

# VTCT Level 2 NVQ Diploma in Instructing Exercise and Fitness - Gym-Based Exercise

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Accreditation start date: **1 September 2010**  
Credit value: **39**  
Total Qualification Time (TQT): **390**  
Guided learning hours (GLH): **233**  
Qualification number: **501/0718/5**

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## Statement of unit achievement

By signing this statement of unit achievement you are confirming that all learning outcomes, assessment criteria and range statements have been achieved under specified conditions and that the evidence gathered is authentic.

This statement of unit achievement table must be completed prior to claiming certification.

Unit code	Date achieved	Learner signature	Assessor initials	IQA signature (if sampled)
Mandatory units				
UF20C22				
UF2C316				
UV20522				
UV20525				
UF2D451				
UF2D452				
UF2A335				

# The qualification

## Introduction

The VTCT Level 2 NVQ Diploma in Instructing Exercise and Fitness - Gym-Based Exercise is a competency-based qualification that has been designed to prepare you for a career in the sport and active leisure industry as a gym-based fitness instructor.

The evidence required to achieve this qualification will be gathered from working with real equipment, facilities and customers as part of temporary or permanent employment.

Throughout this qualification you will develop your knowledge and understanding of the theory underpinning instructing gym-based exercise, including the principles of exercise, fitness and health, anatomy and physiology and health, safety and welfare in the fitness environment.

You will develop the skills and knowledge needed to plan and instruct a gym-based exercise programme for apparently healthy adults of all ages. In addition you will be equipped to offer support to clients who take part in exercise and physical activity and be able to reflect on and develop own practice.

Successful completion of this qualification will allow you to work unsupervised as a fitness instructor teaching gym-based exercise in the sport and active leisure industry.

## Approved by the Register of Exercise Professionals (REPs)

This qualification is approved by the Register of Exercise Professionals (REPs). Upon successful completion of this qualification you will be eligible to register onto the REPs as a Level 2 Fitness Instructor (Gym category).

## National Occupational Standards (NOS)

Units in this qualification have been mapped to the relevant NOS (where applicable). This qualification is regulated on the Regulated Qualifications Framework.

This qualification is approved and supported by SkillsActive, the sector skills council for active leisure and learning.



## Progression

Once you have successfully completed this qualification you will be able to progress to the following VTCT qualifications:

- Level 3 NVQ Diploma in Personal Training

Progression opportunities also exist in the form of specialist VTCT vocationally related qualifications:

- Level 3 Award in Adapting Physical Activity for Older Adults
- Level 3 Award in Adapting Physical Activity for People with Disabilities
- Level 3 Award in Adapting Physical Activity for Antenatal and Postnatal Clients
- Level 3 Award in Instructing Sports Specific Conditioning

# Qualification structure

## Total credits required - 39

All mandatory units must be completed.

### Mandatory units - 39 credits

VTCT unit code	Ofqual unit reference	Unit title	Credit value	GLH
UF20C22	D/601/4484	Promote health, safety and welfare in active leisure and recreation	4	30
UF2C316	A/601/7361	Work with clients to help them to adhere to exercise and physical activity	4	25
UV20522	H/600/9013	Anatomy and physiology for exercise	6	41
UV20525	A/600/9017	Principles of exercise, fitness and health	4	28
UF2D451	J/601/7363	Plan and prepare gym-based exercise	9	43
UF2D452	L/601/7364	Instruct and supervise gym-based exercise	8	43
UF2A335	F/601/7362	Reflect on and develop own practice in providing exercise and physical activity	4	23

# Guidance on assessment

This book contains the mandatory units that make up this qualification. Optional units will be provided in additional booklets (if applicable). Where indicated, VTCT will provide assessment materials. Assessments may be internal or external. The method of assessment is indicated in each unit.

## Internal assessment

*(any requirements will be shown in the unit)*

Assessment is set, marked and internally quality assured by the centre to clearly demonstrate achievement of the learning outcomes. Assessment is sampled by VTCT external quality assurers.

## External assessment

*(any requirements will be shown in the unit)*

Externally assessed question papers completed electronically will be set and marked by VTCT.

Externally assessed hard-copy question papers will be set by VTCT, marked by centre staff and sampled by VTCT external quality assurers.

## Assessment explained

VTCT courses are assessed and quality assured by centre staff. Work will be set to improve your practical skills, knowledge and understanding. For practical elements, you will be observed by your assessor. All your work must be collected in a portfolio of evidence and cross-referenced to requirements listed in this record of assessment book.

Your centre will have an internal quality assurer whose role is to check that your assessment and evidence is valid and reliable and meets VTCT and regulatory requirements.

An external quality assurer, appointed by VTCT, will visit your centre to sample and quality-check assessments, the internal quality assurance process and the evidence gathered. You may be asked to attend on a different day from usual if requested by the external quality assurer.

This record of assessment book is your property and must be in your possession when you are being assessed or quality assured. It must be kept safe. In some cases your centre will be required to keep it in a secure place. You and your course assessor will together complete this book to show achievement of all learning outcomes, assessment criteria and ranges.



## Creating a portfolio of evidence

As part of this qualification you are required to produce a portfolio of evidence. A portfolio will confirm the knowledge, understanding and skills that you have learnt. It may be in electronic or paper format.

Your assessor will provide guidance on how to prepare the portfolio of evidence and how to show practical achievement, and understanding of the knowledge required to successfully complete this qualification. It is this booklet along with the portfolio of evidence that will serve as the prime source of evidence for this qualification.

Evidence in the portfolio may take the following forms:

- Observed work
- Witness statements
- Audio-visual media
- Evidence of prior learning or attainment
- Written questions
- Oral questions
- Assignments
- Case studies

All evidence should be documented in the portfolio and cross referenced to unit outcomes. Constructing the portfolio of evidence should not be left to the end of the course.

# Unit assessment methods

This section provides an overview of the assessment methods that make up each unit in this qualification. Detailed information on assessment is provided in each unit.

Mandatory units				
		External	Internal	
VTCT unit code	Unit title	Question paper(s)	Observation(s)	Assignment(s)
UF20C22	Promote health, safety and welfare in active leisure and recreation	0	✓	✓
UF2C316	Work with clients to help them to adhere to exercise and physical activity	0	✓	✓
UV20522	Anatomy and physiology for exercise	1	✗	✓
UV20525	Principles of exercise, fitness and health	1	✗	✓
UF2D451	Plan and prepare gym-based exercise	0	✓	✓
UF2D452	Instruct and supervise gym-based exercise	0	✓	✓
UF2A335	Reflect on and develop own practice in providing exercise and physical activity	0	✓	✓

# Unit glossary

	Description
<b>VTCT product code</b>	All units are allocated a unique VTCT product code for identification purposes. This code should be quoted in all queries and correspondence to VTCT.
<b>Unit title</b>	The title clearly indicates the focus of the unit.
<b>National Occupational Standards (NOS)</b>	NOS describe the skills, knowledge and understanding needed to undertake a particular task or job to a nationally recognised level of competence.
<b>Level</b>	Level is an indication of the demand of the learning experience, the depth and/or complexity of achievement and independence in achieving the learning outcomes.
<b>Credit value</b>	This is the number of credits awarded upon successful achievement of all unit outcomes. Credit is a numerical value that represents a means of recognising, measuring, valuing and comparing achievement.
<b>Guided learning hours (GLH)</b>	The activity of a learner in being taught or instructed by - or otherwise participating in education or training under the immediate guidance or supervision of - a lecturer, supervisor, tutor or other appropriate provider of education or training.
<b>Total qualification time (TQT)</b>	The number of hours an awarding organisation has assigned to a qualification for Guided Learning and an estimate of the number of hours a learner will reasonably be likely to spend in preparation, study, or any other form of participation in education or training. This includes assessment, which takes place as directed - but, unlike Guided Learning, not under the immediate guidance or supervision of - a lecturer, supervisor, tutor or other appropriate provider of education or training.
<b>Observations</b>	This indicates the minimum number of observations required to achieve the unit.
<b>Learning outcomes</b>	The learning outcomes are the most important component of the unit, they set out what is expected in terms of knowing, understanding and practical ability as a result of the learning process. Learning outcomes are the results of learning.
<b>Evidence requirements</b>	This section provides guidelines on how evidence must be gathered.
<b>Maximum service times</b>	The maximum time in which a particular service or practical element must be completed.
<b>Observation outcome</b>	An observation outcome details the practical tasks that must be completed to achieve the unit.
<b>Knowledge outcome</b>	A knowledge outcome details the theoretical requirements of a unit that must be evidenced through oral questioning, a mandatory written question paper or portfolio of evidence.
<b>Assessment criteria</b>	Assessment criteria set out what is required, in terms of achievement, to meet a learning outcome. The assessment criteria and learning outcomes are the components that inform the learning and assessment that should take place. Assessment criteria define the standard expected to meet learning outcomes.
<b>Range</b>	The range indicates what must be covered. Ranges must be practically demonstrated in parallel to the unit's observation outcomes.



# UF20C22

## Promote health, safety and welfare in active leisure and recreation

The aim of this unit is to develop your knowledge, understanding and practical skills to promote health, safety and welfare. You will learn how to help control risks and follow emergency procedures, and how to deal with injuries and signs of illness effectively.

NOS

**C22**

Level

**2**

Credit value

**4**

GLH

**30**

Observation(s)

**2**

External paper(s)

**0**



# Promote health, safety and welfare in active leisure and recreation

## Learning outcomes

On completion of this unit you will:

1. Be able to help to control risks in the active leisure and recreation environment
2. Be able to help to safeguard and protect children and vulnerable adults
3. Be able to deal with injuries and signs of illness
4. Be able to follow emergency procedures
5. Know how to promote health, safety and welfare in active leisure and recreation
6. Know how to control risks in active leisure and recreation
7. Know how to help to safeguard and protect children and vulnerable adults
8. Know how to deal with injuries and signs of illness
9. Know how to follow emergency procedures

## Evidence requirements

1. *Evidence of real work activity*  
You must produce evidence to meet all 'Observation' outcomes and assessment criteria through your own work.
2. *Simulation*  
Simulation is allowed for criteria 2c, 2d, 2e and for outcomes 3 and 4, if no naturally occurring evidence is available.
3. *Observation outcomes*  
Competent performance of 'Observation' outcomes must be demonstrated on **at least two occasions**. Assessor observations, witness testimony and products of work are

likely to be the most appropriate sources of performance evidence. These observations should not be carried out on the same day. There should be sufficient time between assessments. Separating the assessment occasions by a period of at least one month is recommended.

4. *Range*  
All ranges must be competently demonstrated.
5. *Knowledge outcomes*  
There must be evidence that you possess all the knowledge and understanding listed in the 'Knowledge' section of this unit. In most cases this can be done by your assessor questioning you orally. However, other techniques such as projects, assignments and/or reflective accounts may also be appropriate.
6. *Tutor/Assessor guidance*  
You will be guided by your tutor/assessor on how to achieve learning outcomes and ranges in this unit. All outcomes and ranges must be achieved.
7. *External paper*  
There is no external paper requirement for this unit.

# Achieving observations and range

## Achieving observation outcomes

Your assessor will observe your performance of practical tasks. The minimum number of observations required is indicated in the evidence requirements section of this unit.

Criteria may not always naturally occur during a practical observation. In such instances you may be required to produce supplementary evidence, for example, questioning, projects or assignments may be used to demonstrate your competence in this area. Your assessor will document the criteria that have been achieved by supplementary evidence. Questioning to gather supplementary evidence can normally be carried out orally. However, oral questioning must be recorded by the assessor, in written form or by other appropriate means.

Your assessor will sign off an outcome when all criteria have been competently achieved in a single client service.

## Achieving range

The range section indicates what must be covered. Ranges should be practically demonstrated as part of an observation.

Your assessor will document the portfolio reference once a range has been competently achieved.

## Guidance for tutors and assessors

Tutors and assessors must refer to the following documents for guidance on assessment prior to delivering this unit. \*These SkillsActive documents can be downloaded at [www.SkillsActive.com](http://www.SkillsActive.com):

- QCF Evidence Requirements and Assessment Guidance
- Assessment Strategy for NVQs and SVQs
- Additional Requirements for Qualifications that use the title NVQ within the QCF

*\*Learning outcomes and assessment criteria in these documents may be numbered differently to VTCT ROA books.*



# Observations

## Outcome 1

### Be able to help to control risks in the active leisure and recreation environment

You can:

- a. Ensure that relevant and up-to-date health and safety information is available
- b. Follow the relevant health and safety requirements at all times
- c. Carry out health and safety checks as required
- d. Identify hazards
- e. Assess and control risks using organisational procedures
- f. Get advice from relevant colleagues when unsure about hazards and risks\*
- g. Pass on, to the relevant colleague, suggestions for improving health and safety

\*May be assessed by supplementary evidence.

Observation	1	2	Optional
Criteria questioned orally			
Date achieved			
Portfolio reference			
Learner signature			
Assessor initials			



## Outcome 2

### Be able to help to safeguard and protect children and vulnerable adults

You can:

- a. Ensure that up-to-date information is available on guidelines for safeguarding and protecting children and vulnerable adults
- b. Identify what the policies and procedures mean for own job and area of work
- c. Follow the relevant procedures for:
  - safeguarding and protecting children and vulnerable adults at all times
  - protecting self from potential accusations\*
- d. Be alert to possible signs of abuse\*
- e. Identify, record and report any concerns about the welfare of children and vulnerable adults, whilst maintaining confidentiality\*

\*May be assessed by supplementary evidence.

Observation	1	2	Optional
Criteria questioned orally			
Date achieved			
Portfolio reference			
Learner signature			
Assessor initials			



## Outcome 3

### Be able to deal with injuries and signs of illness

You can:

- a. Remain calm and follow organisational procedures\*
- b. Protect the casualty and other people from further risk\*
- c. Call for qualified assistance appropriate to the casualty's condition\*
- d. Provide reassurance and comfort to the people involved\*
- e. Give the qualified assistants clear and accurate information about what happened\*
- f. Follow the relevant accident reporting procedures\*

\*May be assessed by supplementary evidence.

Observation	1	2	Optional
Criteria questioned orally			
Date achieved			
Portfolio reference			
Learner signature			
Assessor initials			



## Outcome 4

### Be able to follow emergency procedures

You can:

- a. Give clear and correct instructions to the people involved\*
- b. Calmly and correctly carry out own role in the emergency procedures\*
- c. Maintain the safety of the people involved\*
- d. Follow the correct procedures for reporting the emergency\*
- e. Report to the relevant colleague, any problems with the emergency procedures\*

\*May be assessed by supplementary evidence.

Observation	1	2	Optional
Criteria questioned orally			
Date achieved			
Portfolio reference			
Learner signature			
Assessor initials			





# Range

You must practically demonstrate that you have:

<b>Helped to control a <b>minimum</b> if 4 types of hazard</b>	<b>Portfolio reference</b>
Unsafe facilities or environment	
Unsafe equipment	
Unsafe working practices	
Unsafe behaviour	
Use of hazardous substances	
Security breaches	
Situations likely to cause emotional distress	
<b>Used <b>all</b> methods of control when helping to control risks in the sport and activity environment</b>	<b>Portfolio reference</b>
Deal with the hazard personally	
Report the hazard to the relevant colleague	
Protecting others from harm	
<b>Helped to safeguard and protect children and vulnerable adults from a <b>minimum</b> of 2 types of abuse</b>	<b>Portfolio reference</b>
Physical	
Emotional	
Neglect	
Sexual	
<b>Dealt with injuries and signs of illness for a <b>minimum</b> of 2 types of casualty</b>	<b>Portfolio reference</b>
Adult	
Child	
Person with particular needs	



You must practically demonstrate that you have:

Dealt with <b>all</b> types of qualified assistance when dealing with injuries and signs of illness		Portfolio reference
Qualified first aider		
Emergency services		
Dealt with a <b>minimum of 2</b> types of injury and illness		Portfolio reference
Minor injury that can be dealt with on site		
Minor illness that can be dealt with on site		
Major injury requiring medical attention		
Major illness requiring medical attention		
Emotional distress		
Worked with a <b>minimum of 2</b> types of people when following emergency procedures		Portfolio reference
Adults		
Children		
People with disabilities		

# Developing knowledge

## Achieving knowledge outcomes

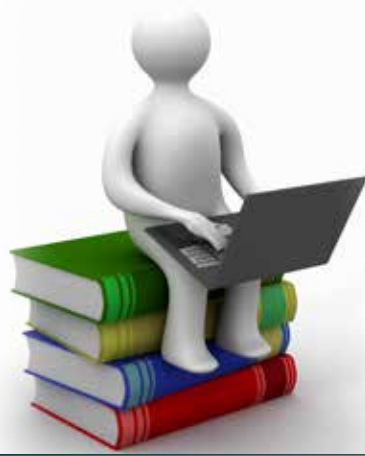
You will be guided by your tutor and assessor on the evidence that needs to be produced. Your knowledge and understanding will be assessed using the assessment methods listed below:

- Observed work
- Witness statements
- Audio-visual media
- Evidence of prior learning or attainment
- Written questions
- Oral questions
- Assignments
- Case studies

Where possible your assessor will integrate knowledge outcomes into practical observations through oral questioning. Oral questioning must be recorded by your assessor, in written form or by other appropriate means.

Some knowledge and understanding outcomes may require you to show that you know and understand how to do something. If you have practical evidence from your own work, then there is no requirement for you to be questioned again on the same topic.

# Knowledge



## Outcome 5

### Know how to promote health, safety and welfare in active leisure and recreation

You can:	Portfolio reference
a. List the values or codes of practice relevant to the work being carried out	
b. Describe the requirements for health, safety and welfare relevant to own work, including Health and Safety at Work Act and requirements from relevant national governing bodies	
c. Identify manufacturers' guidelines and instructions for the use of facilities and equipment	
d. Describe why health, safety and welfare are important in an active leisure and recreation environment	
e. Identify the persons responsible for health and safety in own workplace	
f. Outline own organisation's security procedures	



## Outcome 6

### Know how to control risks in active leisure and recreation

You can:	Portfolio reference
a. Describe the types of hazards that are likely to occur in own area of work and the accidents and injuries each could cause	
b. Outline how to identify hazards	
c. List health, safety and security checks to be followed	
d. Describe how to carry out basic risk assessments of the types of hazards that may occur	
e. Describe why it is important to get advice from a relevant colleague if unsure about hazards and risks in own workplace	
f. Identify who to ask if unsure about hazards and risks in own workplace	
g. Describe how to deal correctly with the types of hazards that may occur in own workplace, taking account of risks	
h. Identify documents relating to health and safety which may have to be completed	
i. Outline how to complete health and safety documents correctly	
j. Outline why colleagues and customers should be encouraged to behave in a safe manner	
k. Describe how to encourage colleagues and customers to behave in a safe manner	



## Outcome 6 (continued)

### Know how to control risks in active leisure and recreation

You can:	Portfolio reference
l. Outline why it is important to make suggestions about health and safety issues	
m. Describe how to make suggestions about health and safety issues	
n. Outline why it is important to identify and report any differences between health and safety requirements and own workplace policies and procedures	
o. Describe how to identify and report any differences between health and safety requirements and own workplace policies and procedure	



## Outcome 7

### Know how to help to safeguard and protect children and vulnerable adults

You can:	Portfolio reference
a. Describe what is meant by safeguarding and protecting the welfare of children and vulnerable adults	
b. Describe own role and responsibilities for safeguarding and protecting children and other vulnerable people	
c. List the four types of abuse	
d. Outline the basic indicators and impact of each of the four types of abuse	
e. Describe the risks that individual abusers or potential abusers pose to children and vulnerable people	
f. Describe organisational policies and procedures in relation to safeguarding and protecting, including the reporting procedures	
g. Outline what to do if concerned about possible abuse	
h. Describe how to respond to a child or someone else disclosing abuse or concerns about abuse	
i. Outline what to do if there are barriers to reporting own concerns	
j. Identify statutory agencies with responsibilities for safeguarding and protecting	
k. Outline when to contact statutory agencies with responsibilities for safeguarding and protecting	



## Outcome 7 (continued)

### Know how to help to safeguard and protect children and vulnerable adults

You can:	Portfolio reference
l. Outline how to contact statutory agencies with responsibilities for safeguarding and protecting	
m. Describe why it is important to share concerns about possible abuse with others	
n. Describe the limits of own competence with regard to safeguarding and protecting	
o. Outline why it is important to treat information about possible abuse confidentially	





## Outcome 8

### Know how to deal with injuries and signs of illness

You can:	Portfolio reference
a. List the types of accidents, injuries and illnesses that may occur in own area of work	
b. Outline how to respond correctly to emotional distress	
c. Outline how to deal with accidents, injuries and illnesses before qualified assistance arrives	
d. Describe how to decide whether to contact the on-site first aider or immediately call the emergency services	
e. Identify who is the on-site first aider and how to contact them	
f. Describe the procedures to contact the emergency services	
g. Outline why it is important to protect, from further harm, the casualty and others involved	
h. Outline the procedures to protect the casualty and others	
i. Outline why it is important to provide comfort and reassurance	
j. Describe how to provide comfort and reassurance	
k. Outline own responsibilities for reporting accidents	
l. Outline the procedures for reporting accidents	



## Outcome 9

### Know how to follow emergency procedures

You can:	Portfolio reference
a. Describe the emergency procedures in own place of work	
b. Outline what instructions must be given to the people involved	
c. Outline organisational reporting procedures for emergencies	
d. Describe the types of problems that may occur when carrying out emergency procedures	
e. Describe why problems that occur when carrying out emergency procedures should be reported	
f. Identify to whom to report problems	

# UF2C316

## Work with clients to help them to adhere to exercise and physical activity

The aim of this unit is to develop your knowledge, understanding and practical skills to help motivate and support clients to adhere to exercise and physical activity. You will learn how to build a good rapport with clients by dealing effectively with their needs.

NOS

# C316

Level

## 2

Credit value

## 4

GLH

# 25

Observation(s)

## 2

External paper(s)

## 0



# Work with clients to help them to adhere to exercise and physical activity

## Learning outcomes

On completion of this unit you will:

1. Be able to establish and maintain an effective relationship with clients
2. Be able to motivate and support clients to adhere to exercise and physical activity
3. Be able to provide ongoing customer service to clients
4. Understand how to establish and maintain an effective relationship with clients
5. Understand how to motivate and support clients to adhere to exercise and physical activity
6. Understand how to provide ongoing customer service to clients

## Evidence requirements

1. *Evidence of real work activity*  
You must produce evidence to meet all 'Observation' outcomes and assessment criteria through your own work.
2. *Simulation*  
Simulation is allowed for criterion 3g and criterion 3j, if no naturally occurring evidence is available.
3. *Observation outcomes*  
Competent performance of 'Observation' outcomes must be demonstrated on **at least two occasions**. Assessor observations, witness testimony and products of work are likely to be the most appropriate sources of performance evidence. These observations should not be carried out on the same day. There should be sufficient time between assessments. Separating the assessment occasions by a period of at least one month is recommended.

4. *Range*  
All ranges must be competently demonstrated.
5. *Knowledge outcomes*  
There must be evidence that you possess all the knowledge and understanding listed in the 'Knowledge' section of this unit. In most cases this can be done by your assessor questioning you orally. However, other techniques such as projects, assignments and/or reflective accounts may also be appropriate.
6. *Tutor/Assessor guidance*  
You will be guided by your tutor/assessor on how to achieve learning outcomes and ranges in this unit. All outcomes and ranges must be achieved.
7. *External paper*  
There is no external paper requirement for this unit.

# Achieving observations and range

## Achieving observation outcomes

Your assessor will observe your performance of practical tasks. The minimum number of observations required is indicated in the evidence requirements section of this unit.

Criteria may not always naturally occur during a practical observation. In such instances you may be required to produce supplementary evidence, for example, questioning, projects or assignments may be used to demonstrate your competence in this area. Your assessor will document the criteria that have been achieved by supplementary evidence. Questioning to gather supplementary evidence can normally be carried out orally. However, oral questioning must be recorded by the assessor, in written form or by other appropriate means.

Your assessor will sign off an outcome when all criteria have been competently achieved in a single client service.

## Achieving range

The range section indicates what must be covered. Ranges should be practically demonstrated as part of an observation.

Your assessor will document the portfolio reference once a range has been competently achieved.

## Guidance for tutors and assessors

Tutors and assessors must refer to the following documents for guidance on assessment prior to delivering this unit. \*These SkillsActive documents can be downloaded at [www.SkillsActive.com](http://www.SkillsActive.com):

- QCF Evidence Requirements and Assessment Guidance
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- Additional Requirements for Qualifications that use the title NVQ within the QCF

*\*Learning outcomes and assessment criteria in these documents may be numbered differently to VTCT ROA books.*



# Observations

## Outcome 1

### Be able to establish and maintain an effective relationship with clients

You can:

- a. Present a positive image of self and organisation to clients
- b. Establish an effective working relationship with clients
- c. Clearly define own role and responsibilities with clients
- d. Communicate clearly with clients in a way that makes them feel valued
- e. Use communication and instructing styles that match client needs
- f. Maintain a relationship with clients which is in line with good practice and ethical requirements
- g. Maintain confidentiality requirements in line with good practice

\*May be assessed by supplementary evidence.

Observation	1	2	Optional
Criteria questioned orally			
Date achieved			
Portfolio reference			
Learner signature			
Assessor initials			



## Outcome 2

### Be able to motivate and support clients to adhere to exercise and physical activity

You can:

- a. Identify the clients' reasons for taking part in regular physical activity
- b. Identify appropriate incentives and rewards for the clients taking part in physical activity
- c. Identify the clients' preferences for exercise
- d. Ensure clients understand the benefits of taking part in exercise and physical activity
- e. Provide the clients with accurate information about the recommended amount of physical activity for them to derive health benefits
- f. Clearly inform the clients about other opportunities for regular physical activity appropriate to their needs, abilities and preferences
- g. Work with the clients to reduce the barriers to taking part in physical activity
- h. Work with the clients to make best use of incentives, preferences and rewards
- i. Help the clients to develop and follow through their own motivational strategies

\*May be assessed by supplementary evidence.

Observation	1	2	Optional
Criteria questioned orally			
Date achieved			
Portfolio reference			
Learner signature			
Assessor initials			





## Outcome 3

### Be able to provide ongoing customer service to clients

You can:

- a. Engage with clients during exercise
- b. Respond positively to clients
- c. Gather all relevant information about clients' needs and expectations
- d. Listen to and ask the clients questions, to check understanding
- e. Discuss with the clients different ways of meeting their needs and expectations
- f. Meet clients' needs and expectations to the best of own ability and in line with accepted good practice
- g. Consult another professional if clients' needs and expectations are beyond own level of competence\*
- h. Provide the clients with clear information and advice when they need it
- i. Find out how well solutions work and provide alternative guidance if necessary
- j. Handle client complaints positively following agreed procedures\*

\*May be assessed by supplementary evidence.

Observation	1	2	Optional
Criteria questioned orally			
Date achieved			
Portfolio reference			
Learner signature			
Assessor initials			

# Range



You must practically demonstrate that you have:

Established and maintained an effective relationship with a <b>minimum of 1</b> type of client		Portfolio reference
Individual		
Group		
Motivated and supported a <b>minimum of 1</b> type of client to adhere to exercise and physical activity		Portfolio reference
Individual		
Group		
Provided ongoing customer service to a <b>minimum of 1</b> type of client		Portfolio reference
Individual		
Group		

# Developing knowledge

## Achieving knowledge outcomes

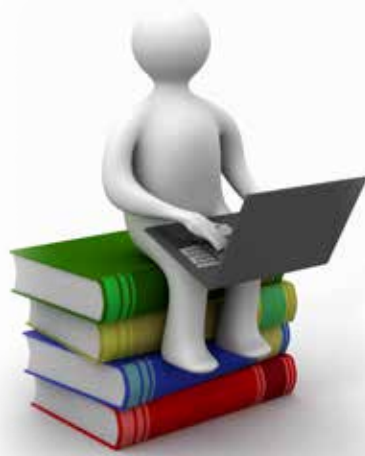
You will be guided by your tutor and assessor on the evidence that needs to be produced. Your knowledge and understanding will be assessed using the assessment methods listed below:

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- Evidence of prior learning or attainment
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- Case studies

Where possible your assessor will integrate knowledge outcomes into practical observations through oral questioning. Oral questioning must be recorded by your assessor, in written form or by other appropriate means.

Some knowledge and understanding outcomes may require you to show that you know and understand how to do something. If you have practical evidence from your own work, then there is no requirement for you to be questioned again on the same topic.

# Knowledge



## Outcome 4

### Understand how to establish and maintain an effective relationship with clients

You can:	Portfolio reference
a. Describe how to present a positive image of self and organisation	
b. Describe why the relationship between the instructor and client is important	
c. Identify the types of personal qualities that instructors need to develop in order to help and support clients	
d. Describe why clients need to understand the instructor's role and responsibilities	
e. Outline the extent and limitations of own role and responsibility when working with clients	
f. Describe how to communicate clearly with a range of different clients	
g. Describe what is meant by a 'professional relationship' between instructor and client	
h. Describe what is meant by 'valuing diversity' in a practical context when working with clients	
i. Identify the types of prejudice and discrimination that individual clients might experience and describe how to overcome these	
j. Describe what is meant by 'confidentiality' and why it is important when working with clients, other staff and professionals	
k. Outline the types of information that may be subject to data protection/confidentiality	



## Outcome 4 (continued)

### Understand how to establish and maintain an effective relationship with clients

You can:	Portfolio reference
l. Explain how to maintain client confidentiality in line with good practice	
m. Explain how abiding by the Exercise and Fitness Code of Ethical Practice acts to ensure that equality and diversity are reflected during the exercise session	
n. Identify the difference between advising on exercise participation and everyday lifestyle physical activity	



## Outcome 5

### Understand how to motivate and support clients to adhere to exercise and physical activity

You can:	Portfolio reference
a. Describe the typical goals and expectations that clients have	
b. Describe the types of barriers individual clients may face when undertaking physical activity and achieving their goals	
c. Describe how clients can be helped to identify and overcome these barriers	
d. Describe the types of incentives and rewards that may be appropriate to a range of different clients	
e. Describe the types of exercise preferences that different clients may have	
f. Explain why clients need to understand their own responsibility for personal motivation and fitness and how they can be assisted with this	
g. Outline the communication skills needed to assist clients with motivation: <ul style="list-style-type: none"> <li>• how to ask open ended questions</li> <li>• basic listening skills</li> <li>• methods of gathering personal information</li> <li>• appropriate questioning techniques</li> <li>• interpreting client responses including body language and other forms of behaviour, especially when undertaking physical activity</li> <li>• means of summarising gathered information</li> </ul>	
h. Describe the health benefits of regular physical exercise	



## Outcome 5 (continued)

### Understand how to motivate and support clients to adhere to exercise and physical activity

You can:	Portfolio reference
i. Define the amount of physical activity required to achieve health benefits	
j. Outline the range of different types of physical activity	
k. Describe how to assist clients to develop their own motivational strategy	



## Outcome 6

### Understand how to provide ongoing customer service to clients

You can:	Portfolio reference
a. Describe the importance of client care, both to the client and the organisation	
b. Explain why it is important to deal effectively with client needs	
c. Outline the types of information which clients need	
d. Outline how to respond to requests according to the organisation's procedures	
e. Identify where to source relevant information to meet clients needs	
f. Outline what types of issues may need to be referred to another professional, when to refer them and who this professional may be in different situations	
g. State the importance of explaining any delay in dealing with clients and describe how to do so effectively	



# UV20522

## Anatomy and physiology for exercise

It is the aim of this unit to develop your knowledge and understanding of the anatomy and physiology relating to exercise programming for apparently healthy adults of all ages.

Level

**2**

Credit value

**6**

GLH

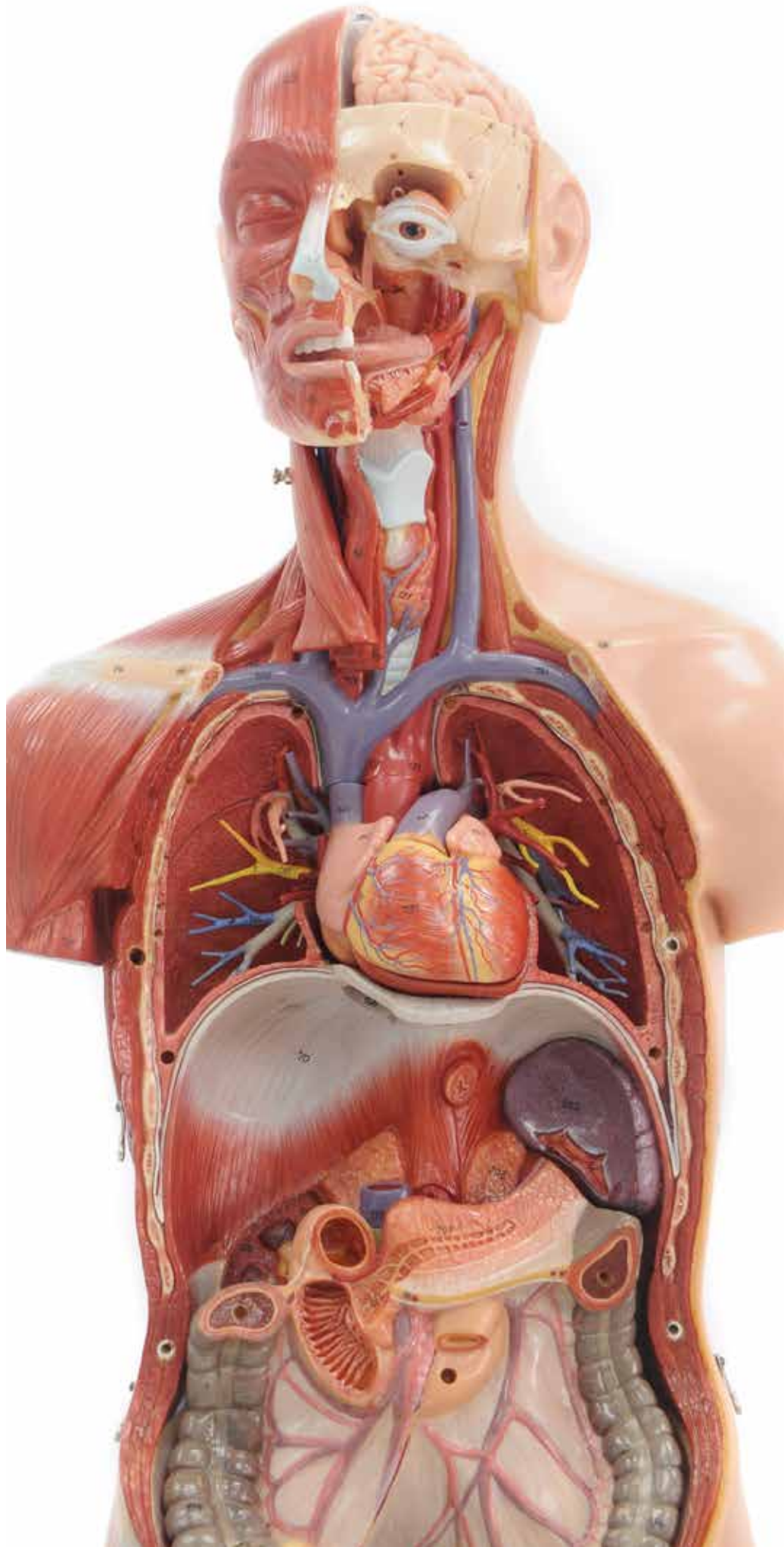
**41**

Observation(s)

**0**

External paper(s)

**1**



# Anatomy and physiology for exercise

## Learning outcomes

On completion of this unit you will:

1. Understand the structure and function of the circulatory system
2. Understand the structure and function of the respiratory system
3. Understand the structure and function of the skeleton
4. Understand joints in the skeleton
5. Understand the muscular system
6. Understand the life course of the musculoskeletal system and its implications for special populations exercise
7. Understand energy systems and their relation to exercise
8. Understand the nervous system and its relation to exercise

## Evidence requirements

1. *Knowledge outcomes*  
There must be evidence that you possess all the knowledge and understanding listed in the 'Knowledge' section of this unit. This evidence may include projects, assignments, case studies, reflective accounts, oral/written questioning and/or other forms of evidence.
2. *Tutor/Assessor guidance*  
You will be guided by your tutor/assessor on how to achieve learning outcomes in this unit. All outcomes must be achieved.
3. *External paper*  
Knowledge and understanding in this unit will be assessed by an external paper.  
**There is one external paper that must be achieved.**

# Developing knowledge

## Achieving knowledge outcomes

You will be guided by your tutor and assessor on the evidence that needs to be produced. Your knowledge and understanding will be assessed using the assessment methods listed below:

- Observed work performance
- Witness testimony/statements
- Audio-visual media
- Evidence of prior learning or attainment
- Written questions
- Oral questions
- Assignments
- Case studies
- Professional discussion
- Employer-provided question papers and tests
- E-assessment.

## Achieving the external paper

The external paper will test your knowledge of all criteria in this section. **A pass mark of 70% must be achieved.**

Your assessor will complete this table when the 70% pass mark has been achieved.

Paper	Date achieved	Assessor initials
1 of 1		

# Knowledge



## Outcome 1

### Understand the structure and function of the circulatory system

You can:	Portfolio reference / Assessor initials*
a. Identify the location of the heart	
b. Describe the function of the heart	
c. Describe the structure of the heart	
d. Describe how blood moves through the four chambers of the heart	
e. Describe systemic and pulmonary circulation	
f. Describe the structure and functions of blood vessels	
g. Define blood pressure	
h. Identify blood pressure classifications	

\*Assessor initials to be inserted if orally questioned.



## Outcome 2

### Understand the structure and function of the respiratory system

You can:	Portfolio reference / Assessor initials*
a. Identify the location of the lungs	
b. Describe the function of the lungs	
c. Describe the structure of the lungs	
d. Identify the main muscles involved in breathing	
e. Describe the passage of air through the respiratory tract	
f. Describe the process of gaseous exchange of oxygen and carbon dioxide in the lungs	

\*Assessor initials to be inserted if orally questioned.



## Outcome 3

### Understand the structure and function of the skeleton

You can:	Portfolio reference / Assessor initials*
a. Describe the basic functions of the skeleton	
b. Identify the structures of the axial skeleton	
c. Identify the structures of the appendicular skeleton	
d. Explain the classification of bones	
e. Explain the structure of long bones	
f. Explain the stages of bone growth	
g. Describe posture in terms of: <ul style="list-style-type: none"> <li>• Curves of the spine</li> <li>• Neutral spine alignment</li> <li>• Potential ranges of motion of the spine</li> <li>• Postural deviations to include kyphosis, lordosis, scoliosis and the effect of pregnancy</li> </ul>	

\*Assessor initials to be inserted if orally questioned.



## Outcome 4

### Understand joints in the skeleton

You can:	Portfolio reference / Assessor initials*
a. Describe the classification of joints	
b. Describe the structure of synovial joints	
c. Describe the types of synovial joints and their range of motion	
d. Describe joint movement potential and joint actions	

\*Assessor initials to be inserted if orally questioned.





## Outcome 5

### Understand the muscular system

You can:	Portfolio reference / Assessor initials*
a. Identify the three types of muscle tissue	
b. Define the characteristics and functions of the three types of muscle tissue	
c. Describe the basic structure of skeletal muscle	
d. Name and locate the anterior skeletal muscles	
e. Name and locate the posterior skeletal muscles	
f. Describe the structure and function of the pelvic floor muscles	
g. Describe the different types of muscle action	
h. Identify the joint actions brought about by specific muscle group contractions	
i. Identify skeletal muscle fibre types and their characteristics	

\*Assessor initials to be inserted if orally questioned.



## Outcome 6

### Understand the life course of the musculoskeletal system and its implications for special populations exercise

You can:

Portfolio reference /  
Assessor initials\*

a. Describe the life course of the musculoskeletal system, including relevant tendon, ligament, muscle, joint and bone mineral density changes, and their implications for exercise, plus specific implications for working with:

- Young people in the 14-16 age range
- Antenatal and postnatal women
- Older people (50+)

*\*Assessor initials to be inserted if orally questioned.*



## Outcome 7

### Understand energy systems and their relation to exercise

You can:	Portfolio reference / Assessor initials*
a. Describe how carbohydrates, fats and proteins are used in the production of energy/adenosine triphosphate	
b. Explain the use of the three energy systems during aerobic and anaerobic exercise	

*\*Assessor initials to be inserted if orally questioned.*



## Outcome 8

### Understand the nervous system and its relation to exercise

You can:	Portfolio reference / Assessor initials*
a. Describe the role and functions of the nervous system	
b. Describe the principles of muscle contraction	
c. Describe the 'all or none law'/motor unit recruitment	
d. Describe how exercise can enhance neuromuscular connections and improve motor fitness	

\*Assessor initials to be inserted if orally questioned.

# Unit content



This section provides guidance on the recommended knowledge and skills required to enable you to achieve each of the learning outcomes in this unit. Your tutor/assessor will ensure you have the opportunity to cover all of the unit content.

## Outcome 1: Understand the structure and function of the circulatory system

**Location of the heart:** Located centrally in the chest, mediastinum, thorax, between lungs, apex towards left hip.

**Function and structure of the heart:** Function of heart (circulation of blood, receiving and pumping blood to body and lungs), structure of heart (myocardium, septum, atria, ventricles, atrio-ventricular valves, semi-lunar valves, aorta, superior vena cava, inferior vena cava, pulmonary veins, pulmonary arteries).

**Blood flow through heart chambers:** Pulmonary circulation, deoxygenated blood, vena cava, right atrium, tricuspid valve, right ventricle, semi-lunar valve, pulmonary artery, lungs, gaseous exchange, oxygenated blood, pulmonary vein, left atrium, bicuspid valve, left ventricle, semi-lunar valve, aorta, systemic circulation, functional considerations (e.g. stroke volume, cardiac output).

**Systemic and pulmonary circulation:** Systemic (oxygenated blood from lungs, pulmonary vein, left atrium, left ventricle, aorta, arteries, arterioles, capillaries, muscles and organs), pulmonary (deoxygenated blood from muscles and organs, capillaries, venules, veins, vena cava, right atrium, right ventricle, deoxygenated blood to the lungs for oxygenation).

**Structure and function of blood vessels:** Arteries (tunica interna, tunica media, tunica externa), arterioles, capillaries, veins (tunica interna, tunica media, tunica externa, one way valves), venules,

comparison between blood vessels (wall thickness, internal diameter, direction of blood flow, pressure, presence of valves), functions of blood vessels (transport blood, blood flow distribution by vasoconstriction and vasodilation), function of arteries and arterioles (transport oxygenated blood to muscles and organs), functions of veins and venules (transport deoxygenated blood back to the heart, venous return), functions of capillaries (exchange of gases and nutrients between blood and tissues).

**Blood pressure:** Definition of blood pressure (pressure exerted by blood on vessel wall), systolic pressure (contraction), diastolic pressure (relaxation), blood pressure classifications (hypotension, normal, high normal, mild hypertension, moderate hypertension, severe hypertension), short and long term effects of exercise on blood pressure.



## Outcome 2: Understand the structure and function of the respiratory system

**Location of the lungs:** Located laterally in the chest on the left and right sides, mediastinum, thorax, pleural membrane layer, visceral membrane layer, serous membrane layer.

**Function and structure of the lungs:** Function of lungs (paired organs for ventilation, external and internal respiration, elimination of carbon dioxide, supply of oxygen), structure of lungs (left lung – two lobes, right lung – three lobes, bronchus, bronchioles, sub-divisions, capillaries, alveoli, alveolar sacs).

**Muscles involved in breathing:** Inhalation (inspiration), exhalation (expiration), muscles involved (diaphragm, external intercostals), forced inspiration accessory muscles (sternocleidomastoids, scalenes, pectoralis minor), forced expiration muscles (internal intercostals, transversus abdominus, rectus abdominus), functional considerations (e.g. total lung capacity, vital capacity).

**Passage of air during breathing:** Upper respiratory tract (mouth, nose and pharynx), lower respiratory tract (larynx, trachea, bronchi, bronchioles), alveoli, alveolar sacs.

**Process of gaseous exchange:** Surface area for gas exchange (300 million alveoli, 2400km of airways), partial pressure difference (higher and lower partial pressures), diffusion of gases, effect of breathing rate and depth, relative composition of inhaled air (21% oxygen, 0.04% carbon dioxide), relative composition of alveolar air (14% oxygen, 5.5% carbon dioxide), relative composition of exhaled air (16% oxygen, 4.5% carbon dioxide).



## Outcome 3: Understand the structure and function of the skeleton

**Functions of the skeleton:** Support and shape, protection, muscle attachment and movement, production of blood cells, mineral homeostasis, storage of energy.

**Structures of axial skeleton:** Names and locations of bones including cranium, cervical vertebrae (7), thoracic vertebrae (12), lumbar vertebrae (5), sacral vertebrae (5), coccyx (3-5), intervertebral discs, sternum, ribs.

**Structures of appendicular skeleton:** Names and locations of bones including scapula, clavicle, humerus, radius, ulna, carpals, metacarpals, phalanges, ilium, ischium, pubis, femur, patella, tibia, fibula, tarsals, metatarsals, phalanges.

**Classification of bones:** Long (e.g. femur, tibia), short (e.g. tarsals, carpals), flat (e.g. scapula, pelvis), irregular (e.g. vertebrae), sesamoid (e.g. patella), classification based on structure and function.

**Structure of long bone:** Characteristics (greater length than width, slightly curved), structure (diaphysis, epiphyses, metaphysis, articular cartilage, periosteum, medullary, endosteum, compact bone, spongy bone, bone marrow).

**Stages of bone growth:** Development of cartilage, growth of cartilage, development of ossification centre, development of diaphysis and epiphysis, ossification (osteoblasts, osteoclasts), changes in bone growth with age, importance of calcium, factors affecting bone density (exercise, age and osteoporosis).

**Posture and curves of the spine:** Natural mild S-shaped curve of the spine (cervical and lumbar lordoses, thoracic and spinal kyphoses), primary curves of the spine, secondary (developmental) curves of the

spine.

**Posture and neutral spine alignment:** Optimum position of spine and pelvis, maintenance of the natural spinal curvature (cervical, thoracic, lumbar), maintenance of posture in standing, sitting, lying positions.

**Posture and potential ranges of motion of the spine:** Cervical (rotation, flexion and extension), thoracic (rotation, limited flexion and extension), lumbar (flexion, extension, hyperextension), sacral (no range of motion), coccyx (no range of motion), normal thoracic kyphosis (20-45°), normal lumbar lordosis (20-45°), scoliosis (a right-left curve of more than 10°).

**Postural deviations:** Excessive deviations (hyperlordotic and hyperkyphotic), less than normal deviations (hypolorditic and hypokyphotic), definitions and causes (kyphosis, lordosis, scoliosis), effect of pregnancy on posture (e.g. how carrying a baby affects the natural curve).



## Outcome 4: Understand joints in the skeleton

**Classification of joints:** Structural classifications, fibrous (e.g. cranium), cartilaginous (e.g. vertebrae), synovial (e.g. knee), functional classifications (synarthrosis/immovable, amphiarthrosis/slightly moveable, diarthrosis/freely moveable).

**Structure of synovial joints:** Articular capsule, fibrous capsule, synovial cavity, synovial membrane, synovial fluid (lubrication), articular cartilage (shock absorption, decrease friction between bones), bursae (shock absorption), ligaments (attach bone to bone, joint stability).

**Types of synovial joints and range of motion:** Gliding (side to side, back and forth e.g. between carpals and tarsals), pivot (rotation e.g. atlas and axis), saddle (flexion, extension, abduction, adduction, circumduction e.g. thumb), ellipsoid (flexion, extension, abduction, adduction, circumduction e.g. wrist), ball and socket (flexion, extension, abduction, adduction, rotation, circumduction e.g. hip and shoulder), hinge (flexion and extension e.g. knee and elbow).

**Joint movement potential and actions:** Shoulder (flexion, extension, abduction, adduction, horizontal flexion/adduction, horizontal extension/abduction, internal rotation, external rotation), elbow (flexion, extension, supination, pronation), shoulder girdle (elevation, depression, protraction, retraction), spine (flexion, extension, lateral flexion, rotation), hip (flexion, extension, abduction, adduction, internal rotation, external rotation), knee (flexion, extension), ankle (plantarflexion, dorsiflexion, inversion, eversion), actions during different exercises.





## Outcome 5: Understand the muscular system

**Muscle tissue types, characteristics and functions:** Skeletal muscle (striated, voluntary, very large fibre diameter, short to moderate fibre length, fast speed of contraction, attach to bones, e.g. quadriceps), cardiac muscle (striated, involuntary, large fibre diameter, moderate fibre length, moderate speed of contraction, e.g. heart muscle/myocardium), smooth muscle (no striations, involuntary, small fibre diameter, short to long fibre length, slow speed of contraction, e.g. artery walls).

**Structure of skeletal muscle:** Tendon (attach muscle to bone), epimysium, perimysium, endomysium, fascicle, muscle fibres, myofibrils, myofilaments (actin, myosin), sarcolemma, sarcomere (Z discs, H zone, M line, A band, I bands), arrangement of fasciculi (parallel, fusiform, pennate).

**Muscle names and locations:** Anterior muscles (pectoralis major, anterior deltoids, medial deltoids, biceps, rectus abdominis, obliques, transverse abdominis, hip flexors, quadriceps, adductors, anterior tibialis), posterior muscles (trapezius, rhomboids, medial deltoids, posterior deltoids, triceps, latissimus dorsi, erector spinae, gluteals, abductors, hamstrings, gastrocnemius, soleus), diaphragm, intercostals.

**Structure and function of pelvic floor muscles:** Levator ani (pubococcygeus, puborectalis, and iliococcygeus), coccygeus, associated connective tissues which span the area underneath the pelvis (perineum, perineal membrane, perineal pouch), pelvic cavity, function (stability of the pelvis, support bladder and bowel, support uterus in women).

**Types of muscle action:** Definitions of muscle contractions (isotonic concentric, isotonic eccentric, static/isometric, isokinetic), definitions of muscle roles (agonist/prime mover, antagonist, synergist/assistant, fixator), contractions and muscle roles during different exercises.

**Joint actions:** Pectoralis major (adduction of arm, horizontal flexion of arm), deltoids (abduction of the shoulder, flexion and extension of the shoulder), biceps (flexion of the elbow), rectus abdominis (flexion of the spine), obliques (lateral flexion and rotation of the spine), transverse abdominis (isometric stabilisation of the spine), hip flexors (flexion of the hip), quadriceps (extension of the knee, flexion of the hip), adductors (adduction of the hip), anterior tibialis (dorsi flexion of the ankle), trapezius (extension of the neck, elevation of the shoulder, depression of the scapula, retraction of the scapula), triceps (extension of the elbow), latissimus dorsi (adduction of the shoulder, shoulder extension), erector spinae (extension of the spine), gluteals (extension of the hip), abductors (abduction of the hip), hamstrings (flexion of the knee, extension of the hip), gastrocnemius (plantar flexion of the ankle, assist flexion of knee), soleus (plantar flexion of ankle with bent knee), joint actions during different exercises.

**Muscle fibre types and characteristics:** Fast twitch type 2 (white in colour, high intensity, short duration, low in mitochondria, low in myoglobin, fast contraction speed, fast to fatigue), slow twitch oxidative type 1 (red in colour, low intensity, long duration/endurance, high in mitochondria, high in myoglobin, slow contraction speed, resistant to fatigue).



## Outcome 6: Understand the life course of the musculoskeletal system and its implications for special populations exercise

### Life course of the musculoskeletal system for young people between 14-16 years:

Life course (muscular hypertrophy, strength and power development, increase in bone density, strengthened attachment of tendons and ligaments), implications for exercise (differentiation between improvements through natural development or exercise, consideration of developing joint structures, gradual warm up and cool down, avoid heavy resistance exercises, use RPE to monitor exercise intensity, resistance training should use light weights and high reps, emphasise correct exercise technique, rest and recovery to avoid overuse and over training).

### Life course of the musculoskeletal system for antenatal and postnatal women:

Life course (weight gain, decreased bone density, increased force at joints and tendons, excessive lumbar lordosis, joint and ligament laxity in the lumbar spine, change in centre of gravity, weakness in abdominal muscles, widening of sacroiliac joints and pubic symphysis, increase in anterior pelvic tilt), implications for exercise (avoid supine exercise after 16 weeks of pregnancy, avoid prone exercise, avoid prolonged motionless standing, avoid heavy isometric or overhead resistance exercise, avoid leg adduction and abduction against resistance, avoid loaded forward flexion, avoid rapid changes of direction, avoid uncontrolled twisting or ballistic movements, avoid risk of falling or trauma, avoid high intensity or impact exercise, avoid crunching and twisting abdominal exercises).

**Life course of the musculoskeletal system for older people (50+):** Life course (1-2% loss in physical fitness each

year, loss of neuromuscular function, signs and symptoms of potentially serious musculoskeletal disease, muscular atrophy and decreased muscular strength, decrease in bone density and bone strength, demineralisation in bones, development of osteoporosis, degradation of ligaments and tendons, implications for exercise (undertake longer and more gradual mobility and warm up, undertake a gradually tapered cool down, exercise intensity must be at a challenging but health related level, use RPE scale to monitor intensity, emphasise correct exercise technique, increase duration of transitions, simplify exercise when required, learn new exercises at the most basic level, avoid extreme spinal flexion).



## Outcome 7: Understand energy systems and their relation to exercise

### **Nutrients and the production of energy:**

Carbohydrates (e.g. bread, pasta), proteins (e.g. meat, fish), fats (e.g. cheese, butter, energy yield per gram of macronutrient), carbohydrates (break down into glucose, glycogen storage in muscles and liver), fats (break down into fatty acids in presence of oxygen, stored as adipose tissue, protection, energy store), protein (break down into amino acids, growth and repair of muscle, used for energy when other nutrients are depleted), water (hydration), adenosine triphosphate (ATP – break down and resynthesis, energy equation).

**Energy systems:** Energy molecules (ADP, ATP), systems (creatine phosphate system, glycolytic system, aerobic system).

### **Use of energy systems during exercise:**

Creatine phosphate system (high intensity activity of 6-10 seconds), glycolytic system (moderate to high intensity activity of up to 90 seconds), aerobic system (low to moderate intensity of above 90 seconds), the energy continuum for intensity and duration, relative percentage contributions of energy systems during different activities.



## Outcome 8: Understand the nervous system and its relation to exercise

### Roles and functions of the nervous system:

Main functions (sense changes to stimuli, information processing, response to stimuli), central nervous system components (brain, spinal cord), CNS roles (receive messages from peripheral nervous system about environment, interprets information, sends messages back to the peripheral nervous system), peripheral nervous system components (sensory neurons, motor neurons), PNS roles (transmits information from receptors to CNS, transmits information from CNS to muscles and glands), peripheral nervous system divisions (autonomic nervous system, somatic nervous system, sympathetic system, parasympathetic system).

### Specific nervous system functions and roles:

Somatic system roles (sensory input, control of voluntary muscle), autonomic system roles (sense hormonal balance, internal organ function, control of involuntary muscle, control of endocrine glands), sympathetic division roles (increase heart rate, increase breathing rate, mobilise energy stores, regulation of blood pressure, blood flow redistribution, most active during exercise), parasympathetic division (slows down functions, more active during rest and recovery).

### Principles of muscle contraction:

Sliding filament theory (myosin and actin, cross bridges, shortening of sarcomere), process (attachment of myosin to actin, power stroke, detachment, ATP and energy transfer).

**Motor unit recruitment:** Motor units (motor neuron, muscle fibre), small motor units (type I), large motor units (type II),

all or none law (if a stimulus is above threshold individual muscle fibres fully contract, if a stimulus is below threshold muscles fibres do not contract), strength of muscle contraction.

### Exercise and neuromuscular enhancement:

Aerobic training adaptations (improved aerobic capacity of trained muscles, glycogen sparing, increased fat utilisation), resistance training adaptations (improved motor recruitment, increased ability to achieve stronger muscle contractions, muscle fibre hypertrophy, muscle fibre hyperplasia, improved recruitment of fast twitch fibres), motor skills training adaptations (growth of new nervous system connections, increased frequency of nerve impulses to motor units, improved synchronous motor unit recruitment, improved inter-muscular co-ordination, automatic performance of movement patterns).

# UV20525

## Principles of exercise, fitness and health

It is the aim of this unit to develop your knowledge and understanding of safe and effective exercise for a range of clients, the health benefits of physical activity and the importance of healthy eating.

Level

**2**

Credit value

**4**

GLH

**28**

Observation(s)

**0**

External paper(s)

**1**



# Principles of exercise, fitness and health

## Learning outcomes

On completion of this unit you will:

1. Understand the effects of exercise on the body
2. Understand the components of fitness
3. Understand how to apply the principles and variables of fitness to an exercise programme
4. Understand exercise contra-indications and the key safety guidelines for special populations
5. Understand how to safely monitor exercise intensity
6. Understand the health benefits of physical activity
7. Understand the importance of healthy eating

## Evidence requirements

1. *Knowledge outcomes*  
There must be evidence that you possess all the knowledge and understanding listed in the 'Knowledge' section of this unit. This evidence may include projects, assignments, case studies, reflective accounts, oral/written questioning and/or other forms of evidence.
2. *Tutor/Assessor guidance*  
You will be guided by your tutor/assessor on how to achieve learning outcomes and ranges in this unit. All outcomes must be achieved.
3. *External paper*  
Knowledge and understanding in this unit will be assessed by an external paper. **There is one external paper that must be achieved.**

# Developing knowledge

## Achieving knowledge outcomes

You will be guided by your tutor and assessor on the evidence that needs to be produced. Your knowledge and understanding will be assessed using the assessment methods listed below:

- Observed work performance
- Witness testimony/statements
- Audio-visual media
- Evidence of prior learning or attainment
- Written questions
- Oral questions
- Assignments
- Case studies
- Professional discussion
- Employer-provided question papers and tests
- E-assessment.

## Achieving the external paper

The external paper will test your knowledge of all criteria in this section. **A pass mark of 70% must be achieved.**

Your assessor will complete this table when the 70% pass mark has been achieved.

Paper	Date achieved	Assessor initials
1 of 1		



# Knowledge



## Outcome 1

### Understand the effects of exercise on the body

You can:	Portfolio reference / Assessor initials*
a. Describe cardiovascular and respiratory adaptations to endurance/ aerobic training	
b. Identify the short and long term effects of exercise on blood pressure	
c. Describe the 'blood pooling' effect following exercise	
d. Describe the effects of exercise on bones and joints including the significance of weight bearing exercise	
e. Describe Delayed Onset of Muscle Soreness (DOMS)	
f. Identify exercises or techniques likely to cause DOMS	
g. Describe the short and long term effects of different types of exercise on muscle	
h. Describe different exercises that can improve posture	

*\*Assessor initials to be inserted if orally questioned.*



## Outcome 2

### Understand the components of fitness

You can:	Portfolio reference / Assessor initials*
a. Define the components of health related fitness	
b. Define the components of skill related fitness	
c. Identify the factors that affect health and skill related fitness	

*\*Assessor initials to be inserted if orally questioned.*



### Outcome 3

## Understand how to apply the principles and variables of fitness to an exercise programme

You can:	Portfolio reference / Assessor initials*
<p>a. Describe the physiological implications of:</p> <ul style="list-style-type: none"> <li>• specificity</li> <li>• progressive overload</li> <li>• reversibility</li> <li>• adaptability</li> <li>• individuality</li> <li>• recovery time</li> </ul>	
<p>b. Explain the principles of FITT (Frequency, Intensity, Time and Type)</p>	
<p>c. Explain the principles of a progressive training programme in developing components of fitness</p>	
<p>d. Explain how to recognise when and how to regress a training programme</p>	
<p>e. Explain the principles of adaptation, modification and progression for each component of FITT</p>	
<p>f. Describe the effect of speed on posture, alignment and intensity</p>	
<p>g. Describe the effect of levers, gravity and resistance on exercise</p>	
<p>h. Describe the differences between programming exercise for physical fitness and for health benefits</p>	

*\*Assessor initials to be inserted if orally questioned.*



## Outcome 4

### Understand exercise contra-indications and the key safety guidelines for special populations

You can:	Portfolio reference / Assessor initials*
a. Describe the exercise contra-indications and key safety guidelines for working with older people (aged 50+)	
b. Describe the exercise contra-indications and key safety guidelines for working with antenatal and postnatal clients	
c. Describe the exercise contra-indications and key safety guidelines for working with young people (aged 14-16)	
d. Describe the key safety considerations for working with disabled people	

\*Assessor initials to be inserted if orally questioned.



## Outcome 5

### Understand how to safely monitor exercise intensity

You can:	Portfolio reference / Assessor initials*
<p>a. Describe the benefits and limitations of different methods of monitoring exercise intensity including:</p> <ul style="list-style-type: none"><li>• the talk test</li><li>• Rating of Perceived Exertion (RPE)</li><li>• heart rate monitoring and the use of different heart rate zones</li></ul>	

*\*Assessor initials to be inserted if orally questioned.*



## Outcome 6

### Understand the health benefits of physical activity

You can:	Portfolio reference / Assessor initials*
a. Describe the health benefits of physical activity	
b. Describe the effect of physical activity on the causes of certain diseases including: <ul style="list-style-type: none"> <li>• coronary heart disease</li> <li>• some cancers</li> <li>• type 2 diabetes</li> <li>• hypertension</li> <li>• obesity</li> <li>• osteoporosis</li> </ul>	

*\*Assessor initials to be inserted if orally questioned.*



## Outcome 7

### Understand the importance of healthy eating

You can:	Portfolio reference / Assessor initials*
a. Describe the national food model/guide	
b. Describe key healthy eating advice that underpins a healthy diet	
c. Explain the importance of adequate hydration	
d. Explain professional role boundaries in relation to offering nutritional advice	
e. Explain the dietary role of the key nutrients	
f. Identify the common dietary sources of the key nutrients	
g. Describe the energy balance equation	
h. Explain the health risks of poor nutrition	

\*Assessor initials to be inserted if orally questioned.

# Unit content



This section provides guidance on the recommended knowledge and skills required to enable you to achieve each of the learning outcomes in this unit. Your tutor/assessor will ensure you have the opportunity to cover all of the unit content.

## Outcome 1: Understand the effects of exercise on the body

### **Adaptations to endurance training:**

Cardiovascular (improved oxygen transport, increased heart size, increased stroke volume, decreased resting heart rate, increased cardiac output, improved blood flow distribution, increased blood volume, capillarisation, decreased blood pressure, respiratory (improved pulmonary ventilation, improved pulmonary diffusion, arterial-venous oxygen difference, decreased resting breathing rate, increased lung capacity).

### **Effects of exercise on blood pressure:**

Short term effects of exercise (no change in diastolic pressure, progressive increase in systolic pressure), long term effects of exercise (reduction in overall resting blood pressure, improved regulation of overall blood pressure).

**Blood pooling:** In the extremities, venous return (skeletal muscle pump, non-return valves), associated risks (dizziness, fainting), prevention of blood pooling through progressive cool down.

### **Effects of exercise on bones and joints:**

Improved bone density, increased joint stability, improved mobilisation and range of motion at joints, significance of weight bearing exercise (bone structure, ageing and osteoporosis), types of weight bearing exercise (walking, running, resistance training), potential risk of injury.

**Effects of exercise on muscles:** Short term (increased contractility, increased excitability, increased elasticity, increased energy metabolism, heat generation),

long term effects of aerobic exercise (increased concentration of aerobic enzymes, increased size and number of mitochondria, increased ability to use fat as an energy source, increased storage of muscle glycogen, increased supply of intramuscular fat), hypertrophy (increase in muscle mass and cross-sectional area, possible increase in number of muscle fibres, increased motor unit recruitment).

### **Delayed onset of muscle soreness (DOMS):**

Structural muscle damage (microscopic fibre tears, muscle cell leakage), effects of eccentric muscle contra-actions, causal exercises and techniques (e.g. plyometrics, eccentric resistance training, isometric training, downhill running, higher than normal exercise intensity).

**Exercises to improve posture:** Floor based core stability exercises, equipment based core stability exercises, exercise starting positions (standing, seated, lying prone, lying supine, lying sideways, hand and knees), equipment (swiss ball, stability discs, cable machines), other functional multi-joint exercises, progression of exercises (resistance through levers and external, combined movements, rate and speed of movement, repetitions, range of motion), technique consideration (correct pelvic tilt, neutral spine, engaging core muscles).





## Outcome 2: Understand the components of fitness

**Components of fitness:** Definitions of health related fitness components (cardiovascular endurance, muscular endurance, muscular strength, flexibility, body composition), definitions of skill related fitness components (speed, power, agility, balance, co-ordination, reaction time), importance of fitness components for different activities.

**Factors affecting fitness:** Genetics, gender, age, body type, training status, lifestyle factors (nutrition, smoking, alcohol, drugs, rest, stress).

## Outcome 3: Understand how to apply the principles and variables of fitness to an exercise programme

**Principles and variables of training:** Definitions (specificity, progressive overload, reversibility, adaptability, individuality, recovery time), associated physiological implications, application for each component of fitness.

**FITT principles:** Definitions for health and fitness (Frequency, Intensity, Time, Type), American College of Sports Medicine (ACSM) standard guidelines (application for each component – cardiovascular health, cardiovascular fitness, muscular strength and endurance, flexibility, physical activity).

**Progression of a training programme:** Training needs analysis, specificity, adaptation, overload, recovery (adaptation), reversibility, ACSM progression guidelines using FITT principles, SMART goal setting (Specific, Measurable, Achievable, realistic, Time bound).

**Regression of a training programme:** Causes of overtraining (inadequate recovery, overparticipation in competition, repetitive and boring training, consistent high intensity, high levels of non-training

stress), recognising signs and symptoms of overtraining (condition and performance, psychological, movement co-ordination), periodisation through manipulation of training principles and variables (intensity, volume), guidelines for prevention and recovery of overtraining, importance of rest and recovery.

**Effect of speed:** Slow exercise speed (allows strict posture, allows accurate alignment), faster exercise speed (increases intensity, increases potential for injury risk, increases potential for improper posture and alignment).

**Effect of levers, gravity and resistance:** Levers during exercise, effects of levers on exercise (speed of movement, force generation, range of motion, torque loads), gravity (speed and control of eccentric movements, power generation), resistance (intensity, speed of movement).

**Exercise programming differences:** Differences between programming for health and physical fitness, reasons for differences.



## Outcome 4: Understand exercise contra-indications and the key safety guidelines for special populations

### Exercise contra-indications and key safety guidelines for older adults (50+):

Clients (screened and asymptomatic, little or no experience of the type of exercise, only 1% of the 50+ population is highly trained, activity levels are low and decline with age, 1-2% loss in physical components of fitness each year), contra-indications (loss of physiological and psychological function, poor functional status, signs and symptoms of a potentially serious disease, sensory and cognitive declines), safety guidelines (undertake a pre-exercise health screening, refer to other professionals if required, undertake longer and more gradual mobility and warm-up, undertake a gradually tapered cool down, exercise intensity must be at a challenging but health related level, use RPE scale to monitor intensity, emphasise correct exercise technique, increase duration of transitions, simplify exercise when required, learn new exercises at the most basic level, avoid extreme spinal flexion).

### Exercise contra-indications and key safety guidelines for antenatal and postnatal women:

Clients (normal and healthy adult women, normal and healthy pregnancy, normal and healthy birth, previously normal and healthy pregnancies and births), contra-indications (injury, joint misalignment, muscle imbalance, motor skill decline, embolism, thrombosis, haemorrhage, pelvic floor dysfunction, neck and shoulder pain, experiencing other pregnancy related symptoms), safety guidelines (non-exercisers should begin with 15 minutes continuous aerobic activity gradually increasing to 30 minutes, do not exceed 45 minutes duration, maintain adequate hydration and calorie

intake, avoid exercising in hot and humid conditions, use the RPE scale to monitor intensity not heart rate, avoid supine exercise after 16 weeks of pregnancy, avoid prone exercise, avoid prolonged motionless standing, avoid heavy isometric or overhead resistance exercise, avoid leg adduction and abduction against resistance, avoid loaded forward flexion, avoid rapid changes of direction, avoid uncontrolled twisting or ballistic movements, avoid risk of falling or trauma, avoid high intensity or impact exercise, re-educate post-birth women on posture and joint alignment before progressing, avoid crunching and twisting abdominal exercises, babies should be excluded from the exercise area, ensure instructor's first aid skills are up-to-date, follow exercise guidelines for trimesters of pregnancy,

### Exercise contra-indications and key safety guidelines for young people (aged 14-16):

Clients (screened and asymptomatic, apparently healthy young people), contra-indications (stage of growth and development, musculoskeletal injuries), safety guidelines (wear appropriate clothing and footwear, undertake a gradual warm up and cool down, avoid heavy resistance exercises, use RPE to monitor exercise intensity, resistance training should use light weights and high reps, emphasise correct exercise technique, avoid ballistic stretching, ensure adequate hydration and calorie intake).

### Exercise contra-indications and key safety guidelines for disabled people:

Contra-indications (impaired physical condition and function, impaired motor skills, impaired neurological or cognitive function, impaired sensory



## Outcome 4: Understand exercise contra-indications and the key safety guidelines for special populations (continued)

function, musculoskeletal imbalances and postural deviations), safety guidelines (undertake exercise in a safe and supportive environment, make reasonable adjustments to enable access, refer to other professionals if required, adapt exercise for the disability, provide specialist assistance if required, incorporate functional and life related movement, use specialist equipment if required).

## Outcome 5: Understand how to safely monitor exercise intensity

### Methods of monitoring exercise

**intensity:** Talk test, visual signs, rating of perceived exertion (RPE), heart rate monitoring, using different heart rate training zones (for health benefits, for

specific fitness improvements), benefits and limitations of methods (specific clients needs, safety, practicality, reliability, validity).

## Outcome 6: Understand the health benefits of physical activity

### Health benefits of physical activity:

Reduced early mortality, reduced morbidity (coronary heart disease, diabetes), improved mental health and psychological wellbeing (anxiety, depression, stress, mood), cardio-protective mechanisms, improved weight management and body composition, improved posture, prevention of lower back pain, reduced risk of injury, improved joint stability, increased bone density, improved ability to perform active daily living tasks.

### Effect of physical activity on disease

**causes:** Coronary heart disease (reduced

blood pressure, improved blood cholesterol profile, improved elasticity of blood vessels, capillarisation, improved blood flow distribution), some cancers (reduced stress and lifestyle changes), type 2 diabetes (improved regulation of insulin, improved blood glucose regulation), hypertension (reduced blood pressure, improved blood flow distribution, improved elasticity of blood vessels, reduced muscular tension, reduced stress level), obesity (improved fat metabolism, increased calorie expenditure), osteoporosis (increased bone formation, improved density, improved posture, reduced risk of injury).



## Outcome 7: Understand the importance of healthy eating

**Healthy eating:** Principles of a healthy balanced diet, National Food Guide, Food Standards Agency (FSA), eat well plate (balance of good health), Government Department of Health 'five a day' recommendation.

**Importance of hydration:** Type of drink, intake quantity, timing of intake, importance (maintain body balance/homeostasis, maintain body processes and functions, maintain physical and mental performance).

**Professional role boundaries:** Code of Ethics, REPs Code of Conduct, when to refer to GP or dietary professionals (obesity, malnutrition, excessively underweight, eating disorders).

**Key nutrients:** Macronutrients (carbohydrates, fats, proteins), micronutrients (water soluble vitamins C and B, fat soluble vitamins A, D, E and K), minerals (calcium, copper, iron, magnesium, phosphorus, potassium, sodium, selenium, zinc), water.

**Dietary role of key nutrients:** Carbohydrate (energy, digestion, nervous system function), fats (provide essential fatty acids, insulation, protection of vital organs, energy, transport fat-soluble vitamins), protein (muscle growth, muscle repair, oxygen transport, fight disease, energy), vitamins (energy metabolism, protein synthesis, glycogen synthesis, blood clotting, red blood cell formation, aid growth, maintenance of teeth and bones, aids vision), minerals (bone growth, teeth growth, energy production, enzyme function, nerve and muscle function, water balance, blood clotting, oxygen transport in red blood cells), water (maintain hydration, maintain homeostasis, heat regulation,

maintain blood plasma volume, removal of waste products).

**Dietary sources of the key nutrients:**

Simple carbohydrates (sugar, sweets, chocolate, fruit), complex carbohydrates (beans, bread, pasta, potatoes, rice, corn), fats (meat, dairy products, processed foods cakes, biscuits, pies, oils), protein (meat, fish, eggs, dairy products, grains, beans, leafy vegetables), vitamins (vegetables, fruit, milk, fish, eggs), minerals (milk, nuts, vegetables, meats).

**Energy balance equation:** Energy needs for different activities, energy intake, energy expenditure, positive energy balance, negative energy balance, basic metabolic rate (BMR), physical activity levels, calculating energy intake and expenditure.

**Health risks of poor nutrition:** Obesity, diabetes, malnutrition, heart disease, stroke, osteoporosis, cancer, poor circulation, hypertension, arthritis, mental health problems (depression, anxiety, low self image).

# UF2D451

## Plan and prepare gym-based exercise

It is the aim of this unit to develop the knowledge, understanding and skills that you require to plan and prepare a gym-based exercise programme for apparently healthy adults (individuals and groups). This may include young people aged 14-16 (provided they are in a larger adult group), older adults, antenatal and postnatal clients and disabled clients (provided the relevant contra-indications and safety guidelines are observed).

NOS

**D451**

Level

**2**

Credit value

**9**

GLH

**43**

Observation(s)

**2**

External paper(s)

**0**



# Plan and prepare gym-based exercise

## Learning outcomes

On completion of this unit you will:

1. Be able to collect and analyse relevant information
2. Be able to plan a safe and effective gym-based exercise programme with clients
3. Be able to prepare self and equipment for a gym-based exercise programme
4. Know how to plan and prepare gym-based exercise
5. Know how to collect and analyse relevant information
6. Know how to plan a safe and effective gym-based exercise programme with clients
7. Know how to prepare self and equipment for a gym-based exercise programme

## Evidence requirements

1. *Evidence of real work activity*  
You must produce evidence to meet all 'Observation' outcomes and assessment criteria through your own work.
2. *Simulation*  
Simulation is not allowed in this unit.
3. *Observation outcomes*  
Competent performance of 'Observation' outcomes must be demonstrated on **at least two occasions**. Assessor observations, witness testimony and products of work are likely to be the most appropriate sources of performance evidence. These observations should not be carried out on the same day.

There should be sufficient time between assessments. Separating the assessment occasions by a period of at least one month is recommended.

4. *Range*  
All ranges must be competently demonstrated.
5. *Knowledge outcomes*  
There must be evidence that you possess all the knowledge and understanding listed in the 'Knowledge' section of this unit. In most cases this can be done by your assessor questioning you orally. However, other techniques, such as projects, assignments and/or reflective accounts may also be appropriate.
6. *Tutor/Assessor guidance*  
You will be guided by your tutor/assessor on how to achieve learning outcomes and ranges in this unit. All outcomes and ranges must be achieved.
7. *External paper*  
There is no external paper requirement for this unit.

# Achieving observations and range

## Achieving observation outcomes

Your assessor will observe your performance of practical tasks. The minimum number of observations required is indicated in the evidence requirements section of this unit.

Criteria may not always naturally occur during a practical observation. In such instances you may be required to produce supplementary evidence, for example, questioning, projects or assignments may be used to demonstrate your competence in this area. Your assessor will document the criteria that have been achieved by supplementary evidence. Questioning to gather supplementary evidence can normally be carried out orally. However, oral questioning must be recorded by the assessor, in written form or by other appropriate means.

Your assessor will sign off an outcome when all criteria have been competently achieved.

## Achieving range

The range section indicates what must be covered. Ranges should be practically demonstrated as part of an observation.

Your assessor will document the portfolio reference once a range has been competently achieved.

## Guidance for tutors and assessors

Tutors and assessors must refer to the following documents for guidance on assessment prior to delivering this unit. \*These SkillsActive documents can be downloaded at [www.SkillsActive.com](http://www.SkillsActive.com):

- QCF Evidence Requirements and Assessment Guidance
- Assessment Strategy for NVQs and SVQs
- Additional Requirements for Qualifications that use the title NVQ within the QCF

*\*Learning outcomes and assessment criteria in these documents may be numbered differently to VTCT ROA books.*

### Evidencing anatomy

Learners must produce evidence to demonstrate knowledge of the major bones, joints and muscles as listed in unit D451 of the QCF Evidence Requirements and Assessment Guidance for Instructing Exercise and Fitness.





# Observations

## Outcome 1

### Be able to collect and analyse relevant information

You can:

- a. Collect the information needed to plan gym-based exercise
- b. Ensure the information is accurate and up-to-date
- c. Analyse the information and identify the implications for gym-based exercise
- d. Refer any clients whose needs and potential cannot be met to another professional\*
- e. Maintain client confidentiality in line with good practice procedures

\*May be assessed by supplementary evidence.

Observation	1	2	Optional
Criteria questioned orally			
Date achieved			
Portfolio reference			
Learner signature			
Assessor initials			



## Outcome 2

### Be able to plan a safe and effective gym-based exercise programme with clients

You can:

- a. Identify and agree objectives that are appropriate to:
  - the needs and potential of participants
  - accepted good practice in the industry
  - own level of competence
- b. Plan and agree a programme of gym-based exercise with clients to achieve planned objectives
- c. Identify any hazards and assess the risk of these hazards actually causing harm
- d. Plan how to minimise identified risks with clients
- e. Get advice from another professional if there are any objectives, exercises or hazards beyond own level of competence
- f. Agree realistic timings and sequences for exercise
- g. Record plans in the appropriate format

\*May be assessed by supplementary evidence.

Observation	1	2	<i>Optional</i>
Criteria questioned orally			
Date achieved			
Portfolio reference			
Learner signature			
Assessor initials			



## Outcome 3

### Be able to prepare self and equipment for a gym-based exercise programme

You can:

- a. Identify and select the correct equipment for the programme
- b. Check the equipment is in safe working order
- c. Lift and handle the equipment in a way that prevents injury and damage
- d. Ensure there is sufficient space for safe exercise performance
- e. Ensure there is sufficient equipment for the clients
- f. Follow the correct procedures for checking equipment and dealing with any items that are unsafe
- g. Leave the environment in a condition acceptable for future use
- h. Refer any health, safety or welfare issues to do with equipment to an appropriate person\*
- i. Be fully prepared to supervise the programme

\*May be assessed by supplementary evidence.

Observation	1	2	Optional
Criteria questioned orally			
Date achieved			
Portfolio reference			
Learner signature			
Assessor initials			

# Range



You must practically demonstrate that you have:

<b>Planned to minimise risk relating to <b>all</b> factors</b>	<b>Portfolio reference</b>
Client	
Activities planned with the client	
Other activities happening at the same time	
<b>Carried out screening using <b>all</b> methods</b>	<b>Portfolio reference</b>
PAR-Q	
Informed consent	
<b>Collected a <b>minimum of 5</b> pieces of client information</b>	<b>Portfolio reference</b>
Personal goals	
Lifestyle	
Medical history	
Physical activity history	
Physical activity preferences	
Physical measurements (height, weight and BMI)	
<b>Used a <b>minimum of 3</b> methods to collect information</b>	<b>Portfolio reference</b>
Interview	
Questionnaire	
Observation	
Physical measurements	
<b>Collected information from <b>all</b> client types</b>	<b>Portfolio reference</b>
Individuals	
Groups	
<b>Provided <b>all</b> information to clients</b>	<b>Portfolio reference</b>
Sensitive feedback based on test/results and collected information	
Healthy lifestyle advice (within limits of knowledge and competence)	



You must practically demonstrate that you have:

<b>Planned for <b>all</b> components of a gym-based session</b>	<b>Portfolio reference</b>
Safe and effective warm-up	
Safe and effective cool down	
<b>Planned to meet a <b>minimum of 4</b> client objectives</b>	<b>Portfolio reference</b>
Improve fitness	
Improve motivation	
Address barriers to participation	
Improve skills and techniques	
Improve health	
Fun and enjoyment	
<b>Planned to improve <b>all</b> components of fitness</b>	<b>Portfolio reference</b>
Cardiovascular fitness	
Muscular fitness	
Flexibility	
Motor skills	
<b>Planned to use a <b>minimum of 3</b> types of cardiovascular equipment</b>	<b>Portfolio reference</b>
Upright cycle	
Recumbent cycle	
Treadmill	
Stepper	
Rowing machine	
Elliptical trainer	
Cross trainer	



You must practically demonstrate that you have:

Planned to use a <b>minimum of 4</b> fixed resistance machine exercises	Portfolio reference
Seated chest press (neutral grip)	
Seated chest press (BB grip)	
Bench press	
Pec dec	
Seated row (low pulley)	
Seated row (neutral grip)	
Seated row (BB grip)	
Shoulder press	
Lat pull down (in front of chest)	
Assisted pull up	
Tricep pushdown (high pulley)	
Tricep press	
Bicep curl (low pulley)	
Seated bicep curl	
Leg press	
Total hip	
Seated knee extension	
Lying leg curl	
Seated leg curl	
Abdominal machine	
Seated abductor	
Seated adductor	
Lower back machine	



You must practically demonstrate that you have:

Planned to use a <b>minimum of 3</b> body weight exercises	Portfolio reference
Chins	
Press up	
Lunge	
Squat	
Abdominal curl/plank	
Back raise	
Planned to use a <b>minimum of 4</b> free weight exercises	Portfolio reference
Front raise (DB)	
Single arm row	
Bent arm pullover (DB)	
Shoulder press (DB)	
Lateral raise (DB)	
Upright row (BB)	
Bench press	
Flyes (DB)	
Prone flye (DB)	
Supine tricep press (BB)	
Single arm tricep press (DB)	
Bicep curl (BB) (DB)	
Lunge (BB) or (DB) optional	
Deadlift (BB) (DB)	
Squat (BB) (DB)	



You must practically demonstrate that you have:

Considered adaptations to plans for <b>all</b> client groups	Portfolio reference
Young people in the 14-16 age range	
Antenatal and postnatal women	
Older people (50+)	



# Developing knowledge

## Achieving knowledge outcomes

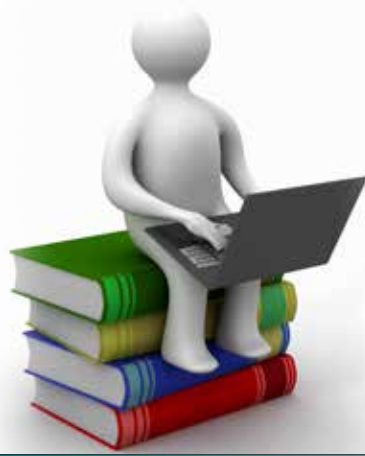
You will be guided by your tutor and assessor on the evidence that needs to be produced. Your knowledge and understanding will be assessed using the assessment methods listed below:

- Observed work
- Witness statements
- Audio-visual media
- Evidence of prior learning or attainment
- Written questions
- Oral questions
- Assignments
- Case studies

Where possible your assessor will integrate knowledge outcomes into practical observations through oral questioning. Oral questioning must be recorded by your assessor, in written form or by other appropriate means.

Some knowledge and understanding outcomes may require you to show that you know and understand how to do something. If you have practical evidence from your own work, then there is no requirement for you to be questioned again on the same topic.

# Knowledge



## Outcome 4

### Know how to plan and prepare gym-based exercise

You can:	Portfolio reference
a. Explain the importance of careful and thorough planning and preparation for physical activity	
b. Outline the needs and potential of the clients including reasons for and barriers to participation in the activity	
c. Describe how to motivate clients to take part in exercise	
d. Describe exercises that are safe and appropriate for clients including alternatives to potentially harmful exercises	
e. Identify safe and effective alignment of exercise positions	
f. Describe how to plan to use a range of cardiovascular and resistance machines including free weights (barbells, dumbbells, collars, benches)	



## Outcome 5

### Know how to collect and analyse relevant information

You can:	Portfolio reference
a. Describe the screening process and the factors which effect the ability to exercise	
b. Identify the information needed to plan gym-based exercise and describe why this information is important	
c. Identify the range of different methods that may be used to collect information including questionnaire, interview, observation and physical measurements	
d. Identify reasons for temporary deferral of exercise	
e. Identify why it may be necessary to refer the client to another professional	
f. Describe the purpose of the informed consent	
g. Outline the emergency procedures of the facility/organisation	
h. Explain the purpose of the Physical Activity Readiness Questionnaire (PAR-Q) and how to record and interpret the information provided	



## Outcome 6

### Know how to plan a safe and effective gym-based exercise programme with clients

You can:	Portfolio reference
a. Explain how to identify and agree objectives for a programme based on collected information	
b. Describe how to use a range of equipment to achieve the clients' goals	
c. Outline the health and environmental factors which can influence safety and group/individual working space	
d. Describe why it is important to agree goals with clients	
e. Describe how to record plans in the required format	
f. Outline risk assessment/management procedures	
g. Explain the consequences of failing to manage health and safety	



## Outcome 7

### Know how to prepare self and equipment for a gym-based exercise programme

You can:	Portfolio reference
a. Outline the organisation's guidelines for replacement of equipment	
b. Outline the manufacturers' guidelines for the checking and maintenance of cardiovascular and resistance training machines	
c. Describe how to prepare a range of cardiovascular, resistance machines and free weights for use including weights, barbells, dumbbells, collars, benches and protective floor/mats	
d. Describe how to safely store free weight equipment	
e. Identify what to look for when checking equipment	
f. Describe safe manual handling techniques	
g. Describe the importance of health and safety in the facility and paying close attention to possible hazards	
h. Outline the types of hazards that may occur in the facility and how to identify and deal with these	
i. Describe reporting procedures for health and safety	
j. Explain how to ensure an instructor is fully prepared to instruct gym-based exercise	

# Notes

Use this area for notes and diagrams



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# UF2D452

## Instruct and supervise gym-based exercise

It is the aim of this unit to develop the knowledge, understanding and practical skills that you require to be able to instruct and supervise gym-based exercise to apparently healthy adults (individuals and groups). This may include young people aged 14-16 (provided they are in a larger adult group), older adults, antenatal and postnatal clients and disabled clients (provided the relevant contraindications and safety guidelines are observed).

NOS

# D452

Level

## 2

Credit value

## 8

GLH

## 43

Observation(s)

## 2

External paper(s)

## 0





# Instruct and supervise gym-based exercise

## Learning outcomes

On completion of this unit you will:

1. Be able to prepare clients for gym-based exercise
2. Be able to instruct gym-based exercise
3. Be able to observe and supervise gym-based exercise
4. Be able to bring a gym-based exercise session to an end
5. Know how to prepare clients for gym-based exercise
6. Know how to instruct gym-based exercise
7. Know how to observe and supervise gym-based exercise
8. Know how to bring a gym-based exercise session to an end

## Evidence requirements

1. *Evidence of real work activity*  
You must produce evidence to meet all 'Observation' outcomes and assessment criteria through your own work.
2. *Simulation*  
Simulation is allowed for criteria 3i and 4h.
3. *Observation outcomes*  
Competent performance of 'Observation' outcomes must be demonstrated on **at least two occasions**. Assessor observations, witness testimony and products of work are likely to be the most appropriate sources of performance evidence. These observations should not be carried out on the same day. There should be sufficient time between

assessments. Separating the assessment occasions by a period of at least one month is recommended.

4. *Range*  
All ranges must be competently demonstrated.
5. *Knowledge outcomes*  
There must be evidence that you possess all the knowledge and understanding listed in the 'Knowledge' section of this unit. In most cases this can be done by your assessor questioning you orally. However, other techniques, such as projects, assignments and/or reflective accounts may also be appropriate.
6. *Tutor/Assessor guidance*  
You will be guided by your tutor/assessor on how to achieve learning outcomes and ranges in this unit. All outcomes and ranges must be achieved.
7. *External paper*  
There is no external paper requirement for this unit.

# Achieving observations and range

## Achieving observation outcomes

Your assessor will observe your performance of practical tasks. The minimum number of observations required is indicated in the evidence requirements section of this unit.

Criteria may not always naturally occur during a practical observation. In such instances you may be required to produce supplementary evidence, for example, questioning, projects or assignments may be used to demonstrate your competence in this area. Your assessor will document the criteria that have been achieved by supplementary evidence. Questioning to gather supplementary evidence can normally be carried out orally. However, oral questioning must be recorded by the assessor, in written form or by other appropriate means.

Your assessor will sign off an outcome when all criteria have been competently achieved.

## Achieving range

The range section indicates what must be covered. Ranges should be practically demonstrated as part of an observation.

Your assessor will document the portfolio reference once a range has been competently achieved.

## Guidance for tutors and assessors

Tutors and assessors must refer to the following documents for guidance on assessment prior to delivering this unit. \*These SkillsActive documents can be downloaded at [www.SkillsActive.com](http://www.SkillsActive.com):

- QCF Evidence Requirements and Assessment Guidance
- Assessment Strategy for NVQs and SVQs
- Additional Requirements for Qualifications that use the title NVQ within the QCF

*\*Learning outcomes and assessment criteria in these documents may be numbered differently to VTCT ROA books.*

### Evidencing anatomy

Learners must produce evidence to demonstrate knowledge of the major bones, joints and muscles as listed in unit D452 of the QCF Evidence Requirements and Assessment Guidance for Instructing Exercise and Fitness.



# Observations

## Outcome 1

### Be able to prepare clients for gym-based exercise

You can:

- a. Ensure the environment and equipment is prepared for the agreed exercises
- b. Meet the clients punctually and help them feel welcome and at ease
- c. Collect any new information that is required
- d. Explain the agreed exercises and their demands, including physical and technical demands
- e. Motivate the clients in a way that is appropriate to them
- f. Advise clients of the facility's emergency procedures
- g. Confirm or revise what has been agreed with the clients

\*May be assessed by supplementary evidence.

Observation	1	2	Optional
Criteria questioned orally			
Date achieved			
Portfolio reference			
Learner signature			
Assessor initials			



## Outcome 2

### Be able to instruct gym-based exercise

You can:

- a. Use warm-up and cool down activities that are safe and effective for the clients
- b. Give explanations and demonstrations that are technically correct with safe and effective alignment of exercise positions appropriate to clients' needs and level of experience
- c. Check the clients' understanding of instructions and give them the opportunity to ask questions
- d. Ensure the clients carry out exercises in a safe and effective manner
- e. Give the clients the necessary information and motivate them to continue to carry out the exercises without direct supervision
- f. Keep to the planned timings for the session
- g. Manage group behaviour as appropriate

\*May be assessed by supplementary evidence.

Observation	1	2	<i>Optional</i>
Criteria questioned orally			
Date achieved			
Portfolio reference			
Learner signature			
Assessor initials			



## Outcome 3

### Be able to observe and supervise gym-based exercise

You can:

- a. Move around the area so that all clients can be observed and respond to their needs in a fair and equitable way
- b. Monitor exercise intensity using appropriate method/s
- c. Make sure all clients can take part in the exercises
- d. Monitor the safety and effectiveness of the exercises and adapt these accordingly with suitable progressions/regressions
- e. Provide feedback and instructing points which are timely, clear and motivational
- f. Encourage and support clients to take responsibility for their own fitness
- g. Review clients' progress and offer fitness advice in response to clients' changing needs
- h. Give clients the chance to ask questions and provide them with appropriate and clear information
- i. Refer clients to another professional when their needs go beyond own level of competence\*

\*May be assessed by supplementary evidence.

Observation	1	2	Optional
Criteria questioned orally			
Date achieved			
Portfolio reference			
Learner signature			
Assessor initials			



## Outcome 4

### Be able to bring a gym-based exercise session to an end

You can:

- a. Allow sufficient time to end the session according to the clients' level of experience
- b. End the session using cool down activities that are safe and effective for the clients
- c. Give the clients an accurate feedback summary on the session
- d. Give the clients the opportunity to:
  - reflect on the session
  - ask questions
  - provide feedback
  - identify their further needs
- e. Make sure the clients have the necessary information about future activities and review procedures
- f. Follow the correct procedures for checking and dealing with any equipment used
- g. Leave the environment in a condition acceptable for future use
- h. Pass on suggestions for improving health and safety to a competent person or agency\*

\*May be assessed by supplementary evidence.

Observation	1	2	Optional
Criteria questioned orally			
Date achieved			
Portfolio reference			
Learner signature			
Assessor initials			



# Range

You must practically demonstrate that you have:

<b>Used all communication styles</b>	Portfolio reference
Motivational techniques appropriate to the individual	
Motivational techniques appropriate to the exercise format	
<b>Prepared clients for exercises that cover a minimum of 3 components of fitness</b>	Portfolio reference
Cardiovascular fitness	
Muscular fitness	
Flexibility	
Motor skills	
Circuit formats	
<b>Instructed all client types</b>	Portfolio reference
Individuals	
Groups	
<b>Instructed all components of a gym-based session</b>	Portfolio reference
Safe and effective warm-up	
Safe and effective cool down	
<b>Instructed exercises that cover a minimum of 3 components of fitness</b>	Portfolio reference
Cardiovascular fitness	
Muscular fitness	
Flexibility	
Motor skills	
Circuit formats	



You must practically demonstrate that you have:

Instructed a <b>minimum of 3</b> types of cardiovascular equipment	Portfolio reference
Upright cycle	
Recumbent cycle	
Treadmill	
Stepper	
Rowing machine	
Elliptical trainer	
Cross trainer	
Instructed a <b>minimum of 3</b> body weight exercises	Portfolio reference
Chins	
Press up	
Lunge	
Squat	
Abdominal curl/plank	
Back raise	





You must practically demonstrate that you have:

Instructed a <b>minimum of 4</b> fixed resistance machines	Portfolio reference
Seated chest press (neutral grip)	
Seated chest press (BB grip)	
Bench press	
Pec dec	
Seated row (low pulley)	
Seated row (neutral grip)	
Seated row (BB grip)	
Shoulder press	
Lat pull down (in front of chest)	
Assisted pull up	
Tricep pushdown (high pulley)	
Tricep press	
Bicep curl (low pulley)	
Seated bicep curl	
Leg press	
Total hip	
Seated knee extension	
Lying leg curl	
Seated abductor	
Seated adductor	
Seated leg curl	
Abdominal machine	
Lower back machine	



You must practically demonstrate that you have:

Instructed a <b>minimum of 4</b> free weight exercises	Portfolio reference
Front raise (DB)	
Single arm row	
Bent arm pullover (DB)	
Shoulder press (DB)	
Lateral raise (DB)	
Upright row (BB)	
Bench press	
Supine tricep press (BB)	
Prone flye (DB)	
Flyes (DB)	
Single arm tricep press (DB)	
Bicep curl (BB) (DB)	
Lunge (BB) or (DB) optional	
Deadlift (BB) (DB)	
Squat (BB) (DB)	
Spotting (must be covered in addition to the four chosen exercises)	
Used <b>all</b> forms of instruction	Portfolio reference
Correct lifting and passing	
Lifting the barbell safely from the floor and spotting	
Accurate demonstrations of exercises with particular attention to the speed of movement	



You must practically demonstrate that you have:

Applied <b>all</b> methods of verbal communication		Portfolio reference
Voice projection		
Appropriate volume and pitch of voice		
Used <b>all</b> teaching methods		Portfolio reference
Observation of client from a variety of positions		
Control of client		
Correction of poor technique		
Regular teaching points		

# Developing knowledge

## Achieving knowledge outcomes

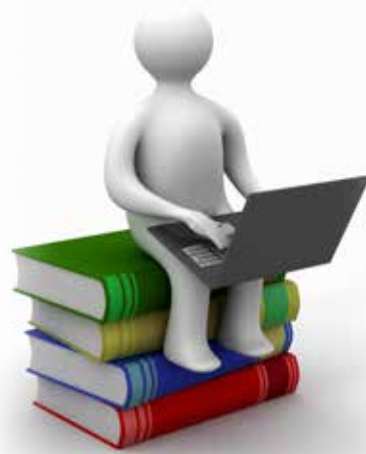
You will be guided by your tutor and assessor on the evidence that needs to be produced. Your knowledge and understanding will be assessed using the assessment methods listed below:

- Observed work
- Witness statements
- Audio-visual media
- Evidence of prior learning or attainment
- Written questions
- Oral questions
- Assignments
- Case studies

Where possible your assessor will integrate knowledge outcomes into practical observations through oral questioning. Oral questioning must be recorded by your assessor, in written form or by other appropriate means.

Some knowledge and understanding outcomes may require you to show that you know and understand how to do something. If you have practical evidence from your own work, then there is no requirement for you to be questioned again on the same topic.

# Knowledge



## Outcome 5

### Know how to prepare clients for gym-based exercise

You can:	Portfolio reference
a. Explain the purpose and value of a warm-up	
b. Explain why clients need to understand the purpose and value of a warm-up	
c. Describe safe and effective warm-up activities for gym-based exercise	
d. Explain the importance of fitness advice and how to offer it in gym-based physical activity	



## Outcome 6

### Know how to instruct gym-based exercise

You can:	Portfolio reference
a. Describe the purpose of the exercises included in the programme	
b. Describe a range of exercises that are safe and appropriate for clients	
c. Describe the types of special requirements that clients may have	
d. Describe how to break exercise/movements down to their component parts	
e. Describe how to develop client's co-ordination by building exercises/movements up gradually	
f. Outline the information that must be given to other people who are involved in the client's gym-based programme	



## Outcome 7

### Know how to observe and supervise gym-based exercise

You can:	Portfolio reference
a. Outline the needs and potential of the clients	
b. Identify the types of hazards that may occur during a session and how to manage these	
c. Outline the reporting procedures for health and safety	
d. Identify safe and effective alignment of exercise positions	
e. Identify a range of alternative exercises for adaptation including any appropriate progressions and regressions	
f. Outline the importance/methods of voice projection to include the effective use of volume and pitch of voice	



## Outcome 8

### Know how to bring a gym-based exercise session to an end

You can:	Portfolio reference
a. Explain the purpose and value of a cool down	
b. Explain why clients need to understand purpose and value of a cool down	
c. Describe safe and effective cool down activities for gym-based exercise	



# UF2A335

## Reflect on, and develop, own practice in providing exercise and physical activity

The aim of this unit is to develop your knowledge, understanding and practical skills required to be able to reflect on own practice in providing exercise and physical activity. You will learn how to develop your own professional practice and improve your career opportunities.

NOS

# A335

Level

## 2

Credit value

## 4

GLH

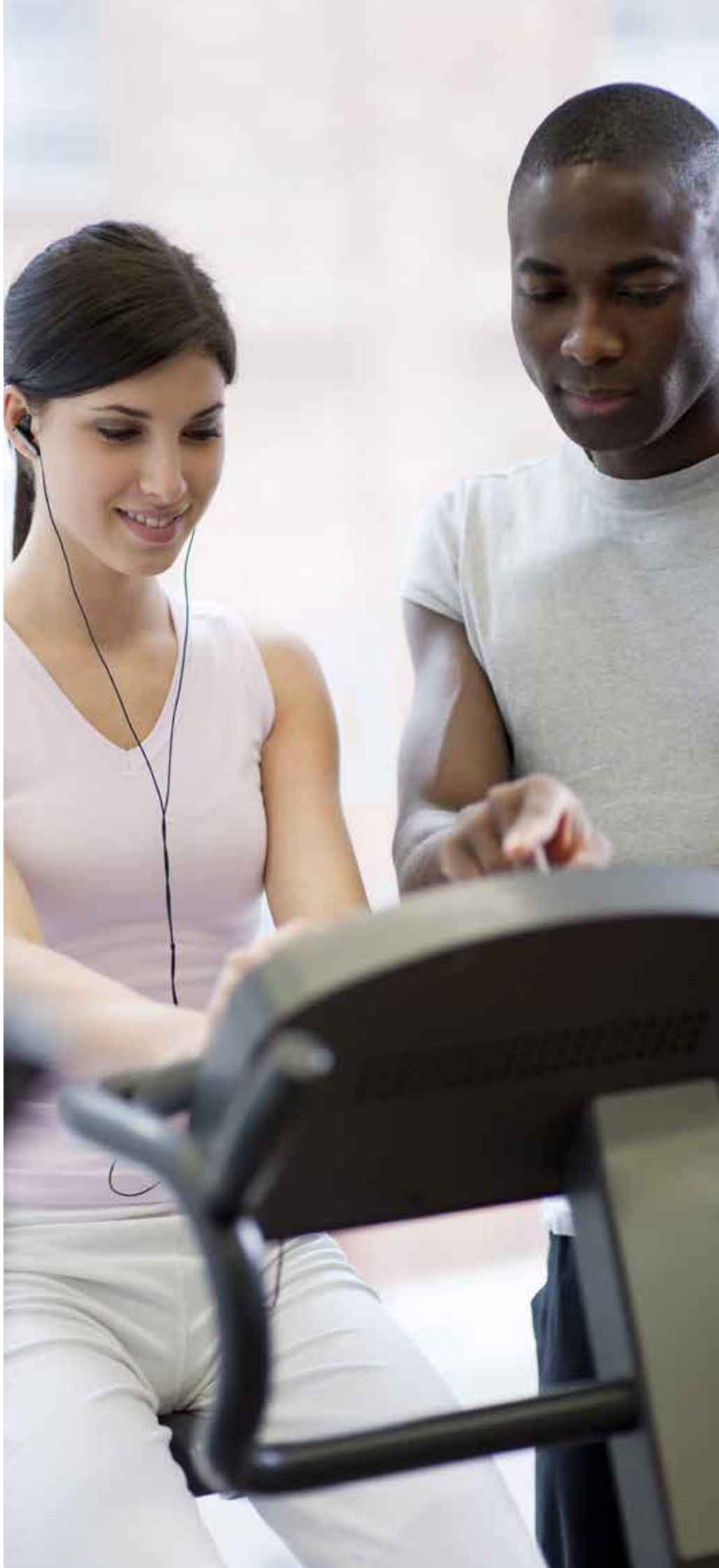
## 23

Observation(s)

## 2

External paper(s)

## 0



# Reflect on and develop own practice in providing exercise and physical activity

## Learning outcomes

On completion of this unit you will:

1. Be able to reflect on own professional practice
2. Be able to improve own professional practice and career opportunities
3. Understand how to reflect on and develop own practice in providing exercise and physical activity
4. Understand how to reflect on own professional practice
5. Understand how to improve own professional practice and career opportunities

## Evidence requirements

1. *Evidence of real work activity*  
You must produce evidence to meet all 'Observation' outcomes and assessment criteria through your own work.
2. *Simulation*  
Simulation is allowed in this unit for outcomes 1a and 2a if no naturally occurring evidence is available.
3. *Observation outcomes*  
Competent performance of 'Observation' outcomes must be demonstrated on **at least two occasions**. Assessor observations, witness testimony and products of work are likely to be the most appropriate sources of performance evidence. These observations should not be carried out on the same day. There should be sufficient time between assessments. Separating the assessment occasions by a period of at least one month is recommended.

4. *Range*  
All ranges must be competently demonstrated.
5. *Knowledge outcomes*  
There must be evidence that you possess all the knowledge and understanding listed in the 'Knowledge' section of this unit. In most cases this can be done by your assessor questioning you orally. However, other techniques such as projects, assignments and/or reflective accounts may also be appropriate.
6. *Tutor/Assessor guidance*  
You will be guided by your tutor/assessor on how to achieve learning outcomes and ranges in this unit. All outcomes and ranges must be achieved.
7. *External paper*  
There is no external paper requirement for this unit.

# Achieving observations and range

## Achieving observation outcomes

Your assessor will observe your performance of practical tasks. The minimum number of observations required is indicated in the evidence requirements section of this unit.

Criteria may not always naturally occur during a practical observation. In such instances you may be required to produce supplementary evidence, for example, questioning, projects or assignments may be used to demonstrate your competence in this area. Your assessor will document the criteria that have been achieved by supplementary evidence. Questioning to gather supplementary evidence can normally be carried out orally. However, oral questioning must be recorded by the assessor, in written form or by other appropriate means.

Your assessor will sign off an outcome when all criteria have been competently achieved.

## Achieving range

The range section indicates what must be covered. Ranges should be practically demonstrated as part of an observation.

Your assessor will document the portfolio reference once a range has been competently achieved.

## Guidance for tutors and assessors

Tutors and assessors must refer to the following documents for guidance on assessment prior to delivering this unit. \*These SkillsActive documents can be downloaded at [www.SkillsActive.com](http://www.SkillsActive.com):

- QCF Evidence Requirements and Assessment Guidance
- Assessment Strategy for NVQs and SVQs
- Additional Requirements for Qualifications that use the title NVQ within the QCF

*\*Learning outcomes and assessment criteria in these documents may be numbered differently to VTCT ROA books.*



# Observations

## Outcome 1

### Be able to reflect on own professional practice

You can:

- a. Discuss ideas with another professional and take account of their views\*

\*May be assessed by supplementary evidence.

Observation	1	2	Optional
Criteria questioned orally			
Date achieved			
Portfolio reference			
Learner signature			
Assessor initials			



## Outcome 2

### Be able to improve own professional practice and career opportunities

You can:

- a. Take part in relevant development activities as part of the personal action plan\*

\*May be assessed by supplementary evidence.

Observation	1	2	Optional
Criteria questioned orally			
Date achieved			
Portfolio reference			
Learner signature			
Assessor initials			



# Range

You must practically demonstrate that you have:

Covered a <b>minimum of 1</b> type of client when reflecting on own professional practice	Portfolio reference
Individuals	
Groups	
Improved own professional practice and career opportunities by covering <b>all</b> aspects	Portfolio reference
Planning exercise	
Instructing exercise	
Observing and supporting clients	
Use of resources	
Communicating with clients	
Motivating clients	

# Developing knowledge

## Achieving knowledge outcomes

You will be guided by your tutor and assessor on the evidence that needs to be produced. Your knowledge and understanding will be assessed using the assessment methods listed below:

- Observed work
- Witness statements
- Audio-visual media
- Evidence of prior learning or attainment
- Written questions
- Oral questions
- Assignments
- Case studies

Where possible your assessor will integrate knowledge outcomes into practical observations through oral questioning. Oral questioning must be recorded by your assessor, in written form or by other appropriate means.

Some knowledge and understanding outcomes may require you to show that you know and understand how to do something. If you have practical evidence from your own work, then there is no requirement for you to be questioned again on the same topic.



# Knowledge



## Outcome 1

### Be able to reflect on own professional practice

You can:	Portfolio reference / Assessor initials*
b. Review the outcomes of working with clients, their feedback and feedback from other staff	
c. Identify: <ul style="list-style-type: none"><li>• the effectiveness of physical activities</li><li>• how effective and motivational the relationship was with the client</li><li>• how well the professional codes of ethics were implemented when working with clients</li><li>• how well the instructing style adopted matched clients' needs</li><li>• how well the clients' exercise, including their health, safety and welfare, were managed</li><li>• the effectiveness of interacting and working with other members of staff</li></ul>	
d. Identify ways in which future practice can be improved	

\* Assessor initials to be inserted if orally questioned.



## Outcome 2

### Be able to improve own professional practice and career opportunities

You can:	Portfolio reference / Assessor initials*
b. Review own professional practice on a regular basis	
c. Keep up-to-date with developments in exercise and physical activity	
d. Consider own career goals	
e. Develop a personal action plan that will help to improve professional practice and career prospects	
f. Review own progress in developing professional practice and career prospects, and update the personal action plan accordingly	

\* Assessor initials to be inserted if orally questioned.



## Outcome 3

### Understand how to reflect on and develop own practice in providing exercise and physical activity

You can:	Portfolio reference / Assessor initials*
a. List the values or codes of practice relevant to the work being carried out, and describe their importance	
b. Describe the role of the fitness professional in the industry	
c. Outline the importance of reflection and continuing professional development in helping clients to develop fitness and motivation	
d. Outline the structure of the industry	
e. Identify industry organisations and describe their relevance to the fitness professional	
f. Outline appropriate registration systems and continuing professional development requirements	
g. Describe employment opportunities in different sectors of the industry	

\* Assessor initials to be inserted if orally questioned.



## Outcome 4

### Understand how to reflect on own professional practice

You can:	Portfolio reference / Assessor initials*
a. Describe aspects of professional practice on which you should reflect	
b. Outline the information that should be used to reflect on own professional practice	
c. Describe different methods of collecting information and how to interpret it	
d. Describe how to reflect on own professional practice	
e. Identify key lessons and how to make use of these in future professional practice	
f. Outline the importance of discussing ideas with another professional	

\* Assessor initials to be inserted if orally questioned.



## Outcome 5

### Understand how to improve own professional practice and career opportunities

You can:	Portfolio reference / Assessor initials*
a. Identify how often professional practice should be reviewed	
b. Outline how to access information on developments in exercise and physical activity	
c. Identify areas in which further development is required in own professional practice	
d. Describe the importance of having a personal action plan in place for own development	
e. Outline the types of development activities that are available and how they can be accessed	
f. Describe the importance of regularly reviewing and updating own personal action plan	

\* Assessor initials to be inserted if orally questioned.

# Notes

Use this area for notes and diagrams



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