



Accredited

# OCR LEVEL 2 CAMBRIDGE TECHNICAL CERTIFICATE/DIPLOMA IN SPORT

## FITNESS TESTING AND TRAINING

R/502/5410

LEVEL 2 UNIT 3

GUIDED LEARNING HOURS: 30

UNIT CREDIT VALUE: 5



# FITNESS TESTING AND TRAINING

R/502/5410

LEVEL 2

## AIM OF THE UNIT

In order to remain in peak condition and perform at the highest possible level, a sports performer needs to constantly monitor their fitness levels and use methods of training to improve them. In this unit learners will learn about the different components of fitness and actively engage in assessing their own fitness and identifying their strengths and weaknesses. Comparing their fitness with national norms and relating it to what is needed to achieve excellence in sport. They will also look at how lifestyle choices have an impact on their fitness and how psychological factors can have an influence on performance, providing the learner with a better understanding of fitness and fitness testing.

## PURPOSE OF THE UNIT

The first part of this unit will look at how fitness is a vital part of an athlete's performance; without a high level of fitness an athlete will not achieve their full potential. It is important that the different components of fitness are understood and how each impacts on performance. Learners will gain knowledge that will allow them to understand fitness and apply this to testing different components later on in the unit.

Lifestyle choices also have an impact on performance and the next part of this unit explores the different choices we are faced with day to day and how they can have an effect on athletes, for example the benefits of having a healthy lifestyle.

Learners will then identify a number of components of fitness to carry out tests, allowing the learner to actively participate, interpreting their results to assess their own fitness levels, identifying their strengths and weaknesses through comparing to national normative data and how they can have a positive impact on their fitness in the future. In the final part learners will look how psychological factors can have an impact on performance and how elite athletes can improve their performance by being in the right frame of mind.

This unit is appropriate for learners who want to pursue a career in the fitness industry.

## ASSESSMENT AND GRADING CRITERIA

<b>Learning Outcome (LO)</b>	<b>Pass</b>	<b>Merit</b>	<b>Distinction</b>
The learner will:	The learner can:	To achieve a merit the evidence must show that, in addition to the pass criteria, the learner is able to:	To achieve a distinction the evidence must show that, in addition to the pass and merit criteria, the learner is able to:
1 Know the fitness and training requirements necessary to achieve excellence in a selected sport	P1 describe the fitness requirements for achieving excellence in a selected sport		
	P2 describe three different fitness training methods used to achieve excellence in a selected sport		
2 Know the lifestyle factors that affect sports training and performance	P3 describe four different lifestyle factors that can affect sports training and performance	M1 identify the impact of key lifestyle factors on sports training and performance	
3 Be able to assess their own level of fitness	P4 carry out four different fitness tests for different components of fitness, recording the results accurately	M2 plan an appropriate schedule of fitness tests that are reliable, valid and accessible	D1 plan to improve personal levels of fitness including further fitness testing to track progress
	P5 interpret their test results and personal level of fitness	M3 analyse test results and personal level of fitness and make reference to normative data and validity and reliability of testing	
4 Know the effects of psychological factors on sports training and performance	P6 describe the effects of psychological factors on sports training and performance		

## TEACHING CONTENT

The unit content describes what has to be taught to ensure that learners are able to access the highest grade.

Anything which follows an i.e. details what must be taught as part of that area of content.

Anything which follows an e.g. is illustrative, it should be noted that where e.g. is used, learners must know and be able to apply relevant examples to their work though these do not need to be the same ones specified in the unit content.

### **LO1 Know the fitness and training requirements necessary to achieve excellence in a selected sport**

*Components of fitness:* i.e. skill related fitness i.e. agility, balance, co-ordination, speed, reaction time, power; health related fitness i.e. body composition, cardio – respiratory endurance, flexibility, muscular endurance, power, speed, maximum strength.

*Fitness training:* i.e. strength/resistance and power training (e.g. weight training, resistance machines, free weights, plyometric, core stability, circuit training, kettlebell); endurance training (e.g. fartlek training, interval training, VO2 max training, continuous, anaerobic threshold training); flexibility (e.g. static, PNF, ballistic, dynamic, active); speed and speed endurance (e.g. hill sprints, pyramids, harness training, acceleration training).

*Excellence:* i.e. the level of fitness required by national, international and professional athletes.

### **LO2 Know the lifestyle factors that affect sports training and performance**

*Lifestyle factors:* i.e. alcohol, activity levels, diet, drugs, sleep, smoking, and stress.

*Affect and impact:* (e.g. health, diseases, obesity, depression, reduced lung capacity).

### **LO3 Be able to assess their own level of fitness**

*Pre test measures:* (e.g. PAR Q, consent form, checking equipment).

*Reliability and validity of tests:* (e.g. order of completion, use of same equipment).

*Fitness tests:* i.e. agility (e.g. Illinois, T Drill Test), balance (e.g. Standing Stork Test), co-ordination (e.g. hand eye co-ordination), speed (e.g. 30m test), reaction time (e.g. ruler drop test), power (e.g. Sargent test, standing long jump), cardio – respiratory endurance (e.g. multi stage, Queens college step test, 12

minute run, Yo-Yo endurance test), flexibility (e.g. sit and reach), muscular endurance (e.g. 1 min press up, 1 min sit up), maximum strength (e.g. grip dynamometer, chin up test), body composition (e.g. skinfold test, BMI, body fat percentage).

*Record test results:* (e.g. spreadsheets, graphs).

*Normative data:* i.e. compare to normative data, to assess fitness levels and the level required for excellence.

### **LO4 Know the effects of psychological factors on sports training and performance**

*Factors:* (e.g. arousal, anxiety, concentration, motivation, personality).

*Effect:* (e.g. improved sports performance, drive, desire to achieve).

## DELIVERY GUIDANCE

This unit is centre-assessed and externally moderated. In order to achieve this unit the learner must produce a portfolio of evidence showing that they can meet all of the assessment objectives.

Portfolios of work must be produced independently.

Learners should underpin theoretical knowledge with practical activity in order to be able to identify situations where key components are in action.

The required anatomical and physiological information relating to this unit can be studied within textbooks, DVD's, and various websites as well as by undertaking specific practical exercises.

**LO1** This unit should give the learner a general overview of fitness and how their own fitness compares to athletes at different levels, regional to international. As well as understanding how lifestyle choices and psychology play an important role in performance.

Tutors should start by identifying health and skill related fitness components, describing each component and relating them to levels required to achieve excellence in sport. Different sports and participation levels should be used to give learners a range of examples. They should use a range of information such as, journals, books, videos, observations of training sessions, magazines, and apps to understand fully the fitness requirements of athletes. Case studies of elite athletes can be used to engage the learner.

Practical sessions should be used so the learner can experience a range of training methods, identifying the level needed to achieve excellence in sport.

**LO2** Group discussion should be encouraged to look at the different lifestyle choices, discussing the key factors that lead to a healthy lifestyle and the benefit on an athlete's performance. Use of questionnaires to assess learner's own lifestyle could be used to create discussion and appreciation of the level of commitment needed to excel.

**LO3** Learners should look at a range of fitness tests, identifying which component of fitness is tested, the validity, reliability and the procedures of carrying out each test. The importance of pre-test procedures and gaining consent before commencing with testing must be highlighted. Learners should be given appropriate examples of such consent forms. The learner should participate and carry out

each of the tests to gain a complete understanding. They then need to select four appropriate tests to assess their own fitness.

Using normative data, and data from elite performers, learners should assess their own fitness levels, identifying strengths and weaknesses in their own performance. Relating back to training methods, learners should identify training methods that can be used to have a positive impact on their fitness.

**LO4** Psychological elements can be explored through case studies of elite athletes, or input from a sports psychologist would be beneficial. The use of online questionnaires can be used to assess the learner's personality and/or mental state, providing discussion on how different sports require different psychological demands. The learners need to look at how arousal, anxiety, motivation and personality have an effect on sporting performance. Group discussions on each area, looking at sporting examples where each area has had an impact on performance will aid the learners understanding. (e.g. Joey Barton's personality having an effect on how he played football).

## GUIDANCE ON ASSESSING THE SUGGESTED TASKS

The table below shows suggested scenarios that cover the pass, merit and distinction criteria in the assessment and grading grid.

Criteria	Assignment title	Scenario	Assessment
P1 and P2	Fitness and training methods for sporting excellence.	A local team has asked you to help them with their fitness for the up coming season. You will need to be able to discuss different training methods and requirements for different players.	Written report Presentation Observation/witness statement
P3 and M1	Lifestyle and effects on training and performance.	The manager also wants you to advise the the team on lifestyle choices and inform them of the benefits of a healthy lifestyle.	Presentation Factsheets Posters
P4, P5, M2, M3 and D1	Assessing fitness levels and planning improvements.	You will then attend pre season training to carry out a number of fitness tests to assess their current fitness level and advise them on how to improve their fitness for the season ahead.	Practical observation Results sheet Written Report Presentation
P6	Exploring psychological factors.	The manager has also mentioned that he/she doesn't think that all his/her team are in the right frame of mind, so he/she has asked if you can put together a presentation describing psychological factors that effect performance.	Written report Presentation. Leaflet Factsheets Newspaper Report

## RESOURCES

### Books

Adams G M – *Exercise Physiology Laboratory Manual: Health and Human Performance* (McGraw Hill Higher Education, 2001) ISBN 9780072489125

Allen M B – *Sports Exercise and Fitness: A Guide to Reference and Information Sources* (Libraries Unlimited Inc, 2005) ISBN 9781563088193

Davis J – *Fitness for Games Players* (NCF, 1996) ISBN 9780947850104

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

Fulcher K, Fox P – *Your Personal Trainer: The Ultimate Guide to Getting Fit for any Sport* (Metro Books, 2002) ISBN 9781843580027

Hazeldine R – *Fitness for Sport* (The Crowood Press, 2000) ISBN 9781861263360

Moran G T, McGlynn G – *Cross Training for Sports: Programmes for 26 Sports* (Human Kinetics, 1997) ISBN 9780880114936

Scott A – *GCSE PE for Edexcel* (Heinemann, 2001) ISBN 9780435506360

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

Wansworth A – *The Complete Practical Encyclopedia of Fitness Training: Everything You Need to Know About Strength and Fitness Training in the Gym and at Home, from Planning Workouts to Improving Technique* (Lorenz Books, 2010) ISBN-10: 0754818810

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

### Websites

BBC GCSE Bitesize [www.bbc.co.uk/schools/gcsebitesize/pe](http://www.bbc.co.uk/schools/gcsebitesize/pe)

Brain Mac [www.brianmac.co.uk](http://www.brianmac.co.uk)

Fitness.com [www.fitness.com](http://www.fitness.com)

Fit for sport [www.fitforsport.co.uk](http://www.fitforsport.co.uk)

## MAPPING WITHIN THE QUALIFICATION TO THE OTHER UNITS

**Unit 2:** Anatomy and Physiology for Sport

**Unit 4:** Nutrition for Sports Performers

**Unit 5:** Development of Personal Fitness



## **CONTACT US**

Staff at the OCR Customer Contact Centre are available to take your call between 8am and 5.30pm, Monday to Friday.

We're always delighted to answer questions and give advice.

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