



PHYSICAL EDUCATION

Course: OCR A-Level Physical Education

INTRODUCTION

The syllabus is divided into three components

- Physiological factors affecting performance;
- Psychological factors affecting performance; and
- Contemporary issues in Sport.

A-Level PE focuses on understanding how the body works both mentally and physically, as well as gaining an understanding of sociological issues through the lens of sport. Being able to apply knowledge and understand its application in a sporting setting is key.

30% of the overall grade is split between coaching or performance in one sport of your choice and a 20min movement analysis presentation (EAPI).

TASK 1: APPLIED ANATOMY & PHYSIOLOGY

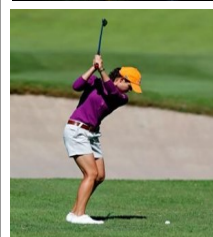
For this topic, you need to be able to analyse movement in physical activity and sport, and apply your knowledge of muscular contractions.

Joint movement analysis:

The shoulder is a ball and socket joint. The articulating bones are the humerus and the scapula.

Copy out this grid and complete it using the key words below to help:

Joint movement	Plane	Agonist Muscle	Antagonist Muscle	Sporting example
Flexion Extension Abduction Adduction Medial Rotation Lateral rotation Circumduction	Transverse Frontal Sagittal	Anterior Deltoid Latissimus dorsi Medial deltoid Pectoralis major Teres major	Anterior Deltoid Latissimus dorsi Medial deltoid Pectoralis major Teres major	See pictures on the right



TASK 2: REGULATION OF HEART RATE DURING EXERCISE

The Cardiac conduction system ensures the rate of the cardiac cycle increases during exercise to allow working muscles to receive more oxygen. The cardiac control centre sends impulses through the sympathetic (speeds up heart rate) and parasympathetic (slows down heart rate) nerve when stimulated by chemoreceptors, baroreceptors and proprioceptors.

How does an increase in blood carbon dioxide affect the heart rate?

Of three factors which stimulate HR which do you think links to carbon dioxide?

Describe the neural control of the heart during exercise?

To answer this question, you need to discuss the role of the receptors with regards to the cardiac control centre and the sympathetic nerve.

During a game of Netball, the centre player works at various intensities. Describe how cardiac output increases when the netball performer is working at high intensity during the match.

In this question, remember the equation $CO = HR \times SV$, so for CO to increase HR and SV must increase.

TASK 3: BIOMECHANICS

Good stability is important in team games. Using a game of your choice, explain the factors that need to be considered to increase stability.

You need to identify the factors that affect stability and then explain how they are used by a game player.



TASK 4: PSYCHOLOGICAL FACTORS AFFECTING PERFORMANCE

This section covers

- **Skill acquisition**, how sporting skills are classified, acquired, and enhanced;
- **Sports psychology**, gaining an understanding and knowledge of individual differences that can affect performance in sports.

Transfer of Skills

Recreate this table and complete it.

Type of Transfer	Explanation	Sporting example
Positive Transfer		
Negative Transfer		
Proactive Trans		
Retroactive Transfer		
Bilateral Transfer		

Attribution

A netball coach asks the wing attack to play out of position and take on the goal attack role for the first time against a top level goal defence. The team loses the match and the player experiences a loss of confidence. With reference to Weiner's model, describe the attributions that the player may give.

This required knowledge and understanding of the Weiner model. There are four attributes and you need to link each one to the netball goal attack.

TASK 5: SOCIO-CULTURAL ISSUES IN PHYSICAL ACTIVITY AND SPORT

This component focuses on the social and cultural factors that have shaped sports over time, and their influences on physical activity.

Students consider the impact of hosting a global sporting event such as the Olympic Games, and the influence of modern technology on both the performer and the spectator of contemporary sport.

This section is split into two sections,

- Sports and Society; and
- Contemporary Issues in Physical Activity and Sport.

A. Explain two ways in which freedom of movement for performers has influenced sport in the 21st century.



B. Goal-line technology was introduced in football to assist referees in making decisions as to whether the ball had crossed the line and a goal had been scored.

The results of a poll taken of 100 spectators' views immediately following a football match were that:

- 20% stated that they were against the introduction of goal-line technology.
- 80% were in favour of goal-line technology.

Why might some spectators be against the use of goal-line technology and others be in favour of its introduction?



C. Explain how the 'cult of athleticism' in 19th Century public schools impacted on the development of sport.



QUERIES

If you have any queries, please email the Head of Physical Education Ms Parkes & Ms Coleman on

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