Higher National Unit specification

General information

Unit title: Flexibility Training

Unit code: H4TD 34

Superclass: MD

Publication date: August 2013

Source: Scottish Qualifications Authority

Version: 01

Unit purpose

This Unit is designed to provide the learner with the knowledge and skills to understand, plan, and deliver flexibility training using current, accepted methodology. This may be as standalone sessions, or incorporated into other programmes as warm-up, developmental, or cool-down components.

Outcomes

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

1 Describe the anatomy and physiology underpinning flexibility maintenance and development.
2 Explain the rationale behind flexibility training techniques.
3 Demonstrate different methods of flexibility training.

Credit points and level

0.5 Higher National Unit credit at SCQF level 7: (4 SCQF credit points at SCQF level 7)

Recommended entry to the Unit

It may be beneficial if the learner has completed (or is currently undertaking) a level 7 Unit in *Exercise Physiology* and *Anatomy* or equivalent and can evidence recent education and training in a practical fitness and exercise discipline as evidenced by SVQ level 2 or equivalent in *Exercise* and *Fitness Instruction*.

Higher National Unit specification: General information (cont)

Unit title: Flexibility Training

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.

This Unit lies within the HNC/HND Fitness, Health and Exercise Framework.

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**

Higher National Unit specification: Statement of standards

Unit title: Flexibility Training

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

Describe the anatomy and physiology underpinning flexibility maintenance and development.

Knowledge and/or Skills

- Structure and attachment points of skeletal muscle
- Structure and function of sensory receptors related to skeletal muscle
- Factors influencing joint range of motion

Outcome 2

Explain the rationale behind flexibility training techniques.

Knowledge and/or Skills

- Potential benefits of increasing flexibility
- Contra-indications for flexibility training methods
- Rationale for the following methods of flexibility training:
  - static active
  - static passive
  - dynamic
  - PNF (proprioceptive neuromuscular facilitation)

Outcome 3

Demonstrate different methods of flexibility training.

Knowledge and/or Skills

- Demonstration and explanation of safe and effective flexibility exercises
- Correction of technique errors

Higher National Unit specification: Statement of standards (cont)

Unit title: Flexibility Training

Evidence Requirements for this Unit

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

Outcome 1

This Outcome should be conducted using restricted response /short answer questions in the form of a closed book assessment. Written or oral evidence should be obtained under supervised conditions:

- Describe structure and function of muscle spindles, Golgi tendon organs, and their associated reflexes (stretch reflex, inverse stretch reflex).
- Identify anatomical issues of muscles and joints which may influence range of movement.
- Explain physiological and environmental issues which may influence range of movement.

Outcome 2

- Explain potential benefits of increasing flexibility.
- Identify and explain contra-indications for flexibility training.
- Explain the rationale for the following methods of flexibility training:
  - static active
  - static passive
  - dynamic
  - PNF (proprioceptive neuromuscular facilitation)

Outcome 3

This Outcome should be conducted as a practical assessment carried out under supervised conditions. It is strongly recommended that learners demonstrate their competence by teaching the exercises to a client.

- Demonstrate and explain safe and effective flexibility exercises:
  - Static active: at least two different exercises should be demonstrated
  - Static passive: at least four different exercises should be demonstrated
  - Dynamic: a range of exercises should be demonstrated. A minimum of four exercises affecting different muscle groups should be used. At least one exercise should be for the shoulder girdle/arms and at least one exercise for the pelvic girdle/legs
  - PNF (proprioceptive neuromuscular facilitation): at least two different exercises should be demonstrated

- Identify and correct technique errors. At least one issue should be identified for each of the techniques:
  - Static active
  - Static passive
  - Dynamic
  - PNF (proprioceptive neuromuscular facilitation)

Higher National Unit Support Notes

Unit title: Flexibility Training

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 20 hours.

Guidance on the content and context for this Unit

This Unit is designed to provide the learner with the knowledge and skills to understand, plan, and deliver flexibility training using current, accepted methodology. This may be as standalone sessions, or incorporated into other programmes as warm-up, developmental, or cool-down components. On completion of the Unit the learner should be able to explain and apply a range of flexibility training techniques.

Outcome 1 requires the learner to demonstrate an understanding muscle and joint anatomy and physiology, and neuro-muscular responses influencing flexibility training.
Anatomical and physiological issues may include (but are not limited to):

- Type of joint.
- Internal resistance within a joint.
- Bony structures which limit movement.
- Elasticity of muscle tissue.
- Elasticity of skin.
- Limiting factors related to tendons and ligaments.
- Temperature of the joint and associated tissues.
- Level of hydration.
- Stage in the recovery process of a joint (or muscle) after injury.

Environmental issues may include (but are not limited to):

- Temperature of training area.
- Time of day.
- Restrictions of any clothing or equipment.

Outcome 2 requires the learner to identify and explain:

- Key benefits of flexibility training. This may include (but is not confined to): joint health, protection against low-back pain and injuries, potential reduction of post-exercise muscle soreness, potential relief of pain, improved body position/ posture, enhanced range of motion, relaxation.
- Contra-indications to flexibility training. This may include (but is not confined to): acute rheumatoid arthritis, bone disease or abnormality, joint limitation resulting from past injury, acute inflammation or haematoma, recent fracture/strain/sprain, age, gender, stage of training cycle, vascular or skin disorders.

Higher National Unit Support Notes (cont)

Unit title: Flexibility Training

- Rationale for different methods of flexibility training
  - static active
  - static passive
  - dynamic
  - PNF (proprioceptive neuromuscular facilitation)

Outcome 3 requires the learner to:

- Demonstrate and explain safe and effective flexibility exercises. Static exercises may be delivered in the context of cooldown, and dynamic exercises in the context of warm-up
  - opportunities exist here for cross assessment with other Units such as '*Plan, Teach and Evaluate a Gym Based Exercise Session*', '*Plan, Teach and Evaluate an Exercise to Music Session*', '*Plan, Teach and Evaluate a Group Exercise Session'*, or Outcome 5 of '*Exercise Principles and Programming'*.

- Identify and correct technique errors. At least one issue should be identified for each of the techniques:
  - Static active
  - Static passive
  - Dynamic
  - PNF (proprioceptive neuromuscular facilitation)

Technique errors commonly relate to (but are not limited to): timing, positioning, rate of stretch development, frequency, programme balance, breathing.

Guidance on approaches to delivery of this Unit

The Unit may be delivered as a standalone Unit, or in conjunction with other elements of the course. Timing is important however, and it is strongly recommended that learners should have completed the appropriate elements of the relevant anatomy and physiology Unit. A variety of teaching methods will enhance delivery: group discussion will blend learner experiences with input from the tutor, and delivery should encourage individual research, review and reflection.

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.

Higher National Unit Support Notes (cont)

Unit title: Flexibility Training

Outcome 1

This Outcome should be conducted using restricted response/short answer questions in the form of a closed book assessment. Written or oral evidence should be obtained under supervised conditions.

Outcomes 2 and 3

A variety of assessment methods may be used. Learners may be presented with restricted response/short answer questions in the form of a closed book assessment. Written or oral evidence should be obtained under supervised conditions. Alternatively it may be appropriate to assess Outcomes two and three together. This would give the learner the opportunity to explain all of the elements whilst demonstrating the exercises — if carried out with a client this would necessitate the use of a assessor checklist.

Outcome 3 should be conducted as a practical assessment carried out under supervised conditions. It is strongly recommended that learners demonstrate their competence by teaching the exercises to a client. If a client is not used then potential technique errors should be identified and explained.

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**

Opportunities for developing Core and other essential skills

There are limited opportunities within this Unit to develop core skills, though effective oral communications skills will be important when demonstrating exercises as required in Outcome 3.

History of changes to Unit

Version	Description of change	Date

General information for learners

Unit title: Flexibility Training

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.

This Unit is designed to provide the learner with the knowledge and skills to understand, plan, and deliver flexibility training using current, accepted methodology. This may be as standalone sessions, or incorporated into other programmes as warm-up, developmental, or cool-down components. On completion of the Unit the learner should be able to explain and apply a range of flexibility training techniques.

In **Outcome 1** you will cover the underpinning knowledge required to understand muscle and joint anatomy and physiology, and neuro-muscular responses influencing flexibility training.

In **Outcome 2** you will cover the underpinning knowledge related to the key benefits of flexibility training, and develop an understanding of contra-indications to flexibility training. This will further involve studying the underpinning rationale for different methods of flexibility training including static active, static passive, dynamic, and PNF (proprioceptive neuromuscular facilitation).

Outcome 3 requires learners to demonstrate and explain safe and effective flexibility exercises. You will look at static exercises in the context of cool down, dynamic exercises in the context of warm-up, and developmental stretching techniques.

In conjunction with the demonstrations, you will be required to teach the exercises to a selected client, and identify and correct technique errors.