessment and Prescription*. The content of these Units directly feed into the Graded Unit for year 2 of the HND *Fitness, Health and Exercise* programme.

It is strongly recommended that learners work with live clients from special population groups to adapt, administer and evaluate fitness tests. This will enhance their learning experience and contribute to their employability. Where this is not possible learners will choose a special population group to base their portfolio on and will carry out the practical assessment in simulated conditions.

### Guidance on approaches to assessment of this Unit

Evidence can be generated using different types of assessment. The following are suggestions only. There may be other methods that would be more suitable to learners.

Centres are reminded that prior verification of centre-devised assessments would help to ensure that the national standard is being met. Where learners experience a range of assessment methods, this helps them to develop different skills that should be transferable to work or further and higher education.

- ◆ Outcome 1 this should take the form of written and/or oral recorded evidence obtained by a report based on a specific special population group. A minimum of 2 adapted fitness test should be undertaken.
- ◆ Outcome 2 this should take the form of an assessor checklist which should be completed when the learner is carrying out fitness tests with their selected special population client. This evidence may be supported by video recordings.
- ◆ Each learner will be required to demonstrate competence in selecting and applying screening procedures and appropriate fitness tests. The assessment will take the form of a practical test where the learner is required to administer a minimum of four appropriate static health tests from: height; weight; BMI; waist-hip ratio; resting heart rate; blood pressure; lung function; peak flow; anthropometric measurements; and body compositions.

The learner should then deliver four appropriate dynamic fitness tests or adapted fitness tests from: power; flexibility; strength; cardio-vascular endurance; local muscular endurance; speed; agility and balance specific to their special population group. The learner must also submit an evidence portfolio, which contains: (i) a completed informed consent form; (ii) a completed health screening questionnaire; (iii) fitness test results.



## Higher National Unit Support Notes (cont)

**Unit title:** Applied Fitness Assessment for Special Population Groups

- ◆ Outcome 3 this should take the form of written and/or oral recorded evidence in the form of a report, where the learner must present their analysis and feedback information from fitness test results gathered in Outcome 2. This will be given to and discussed with their client.
- ◆ Outcome 4 this should take the form of written and/or oral recorded evidence in the form of a report in which the learner identifies fitness needs, goals, and strength and weaknesses of their special population client. The clients programme should clearly state how the needs and goals of the client are met by detailing suitable targets. Targets should be set and guidelines for further physical activity must be stated.

It is strongly recommended that this Unit is assessed by a portfolio, in which the learner selects a client from a special population group and devises, selects and administers a series of fitness tests. Feedback should be given on test results to their selected client, and recommendations made regarding future physical activity.

For the purpose of this Unit the following minimum evidence and definitions should be considered:

Special Population Groups include: children, post natal, older adult, disabled, rehabilitation patient, obese clients sports person(s).

Purpose and Benefits: identify strengths and weaknesses of different testing modalities; constructing fitness profiles; designing fitness training programmes; goal setting; evaluation of physical activity effectiveness; assess improvements in individual's fitness; benchmark fitness data for use during rehabilitation.

### Opportunities for e-assessment

E-assessment may be appropriate for some assessments in this Unit. By e-assessment we mean assessment which is supported by Information and Communication Technology (ICT), such as e-testing or the use of e-portfolios or social software. Centres which wish to use e-assessment must ensure that the national standard is applied to all learner evidence and that conditions of assessment as specified in the Evidence Requirements are met, regardless of the mode of gathering evidence. The most up-to-date guidance on the use of e-assessment to support SQA's qualifications is available at [www.sqa.org.uk/e-assessment](http://www.sqa.org.uk/e-assessment)

## Higher National Unit Support Notes (cont)

**Unit title:** Applied Fitness Assessment for Special Population Groups

### Opportunities for developing Core and other essential skills

Throughout the Unit, learners are required to research and analyse material. There are opportunities to use the internet and other information sources, leading to skill development in *Information and Communication Technology (ICT)* and *Communication*.

All elements of *Problem Solving* could be developed and enhanced as learners plan, analyse and evaluate the complex tasks involved.

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

Outcomes 1, 2 and 3 will require numeracy skills to calculate norms and analyse data.

## History of changes to Unit

Version	Description of change	Date
02	Update of Special populations groups to meet current criteria	June 18

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## General information for learners

### Unit title: Applied Fitness Assessment for Special Population Groups

This section will help you decide whether this is the Unit for you by explaining what the Unit is about, what you should know or be able to do before you start, what you will need to do during the Unit and opportunities for further learning and employment.

The Unit is intended to provide you with the knowledge and skills required to select, justify and administer suitable fitness tests and adapted fitness tests for specific special population groups. The Unit will help you produce and administer adapted fitness tests for special population clients and arm them with the skills to calculate suitable norms in order to make appropriate comparisons of test results. On completion of the Unit you will have gained the knowledge and skills to make recommendations regarding suitable activity programmes for clients from special population groups.

It is strongly recommended that this Unit is assessed by a portfolio, in which you will select a client from a special population group and devise, select and administer a series of fitness tests. Feedback should be given on test results to your selected client, and recommendations made regarding future physical activity.

For the purpose of this Unit the following Special Population Groups should include: children, post natal, older adult, disabled, rehabilitation patient, sports person(s).

#### Outcome 1

Assignment — This Outcome should take the form of a written and/or oral report based on a specific special population group. You will design a minimum of two adapted fitness tests for a selected special population group and then administer them to your selected clients in Outcome 2. You will take into account the purpose and benefits of fitness testing special population groups and will identify barriers to carrying out dynamic fitness testing for these client groups

#### Outcome 2

Practical Assessment — In this Outcome you will administer the tests that were devised in Outcome 1 to their selected special population clients. It is strongly suggested that you work with live clients to fully understand the practical implications of working with special population groups. Links can be made with community groups to allow this practice to take place. This evidence may be supported by video recordings.

You will be required to demonstrate competence in selecting and applying screening procedures and appropriate fitness tests. The assessment will take the form of a practical test where you are required to administer a minimum of four appropriate static health tests from: height; weight; BMI; waist-hip ratio; resting heart rate; blood pressure; lung function; peak flow; anthropometric measurements; and body compositions.

You should then deliver four appropriate dynamic fitness tests or adapted fitness tests from: power; flexibility; strength; cardio-vascular endurance; local muscular endurance; speed; agility and balance specific to their special population group. You must also submit an evidence portfolio, which contains: (i) a completed informed consent form; (ii) a completed health screening questionnaire; (iii) fitness test results.

## General information for learners (cont)

**Unit title:** Applied Fitness Assessment for Special Population Groups

### Outcome 3

Assignment in the form of written and/or oral recorded evidence. You will analyse and provides feedback to their client based on fitness test results, this can be done orally or in a written format. This will be given to and discussed with your client.

### Outcome 4

Assignment in the form of written and/or oral recorded evidence. With the information you produced in Outcome 3, you will identify fitness needs, goals, strengths and weaknesses of your special population client. You will produce an activity programme for your client, this programme should clearly state how the needs and goals of the client are met by detailing suitable targets. Targets should be set and guidelines for further physical activity must be stated. It is suggested that these are also given to the client.

The practical elements of the Unit should be delivered to live clients in their own environment. You will be directly observed by an assessor and will be offered feedback.

This Unit can be extremely rewarding if delivered with live client groups. A portfolio can be produced for your assessment purposes, but also for client interest.

Throughout the Unit, you are required to research and analyse material. There are opportunities to use t-he internet and other information sources, leading to skill development in *Information and Communication Technology (ICT)* and *Communication*.

All elements of *Problem Solving* could be developed and enhanced as you plan, analyse and evaluate the complex tasks involved.

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

Outcomes 1, 2 and 3 will require numeracy skills to calculate norms and analyse data.