

Unit 16: Exercise for Specific Groups

Unit code:	Y/502/5733
QCF Level 3:	BTEC National
Credit value:	10
Guided learning hours:	60

● Aim and purpose

The aim of this unit is for learners to understand exercise provision for specific groups and be able to plan, deliver and review an exercise session for a specific group.

● Unit introduction

The increase in health awareness and the Government's drive for increasing the health of the nation means that general practitioners and other healthcare professionals recommend that the general population increase their physical activity levels. Consequently, those who are responsible for delivering physical activity programmes or prescribing exercise must have a range of knowledge and skills specific to groups such as disabled people, antenatal and postnatal women, older adults, children and young people and referred clients.

This unit is particularly relevant for individuals aiming to work in the exercise and fitness industry, sports leadership, sports coaching or health promotion.

The unit will explore the provision of exercise for specific groups and will give learners knowledge of provision for specific groups in local areas. Learners will investigate schemes that are available and will examine the exercise referral process. The unit will give learners an understanding of the physiological and psychological benefits that exercise confers for each specific group, enhancing learners' awareness of the importance of physical activity. Contraindications to physical activity participation will also be explored.

Learners will gain an understanding of the importance of adapting activities and exercise programmes to suit individual specific needs and will examine exercise prescription guidelines. Learners will also gain practical competency in planning, delivering and reviewing an exercise session targeting one specific group.

● Learning outcomes

On completion of this unit a learner should:

- 1 Know about the provision of exercise for specific groups
- 2 Know the benefits of exercise for different specific groups
- 3 Be able to prescribe exercise for specific groups
- 4 Be able to plan, deliver and review an exercise session for a specific group.

Unit content

1 Know about the provision of exercise for specific groups

Specific groups: eg disabled people, antenatal, postnatal, older adults, children and young people, referred clients

Provision: providers, eg public, private, voluntary, partnerships; types of provision for specific groups, eg facilities, classes, equipment, range of activities

Exercise referral process: initial screening procedures; referral professionals, eg sports therapists, physiotherapists, general practitioners; referral conditions, eg obesity, sedentary, cardiac, pulmonary or metabolic disease, injuries, arthritis, osteoporosis, mobility problems, multiple sclerosis, mental health; exercise prescription; recommended guidelines; monitoring

2 Know the benefits of exercise for different specific groups

Benefits: physiological, eg antenatal (improved circulation, reduced swelling, enhanced muscular balance), postnatal (improved posture, increased energy, increased self-confidence), children and young people (learn, socialise, increase motor skills), referred clients (increased fitness, rehabilitation, disease risk reduction, condition management); psychological, eg reduction in depression, reduction in anxiety, improve self-confidence

Specific groups: older adults; disabled people; antenatal and postnatal clients; children and young people; referred clients, eg obesity, sedentary, cardiac, pulmonary or metabolic disease, injuries, arthritis, osteoporosis, mobility problems, multiple sclerosis, mental health

3 Be able to prescribe exercise for specific groups

Exercise prescription: frequency; intensity; time; type

Contraindications: absolute contraindications (high blood pressure, uncontrolled tachycardia, uncontrolled conditions, eg asthma or diabetes, acute heart failure, unstable angina); specific to certain groups, eg high impact exercise, high intensity exercise, heavy weights, abdominal exercises

Specific groups: older adults; disabled people; antenatal and postnatal clients; children and young people; referred clients, eg obesity, sedentary, cardiac, pulmonary or metabolic disease, injuries, arthritis, osteoporosis, mobility problems, multiple sclerosis, mental health

4 Be able to plan, deliver and review an exercise session for a specific group

Plan session: aims; outcomes; resources (human, facilities, equipment); screening and medical history; informed consent; other considerations, eg health and safety, contraindications, participants, timing and sequencing of activities, ability level, marketing

Deliver session: safe and effective; warm-up (pulse raiser, mobility and stretches); session components, eg cardiovascular training, resistance training, skills, game; cool-down (pulse lower and stretches); delivery, eg rapport with participants, motivation, communication (verbal and non-verbal), observation skills, correction of technique, modification of exercises, adaptation of exercises, feedback

Review of session: methods, eg questionnaires, peer feedback, checklist, self-evaluation; strengths; areas for improvement; development plan; SMART (specific, measurable, achievable, realistic, time-bound) targets

Assessment and grading criteria

In order to pass this unit, the evidence that the learner presents for assessment needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria for a pass grade describe the level of achievement required to pass this unit.

Assessment and grading criteria		
To achieve a pass grade the evidence must show that the learner is able to:	To achieve a merit grade the evidence must show that, in addition to the pass criteria, the learner is able to:	To achieve a distinction grade the evidence must show that, in addition to the pass and merit criteria, the learner is able to:
P1 describe the provision of exercise for three different specific groups	M1 compare and contrast the provision of exercise for three different specific groups, identifying strengths and areas for improvement	D1 analyse the provision of exercise for three different specific groups providing recommendations relating to identified areas for improvement, and the benefits to specific groups
P2 describe the exercise referral process		
P3 describe four different benefits of exercise to each of three different specific groups	M2 explain four different benefits of exercise to each of three different specific groups	
P4 produce safe and effective exercise prescriptions for three different specific groups [CT3, CT5]		
P5 plan and deliver an exercise session for a selected specific group, with tutor support [IE2, TW3, TW4, TW6, CT1, CT3]	M3 independently plan and deliver an exercise session for a selected specific group, explaining chosen components.	D2 independently plan and deliver an exercise session for a selected specific group, justifying chosen components.
P6 review the planning and delivery of an exercise session for a specific group, describing strengths and areas for improvement. [RL3, RL4, RL5]		

PLTS: This summary references where applicable, in the square brackets, the elements of the personal, learning and thinking skills applicable in the pass criteria. It identifies opportunities for learners to demonstrate effective application of the referenced elements of the skills.

Key	IE – independent enquirers CT – creative thinkers	RL – reflective learners TW – team workers	SM – self-managers EP – effective participators
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Essential guidance for tutors

Delivery

This unit is designed to help learners gain an understanding of how to structure and deliver physical activity programmes for groups of clients with specific needs. In order to achieve this, learners should consider as wide a range of specific groups as possible, for example older adults, disabled people, antenatal and postnatal clients, children and young people and referred clients. The range should be as broad as possible bearing in mind that clients of specific groups may be referred with more than one need.

Learners need to develop an understanding of the needs of the specific groups and the provision in the local area. This could be covered by the use of guest speakers from local health authorities as well as private, voluntary and other public providers. Alternatively, delivery of this part of the unit lends itself to group research with feedback to the whole class.

To understand the benefits of exercise for different specific groups the key physiological benefits for each group should be discussed as well as the broader psychological benefits that exercise will have for each group. Theoretical background can be provided through relevant research, but real-life context should be provided through actual cases and real-life testimony, as well as case studies that show success of people's development through exercise.

Local exercise referral schemes vary geographically and learners should be encouraged to gather information from their local GP on referral schemes or other local practices, and make comparisons to regional and national levels of provision. Actual case scenarios covering the range of schemes will help engage learners and provide vocational context. The knowledge of the referral process and an understanding of the benefits of exercise for specific groups will help learners to design exercise plans for specific groups.

The design of a specific session for a targeted group can be used to underpin the whole unit and check learners' knowledge and understanding. Much of the content relating to this area is generic, and should be tailored by learners to meet the needs of their specific target group.

When delivering the individual session learners must be able to teach safely and effectively, showing good communication skills, but they may need differing levels of support to achieve this. Teaching skills, including adaptation of exercises and correction of technique can be developed by learners leading parts of a session. Learners would benefit from observing sessions in the community.

Verbal feedback from the participants and tutor, written feedback in the form of questionnaires or evaluations and self-reflection will help learners to review the planning and delivery of an exercise session. Tutors need to discuss methods of evaluation and learners can practise producing development plans through case studies.

Outline learning plan

The outline learning plan has been included in this unit as guidance and can be used in conjunction with the programme of suggested assignments.

The outline learning plan demonstrates one way in planning the delivery and assessment of this unit.

Topic and suggested assignments/activities and/assessment
Tutor introduces the unit.
Exercise provision for specific groups – small-group research and feedback to whole class. Includes work completed in own time.
Exercise referral schemes – visit to local scheme. Tutor provides examples of models of good practice.
Benefits of exercise for different specific groups – research in pairs and feed back to class. Includes learner-initiated private study.
Assignment 1: Exercise Provision for Specific Groups and Benefits of Exercise (P1, M1, D1, P2, P3, M2). Tutor introduces the assignment brief. Includes learner-initiated private study.
Exercise prescription – tutor input on guidelines for specific groups. Learners work in pairs to assess suitability of exercise programmes for different groups. Feed back to class.
Assignment 2: Exercise Prescription for Specific Groups (P4). Tutor introduces the assignment brief. Includes learner-initiated private study.
Planning an exercise session for a specific group – tutor introduces topic. Small group case studies. Learners work in groups to plan an exercise session for an identified group. Feed back to class.
Delivering an exercise session for a specific group – practical activities providing opportunity for learners to deliver parts of a session.
Reviewing a session for a specific group – tutor introduces topic and facilitates class discussion around methods of evaluation. Development plan case studies in small groups with feedback to class.
Assignment 3: Plan, Deliver and Review an Exercise Session (P5, M3, D2, P6). Tutor introduces the assignment brief. Includes time allocated for learner-initiated private study.
Review of reflective practice of unit and assessment.

Assessment

The assessment and grading criteria of this unit allow a variety of engaging and motivating assessment methods to be used.

The use of three different specific groups in describing the provision of exercise (P1) gives learners a broad understanding and knowledge about the specific groups they may encounter. Gathering of evidence can be field based by use of surveys and visits to leisure centres, health clubs, community groups, etc as well as through text and internet research. The area covered should be a local geographical area, the exact area to be determined by the tutor, but as a guide within 30 minutes travelling time. Real-world input from local providers and practitioners would strengthen descriptions of the exercise referral process (P2). The evidence can be presented via projects, case studies and presentations. In the description of four different benefits of exercise to each of the three different specific groups (P3), learners should be encouraged to study contrasting specific groups and describe both common and specific benefits of exercise. Criteria P1, P2 and P3 could be assessed together via a written report.

For P4, learners need to prescribe safe and effective exercise for three different specific groups. Ideally learners should present this in a format used in industry. Learners need to demonstrate that they understand the exercise contraindications for the groups selected. They also need to plan and deliver an exercise session for a selected specific group, with support (P5). A session plan should be produced and delivery assessed through practical observation. Learners need to demonstrate that they can instruct a safe and effective exercise session showing good communication skills and are able to give constructive feedback and adapt/modify activities to suit individual participants. The emphasis of the tutor support should be in the planning with as much autonomous practical delivery by the learner as possible. Verbal feedback from the participants and tutor and/or written feedback in the form of questionnaires or evaluations will help learners in reviewing the planning and delivery of the exercise session. This feedback will also allow learners to evaluate their performance by identifying strengths and areas for improvement. Evidence of this review can be written or in the form of a tutor discussion (P6), supported by a tutor witness statement.

Grading criterion M1 builds on P1, and requires a more in-depth response from learners, comparing and contrasting the provision of exercise for the three different specific groups, identifying strengths, and areas for improvement, in that provision. Learners need to explain similarities and differences and for each group identify strengths and areas for improvement. Grading criterion M2 links to P3, and requires learners to explain the benefits of exercise (four) to each of three different specific groups, rather than just describing them. The benefits of exercise need to be set out in detail. For M3, which links to P5, learners must plan and deliver an exercise session for a selected specific group without the tutor support permitted for P5. Learners will also need to explain the choices made regarding components chosen for the session. The explanation should cover the warm-up and cool down and make reference to how the session components meet the guidelines for that specific group.

Grading criterion D1 builds on criteria P1 and M1, and requires learners to analyse the provision of exercise for three different specific groups, making recommendations relating to identified areas for improvement and the benefits of those recommendations to the selected specific groups. The analysis should identify how different types of provision are related and how they contribute to the offer. Recommendations could include more provision, different types of activity, location of activities, availability of public transport, timing of activities, group sizes.

For D2, learners must expand on what they have done for criteria P5 and M3, justifying the components chosen for the exercise session planned for a selected specific group. The exercise session components should be justified in terms of how they meet recommended guidelines for that specific group and how they meet the client's needs.

Programme of suggested assignments

The table below shows a programme of suggested assignments that cover the pass, merit and distinction criteria in the assessment and grading grid. This is for guidance and it is recommended that centres either write their own assignments or adapt any Edexcel assignments to meet local needs and resources.

Criteria covered	Assignment title	Scenario	Assessment method
P1, P2, P3, M1, M2, D1	Exercise Provision for Specific Groups and Benefits of Exercise	Having gained employment as an exercise leader, you are to research the provision of exercise for three specific groups, the exercise referral process and benefits of exercise for different specific groups.	Written report.
P4	Exercise Prescription for Specific Groups	Produce safe and effective exercise prescriptions for three different specific groups.	Production of written exercise programmes.
P5, P6, M3, D2	Plan, Deliver and Review an Exercise Session	Plan, deliver and review an exercise session for a specific group.	Session plan. Observation record. Written evaluation. Witness statement.

Links to National Occupational Standards, other BTEC units, other BTEC qualifications and other relevant units and qualifications

This unit forms part of the BTEC Sport sector suite and the BTEC Sport and Exercise Sciences sector suite. This unit has particular links with the following unit titles in the BTEC Sport suite and the BTEC Sport and Exercise Sciences suite:

Level 2 Sport	Level 3 Sport	Level 3 Sport and Exercise Sciences
Fitness Testing and Training	Principles of Anatomy and Physiology in Sport	Anatomy for Sport and Exercise
Development of Personal Fitness	Physiology of Fitness	Sport and Exercise Physiology
Anatomy and Physiology for Sport	Fitness Training and Programming	Exercise, Health and Lifestyle
Exercise and Fitness Instruction	Sports Coaching	Fitness Training and Programming
Planning and Leading Sports Activities	Exercise, Health and Lifestyle	Instructing Physical Activity and Exercise
	Instructing Physical Activity and Exercise	Applied Sport and Exercise Physiology
	Research Investigation in Sport and Exercise Sciences	Sports Coaching
		Research Project in Sport and Exercise Sciences
		Research Investigation in Sport and Exercise Sciences

This unit links with the National Occupational Standards (NOS) for:

- Sports Development at Level 3
- Instructing Physical Activity and Exercise at Level 3
- Coaching, Teaching and Instructing at Level 3.

Essential resources

Learners will require access to a range of sports and recreational facilities and equipment, required for the activities they will be leading.

Employer engagement and vocational contexts

This unit will give learners the background knowledge and skills they need to work in the exercise and fitness industry, sports leadership, sports coaching or health promotion. Centres are encouraged to develop links with leisure clubs, gyms and Primary Care Trusts. This could be via talks, demonstrations, workshops or visits.

Indicative reading for learners

Textbooks

American College of Sports Medicine – *ACSM's Guidelines for Exercise Testing and Prescription, 7th Edition* (Lippincott Williams and Wilkins, 2005) ISBN 9780781745901

Brayshaw E – *Exercise for Pregnancy and Childbirth: A Practical Guidance for Educators* (Elsevier, 2003) ISBN 9781890720001

Cotton R – *Clinical Exercise Specialist Manual* (American Council on Exercise, 1999) ISBN 9780750656009

Coulson M – *The Fitness Instructor's Handbook: A Complete Guide to Health and Fitness – Fitness Professionals* (A&C Black, 2007) ISBN 9780713682250

Franks B D and Howley E T – *Fitness Leader's Handbook* (Human Kinetics Europe, 1998) ISBN 9780880116541

Heyward V H – *Advanced Fitness Assessment and Exercise Prescription* (Human Kinetics, 2006) ISBN 9780736057325

Howley E T and Franks B D – *Health Fitness Instructor's Handbook* (Human Kinetics Europe, 2003) ISBN 9780736042109

Sharkey B J and Gaskill S E – *Fitness and Health* (Human Kinetics, 2006) ISBN 9780736056144

Skinner J – *Exercise Testing and Exercise Prescription for Special Cases: Theoretical Basics and Clinical Applications* (Lippincott Williams and Wilkins, 2005) ISBN 9780781741132

Journals

American College of Sport Medicine's Health and Fitness Journal

Exercise and Sport Sciences Reviews

Journal of Physical Activity and Ageing

Journal of Physical Activity and Health

Journal of Sports Medicine and Physical Fitness

Medicine and Science in Sports and Exercise

Research Quarterly for Exercise and Sport

Websites

American College of Sports Medicine

www.acsm.org

British Association of Sport and Exercise Sciences

www.bases.org.uk

Coachwise

www.1st4sport.com

Human Kinetics

www.humankinetics.com

Sport Science

www.sportsci.org

Sports Coach UK

www.sportscoachuk.org

Delivery of personal, learning and thinking skills

The table below identifies the opportunities for personal, learning and thinking skills (PLTS) that have been included within the pass assessment criteria of this unit.

Skill	When learners are ...
Creative thinkers	producing safe and effective exercise prescriptions for three different specific groups planning and delivering an exercise session for a specific group, with tutor support
Independent enquirers	planning and delivering an exercise session for a specific group, with tutor support
Reflective learners	reviewing the planning and delivery of an exercise session for a specific group, describing strengths and areas for improvement
Team workers	planning and delivering an exercise session for a selected specific group, with tutor support.

Although PLTS are identified within this unit as an inherent part of the assessment criteria, there are further opportunities to develop a range of PLTS through various approaches to teaching and learning.

Skill	When learners are ...
Independent enquirers	researching the provision of exercise for three different specific groups researching the exercise referral process researching four benefits of exercise to each of three different specific groups
Creative thinkers	prescribing exercise for case studies
Reflective learners	reviewing the delivery of parts of sessions
Team workers	carrying out group research.

● Functional Skills – Level 2

Skill	When learners are ...
ICT – Use ICT systems	
Select, interact with and use ICT systems independently for a complex task to meet a variety of needs	researching the provision of exercise for three different specific groups producing safe and effective exercise prescriptions for three different specific groups planning an exercise session for a selected specific group
ICT – Find and select information	
Select and use a variety of sources of information independently for a complex task	researching the provision of exercise for three different specific groups
Access, search for, select and use ICT-based information and evaluate its fitness for purpose	researching the provision of exercise for three different specific groups
ICT – Develop, present and communicate information	
Enter, develop and format information independently to suit its meaning and purpose including: <ul style="list-style-type: none"> • text and tables • images • numbers • records 	producing safe and effective exercise prescriptions for three different specific groups planning an exercise session for a selected specific group
Bring together information to suit content and purpose	producing safe and effective exercise prescriptions for three different specific groups
Present information in ways that are fit for purpose and audience	producing safe and effective exercise prescriptions for three different specific groups planning an exercise session for a selected specific group
English	
Speaking and listening – make a range of contributions to discussions and make effective presentations in a wide range of contexts	delivering an exercise session reviewing the planning and delivery of an exercise session for a specific group
Reading – compare, select, read and understand texts and use them to gather information, ideas, arguments and opinions	researching the provision of exercise for three different specific groups researching the exercise referral process researching four different benefits of exercise to each of three different specific groups
Writing – write documents, including extended writing pieces, communicating information, ideas and opinions, effectively and persuasively	producing written exercise prescriptions.