



Accredited

# OCR LEVEL 3 CAMBRIDGE TECHNICAL CERTIFICATE/DIPLOMA IN SPORT

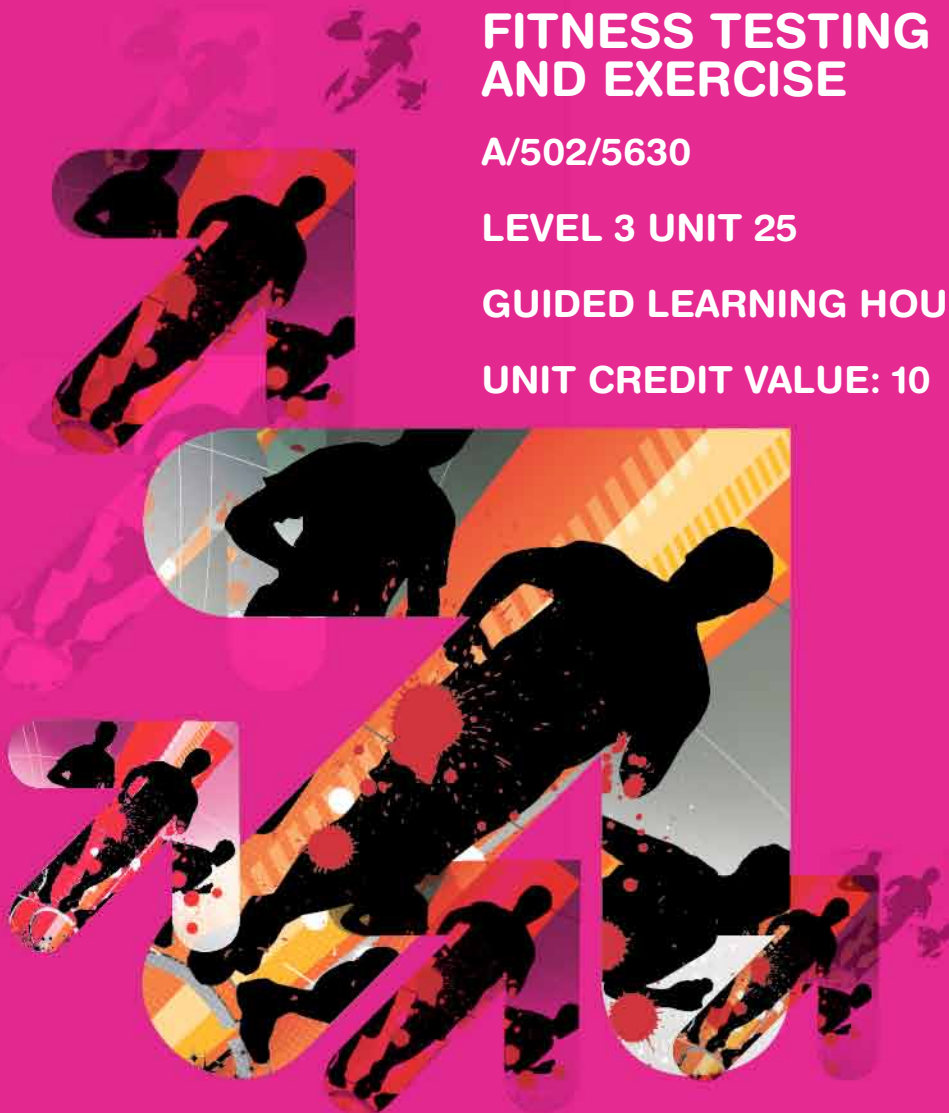
## FITNESS TESTING FOR SPORT AND EXERCISE

A/502/5630

LEVEL 3 UNIT 25

GUIDED LEARNING HOURS: 60

UNIT CREDIT VALUE: 10



# FITNESS TESTING FOR SPORT AND EXERCISE

A/502/5630

LEVEL 3

## AIM OF THE UNIT

This unit will allow the learner to gain knowledge and understanding of health screening, health monitoring tests and fitness testing. It will enable the learner to administer screening, monitoring and fitness tests, gaining practical experience and knowledge that could be taken into a work place.

## PURPOSE OF THE UNIT

With concerns over the population's health and fitness, rising levels of obesity and diabetics amongst other illnesses, people with sedentary lifestyles are looking to improve their health and fitness. To do this they must first find out and understand what their current level of fitness is; identifying strengths and areas of development allowing them to set goals and strive to become fitter and healthier.

Elite athletes use health monitoring and fitness testing throughout the year to monitor their fitness levels, allowing coaches to plan training programmes to their specific needs and to make sure they are not suffering any health problems that will have a detrimental effect on their performance.

Health and fitness clubs are offering these services so fitness instructors can provide clients with a fitness programme that is designed to their individual needs. The elite sport provision in the wake of a number of high profile footballers suffering heart conditions are also encouraging all footballers to attend health screening.

The first part of this unit looks at fitness tests covering a range of physical fitness components. Learners will look at each test and understand the advantages and disadvantages of each test. They will then critically compare the use of laboratory and field based fitness tests. Learners will research and design their own health-screening questionnaire and carry out health monitoring tests. In the second part of the unit, learners will administer a complete programme of health screening, health monitoring and fitness tests for a selected individual ensuring they are valid, reliable and suitable. They will also provide feedback to their clients, comparing their results with national normative data and recommending how the client can improve their fitness and health in the future.

## ASSESSMENT AND GRADING CRITERIA

<b>Learning Outcome (LO)</b>  The learner will:	<b>Pass</b> The assessment criteria are the pass requirements for this unit.  The learner can:	<b>Merit</b> To achieve a merit the evidence must show that, in addition to the pass criteria, the learner is able to:	<b>Distinction</b> To achieve a distinction the evidence must show that, in addition to the pass and merit criteria, the learner is able to:
1 Know a range of laboratory-based and field-based fitness tests	P1 describe one test for each component of physical fitness, including advantages and disadvantages	M1 critically compare the use of laboratory-based fitness tests against field-based fitness tests for a range of components of physical fitness	
2 Be able to use health screening techniques	P2 prepare an appropriate health screening questionnaire		
	P3 devise and use appropriate health screening procedures for two contrasting individuals	M2 review health screening procedures, health monitoring tests and fitness tests, identifying weaknesses and areas for improvement	D1 deliver a complete programme of health screening procedures, health monitoring tests and fitness tests for a selected individual ensuring they are valid, reliable and suitable
	P4 safely administer and interpret the results of four different health monitoring tests for two contrasting individuals		
3 Be able to administer appropriate fitness tests	P5 select and safely administer six different fitness tests for a selected individual recording the findings		
4 Be able to interpret the results of fitness tests and provide feedback.	P6 give feedback to a selected individual, following fitness testing, describing the test results and interpreting their levels of fitness against normative data		

## 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 a range of laboratory-based and field-based fitness tests**

*Fitness tests:* i.e. agility (e.g. Illinois, T Drill Test), balance (e.g. Standing Stork Test), 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); laboratory based (e.g. BMI, VO2 Max etc), field based (e.g. 30m sprint test, press up etc).

*Advantages/disadvantages:* (e.g. easy to set up, equipment required, cost, facilities required, administering the tests, time, validity, reliability, skill level of person carrying out the test, group size).

### **LO2 LO2 Be able to use health screening techniques**

*Questionnaire:* (e.g. medical history, current fitness, injuries, inappropriate activities for the client, lifestyle choices).

*Health screening procedures:* (e.g. PAR Q, consent form, checking equipment, health screening, questionnaires, medical referral, client confidentiality).

*Conducting health screening:* (e.g. confidentiality, professional standards, setting goals – client ownership, negotiation, SMARTER - specific, measurable, agreed, realistic, timed, exciting, recorded, likes and dislikes, time management).

*Contrasting clients:* (e.g. ability levels, disabilities, age (children, elderly), gender, culture, current fitness levels, individual, groups, health levels (obesity, high blood pressure, diabetes) work commitments (night shift, weekends)).

### **LO3 Be able to administer appropriate fitness tests**

*Administration:* (e.g. maximal or sub-maximal, validity and reliability, suitability, test sequence, test protocols, recording test results, health and safety).

*Health monitoring tests:* (e.g. blood pressure, body mass index, heart rate, lung function, skinfold calipers).

*Selecting clients:* (e.g. ability levels, disabilities, age (children, elderly), gender, culture, current fitness levels, individual, groups, health levels (obesity, high blood pressure, diabetes) work commitments (night shift, weekends)).

*Selection of appropriate tests for the athlete:* (e.g. Illinois, T Drill Test, Standing Stork Test, 30m speed test, Sargent test, standing long jump, Multi stage, Queens college step test, 12 minute run, Yo-Yo endurance test, sit and reach, 1 min press up, 1 min sit up, grip dynamometer, chin up test, skinfold test, BMI, Body fat percentage).

*Validity, reliability, suitability:* (e.g. definition of each area, extent each test has achieved each area or issues arisen during each test).

### **LO4 Be able to interpret the results of fitness tests and provide feedback**

*Normative data:* i.e. use of normative data (e.g. compare to data to assess fitness levels and the level required for excellence, norms for sports performance, norms for elite athletes).

*Methods of feedback:* i.e. verbal and written, computer or paper based.

*Feedback:* i.e. providing advice about fitness levels, setting future goals, strengths and areas for improvement, recommendations.

## DELIVERY GUIDANCE

### **LO1 Know a range of laboratory-based and field-based fitness tests**

To allow the learners to get a complete understanding of each fitness test, the tutor should practically conduct as many tests as possible, ensuring that the learners understand which fitness component is being tested and the protocol of conducting the test. Use of local coaches and fitness trainers to conduct the tests will allow the learners to pose questions to help with their understanding of the advantages and disadvantages.

Classroom work researching each test will extend knowledge and allow the learners to research a description of each test; this could then be transferred to an interactive white board for discussion.

The learners will need to be able to critically compare tests that can be conducted in a laboratory and those that can be carried out in the field, identifying a range of fitness components that can be tested through both laboratory and field based fitness tests.

### **LO2 Be able to use health screening techniques**

Visiting a local gym or gathering a number of different health screening forms from local companies or off the internet could be a good starting point for this LO. Learners should note down all the common themes across the different forms and discuss what they think should be in a good form to allow them to gather all the relevant information. This could be done in small groups or as a whole class.

Learners should design their own form, perhaps with their own logo. These can be printed out, or conducted using a computer/tablet/phone.

Role-play within the class could be used so the learners can work on their communication skills and manner before conducting the two assessed clients.

Recording learners findings can be presented verbally (witness statement) or through a written report.

### **LO3 Be able to administer appropriate fitness tests**

Learners need to know how to conduct health-monitoring tests including blood pressure, heart rate and body mass index. These should be demonstrated, and then learners should be given the opportunity to practice in small groups. Again a fitness instructor or nurse could be used to ensure the correct procedure is followed. The learners should get time to practice each test with feedback from the tutor. It is important that learners are able to identify when an individual needs medical referral.

Two contrasting clients should be selected to allow the learners to get a variation in results they can analyse.

Then the learners need to be able to conduct a series of fitness tests and record their findings. Using their knowledge from LO1, the learners should practice on each other to ensure they conduct the tests correctly and practice recording their results accurately, they should also consider validity, reliability and suitability of each of the tests.

Presentations using photos, videos of learners practically carrying out the tests, would be good evidence. A results recording sheet should be designed and used to record their findings.

The learners should review their screening procedures, monitoring tests and fitness tests; and should identify areas of weakness that need improvement.

Delivery of a completed programme of health screening, health monitoring and fitness testing should be carried out on a selected individual once the review has taken place to ensure that the client has a reliable, valid and suitable programme.

### **LO4 Be able to interpret the results of fitness tests and provide feedback**

Normative data that can be found on websites such as [www.brianmac.co.uk](http://www.brianmac.co.uk) and in textbooks should be used to provide analysis and feedback to the learners client. The learners should be encouraged to do this as part of their role-play during LO3, so they can practice interpretation of results.

Learners may want to use computer software, excel, fitness apps to generate a fitness assessment report.

## 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 M1	Fitness testing	You have been given a work experience placement at a local health and fitness club. You are going to be working alongside one of their fitness instructors, so they have asked you to be familiar with health screening and monitoring tests and fitness testing so you can assist the fitness instructor in a professional manner.	Presentation Observation Fact sheets Videoing
P2, P3, P4, M2 and D1.	Health screening and monitoring		Questionnaire Observation Videoing Photographs Written reports Presentation Verbal feedback Witness statements
P5, P6, M3 and D2	Are you fit?		Observation Record sheets Written reports. Verbal feedback

## 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

### Journals

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

*British Journal of Sports Medicine Exercise and Sport Sciences Reviews*

*International Journal of Sports Science and Coaching*

*Medicine and Science in Sports and Exercise Research Quarterly for Exercise and Sport*

## MAPPING WITHIN THE QUALIFICATION TO OTHER UNITS

**Unit 14:** instructing Physical Activity and Exercise

**Unit 22:** Assessing Risk in Sport

**Unit 23:** Fitness Training and Programming



## **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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