



Higher National Unit specification

General information for centres

Unit title: Therapeutic Interventions for Physiotherapy Support Workers

Unit code: F2GM 34

Unit purpose: This Unit is designed to provide an introduction to understanding the biomechanics and the kinetics of movement for Physiotherapy support workers which underpin the therapeutic interventions. The Unit provides Physiotherapy Support Workers with an understanding of therapeutic interventions and how to select, within agreed scope of practice, appropriate interventions in a range of settings and for a range of conditions.

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

- 1 Describe and explain the key principles of biomechanics of movement.
- 2 Explain how the key principles of balance relate to therapeutic activity.
- 3 Describe and apply the key principles of therapeutic interventions.
- 4 Describe and apply the principles of therapeutic exercise to Physiotherapy support worker practice.

Credit points and level: 1 HN credit at SCQF level 7: (8 SCQF credit points at SCQF level 7*)

**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: While entry to this Unit will be at the discretion of the centre, it is recommended that candidates possess or be working towards F2GN 34 *Applied Anatomy and Physiology for Physiotherapy Support Workers*, DR3P 34 *Physiology for Health Care Professions* and F2GP 34 *Physiotherapy Support: Disorders in Human Movement*.

Core Skills: There are opportunities to develop the component 'Written Communication' of the Core Skill of Communication, and the component 'Critical Thinking' of the Core Skill of Problem Solving at SCQF level 5 in this Unit, 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. This Unit is mandatory in the framework for HNC Allied Health Professions: Physiotherapy.

Assessment: This Unit can be assessed holistically or the Outcomes can be assessed individually. It would best be assessed using open-book, extended answer questions. An assessment checklist could be used to ensure that all of the Evidence Requirements have been met.

Higher National Unit specification: statement of standards

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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

Describe and explain the key principles of biomechanics of movement

Knowledge and/or Skills

- ◆ Key principles of the biomechanics of movement
- ◆ Key principles of applied biomechanics
- ◆ Fundamental and derived positions
- ◆ Active, active assisted, passive and resisted movement

Evidence Requirements

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

- ◆ describe the key principles of the biomechanics of movement
- ◆ explain how three key principles are applicable to physiotherapy support worker practice
- ◆ explain three fundamental and seven derived positions
- ◆ explain active, active assisted, passive, and resisted movement

Assessment Guidelines

This Outcome could be assessed individually or combined with Outcomes 2 and 3. It is recommended that it is assessed using open-book, extended answer questions.

An assessment checklist could be used to indicate that all of the Evidence Requirements have been met, including the key principles of movement, brief definitions of the principles, examples of how the key principles are applied and the principles of biomechanics including energy, force, motion, gravity and levers.

Outcome 2

Explain how the key principles of balance relate to therapeutic activity

Knowledge and/or Skills

- ◆ centre of gravity
- ◆ different postures

Higher National Unit specification: statement of standards (cont)

Unit title: Therapeutic Interventions for Physiotherapy Support Workers

- ◆ control of balance and postural reactions
- ◆ balance responses to environmental conditions
- ◆ therapeutic approaches
- ◆ balance re-education

Evidence Requirements

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

- ◆ identify the location of centre of gravity in the body and relate this to the stability and equilibrium in three different postures
- ◆ explain the relationship between gravity, base of support and movement
- ◆ explain the Central Nervous System control of balance and five postural reactions
- ◆ explain normal balance responses to at least three environmental conditions
- ◆ explain at least three of the consequences for clients when balance is impaired and therapeutic approaches applied to re-educate balance

Assessment Guidelines

This Outcome could be assessed individually or combined with Outcomes 1 and 3. It is recommended that it is assessed using open-book, extended answer questions.

An assessment checklist could be used to indicate that all of the Evidence Requirements have been met

Outcome 3

Describe and apply the key principles of therapeutic interventions

Knowledge and/or Skills

- ◆ Therapeutic interventions
- ◆ Benefits and risks of exercise
- ◆ Principles of exercise and fitness training
- ◆ Effects of exercise
- ◆ Treatment and assessment techniques

Evidence Requirements

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

- ◆ describe the effects of two different types of therapeutic intervention, including increasing strength; increasing endurance; reducing pain; increasing range of movement, on body systems.
- ◆ describe two benefits and two risks of exercise in a clinical population.
- ◆ describe two from the following four principles of exercise and fitness training: frequency, duration, intensity and flexibility.
- ◆ describe how two effects of exercise are evaluated.

Higher National Unit specification: statement of standards (cont)

Unit title: Therapeutic Interventions for Physiotherapy Support Workers

- ◆ apply two treatment and two assessment techniques. This will include analysis and re-education of gait; and hot and/or cold treatments.

Assessment Guidelines

This Outcome could be assessed individually or combined with Outcomes 1 and 2. It is recommended that it is assessed using open-book, extended answer questions.

An assessment checklist could be used to ensure that all of the Evidence Requirements have been met.

A practical assessment and an assessment checklist could be used to cover the application of treatment techniques.

Outcome 4

Describe and apply the principles of therapeutic exercise to Physiotherapy support worker practice

Knowledge and/or Skills

- ◆ Principles of exercise prescription
- ◆ Exercise for specific purposes
- ◆ Measurement tools
- ◆ Grading strength
- ◆ Measuring joint range

Evidence Requirements

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

- ◆ describe the application of two principles of exercise prescription to clients in two different settings
- ◆ develop an appropriate exercise programme, from a range of existing programmes, for a selected client or client group
- ◆ explain the rationale behind the choice of exercise for the given situation
- ◆ explain how the outcomes of the programme were evaluated using at least one appropriate measurement tool including VAS; heart rate; activity measurement
- ◆ apply appropriate/relevant therapeutic intervention to at least two conditions

Assessment Guidelines

Production of an anonymised case study, of approximately 1,000 words or equivalent, which describes the selection, application and evaluation of a relevant therapeutic intervention and explains the rationale behind the choices made, could be used to assess this Outcome.

A practical assessment and an assessment checklist could be used to cover the application of therapeutic intervention.

Administrative Information

Unit code:	F2GM 34
Unit title:	Therapeutic Interventions for Physiotherapy Support Workers
Superclass category:	PJ
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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: Therapeutic Interventions for Physiotherapy Support Workers

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 40 hours.

Guidance on the content and context for this Unit

This Unit provides the knowledge and skills required to apply the therapeutic interventions by the physiotherapy support worker. It will provide physiotherapy support workers with a sound understanding of the physical principles of movement and the application of those principles to an intervention.

In Outcome 2, the environmental conditions should include running; walking; being pushed; uneven ground; sitting on unstable surface and carrying loads.

Biomechanical principles include:

- ◆ levers, fulcrums, forces acting on the body, planes, direction of movement, gravity, centre of gravity, line of gravity and base of support, types of muscle work: isotonic, isometric, equilibrium

Principles of balance include:

- ◆ cerebellum, vestibular, visual, somatosensory systems
- ◆ righting and equilibrium reactions, static and dynamic balance, responses to internal and external perturbation

Principles of exercise include:

- ◆ flexibility, strength, endurance, co-ordination, and cardiovascular exercise
- ◆ overload, specificity, intensity, duration, frequency, progression
- ◆ application of biomechanical principles, overload, specificity, Intensity, duration, frequency, progression and how the principles are applied to therapeutic exercise

Guidance on the delivery and assessment of this Unit

Assessment instruments should take into account the need for candidates to demonstrate their knowledge of and ability to identify key biomechanical components of the structures in the body involved in movement. Candidates also need to be able to demonstrate their understanding of the related functions applied to a therapeutic situation.

This Unit has been designed to be delivered within the HNC Allied Health Professions: Physiotherapy framework.

It is recommended that candidates possess or be working towards F2GN 34 *Applied Anatomy and Physiology for Physiotherapy Support Workers* and DR3P 34 *Physiology for Health Care Professions* prior to undertaking this Unit.

Higher National Unit specification: support notes (cont)

Unit title: Therapeutic Interventions for Physiotherapy Support Workers

Opportunities for developing Core Skills

There are opportunities to develop the component ‘Written Communication’ of the Core Skill of Communication, and the component ‘Critical Thinking’ of the Core Skill of Problem Solving at SCQF level 5 in this Unit, although there is no automatic certification of Core Skills or Core Skills components.

The general skills of the Written Communication are component ‘read, understand and evaluate written communication’ for its reading element and ‘produce well-structured written communication’ for its writing element. Specific reading skills required by candidates at SCQF level 5 include identifying and summarising significant information, ideas and supporting details in a written communication, and evaluation of the effectiveness of the communication in meeting its purpose; and specific writing skills include presenting all essential ideas, information and supporting detail in a logical and effective order, and use of a structure which takes account of purpose and audience, emphasising the main points.

For assessment of all four Outcomes, candidates may be asked to complete extended response questions on various topics. The skills outlined above may be utilised to produce responses covering such topics as the relationship between gravity, base of support and movement.

There may also be opportunities to develop the component ‘Critical Thinking’ of the Core Skill of Problem Solving, in areas such as Outcome 4 where candidates are asked to develop an appropriate exercise programme, from a range of existing programmes, for a selected client or client group. This will require planning skills, critical thinking and consideration of a number of variables.

Open learning

This Unit could be delivered by distance learning with tutor support and where open learning materials are available. However it would require tight planning and control by the centre to ensure the authenticity of candidate evidence. Assessment of all Outcomes may be undertaken using open-book, extended response questions.

To keep the administrative burden to a minimum, the Unit could be assessed by a single assessment such as a case study or report is used for open and 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).

General information for candidates

Unit title: Therapeutic Interventions for Physiotherapy Support Workers

This Unit will provide you with an introduction to understanding the biomechanics and kinetics of movement for physiotherapy support workers which underpin therapeutic interventions. The Unit provides an understanding of therapeutic interventions and how to select, within agreed scope of practice, appropriate interventions in a range of settings and for a range of different conditions.

As a physiotherapy support worker, this background knowledge and understanding of the principles of movement based on biomechanics, is the basis for the application of therapeutic interventions by you, in the clinical environment.

On completion of the Unit you will be able to:

- 1 Describe and explain the key principles of biomechanics of movement.
- 2 Explain how the key principles of balance relate to therapeutic activity.
- 3 Describe and apply the key principles of therapeutic interventions.
- 4 Describe and apply the principles of therapeutic exercise to Physiotherapy support worker practice.

You will be assessed on how exercise is selected and applied, in a variety of therapeutic situations. You may also be assessed by an open-book extended paper.

Over the course of the Unit, there may be opportunities for you to develop Core Skills in the areas of Communication and Problem Solving.