

# Unit 6: Fitness Testing and Training for the Uniformed Public Services

<b>Unit code:</b>	<b>F/600/6023</b>
<b>QCF Level 3</b>	<b>BTEC National</b>
<b>Credit value:</b>	<b>10</b>
<b>Guided learning hours</b>	<b>60</b>

## ● Aim and purpose

The aim of this unit is to enable learners to know the fitness requirements for entry into the uniformed public services and the different methods of fitness training. It also teaches learners how to plan, monitor and review a fitness training programme.

## ● Unit introduction

This unit introduces learners to the idea of using a fitness training programme to prepare for the requirements of working in the uniformed public services.

In this unit learners will look at the fitness requirements of different uniformed services, and at how fitness programmes are devised, before devising and undertaking a training programme to prepare themselves for a selected uniformed public service.

The unit involves learners examining different methods of fitness training. These include methods to improve flexibility, strength, muscular endurance, power, aerobic endurance and speed. Learners will develop the ability to prescribe appropriate exercise intensities, work/rest ratios, resistance, repetitions, sets, number of exercises, order of exercises, speed of movement and systems of training depending on the nature of the session and client needs.

In this unit learners will also plan a fitness training programme and examine the principles of training and concept of periodisation. Learners are required to set goals for the training programme and to monitor and evaluate their fitness and the training programme. This involves using a training diary and feedback/reviews, then evaluating the extent to which the programme is achieving goals set.

## ● Learning outcomes

### On completion of this unit a learner should:

- 1 Know the fitness requirements for entry into the uniformed public services
- 2 Know different methods of fitness training
- 3 Be able to plan a fitness training programme
- 4 Be able to monitor and review a fitness training programme.

## Unit content

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### 1 Know the fitness requirements for entry into the uniformed public services

*Entrance fitness requirements:* police; prison service; armed forces; fire service; the different stages of the fitness test; reason for differences between entry requirements for different public services; reasons for the inclusion of particular tests within public services eg assessment of strength for soldiers; individual assessment of entry fitness for a chosen public service.

*Fitness tests:* flexibility eg sit and reach strength, 1RM, grip dynamometer; aerobic endurance eg multi-stage fitness test, step test, maximal treadmill protocol; speed eg sprint tests; power eg vertical jump, Wingate test; muscular endurance eg one-minute press-ups, one-minute sit-ups; health (BMI, body composition eg skin fold callipers, bioelectrical)

*Job specific public service fitness tests:* eg army, fire, police, prison, Royal Air Force, Royal Marines

*Test results:* public service requirements; protocols; sequence; norms

*Reasons:* assess current levels; monitor; progression; set goals; motivation; feedback from training programme; benchmark after returning from injury; use of repeat tests to establish gains; annual fitness checks

### 2 Know different methods of fitness training

*Components of fitness:* flexibility; strength; muscular endurance; power; aerobic endurance; speed; health related fitness (BMI, height and weight, body composition)

*Methods of training:* flexibility eg static stretching, ballistic stretching, proprioceptive neuromuscular facilitation (PNF) stretching; strength eg free weights, resistance machines; muscular endurance eg circuit training, core stability training, medicine ball training; power eg plyometrics, anaerobic hill sprints; aerobic endurance eg continuous training, fartlek training, interval training; speed eg interval training, pyramid training

### 3 Be able to plan a fitness training programme

*Collect information:* goals (short, medium and long term); targets (specific, measurable, achievable, realistic, time-based – SMART); lifestyle; medical history; physical activity history

*Considerations:* health and safety (warm-up, cool-down, equipment needed, facility related, injury (illness)); type of training programme; comparison of entry requirements of relevant public services

*Principles of training:* overload; specificity; progression; individual differences; variation; reversibility; frequency, intensity, time and type (FITT) principles

*Periodisation:* macro cycle; meso cycle; micro cycle; individual training sessions

*Training diary:* eg progression, attitude, motivation, links to goals

### 4 Be able to monitor and review a fitness training programme

*Monitor:* training diary (eg date and details of sessions), coach/instructor feedback and reviews, fitness test results

*Review:* fitness training programme; results achieved; strengths; areas for improvement; extent to which training programme achieved identified goals

*Evaluation:* modifications and improvements to programme

## 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:
<b>P1</b> describe the entrance fitness requirements and tests of three different public services [IE]		
<b>P2</b> outline a fitness test for the main components of fitness and compare results based on a public service entrance test [EP, RL]	<b>M1</b> explain the strengths and areas for improvement of the fitness test	
<b>P3</b> describe one method of fitness training for the main components of physical fitness [RL, CT]	<b>M2</b> explain one method of fitness training for six different components of physical fitness	<b>D1</b> evaluate methods of fitness training for the different components of physical fitness
<b>P4</b> plan a six-week personal fitness training programme to incorporate the principles of training [CT, RL]		
<b>P5</b> undertake a personal fitness training programme, completing a fitness training diary [EP, RL, SM]		
<b>P6</b> report on a fitness training programme including the strengths and areas for improvement. [RL, TW]	<b>M3</b> explain in detail strengths and areas for improvement following completion of the training programme.	<b>D2</b> evaluate strengths and areas for improvement following completion of the training programme, providing recommendations for future activities.

**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

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### Delivery

This unit has a large practical component with fitness tests and methods of training best covered in a practical way with learners participating in a range of tests and fitness training sessions. Learners should develop their own personal training programme, following and carrying out regular self-assessment to record progress.

The theoretical part of the unit should give the basis for developing the fitness programme and use of testing techniques. Delivery of this first part could be carried out through portfolios, worksheets, interactive CD ROMs and research on the internet. Having acquired the theoretical knowledge, learners should be able to carry out some independent work towards the end of the unit. Sporting facilities and fitness suites would be beneficial to the delivery of the practical side of the unit; this could be delivered through centre links with public services.

The components of fitness could be introduced theoretically using worksheets and presentations. Then learners could test their own levels of fitness, going through the different principles and using tests such as hand grip strength, press-ups, pull-ups, shuttle runs etc.

The designing of the personal training programme could be introduced by a group discussion to get learners thinking along the right lines. Then they could carry out individual research to design a programme to meet their own specific needs.

Learners should assess their own fitness before designing the programme. This will involve them carrying out an entrance fitness test for a public service of their choice.

Once they have recorded their results, they will be able to see which areas need developing so they can decide on the types of training required, and build from there. Research on the internet, visits to gyms, talks from fitness instructors etc will help with the development of the programme. Learners would also benefit from talks from, and practical sessions with, uniformed public services fitness personnel. Learners need to consider health and safety issues in their design.

The final part of the unit requires learners to monitor and evaluate a fitness training programme. Learners should be introduced to the benefits of training diaries and the information that should be recorded. It would be useful to see examples of training diaries kept by athletes. Skills in evaluating a fitness training programme and making recommendations for modification/development can be developed using 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 unit and assessment requirements.
Fitness entrance tests for the uniformed public services – tutor led and opportunity for group research and feedback.
Components of fitness and assessments for the components – tutor led and practical participation of assessments – paired work to monitor assessment.
Strengths and areas for improvement discussed – to include self-reflection and self-study.
Fitness training methods – tutor led flexibility, strength, muscular endurance, power, aerobic and speed. Theory and practical sessions.
<b>Assignment 1: Fitness Tests, Components of Fitness and Methods of Fitness Training (P1, P2, P3, M1, M2, D1)</b>
Includes work completed in own time.
Planning a fitness training programme – tutor introduces topic and facilitates class discussion. Case studies provided, group and paired discussion and feedback.
Participating, monitoring and reviewing a training programme – training diaries and participation. Shared experiences and supervised participation.
<b>Assignment 2: Plan, Monitor and Review a Fitness Training Programme and Results (P4, P5, P6, M3, D2)</b>
Includes work carried out in own time.
Review of unit and assignment.

## Assessment

To meet P1, learners must describe the fitness requirements and tests of three different uniformed public services. This description must address both entry and ongoing requirements, and the requirements of different roles and levels.

P2 requires learners to outline a fitness test for the main components of fitness identified in the unit content and select elements of fitness tests from the public services that relate to the components identified. Learners must compare the results to a public service entrance assessment. M1 extends P2 whereby learners must explain the strengths and areas for improvement of the results in relation to a selected public service.

For P3, learners need to describe one method of training for each of the main components of physical fitness identified in the unit content. A method of training to improve flexibility, strength, muscular endurance, power, aerobic endurance and speed should be covered. M2 builds on P3 and requires learners to explain a method of fitness for each of the six components of physical fitness provided. More detail is required with appropriate examples. D1 requires learners to evaluate the methods of training for at least six components of physical fitness.

To meet P4, learners must plan a safe and effective six-week fitness training programme for themselves. The programme must be suitable for their needs and based on their fitness results and goals. They must apply the principles of training, the concept of periodisation and include suitable methods of training. P5 requires the programme to be carried out and recorded in a training diary. The diary should also record achievements.

For P6, learners must provide feedback on their performance in the training programme and on its design. They should comment on the strengths and weaknesses of their performance and design and make suggestions for improvement. The diary could include competition results, fitness assessments, and coach/tutor feedback. M3 is an extension of the strengths and areas for improvement and learners must explain these in more detail using the information gathered. D2 requires learners to evaluate their performance and programme and provide recommendations for improvement. When evaluating the programme, learners need to make some judgements about the strengths and areas for improvement with evidence. Learners should recommend changes to the fitness training programme and personal performance. This could include changes to the frequency, intensity, time or type of training carried out.

### Programme of suggested assignments

The table below shows a programme of suggested assignments that cover the pass, merit and distinction criteria in the 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	Fitness Tests, Components of Fitness and Methods of Fitness Training	As a recruitment officer for a uniformed public service, you have been asked to measure the current fitness levels of new recruits, describing methods of fitness training and producing training cards in preparation for the public services.	Information booklet, practical observation and record of fitness assessment to include strengths and areas for improvement.  Training cards of information on the six components of fitness.
P4, P5, P6, M3, D2	Plan, Monitor and Review a Fitness Training Programme and Results	You will now plan and design a six-week fitness training programme for the new recruits and review their personal performance results.	Training programme. Training diary. Practical observations. Feedback on strengths and areas for improvement. Witness testimony. Video and photographic evidence.

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

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

Level 1	Level 2	Level 3
Wellbeing and Fitness for Public Services	Improving Health and Fitness for Entry to the Uniformed Public Services	Physical Preparation, Health and Lifestyle for the Public Services
Improving Health and Fitness for Entry into the Uniformed Public Services	Adventurous Activities and Teamwork for the Public Services	Outdoor and Adventurous Expeditions
	Sport and Recreation in the Public Services	Exercise Health and Lifestyle
		Instructing Physical Activity and Exercise

### Employer engagement and vocational contexts

This unit will give learners the background knowledge and skills required to prepare them for entry assessment into the uniformed public services. It will also provide the skills and background knowledge to work in the exercise and fitness industry or in health promotion.

Centres are encouraged to develop links with local public services, sports clubs, leisure clubs and fitness centres. Links could be through guest speakers, visits, demonstrations or workshops.

### Indicative reading for learners

#### Textbooks

American College of Sports Medicine – *ACSM's Guidelines for Exercise Testing and Prescription, 8th edition* (Lippincott Williams & Wilkins, 2009) ISBN 0781769027/9780781769020

Bird S R, Smith A and James K – *Exercise Benefits and Prescription* (Nelson Thornes, 1998) ISBN 0748733159/9780748733156

Coulson M – *The Fitness Instructor's Handbook, A Complete Guide to Health and Fitness – Fitness Professionals* (A&C Black, 2007) ISBN 0713682256/9780713682250

Franks B D and Howley E T – *Fitness Leader's Handbook* (Human Kinetics Europe, 1998) ISBN 0880116544/9780880116541

Heyward V H – *Advanced Fitness Assessment and Exercise Prescription* (Human Kinetics, 2006) ISBN 0736057323/9780736057325

Howley E T and Franks B D – *Health Fitness Instructor's Handbook* (Human Kinetics Europe, 2003) ISBN 0736042105/9780736042109

Lawrence M – *The Complete Guide to Core Stability* (A&C Black, 2007) ISBN 0713683473/9780713683479

Watson A W S – *Physical Fitness and Athletic Performance: A Guide for Students, Athletes and Coaches* (Longman, 1996) ISBN 0582091101/9780582091108

## Journals

*American College of Sports Medicine's Health and Fitness Journal*

*British Medical Journal*

*Exercise and Sport Sciences Reviews*

*Jane's Police Review*

*Journal of Sports Medicine and Physical Fitness*

*Peak Performance*

## Website

Army jobs

[www.armyjobs.mod.uk](http://www.armyjobs.mod.uk)

BBC – Science and Nature: Human, Body and Mind

[www.bbc.co.uk/science/humanbody](http://www.bbc.co.uk/science/humanbody)

British Association of Sport and Exercise Sciences

[www.bases.org.uk](http://www.bases.org.uk)

Fire Service

[www.fireservice.co.uk/recruitment/physical](http://www.fireservice.co.uk/recruitment/physical)

HM Prison Service

[www.hmprisonservice.gov.uk](http://www.hmprisonservice.gov.uk)

Human Kinetics

[www.humankinetics.com](http://www.humankinetics.com)

Paramedic Resource

[www.paramedic-resource.co.uk](http://www.paramedic-resource.co.uk)

Police recruitment

[www.policerecruitment.homeoffice.gov.uk](http://www.policerecruitment.homeoffice.gov.uk)

Royal Air Force

[www.raf.mod.uk/careers/](http://www.raf.mod.uk/careers/)

Royal Navy

[www.royal-navy.mod.uk/careers](http://www.royal-navy.mod.uk/careers)

Sports Coach UK

[www.sportscoachuk.org](http://www.sportscoachuk.org)

Sports Science

[www.sportsci.org](http://www.sportsci.org)

Topend Sports

[www.topendsports.com](http://www.topendsports.com)

## 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 ...
<b>Independent enquirers</b>	describing the fitness requirement for entry into different public services
<b>Creative thinkers</b>	describing fitness training method planning a six-week personal fitness training programme
<b>Reflective learners</b>	planning a six-week personal fitness training programme to incorporate the principles of training based on fitness results undertaking a personal fitness training programme, completing a fitness training diary based on performance of training programme
<b>Team workers</b>	providing feedback and describing the strengths and areas for improvement following completion of the training programme
<b>Self-managers</b>	reporting on a fitness training programme
<b>Effective participators</b>	outlining a fitness test for the main components of fitness and compare results based on a public service entrance test undertaking a personal fitness training programme, completing a fitness training diary.

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 ...
<b>Independent enquirers</b>	researching the entrance fitness requirements and tests of three different public services
<b>Reflective learners</b>	comparing fitness results based on a public service entrance test producing one method of fitness training for the main components of physical fitness
<b>Self-managers</b>	completing unit assignments.

## ● Functional Skills – Level 2

Skill	When learners are ...
<b>ICT – Use ICT systems</b>	
Select, interact with and use ICT systems independently for a complex task to meet a variety of needs	<p>comparing fitness results based on a public service entrance test</p> <p>producing one method of fitness training for the main components of physical fitness</p> <p>planning a six-week personal fitness training programme to incorporate the principles of training</p> <p>completing a fitness training diary</p> <p>describing strengths and areas for improvement following completion of the training programme</p> <p>researching the entrance fitness requirements and tests of three different public services</p>
Manage information storage to enable efficient retrieval	producing session plans, training programmes, components of fitness, fitness results and training diaries
<b>ICT – Find and select information</b>	
Select and use a variety of sources of information independently for a complex task	researching fitness tests and training for the main components of physical fitness and public service entrance tests
Access, search for, select and use ICT-based information and evaluate its fitness for purpose	researching fitness tests and training for the main components of physical fitness and public service entrance tests
<b>ICT – Develop, present and communicate information</b>	
Enter, develop and format information independently to suit its meaning and purpose including: <ul style="list-style-type: none"> <li>● text and tables</li> <li>● images</li> <li>● numbers</li> <li>● records</li> </ul>	producing session plans, training programmes, components of fitness, fitness results and training diaries
Bring together information to suit content and purpose	producing session plans, training programmes, components of fitness, fitness results and training diaries
Present information in ways that are fit for purpose and audience	<p>comparing fitness results based on a public service entrance test</p> <p>producing one method of fitness training for the main components of physical fitness</p> <p>planning a six-week personal fitness training programme to incorporate the principles of training</p> <p>completing a fitness training diary</p> <p>describing strengths and areas for improvement following completion of the training programme</p> <p>researching the entrance fitness requirements and tests of three different public services</p>

Skill	When learners are ...
<b>English</b>	
Speaking and listening – make a range of contributions to discussions and make effective presentations in a wide range of contexts	providing strengths and areas for improvement following completion of the training programme and fitness assessment