

# Syllabus

# Cambridge International AS Level Sport & Physical Education 8386

Use this syllabus for exams in 2024, 2025 and 2026. Exams are available in the June and November series.



# Why choose Cambridge International?

Cambridge International prepares school students for life, helping them develop an informed curiosity and a lasting passion for learning. We are part of the University of Cambridge.

Our Cambridge Pathway gives students a clear path for educational success from age 5 to 19. Schools can shape the curriculum around how they want students to learn – with a wide range of subjects and flexible ways to offer them. It helps students discover new abilities and a wider world, and gives them the skills they need for life, so they can achieve at school, university and work.

Our programmes and qualifications set the global standard for international education. They are created by subject experts, rooted in academic rigour and reflect the latest educational research. They provide a strong platform for students to progress from one stage to the next, and are well supported by teaching and learning resources.

We review all our syllabuses regularly, so they reflect the latest research evidence and professional teaching practice – and take account of the different national contexts in which they are taught.

We consult with teachers to help us design each syllabus around the needs of their learners. Consulting with leading universities has helped us make sure our syllabuses encourage students to master the key concepts in the subject and develop the skills necessary for success in higher education.

Our mission is to provide educational benefit through provision of international programmes and qualifications for school education and to be the world leader in this field. Together with schools, we develop Cambridge learners who are confident, responsible, reflective, innovative and engaged – equipped for success in the modern world.

Every year, nearly a million Cambridge students from 10000 schools in 160 countries prepare for their future with the Cambridge Pathway.

**School feedback:** 'We think the Cambridge curriculum is superb preparation for university.' **Feedback from:** Christoph Guttentag, Dean of Undergraduate Admissions, Duke University, USA

### **Quality management**



Cambridge International is committed to providing exceptional quality. In line with this commitment, our quality management system for the provision of international qualifications and education programmes for students aged 5 to 19 is independently certified as meeting the internationally recognised standard, ISO 9001:2015. Learn more at www.cambridgeinternational.org/ISO9001

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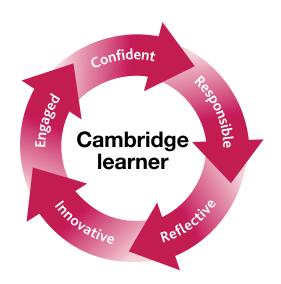
# 1 Why choose this syllabus?

# Key benefits

The best motivation for a student is a real passion for the subject they're learning. By offering students a variety of Cambridge International AS & A Levels, you can give them the greatest chance of finding the path of education they most want to follow. With over 50 subjects to choose from, students can select the ones they love and that they're best at, which helps motivate them throughout their studies.

Following a Cambridge International AS & A Level programme helps students develop abilities which universities value highly, including:

- a deep understanding of their subjects
- higher order thinking skills analysis, critical thinking, problem-solving
- presenting ordered and coherent arguments
- independent learning and research.



**Cambridge International AS Level Sport & Physical Education** provides some of the essential skills required for employment or to continue studying physical education or sports science at university. Learners are also able to use their learning in other related courses such as biology, psychology and sociology.

The examined component provides knowledge and understanding of the scientific and sociocultural aspects of sport and physical education and the coursework component allows learners to explore two physical activities in depth.

Our approach in Cambridge International AS Level Sport & Physical Education encourages learners to be:

**confident**, secure in their knowledge, keen to explore further and able to communicate effectively the contribution that physical activity makes to health and fitness

**responsible**, using efficient and safe practices and working collaboratively with others to develop skills and improve performance in physical activity and sport

**reflective**, able to evaluate evidence to draw informed and appropriate conclusions and to recognise the potential applications of physical education to improve the health and fitness of the individual and of society

**innovative**, applying problem-solving skills to novel situations and engaging with new tools and techniques, including technology, to develop successful tactics and strategies to improve performance in physical activity and sport

**engaged**, keen to apply knowledge and skills from a range of theoretical and practical concepts that underpin physical activity, physical literacy and sport to improve performance and enhance health and fitness.

**School feedback:** 'Cambridge students develop a deep understanding of subjects and independent thinking skills.'

Feedback from: Principal, Rockledge High School, USA

### Key concepts

Key concepts are essential ideas that help students develop a deep understanding of their subject and make links between different aspects. Key concepts may open up new ways of thinking about, understanding or interpreting the important things to be learned.

Good teaching and learning will incorporate and reinforce a subject's key concepts to help students gain:

- a greater depth as well as breadth of subject knowledge
- confidence, especially in applying knowledge and skills in new situations
- the vocabulary to discuss their subject conceptually and show how different aspects link together
- a level of mastery of their subject to help them enter higher education.

The key concepts identified below, carefully introduced and developed, will help to underpin the course you will teach. You may identify additional key concepts which will also enrich teaching and learning.

The key concepts for Cambridge International AS Level Sport & Physical Education are:

### Applied anatomy, exercise physiology and biomechanics

An understanding of the structure, functions and interrelationships between the skeletal, muscular, circulatory and respiratory systems is essential to analyse how the human body moves in sporting situations and to explain how it adapts to exercise. An introduction to biomechanics enables learners to understand the effects of forces and motion during practical performance.

### Skill acquisition

An understanding of skill acquisition allows learners to explain how movement skills are developed. Models, theories and concepts have been proposed to explain motor skill development and elite sporting performance. Learners will be able to critically evaluate and apply these models, theories and concepts of skill acquisition to specific sporting situations.

### Sociocultural influences

An understanding of the sociocultural concepts of sport and physical education is essential to have an appreciation of the role of physical activity in society. Sociocultural influences, which include regular participation and excellence in sport, have an impact on the changing nature of sport. The use of performance-enhancing drugs and violence in sport are issues that negatively affect sport. Commercialisation of sport increases the pressure on performers as sport becomes big business. An understanding of the use of technology in sport and an ability to evaluate new technology is necessary to achieve success in sport.

### Performance in physical activity

Showing effective performance in physical activities requires the use of a range of skills, techniques, tactics and strategies. Learners apply their theoretical learning to physical activities in order to improve and refine how they perform.

### International recognition and acceptance

Our expertise in curriculum, teaching and learning, and assessment is the basis for the recognition of our programmes and qualifications around the world. Every year thousands of students with Cambridge International AS & A Levels gain places at leading universities worldwide. Our programmes and qualifications are valued by top universities around the world including those in the UK, US (including Ivy League universities), Europe, Australia, Canada and New Zealand.

UK NARIC, the national agency in the UK for the recognition and comparison of international qualifications and skills, has carried out an independent benchmarking study of Cambridge International AS & A Level and found it to be comparable to the standard of AS & A Level in the UK. This means students can be confident that their Cambridge International AS & A Level qualifications are accepted as equivalent, grade for grade, to UK AS & A Levels by leading universities worldwide.

Cambridge International AS Level Sport & Physical Education provides knowledge and transferable skills that support further subject-specific study. Depending on local university entrance requirements, students may be able to use it to progress directly to university courses in physical education, sports science or some other subjects. It is also suitable as part of a course of general education.

We recommend learners check the Cambridge recognition database and university websites to find the most up-to-date entry requirements for courses they wish to study.

Learn more at www.cambridgeinternational.org/recognition

**School feedback:** 'The depth of knowledge displayed by the best A Level students makes them prime targets for America's Ivy League universities.'

Feedback from: Yale University, USA

## Supporting teachers

We provide a wide range of resources, detailed guidance and innovative training and professional development so that you can give your students the best possible preparation for Cambridge International AS & A Level. To find out which resources are available for each syllabus go to **www.cambridgeinternational.org/support** 

The School Support Hub is our secure online site for Cambridge teachers where you can find the resources you need to deliver our programmes. You can also keep up to date with your subject and the global Cambridge community through our online discussion forums.

Find out more at www.cambridgeinternational.org/support

#### Support for Cambridge International AS & A Level **Teaching and** Planning and Learning and revision Results preparation assessment Candidate Results Example candidate Next steps guides. Endorsed resources. responses. Service. Schemes of work. Online forums. Past papers and Principal examiner mark schemes. reports for teachers. Specimen papers. Support for Specimen paper Results Analysis. coursework and Syllabuses. speaking tests. answers. Teacher guides.

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### Professional development

We support teachers through:

- Introductory Training face-to-face or online
- Extension Training face-to-face or online
- Enrichment Professional Development face-to-face or online

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### Supporting exams officers

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# 2 Syllabus overview

### **Aims**

The aims describe the purposes of a course based on this syllabus.

The aims are to enable students to:

- develop their knowledge and understanding of the theories underpinning performance in physical activity and sport
- develop their knowledge and understanding of the theories and concepts underpinning the acquisition and development of motor skills in physical activity and sport
- develop their knowledge and understanding of the sociocultural influences affecting trends in regular participation and elite performance in sport
- evaluate and think critically about the theoretical concepts underpinning skill development and make informed decisions to improve health, fitness and sports performance
- effectively perform a range of sports skills and techniques and select and apply tactics and strategies
- understand and appreciate safe practice in physical activity and sport and the benefits of physical exercise for health, fitness and well-being.

Cambridge Assessment International Education is an education organisation and politically neutral. The contents of this syllabus, examination papers and associated materials do not endorse any political view. We endeavour to treat all aspects of the exam process neutrally.

### Content overview

Candidates study the following topics:

- 1 Joints, movements and muscles
- 2 Biomechanics
- 3 The cardiovascular system
- 4 The respiratory system
- 5 Skill and ability
- 6 Theories of learning
- 7 Information processing
- 8 Practice and learning
- 9 Sociocultural issues
- 10 Ethics and deviance
- 11 Commercialisation and the media
- 12 The use of technology

**School feedback:** 'Cambridge International AS & A Levels prepare students well for university because they've learnt to go into a subject in considerable depth. There's that ability to really understand the depth and richness and the detail of a subject. It's a wonderful preparation for what they are going to face at university.'

Feedback from: US Higher Education Advisory Council

### Assessment overview

Candidates will be eligible for grades a-e.

Component 1	
Theory	1 hour 45 minutes
70 marks	
Structured questions	
Externally assessed	
50% of the AS Level	

### Component 2

### Coursework

70 marks

Candidates choose **two** physical activities from the list in the syllabus (35 marks for each physical activity).

Internally assessed and externally moderated 50% of the AS Level

Information on availability is in the Before you start section.

Check the samples database at **www.cambridgeinternational.org/samples** for submission information, forms and deadlines for Component 2 Coursework.

## Assessment objectives

The assessment objectives (AOs) are:

### AO1

Demonstrate knowledge and understanding of the factors that underpin performance and involvement in physical activity.

### AO<sub>2</sub>

Apply knowledge and understanding of the factors that underpin performance and involvement in physical activity.

### AO3

Demonstrate and apply relevant skills and techniques in physical activity.

### Weighting for assessment objectives

The approximate weightings allocated to each of the assessment objectives (AOs) are summarised below.

### Assessment objectives as a percentage of the qualification

Assessment objective	Weighting in AS Level %
AO1	25
AO2	25
AO3	50
Total	100

### Assessment objectives as a percentage of each component

Assessment objective	Weighting in components %	
	Component 1	Component 2
AO1	50	0
AO2	50	0
AO3	0	100
Total	100	100

# 3 Subject content

This syllabus gives you the flexibility to design a course that will interest, challenge and engage your learners. Where appropriate you are responsible for selecting resources and examples to support your learners' study. These should be appropriate for the learners' age, cultural background and learning context as well as complying with your school policies and local legal requirements.

Candidates must have knowledge of the full range of physical activities available for Component 2. Questions in Component 1 may require knowledge of any of the physical activities in Component 2.

Questions may also require application of syllabus content to physical activities **not** in Component 2 and to training exercises.

Candidates should be able to offer examples for any of the syllabus content.

### 1 Joints, movements and muscles

### 1.1 Joints and movements

### Candidates should be able to:

1 identify the types of synovial joint and the articulating bones at the following joints:

joint	type of synovial joint	articulating bones
shoulder	ball and socket	humerus and scapula
elbow	hinge	humerus, radius and ulna
wrist	condyloid	radius and carpals
radioulnar	pivot	radius and ulna
hip	ball and socket	femur and pelvis
knee	hinge	femur and tibia
ankle	hinge	tibia, fibula and talus

2 compare and explain the stability and range of movement of the joints named in 1.1.1

### 1.1 Joints and movements (continued)

### Candidates should be able to:

3 identify and describe the following types of movement that can occur at the named joints and the main agonist muscle for each movement:

joint	types of movement	main agonist
shoulder	flexion	anterior deltoid
	extension	posterior deltoid
	abduction	medial deltoid
	adduction	latissimus dorsi
	horizontal flexion	pectoralis major
	horizontal extension	posterior deltoid
elbow	flexion	biceps brachii
	extension	triceps brachii
wrist	flexion	wrist flexors
	extension	wrist extensors
radioulnar	pronation	pronator teres
	supination	supinator
hip	flexion	iliopsoas
	extension	gluteus maximus
	abduction	gluteus medius
	adduction	adductor longus
knee	flexion	biceps femoris
	extension	rectus femoris
ankle	dorsiflexion	tibialis anterior
	plantar flexion	gastrocnemius

#### 1.2 Functions of muscles

### Candidates should be able to:

- 1 explain the following using examples:
  - agonists
  - antagonists
  - fixators

### 1.3 Types of muscle contraction

### Candidates should be able to:

- 1 explain the following types of muscle contraction using examples:
  - concentric
  - eccentric
  - isometric

candidates will be expected to differentiate between the two types of isotonic contraction (concentric and eccentric)

candidates should be able to explain that during eccentric muscle contractions the agonist will be controlling a different movement at the joint to that stated in 1.1.3

### 1.4 Muscle fibre types

#### Candidates should be able to:

- 1 describe the structure and function of:
  - slow oxidative (SO) muscle fibres
  - fast oxidative glycolytic (FOG) muscle fibres
  - fast glycolytic (FG) muscle fibres
- 2 explain the use of different muscle fibre types using examples

#### 1.5 Movement analysis of actions

- 1 analyse actions associated with each joint in 1.1.3, limited to:
  - identification of joints
  - types of joint
  - articulating bones
  - types of movement
  - working muscles
  - functions of the muscles as in 1.2.1, including named antagonists and fixators
  - types of muscle contraction

### 2 Biomechanics

#### 2.1 Linear motion

### Candidates should be able to:

- 1 explain linear motion in terms of:
  - movement of a body in a straight or curved line where all parts move the same distance in the same direction over the same time
  - created by an external force that passes through the centre of mass
- 2 describe, calculate and compare:
  - distance
  - displacement
  - speed
  - velocity
  - acceleration
  - momentum
- 3 explain scalar quantities and vector quantities
- 4 draw and interpret graphs of linear motion involving:
  - distance
  - displacement
  - speed
  - velocity
  - time

### 2.2 Newton's laws of motion

- explain the concepts of force, mass, weight, inertia and acceleration and how they create and affect linear motion
- 2 identify and explain the forces acting during physical activity including:
  - gravitational force or weight
  - air resistance
  - friction
  - reaction
  - action / muscular force
  - balanced and unbalanced forces
- 3 describe and apply Newton's laws of motion to examples of human movement and practical examples:
  - Newton's first law: law of inertia
  - Newton's second law: law of acceleration
  - Newton's third law: law of reaction

### 2.3 Angular motion

#### Candidates should be able to:

- 1 explain angular motion in terms of:
  - movement of a body in a circular path about an axis of rotation
  - created by an external force that passes outside the centre of mass
- 2 describe the following biomechanical quantities of rotational movement:
  - angular momentum
  - moment of inertia
  - angular velocity
- 3 state the equation linking angular momentum, moment of inertia and angular velocity
- 4 explain, using practical examples, the relationship between angular momentum, moment of inertia and angular velocity
- 5 explain, using practical examples, factors that affect the moment of inertia of a body, limited to:
  - mass of body
  - distribution of mass from the axis of rotation
- 6 explain, using practical examples, the principle of conservation of angular momentum
- 7 sketch and interpret graphs of angular momentum, moment of inertia and angular velocity

### 2.4 Parabolic and non-parabolic flight

### Candidates should be able to:

- 1 sketch the vector (horizontal and vertical) components of flight
- 2 explain the vector (horizontal and vertical) components of flight
- 3 explain the factors that affect the flight paths of different objects, including:
  - parabolic flight of a shot put
  - non-parabolic flight of a badminton shuttlecock
- 4 explain the factors that affect the horizontal displacement of objects, limited to:
  - height of release
  - speed of release
  - angle of release

### 2.5 Properties of bodies and objects

- 1 explain centre of mass and factors that affect its position
- 2 explain the factors that affect the stability of bodies using examples, limited to:
  - area of the base of support
  - height of the centre of mass
  - position of the centre of mass above base of support / the relation of the line of gravity to the base of support
  - mass of body

### 3 The cardiovascular system

### 3.1 Structure and function of the heart

#### Candidates should be able to:

- 1 explain the structure and functions of the features of the heart and the pathway of blood through the heart, including:
  - atria and ventricles, (left and right)
  - bicuspid and tricuspid valves
  - aortic and pulmonary semilunar valves
  - vena cava
  - aorta
  - pulmonary artery
  - pulmonary vein
  - septum
  - myocardium

candidates should be able to apply this knowledge to a range of diagrams of the heart

### 3.2 The conduction system of the heart and the cardiac cycle

- 1 explain the conduction system of the heart, with reference to the:
  - sinoatrial node
  - atrioventricular node
  - wave of excitation
  - bundle of His
  - Purkyne tissue
- 2 explain the cardiac cycle, with reference to:
  - atrial systole
  - ventricular systole
  - diastole
- 3 explain the link between the conduction system of the heart and the cardiac cycle

### 3.3 Factors affecting cardiac output

### Candidates should be able to:

- 1 describe and calculate:
  - heart rate
  - stroke volume
  - cardiac output
- 2 explain the relationship between heart rate, stroke volume and cardiac output
- 3 state and use the equation that links heart rate, stroke volume and cardiac output
- state and compare typical values (given in the tables) for each quantity in 3.3.1 at rest and during different intensities of exercise, including appropriate units of measurement, for an untrained individual and a trained athlete

### untrained individual

	rest	sub-maximal intensity	maximal intensity
heart rate /beats per minute	60–80	100–130	220 minus age
stroke volume /millilitres	60–80	100–120	100–120
cardiac output /litres per minute	4.8-6.4	10–15	20–30

### trained athlete

	rest	sub-maximal intensity	maximal intensity
heart rate /beats per minute	30–70	95–120	220 minus age
stroke volume /millilitres	80–120	160–200	160–200
cardiac output /litres per minute	4.8-6.4	15–20	30–40

- 5 explain Starling's law of the heart
- 6 explain the regulation of heart rate, limited to:
  - neural control, including baroreceptors, chemoreceptors and mechanoreceptors
  - hormonal control, including adrenaline
  - intrinsic control, limited to stretch of the myocardium and temperature
  - the cardiac control centre
  - the role of the autonomic nervous system, including the sympathetic nervous system and the parasympathetic nervous system

### 3.3 Factors affecting cardiac output (continued)

### Candidates should be able to:

- 7 explain the responses of heart rate, stroke volume and cardiac output at rest, immediately before exercise, during exercise of different intensities and during recovery
- 8 sketch and interpret graphs of heart rate, stroke volume and cardiac output at rest, immediately before exercise, during exercise of different intensities and during recovery
- 9 explain the physiological changes of heart rate, stroke volume and cardiac output as a result of long-term training

### 3.4 Function of the vascular system

- 1 explain venous return mechanisms, limited to:
  - skeletal muscle pump
  - valves
  - respiratory pump
  - gravity
  - smooth muscle / venous tone
  - cardiac suction
- 2 explain the distribution of cardiac output at rest, during exercise and during recovery, limited to the vascular shunt mechanism and the role of:
  - the autonomic nervous system, including the sympathetic nervous system and the parasympathetic nervous system
  - receptors
  - vasomotor control centre
  - arterioles
  - precapillary sphincters
  - vasoconstriction and vasodilation

### 4 The respiratory system

### 4.1 Mechanics and regulation of breathing

### Candidates should be able to:

- 1 explain the mechanics of breathing and the roles of the following respiratory muscles during inspiration and expiration at rest, during exercise and during recovery, limited to the:
  - diaphragm
  - external intercostals
  - sternocleidomastoids
  - pectoralis minor
  - scalenes
  - internal intercostals
  - rectus abdominis
- 2 state and compare typical values (given in the tables) for breathing rate, tidal volume and minute ventilation at rest and during different intensities of exercise, including appropriate units of measurement, for an untrained individual and a trained athlete

### untrained individual

	rest	sub-maximal intensity	maximal intensity
breathing rate / breaths per minute	12–15	20–25	40–50
tidal volume/litres	0.5	1.5–2.0	2.0-3.0
minute ventilation /litres per minute	6.0–7.5	30–50	80–150

### trained athlete

	rest	sub-maximal intensity	maximal intensity
breathing rate /breaths per minute	10–12	15–20	50–60
tidal volume/litres	0.5	2.0–2.5	3.0-4.0
minute ventilation /litres per minute	5.0-6.0	30–50	150–200

### 4.1 Mechanics and regulation of breathing (continued)

#### Candidates should be able to:

- 3 describe the following:
  - breathing rate
  - tidal volume
  - minute ventilation
  - inspiratory reserve volume
  - expiratory reserve volume
  - residual volume
  - vital capacity
  - total lung volume
- 4 use equations and interpret graphs and spirometer traces to calculate the quantities in 4.1.3
- 5 explain the regulation of breathing at rest, during exercise, and during recovery, limited to:
  - neural control, including thermoreceptors, chemoreceptors, mechanoreceptors and stretch receptors
  - Hering–Breuer reflex
  - hormonal control, including adrenaline
  - respiratory control centre
  - · role of sympathetic nervous system and parasympathetic nervous system
- 6 explain the responses of the quantities in 4.1.3 before exercise, during exercise of different intensities and during recovery
- 7 sketch and interpret graphs of the quantities in 4.1.3 at rest, during exercise, and during recovery
- 8 explain the physiological changes of the quantities in 4.1.3 as a result of long-term training

### 4.2 Gaseous exchange and respiration

- 1 explain gaseous exchange at the lungs and at the muscles at rest, during exercise and during recovery, limited to:
  - partial pressures of oxygen and carbon dioxide
  - alveoli
  - haemoglobin and blood capillaries
  - myoglobin
  - diffusion gradients

### 5 Skill and ability

#### 5.1 Classification of skills

### Candidates should be able to:

- 1 explain the following skill continua:
  - muscular involvement: fine to gross continuum
  - environmental influence: open to closed continuum
  - continuity: discrete to serial to continuous continuum
  - · pacing: externally paced to internally paced continuum
  - difficulty: basic to complex continuum
  - organisation: high organisation to low organisation continuum
- 2 justify the classification of skills using the skill continua in 5.1.1

### 5.2 Abilities

### Candidates should be able to:

- 1 explain the following characteristics of abilities:
  - innate
  - underpinning
  - enduring

### 6 Theories of learning

### 6.1 Motor programmes

- 1 explain motor programmes, including:
  - a series of subroutines
  - a generalised series of movements
  - a set of nerve impulses to the muscles
  - completed in correct order
- 2 explain how motor programmes are created, stored and initiated
- 3 describe, using examples, motor programmes and their associated subroutines

### 6.2 Theories related to the learning of motor skills

#### Candidates should be able to:

- 1 explain the following theories of learning, using examples:
  - operant conditioning theory
  - cognitive theory (Gestalt)
  - Bandura's observational learning theory
- 2 evaluate each theory in 6.2.1, including their strengths and limitations
- 3 explain operant conditioning theory, with reference to:
  - shaping behaviour
  - modifying the environment
  - the use of trial and error
  - the roles of positive reinforcement, negative reinforcement and punishment
  - the stimulus-response bond
- 4 explain the following ways to strengthen or weaken the stimulus-response bond:
  - positive reinforcement
  - negative reinforcement
  - punishment
- 5 explain cognitive theory, with reference to:
  - Gestaltism
  - the use of whole practice
  - insight learning
- 6 explain Bandura's observational learning theory, with reference to:
  - attention
  - retention
  - motor reproduction
  - motivation

### 6.3 Schmidt's schema theory

- 1 describe schema theory as a way of modifying a motor programme
- 2 explain:
  - recall schema
  - recognition schema
- 3 explain the rules of schema:
  - knowledge of initial conditions
  - knowledge of response specifications
  - sensory consequences
  - response outcomes
- 4 explain the use of schema theory to develop movement skills

### 7 Information processing

### 7.1 Theory of information processing and performance of motor skills

### Candidates should be able to:

- 1 explain information processing, to include:
  - display
  - sensory information
  - sense organs
  - perception
  - decision making
  - effector mechanism
  - response
  - feedback

### 7.2 Feedback

### Candidates should be able to:

- 1 explain the importance and functions of feedback
- 2 explain types of feedback, limited to:
  - intrinsic and extrinsic
  - terminal and concurrent
  - positive and negative
  - knowledge of performance
  - knowledge of results

### 7.3 Memory

- 1 explain the memory process, to include:
  - short-term sensory store
  - selective attention
  - short-term memory
  - long-term memory
- 2 explain strategies to improve the storage of information in long-term memory

### 7.4 Response time

### Candidates should be able to:

- 1 explain the following:
  - response time
  - reaction time
  - movement time
- 2 explain the relationship between response time, reaction time and movement time
- 3 state and use the equation that links response time, reaction time and movement time
- 4 explain factors that affect reaction time, to include:
  - simple and choice reaction time
  - Hick's law
  - psychological refractory period
  - single-channel hypothesis
- 5 explain and evaluate strategies to deceive opponents in sporting situations
- 6 explain the benefits of a short response time in skilled performance
- 7 explain and evaluate strategies to improve response time

### 8 Practice and learning

### 8.1 Types of practice

### Candidates should be able to:

- 1 explain the following types of practice:
  - whole
  - part
  - whole-part-whole
  - progressive part
  - massed and distributed
  - fixed and varied
- 2 evaluate the advantages and disadvantages of using each type of practice to improve and develop skilled performance

### 8.2 Types of guidance

- 1 explain the following types of guidance:
  - visual
  - verbal
  - manual
  - mechanical
- 2 evaluate the advantages and disadvantages of using each type of guidance to improve and develop skilled performance

### 8.3 Stages of learning

### Candidates should be able to:

- 1 describe the characteristics of the following stages of learning:
  - cognitive
  - associative
  - autonomous
- 2 evaluate the effective use of the following, including at different stages of learning:
  - types of feedback in 7.2.2
  - types of practice in 8.1.1
  - types of guidance in 8.2.1

### 8.4 Transfer of learning

### Candidates should be able to:

- 1 define transfer of learning as the effect of learning a skill on the learning of another skill
- 2 explain the following types of transfer:
  - positive
  - negative
  - zero
  - proactive
  - retroactive
  - bilateral
- 3 explain and evaluate strategies to optimise positive transfer
- 4 explain and evaluate strategies to limit negative transfer

### 8.5 Motivation

- 1 explain the following types of motivation:
  - intrinsic
  - extrinsic, to include tangible rewards and intangible rewards
- 2 evaluate the types of motivation in 8.5.1

### 9 Sociocultural issues

### 9.1 The conceptual basis of sport and physical education

#### Candidates should be able to:

1 discuss the similarities, differences and interrelationships between the concept of sport and the concept of physical education

### 9.2 Sport

### Candidates should be able to:

- 1 describe the characteristics of sport, to include:
  - complex rules
  - competitive
  - highly structured
  - predetermined: boundaries, numbers, time constraints, equipment and roles
  - officials
  - tactics and strategies
- 2 explain the values of sport, to include:
  - sportsmanship and fair play
  - participation ethic
  - physical, mental and social health and well-being
  - as a basis for self-realisation
  - as a form of social control
- 3 explain possible undesirable outcomes arising from sport for:
  - the individual
  - the sport

### 9.3 Physical education

- 1 describe the characteristics of physical education, to include:
  - planned, progressive learning
  - part of the school curriculum
  - delivered to all pupils
  - involves learning to move
  - · becoming more physically competent
  - broad range of activities
  - teacher-led

### 9.4 Regular participation

### Candidates should be able to:

- 1 explain the factors affecting regular participation in physical activity, to include:
  - economic status
  - sociocultural influences
  - · family and peers
  - facilities
  - age
  - gender
  - disability
- 2 evaluate the benefits of regular participation in physical activity, including those for the individual and for society

### 9.5 Achieving excellence

- 1 describe an elite performer as:
  - at the top of the performance pyramid / having reached excellence
  - of national / international / Olympic standard
  - a professional / paid
  - being achieved by few people
- 2 evaluate the benefits and limitations of adopting an elitist policy for excellence in sport
- 3 explain the provision needed for excellence in sport, to include:
  - sufficient funding
  - high-quality facilities
  - high-quality coaches
  - high-level competition
  - science support (such as medicine, biomechanics, rehabilitation, nutrition and psychology)
- 4 explain pathways to excellence, to include:
  - specialist schools
  - clubs
  - academies
  - selection procedures and talent identification
  - college/university
  - scholarships
  - (national) governing bodies
  - regional and national squads

### 10 Ethics and deviance

### 10.1 Performance-enhancing drugs (PEDs)

#### Candidates should be able to:

- 1 explain why some sports performers use prohibited performance-enhancing drugs (PEDs), to include:
  - pressure to win
  - increase fitness, e.g. strength, endurance
  - reduce weight or body fat
  - speed up recovery after training or after injury
  - increase intensity of training
  - reduce the effects of fatigue
  - increase concentration
  - participate despite injury or mask pain
  - hide the presence of other drugs
  - belief that others are using prohibited PEDs
- 2 explain the consequences of using prohibited PEDs for the following:
  - the individual
  - the sport
  - society
- 3 explain and evaluate strategies to reduce the use of prohibited PEDs

### 10.2 Violence

- 1 explain the causes of violence in relation to:
  - performers
  - spectators at the event
- 2 explain the consequences of violence for the following:
  - the individual
  - the sport
  - society
- 3 explain and evaluate strategies to prevent violence by:
  - performers
  - spectators at the event

### 10.3 Competition manipulation

### Candidates should be able to:

- 1 explain competition manipulation as a form of cheating by performers, coaches or officials that affects the outcome of a match or event and removes the unpredictability of competition
- 2 explain forms of competition manipulation, limited to:
  - betting
  - match-fixing
  - insider information
  - tanking (deliberately losing a match)
- 3 explain and evaluate strategies to reduce competition manipulation

### 11 Commercialisation and the media

- 1 explain the factors leading to the commercialisation of sport, to include:
  - growth in media interest
  - growth in public interest and spectatorism
  - professionalism
  - advertising
  - sponsorship
- 2 explain the golden triangle (the relationship between sponsorship/business, the media and sport)
- 3 evaluate commercialisation for:
  - the performer or team
  - the sponsor/business
  - the event or sport
  - primary spectators (at the event)
  - secondary spectators (remote audience)

### 12 The use of technology

- 1 explain examples of the use of technology in sport, to include:
  - equipment, e.g. tennis rackets, force plates
  - clothing, e.g. compression wear
  - footwear, e.g. running shoes
  - surfaces, e.g. all-weather pitches
  - facilities, e.g. sport-specific venues, wind tunnels
  - cameras, e.g. photo-finish, video replay
  - software, e.g. biomechanical analysis, motion tracking of players
- 2 evaluate the advantages and disadvantages of the use of technology for:
  - the performer, team or coach
  - the sponsor
  - the event, sport or official
  - primary spectators (at the event)
  - secondary spectators (remote audience)

# 4 Details of the assessment

# Component 1 Theory

Written paper, 1 hour 45 minutes, 70 marks

This is an externally assessed written component.

There will be a range of structured questions and extended response questions testing assessment objectives AO1 and AO2. Some questions will assess mathematical skills.

### Command words

Command words and their meanings help candidates know what is expected from them in the exam. The table below includes command words used in the assessment for this syllabus. The use of the command word will relate to the subject context.

Command word	What it means
Assess	make an informed judgement
Calculate	work out from given facts, figures or information
Comment	give an informed opinion
Compare	identify/comment on similarities and/or differences
Contrast	identify/comment on differences
Define	give precise meaning
Determine	establish an answer using the information available
Describe	state the points of a topic / give characteristics and main features
Discuss	write about issue(s) or topic(s) in depth in a structured way
Evaluate	judge or calculate the quality, importance, amount, or value of something
Explain	set out purposes or reasons / make the relationships between things clear / say why and/or how and support with relevant evidence
Give	produce an answer from a given source or recall/memory
Identify	name/select/recognise
Justify	support a case with evidence/argument
Outline	set out the main points
Predict	suggest what may happen based on available information
Show (that)	provide structured evidence that leads to a given result
Sketch	make a simple freehand drawing showing the key features, taking care over proportions
State	express in clear terms
Suggest	apply knowledge and understanding to situations where there are a range of valid responses in order to make proposals / put forward considerations

## Component 2 Coursework

Coursework, 70 marks

Component 2 Coursework will be internally assessed and externally moderated by Cambridge International.

Candidates are assessed in **two** physical activities from the physical activities available in this syllabus. There are 35 marks available for each physical activity. The assessment of performance will take place in competitive conditioned practices and formal competitive games, competitions or situations.

Component 2 is marked against the assessment criteria. Centres **must** use the assessment criteria for Component 2 to assess their candidates.

Centres must refer to the specific physical activity guidance for each physical activity alongside the generic assessment criteria for Component 2.

Centres should assess candidates' performances in their practical activities throughout the course. Filming candidates and completing the log of competitive participation throughout the duration of the course will enable candidates' best performances to be selected, allow candidates to monitor their achievements and ensure that records will be available if injury/illness occurs.

The following physical activities are available in this syllabus:

- Association football
- Badminton
- Basketball
- Competitive swimming
- Cricket
- Cross-country running
- Field hockey
- Goalball
- Netball
- Olympic weightlifting
- Rugby union
- Squash
- Table tennis
- Tennis
- Track and field athletics
- Volleyball

Entries by single candidates and low candidate numbers are permitted. There is no minimum entry size for an activity. However, it is the responsibility of the centre to ensure sufficient assessment opportunities are available at an appropriate level of demand. If this is not the case the centre may need to consider alternative physical activities.

Activities can be assessed both within the centre and at external venues under the guidance and supervision of centre staff. Candidates may use external facilities and local clubs but the centre retains the responsibility for monitoring the work and for its assessment and standardisation.

### Safety

The physical activities in the coursework component place candidates in physically demanding situations. Centres should ensure that candidates are capable of coping with this. Where doubt exists, medical advice should be sought. Candidates should also be competent to take part in these physical activities.

Each of the physical activities offered to candidates should be carried out in accordance with the recommendations for safe practice in sport and physical education and recommendations from the (national) governing bodies where appropriate.

### Pupils with disabilities

The centre should **not** prevent candidates from participating in any of the physical activities available in Cambridge AS Level Sport & Physical Education on the grounds of disability. Within the range of physical activities offered, candidates with disabilities will be capable of achievement in the assessment objectives with or without adaptation in their chosen activities.

Where a candidate with a disability chooses an activity which needs adaptation to meet their needs, the centre must take steps to ensure that they are not penalised. In such instances, and before beginning to teach the course, the centre must inform Cambridge International, indicating the nature of the candidate's disability and suggesting ways in which the activity might be adapted. Cambridge International and the Principal Moderator will then consider the situation.

### Administration of coursework

### Using the samples database

The samples database explains everything you need to know about administering coursework.

Use the database to find out:

- · when and how to submit your marks for moderated coursework and non-coursework tests
- when and how to submit your candidates' work
- which forms to complete and return with your candidates' work.

The samples database at www.cambridgeinternational.org/samples will ask you for:

- your country/territory
- the syllabus code (i.e. 8386 for this syllabus).

The database will then take you to the information you need, including dates and methods of submission of candidates' marks and work, as well as any forms you may need to complete.

### Recording and submitting candidates' marks and work

Please refer to the samples database at **www.cambridgeinternational.org/samples** for information, dates and methods of submission of candidates' marks and work.

You should follow the instructions for Coursework 8386/02 on the samples database at **www.cambridgeinternational.org/samples** about how to submit candidates' work and record candidates' marks.

For specific syllabuses and components, centres need to submit marks and work using our eSubmission portal (see the Samples database for instructions for each coursework component). Further information is available in the *Administrative guide: Preparing and submitting work using eSubmission* at **www.cambridgeinternational.org/eoguide** 

### Filmed evidence of performance

### Filming candidates

When filming candidates, it is important to remember that the moderator must be able to identify the sample candidate(s). Where possible the candidate should be clearly identified at the start of filming.

The method used to identify candidates should match the information presented on the Centre Order of Merit form. If the identifier (e.g. bib number/colour) used changes unavoidably within the filmed evidence, clear notes must be supplied so that the candidate can be identified throughout the evidence. The use of coloured bibs with contrasting coloured letters or numbers on the front **and** back is a method that should be used in many activities. For an activity such as Competitive swimming, coloured swimming caps or lane numbers can be used.

Evidence may be edited to allow a focus on a particular candidate and to remove periods of irrelevance. However, evidence must **not** be edited to make candidates appear more consistent or more able than they normally are. The speed settings of filmed evidence should **not** be adjusted.

Evidence is likely to be continuous and unedited for activities such as Badminton, Table tennis and Competitive swimming. However, for activities that are longer in nature, such as team sports and Cross-country running, it is acceptable to include phases of involvement that show how the candidate was involved and what the outcome of that involvement was. Evidence should include multiple examples of phases of involvement (see examples).

Example 1: Association football: the centre submits multiple examples of phases of involvement demonstrating how the phases started, how the candidate received the ball, how the candidate used the ball and what the result of their involvement was.

Example 2: Cross-country running: the centre submits multiple phases of the cross-country race. This includes periods of steady pacing, running uphill, running downhill and the end of the race.

### Log of competitive participation

The log of competitive participation is part of the assessment process and must be submitted for **all** candidates entered by the centre (not just the sample of candidates).

For each candidate a log of competitive participation must be completed and submitted to show their level and frequency of competition in their **two** physical activities. The log of competitive participation must be completed throughout the course. By submitting the log of competitive participation the centre is authenticating it.

Do **not** include training sessions in the log.

Competitive participation may take place within the centre, at an outside club, or at representative level (either as an individual or as part of a team/club). These competitions must meet the assessment requirements. The log of competitive participation may be downloaded from **www.cambridgeinternational.org/samples**. The database will ask you for the syllabus code (i.e. 8386) after which it will take you to the correct forms.

### Examples include:

- an 11-a-side Association football match during a lesson
- a Badminton match at an extracurricular club
- an inter-school/college Rugby union fixture
- a local league Cricket match
- a trial for a club/district/state/county Basketball squad
- a district/state/county Cross-country running competition
- a National Schools Competitive swimming final
- an Olympic weightlifting qualifying competition.

Many other situations are also acceptable.

The frequency of participation will depend on the physical activity. Some activities have much less regular competition than others. Marks are **not** determined by frequency of competition. The mark is decided by using the generic assessment criteria alongside the specific physical activity guidance.

In addition to the log of competitive participation centres are encouraged to submit any other supporting documentation that reinforces the candidate's ability level in competitive participation. For example, times/results from track and field athletics/swimming/cross-country races or evidence of a national ranking in tennis or statistical data on the candidate's performance during a basketball match.

### Internal moderation

If more than one teacher in your centre is marking internal assessments, you must make arrangements to moderate or standardise your teachers' marking so that all candidates are assessed to a common standard. (If only one teacher is marking internal assessments, no internal moderation is necessary.) You can find further information on the process of internal moderation on the samples database at www.cambridgeinternational.org/samples

You should record the internally moderated marks for all candidates on the Coursework Assessment Summary Form and submit these marks to Cambridge International according to the instructions set out in the Cambridge Handbook for the relevant year of assessment.

### External moderation

Cambridge International will externally moderate all internally assessed components.

- You must submit the marks of all candidates to Cambridge International.
- You must also submit the marked work of candidates to Cambridge International.

The sample you submit to Cambridge International should ideally include examples of the marking of each teacher. The samples database at **www.cambridgeinternational.org/samples** explains how the sample will be selected.

The samples database at **www.cambridgeinternational.org/samples** also provides details of how to submit the marks and work.

External moderators will produce a short report for each centre with feedback on your marking and administration of the assessment.

### Guidance on using levels-based mark schemes

Marking of work should be positive, rewarding achievement where possible, but clearly differentiating across the whole range of marks, where appropriate.

The marker should look at the work and then make a judgement about which level statement is the best fit. In practice, work does not always match one level statement precisely so a judgement may need to be made between two or more level statements.

Once a best-fit level statement has been identified, use the following guidance to decide on a specific mark:

- If the candidate's work **convincingly** meets the level statement, award the highest mark.
- If the candidate's work **adequately** meets the level statement, award the most appropriate mark in the middle of the range (where middle marks are available).
- If the candidate's work **just** meets the level statement, award the lowest mark.

# Specific physical activity guidance

Centres must refer to the specific physical activity guidance for the appropriate physical activity alongside the Assessment criteria for Component 2 Coursework.

### Association football

The candidate is assessed in the selection and application of skills and tactical awareness in competitive conditioned practices and formal competitive games.

The range of skills may differ according to specific positional requirements.

For each candidate a log of competitive participation must be completed and submitted to show their level and frequency of competition.

### Skills (outfield positions):

Ball control: use of both feet, chest, thigh.

Passing: short, long and lofted, including use of non-dominant foot where appropriate.

Shooting: short and long range, use of swerve and volley, including use of non-dominant foot where appropriate.

Dribbling: close control, to beat an opponent, to create space, use of both feet.

Tackling: selection and timing of appropriate tackles, jockeying.

Marking: player with the ball and off the ball denying space, interceptions.

### Skills (goalkeeper only):

Ball control: use of both feet, chest, thigh.

Handling: catching, parrying, punching.

Passing: short, long and lofted, including use of non-dominant foot where appropriate. Kicking from the hand, throwing.

Shot stopping: from different heights and distances. Diving and standing saves.

### Tactical awareness for all players:

Selection of appropriate skills during competitive situations.

Awareness of team tactics/strategies in attacking and defensive situations, including strengths and weaknesses of team formations.

Positioning and organisation of team at set pieces.

Awareness of strengths and weaknesses of self and other performers and use of strategies to enhance the chance of success in competitive situations.

Awareness and application of the laws of the sport.

### **Badminton**

The candidate is assessed in the selection and application of skills and tactical awareness in competitive conditioned practices and formal competitive **singles games** only.

For each candidate a log of competitive participation must be completed and submitted to show their level and frequency of competition.

### Skills:

Serving: short/low, long/high, flick.

Forehand and backhand returns: overhead clears, drop shots, lifts/underarm clears, smashes, drives.

Net shots: forehand and backhand.

Footwork and positioning, e.g. split step, ready position.

### Tactical awareness:

Selection of appropriate shots.

Disguising shots and serves, and anticipating opponent's shots and serves.

Awareness of principles of attack and defence.

Awareness of strengths and weaknesses of self and other performers and use of strategies to enhance the chance of success in competitive situations.

### Basketball

The candidate is assessed in the selection and application of skills and tactical awareness in competitive conditioned practices and formal competitive games.

The range of skills may differ according to specific positional requirements.

For each candidate a log of competitive participation must be completed and submitted to show their level and frequency of competition.

### Skills:

Stance and footwork: defensive stance, pivoting, triple threat.

Passing and receiving: chest, bounce, overhead/javelin, static and on the move.

Shooting: set shot, jump shot, dominant hand lay-up shot, non-dominant hand lay-up shot.

Dribbling: to beat an opponent, cross over, fake and drive, use of either hand.

Marking: player with the ball and off the ball, intercepting passes, stealing the ball.

Rebounding.

### Tactical awareness:

Selection of appropriate skills during competitive situations.

Awareness of team tactics/strategies in offence, defence and in offensive transition and defensive transition, to include player-to-player marking, zone defence and tandem defence (to be used in a disadvantage situation, e.g. 3 v 2).

Positioning in offence and defence on court.

Awareness of strengths and weaknesses of self and other players and use of strategies to enhance the chance of success in competitive situations.

### Competitive swimming

The candidate is assessed in the selection and application of skills and tactical awareness in **two** events, these being selected from **two** of the four different strokes: front crawl, backstroke, breaststroke, butterfly.

The skills should be performed in competitive conditioned practices and the events should be assessed in competitive situations organised under the correct rules and regulations. This gives the candidate the opportunity to make tactical decisions based on their own and other competitors' performances.

For each candidate a log of competitive participation must be completed and submitted to show their level and frequency of competition.

The filmed evidence should include starts, turns and finishes at race speed in addition to the full event.

### Competitive swimming events:

Front crawl: 50 m, 100 m, 200 m, 400 m, 800 m, 1500 m

Backstroke: 50 m, 100 m, 200 m Breaststroke: 50 m, 100 m, 200 m Butterfly: 50 m, 100 m, 200 m

### Skills:

Starts, turns, finishes.

Swimming technique: body position, leg action, arm action, breathing technique, timing and overall efficiency.

### Tactical awareness:

Pre-race and race tactics, including adapting tactics in response to other competitors.

Start and turn distance, finish, race splits, distance per stroke, stroke rates and stroke counts.

Positioning on the starting block and in the lane, stroke number/pacing, timing of breathing, how far to travel underwater, when to turn.

Awareness of strengths and weaknesses of self and other competitors and use of strategies to enhance the chance of success in competitive situations.

### Cricket

The candidate is assessed in the selection and application of skills and tactical awareness in competitive conditioned practices and formal competitive games using a standard cricket match ball.

The range of skills may differ according to specific positional requirements.

For each candidate a log of competitive participation must be completed and submitted to show their level and frequency of competition.

The candidate is assessed as **EITHER** a batter **OR** bowler **AND** as a fielder or wicket keeper.

### Skills (batting):

Stance and footwork.

Defensive shots: off front foot and back foot.

Attacking shots: drives, cuts, hook, pull, sweep, leg glance.

Running between the wickets.

### Skills (bowling):

Consistent bowling action: fast, medium or slow.

Appropriate line and length.

Application of spin, seam or swing. Slight variations in speed, flight, line, length to deceive a batter.

### Skills (fielding):

Close, infield and outfield. Stopping/retrieving the ball.

Pick up and throw: to keeper, at wickets, underarm, overarm.

Catching: from different heights, distances, speeds.

### Skills (wicket keeping):

Stance and positioning: in relation to type of bowler, pitch.

Glove work: low and high takes, catches, stumpings.

Standing up to medium pacers.

Fielding: chase, pick up and throw for a run out.

### Tactical awareness for all players:

Awareness of team tactics/strategies in attacking and defensive situations, including setting a field.

Awareness of strengths and weaknesses of self and other players and use of strategies to enhance the chance of success in competitive situations. Awareness and application of the laws of the sport.

### Tactical awareness for batters:

Shot selection, reading the wicket, finding the gaps, building partnerships, decision making for running between the wickets, decision making on when to defend and attack, the reasons for and benefits of rotating the strike.

### Tactical awareness for bowlers:

Selection of bowling delivery (line, length, flight), reading the wicket, assessing batter's strengths and weaknesses, setting and adjusting fielding positions to be more attacking or defensive.

### Cross-country running

The candidate is assessed in the selection and application of skills and tactical awareness on a cross-country course. It should predominately be a grass course in open terrain with some inclines, undulations and turns. It should **not** include any roads (unless they are being crossed) or artificial surfaces. Flat track running is **not** permitted.

Cross-country running should be performed and assessed in competitive situations organised under the correct rules and regulations set down by the (national) governing body for cross-country.

The distance of the race will depend on the race organisers and local conditions but should be at least 5 km for males and at least 4 km for females.

For each candidate a log of competitive participation must be completed and submitted to show their level and frequency of competition.

The filmed evidence should show the candidate completing sections of the cross-country course including inclines, undulations, turns and the finish.

A map should be included with the coursework submission with areas of filmed evidence indicated. The map should have a scale and should show the terrain for the whole course with inclines, undulations and turns clearly indicated.

### Skills:

Starting, finishing, leg action, arm action, posture, head carriage, overall efficiency. Running uphill, downhill, around bends.

### Tactical awareness:

Pre-race and race tactics, including adapting tactics in response to other competitors, different terrains and weather conditions.

Positioning in the race, pacing, when to lead, when to follow and when to kick for the finish.

Awareness of strengths and weaknesses of self and other performers and use of strategies to enhance the chance of success in competitive situations.

### Field hockey

The candidate is assessed in the selection and application of skills and tactical awareness in competitive conditioned practices and formal competitive games.

The range of skills may differ according to specific positional requirements.

For each candidate a log of competitive participation must be completed and submitted to show their level and frequency of competition.

### Skills (outfield positions):

Passing and receiving: open and reverse stick, push, slap, hit, aerial, static and on the move.

Carrying: open and reverse stick, while retaining vision, when under pressure to beat an opponent, to create space.

Goalscoring: open and reverse stick, ball striking, deflections, rebounds, improvisation.

Tackling: open and reverse stick, block, jab, shave.

Marking: player with the ball and off the ball, denying space, interceptions.

### Skills (goalkeeper only):

Shot-stopping: up and ready pre-save and post-save, standing, use of gloves, use of pads, use of stick.

Blocks: reading the situation, upright, smother (slide).

Clearance: kicking (toe and side foot), using glove, using stick.

Command of circle: positioning, communication with teammates.

### Tactical awareness for all players:

Selection of appropriate skills during competitive situations.

Awareness of team tactics/strategies in attacking and defensive situations, including strengths and weaknesses of team formations.

Positioning and organisation of team at set pieces.

Awareness of strengths and weaknesses of self and other players and use of strategies to enhance the chance of success in competitive situations.

### Goalball

The candidate is assessed in the selection and application of skills and tactical awareness in competitive conditioned practices and formal competitive games.

The range of skills may differ according to specific positional requirements.

For each candidate a log of competitive participation must be completed and submitted to show their level and frequency of competition.

All players must wear eyeshades so that they are using their other senses, and **not** sight.

### Skills:

Orientation and mobility: in attack and defence.

Anticipation: spatial awareness of court and team positions, auditory localisation, reaction time, awareness of timekeeping.

Defence: ready position to barrier position.

Attack: transfer to feet and lunging to release the ball.

Throwing: a variety of shots including straight smooth shot, bounce shot, rotation shot. Ball touches the court in each required zone. Using dominant and non-dominant hand.

### Tactical awareness:

Selection of appropriate individual attacking and defensive movements during competitive situations.

Awareness of team tactics/strategies in attacking and defensive situations, including the application of different systems in different situations.

Awareness of strengths and weaknesses of self and other players and use of strategies to enhance the chance of success in competitive situations.

### Netball

The candidate is assessed in the selection and application of skills and tactical awareness in competitive conditioned practices and formal competitive games.

The range of skills may differ according to specific positional requirements.

For each candidate a log of competitive participation must be completed and submitted to show their level and frequency of competition.

### Skills:

Stance and footwork: defensive stance, pivoting, stopping/landing.

Passing and receiving: chest, bounce, overhead, shoulder, static, on the move and in the air.

Shooting (GS and GA only): stationary, planting and stepping in.

Marking: player with the ball and off the ball, intercepting passes, screening/shielding.

Dodging: feint, half roll/roll-off, sprint.

Rebounding (GA, GS, GD and GK only).

### Tactical awareness for all players:

Selection of appropriate skills during competitive situations.

Awareness of team tactics/strategies in attacking and defensive situations, to include player-to-player marking and zonal defence, set piece plays from a shot/penalty, dictating space, driving to receive the ball.

Positioning in attack and defence on court.

Awareness of strengths and weaknesses of self and other performers and use of strategies to enhance the chance of success in competitive situations.

### Olympic weightlifting

The candidate is assessed in the selection and application of skills and tactical awareness in competitive conditioned practices and formal competitive weightlifting competitions organised under the correct rules and regulations.

For each candidate a log of competitive participation must be completed and submitted to show their level and frequency of competition.

The log of competitive participation should include all relevant details, for example:

- age group category
- body weight category
- starting weight
- subsequent weights attempted.

The filmed evidence should also show these details where possible, or they should be declared in separate notes.

### Skills:

The snatch: starting position/set up, the pull/lift off, transition to second pull, the turnover, the catch, rise from squat, finishing position.

The clean and jerk: starting position/set up, the pull/lift off, transition to second pull, the turnover, the catch, the jerk dip and drive (use of one of the following drives: split, power, push or squat), finishing position.

### Tactical awareness:

Pre-competition and competition tactics, including choice of weights to lift in each category and knowledge of strengths and weaknesses of self and other competitors.

Adapting tactics in response to other competitors, including whether in front, level with or behind other competitors after the snatch event.

### Rugby union

The candidate is assessed in the selection and application of skills and tactical awareness in competitive conditioned practices and formal competitive games.

The range of skills may differ according to specific positional requirements.

For each candidate a log of competitive participation must be completed and submitted to show their level and frequency of competition.

### Skills:

Handling and carrying the ball: picking up a stationary/moving ball, falling on the ball.

Passing: both hands, with and without spin, in either direction, offloading.

Running with the ball: balanced, beating opponents using side-step, swerve, change of pace/direction, dummy, hand-off.

Tackling: from front, side and rear.

Rucking: going to ground, placing ball, support play, clearing out, jackalling, counter-rucking.

Mauling: staying on feet, body position, support play, rolling maul.

### Specialist skills where appropriate:

Scrummaging: positions, roles, binding, body/foot position, hooking.

Line-out play: throwing in, jumping, lifting, support play.

Kicking: high ball, grubber, box, chip, positional, drop-out, goal-kicking (conversion/penalty/drop goal).

### Tactical awareness:

Selection of appropriate skills during competitive situations.

Awareness of team tactics/strategies in attacking and defensive situations, for example blitz defence and drift defence, controlled phases of possession.

Positioning and organisation of team at set pieces.

Awareness of strengths and weaknesses of self and other performers and use of strategies to enhance the chance of success in competitive situations.

Awareness and application of the laws of the sport.

### Squash

The candidate is assessed in the selection and application of skills and tactical awareness in competitive conditioned practices and formal competitive **singles games** only.

For each candidate a log of competitive participation must be completed and submitted to show their level and frequency of competition.

### Skills:

Serves: lob, backhand and power.

Forehand and backhand returns: drives, volleys, boasts, drop shots, lobs, kill shots.

Footwork and positioning.

### Tactical awareness:

Selection of appropriate shots.

Disguising shots and serves, and anticipating opponent's shots and serves.

Awareness of principles of attack and defence. For example, dominating the T, interference and obstruction.

Awareness of strengths and weaknesses of self and other performers and use of strategies to enhance the chance of success in competitive situations.

### Table tennis

The candidate is assessed in the selection and application of skills and tactical awareness in competitive conditioned practices and formal competitive **singles games** only.

For each candidate a log of competitive participation must be completed and submitted to show their level and frequency of competition.

### Skills:

Serving: forehand and backhand, use of high toss, backspin, sidespin.

Forehand and backhand attacking shots: hits, flicks, smashes, loops, counter-hits.

Forehand and backhand defensive shots: pushes/slices, chops, blocks, lobs.

Application of spin to shots: topspin, backspin, sidespin, corkspin.

Footwork and positioning.

### Tactical awareness:

Selection of appropriate shots.

Disguising shots and serves, and anticipating opponent's shots and serves.

Awareness of principles of attack and defence. For example, ball placement against an attacking player.

Awareness of strengths and weaknesses of self and other performers and use of strategies to enhance the chance of success in competitive situations.

### Tennis

The candidate is assessed in the selection and application of skills and tactical awareness in competitive conditioned practices and formal competitive **singles games** only.

For each candidate a log of competitive participation must be completed and submitted to show their level and frequency of competition.

### Skills:

Serving: flat, slice, kick.

Forehand and backhand returns: groundstrokes with topspin and backspin, volleys, overhead smashes, drop shots, lobs.

Footwork and positioning.

### Tactical awareness:

Selection of appropriate shots.

Disguising shots and serves, and anticipating opponent's shots and serves.

Awareness of principles of attack and defence. For example, serve and volley.

Awareness of strengths and weaknesses of self and other performers and use of strategies to enhance the chance of success in competitive situations.

### Track and field athletics

The candidate is assessed in the selection and application of skills and tactical awareness in two different events. These events are selected from two of the three different event areas: track events, jumping events, throwing events.

These events should be performed and assessed in competitive situations organised under the correct rules and regulations set down by the (national) governing body for athletics. This gives the candidate the opportunity to make tactical decisions based on their own and other competitors' performances.

For each candidate a log of competitive participation must be completed and submitted to show their level and frequency of competition.

**Track events:** 100 m, 200 m, 300 m (females only), 400 m, 800 m, 1500 m, 3000 m, 1500/2000 m steeple chase (gender appropriate distance), 100 m/110 m hurdles (gender appropriate distance), 400 m hurdles.

### Track event skills:

Starting, finishing, leg action, arm action, posture, head carriage, overall efficiency.

### Tactical awareness for track events:

Pre-race and race tactics, including adapting tactics in response to other competitors.

Positioning in the race, pacing, where to run, when to lead, when to follow and when to kick for the finish.

Awareness of strengths and weaknesses of self and other performers and use of strategies to enhance the chance of success in competitive situations.

Awareness and application of the rules and regulations of the events in which the candidate is assessed.

Jumping events: long jump, triple jump, high jump, pole vault.

### Jumping event skills:

Run-up, approach, take off/pole plant, flight including techniques to maximise height/distance, landing, overall efficiency.

### Tactical awareness for jumping events:

Pre-event tactics, including tactics for qualifying jumps, entry heights and when to 'pass' on a round/height.

Adapting jumping tactics in response to the performance of other competitors, consideration of weather conditions, appropriate run-up distance/number of steps.

Awareness of strengths and weaknesses of self and other performers and use of strategies to enhance the chance of success in competitive situations.

Awareness and application of the rules and regulations of the event in which the candidate is assessed.

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Throwing events: shot, discus, javelin, hammer.

### Throwing event skills:

Grip, stance, travel including cross-step, glide or rotation where applicable, release, angle of release, follow through and recovery.

### Tactical awareness for throwing events:

Pre-event tactics, including tactics for qualifying throws and when to 'pass' on a round.

Adapting throwing tactics in response to the performance of other competitors, consideration of weather conditions, appropriate run-up distance/number of steps/rotations.

Awareness of strengths and weaknesses of self and other performers and use of strategies to enhance the chance of success in competitive situations.

Awareness and application of the rules and regulations of the event in which the candidate is assessed.

### Volleyball

The candidate is assessed in the selection and application of skills and tactical awareness in competitive conditioned practices and formal competitive games.

For each candidate a log of competitive participation must be completed and submitted to show their level and frequency of competition.

### Skills:

Serving: tennis, float, jump with float, jump with topspin.

Overhead shots: volleys, sets, spikes, blocks.

Underhand shots: digs, emergency retrieves.

Rebounding and reacting to the ball.

Footwork and court positioning.

### Tactical awareness:

Selection of appropriate skills during competitive situations.

Disguising shots and serves, and anticipating opponent's shots and serves.

Awareness of team tactics/strategies in attacking and defensive situations, including use of different systems/formations, including switching, when serving and receiving serve.

Awareness of strengths and weaknesses of self and other performers and use of strategies to enhance the chance of success in competitive situations.

# Assessment criteria for Component 2 Coursework

	ACS. Demonstrate and a		appiy refevant skins and techniques in priysical activity	pinysical activ	Á	35 marks
Range of skills 5 marks	Quality of skills	10 marks	Tactical awareness	10 marks	Effective performance	10 marks
Demonstrates a <b>full range</b> of skills in authentic competitive performance situations.	A full range of skills are performed consistently with <b>exceptional</b> levels of control, fluency and accuracy.	performed ptional levels accuracy.	Successfully selects and uses the most appropriate skills/tactics/strategies on almost all occasions. Shows an <b>exceptional</b> understanding of the performance of others in the activity.	uses the actics/ occasions. formance of	The range and quality of skills performed is maintained even under pressure in <b>very high</b> levels of competition.  The overall level of performance is <b>outstanding</b> and the performer has a very significant influence on the activity and other performers.  This is supported by the log of competitive participation.	kills wen under els of nance is former has on the ers.
5 marks		9-10 marks		9-10 marks		9-10 marks
Demonstrates <b>most</b> skills in authentic competitive performance situations.	Most skills are performed consistently with <b>very good</b> levels of control, fluency and accuracy.	ed consistently of control,	Successfully selects and uses appropriate skills/tactics/strategies on most occasions.  Shows a <b>very good</b> understanding of the performance of others in the activity.	uses strategies on lerstanding ners in the	The range and quality of skills performed is maintained even under pressure in <b>high</b> levels of competition. The overall level of performance is <b>very good</b> and the performer has a significant influence on many situations in the activity and other performers.  This is supported by the log of competitive participation.	kills wen under competition. nance former on many nd other
4 marks		7-8 marks		7-8 marks		7–8 marks

			STIBILIS STIBILIS
Range of skills 5 marks	Quality of skills 10 marks	Tactical awareness 10 marks	Effective performance 10 marks
Demonstrates <b>many</b> skills in authentic competitive performance situations.	Many skills are performed with <b>good</b> levels of control, fluency and accuracy.  5-6 marks	Selects and uses appropriate skills/ tactics/strategies on many occasions. Shows a <b>good</b> understanding of the performance of others in the activity. 5-6 marks	The range and quality of skills performed is maintained even under pressure in <b>good</b> levels of competition.  The overall level of performance is <b>good</b> and the performer has some influence on the outcome of the activity.  This is supported by the log of competitive participation.  5-6 marks
Demonstrates <b>some</b> skills in authentic or conditioned competitive performance situations.	Some skills are performed with adequate levels of control but with inconsistent fluency and accuracy.	Selects and uses some appropriate skills/tactics/strategies. Shows <b>some</b> understanding of the performance of others in the activity.	The range and quality of skills performed is reduced under pressure in performance situations.  The overall level of performance is <b>inconsistent</b> with little influence on the outcome of the activity. This may be reflected in the level of competition in which the performer is assessed.  This is supported by the log of competitive participation.
Demonstrates a <b>few</b> skills in conditioned competitive performance situations.	A few skills are performed with limited levels of control but with a lack of fluency and accuracy.	Selects and uses a limited range of skills and rarely applies tactics/ strategies. Shows <b>limited</b> understanding of the performance of others in the activity.	The range and quality of skills performed is ineffective under pressure in performance situations. The overall level of performance is limited and this is reflected in the level of competition in which the performer is assessed.  This is supported by the log of competitive participation.
No evidence worthy of credit. 0 marks	No evidence worthy of credit. O marks	No evidence worthy of credit.  0 marks	No evidence worthy of credit.  0 marks

# Mathematical requirements

Candidates should be able to:

- understand and use the prefixes: milli (m), centi (c), deci (d), kilo (k)
- select and use the most appropriate units for recording data and the results of calculations
- recognise and use numbers in decimal and standard form
- understand and use the symbols: < (less than), > (greater than), ≤ (less than or equal to), > (greater than or equal to), / (solidus followed by unit in table headings and labels for graph axes), ∞ (is directly proportional to), Σ (sum of) and ± (plus or minus)
- use a calculator for addition, subtraction, multiplication and division, and to calculate squares ( $x^2$ ), square roots ( $\sqrt{x}$ ) and means ( $\bar{x}$ )
- calculate the mean, median, mode and range of a set of values
- calculate percentages and percentage changes
- construct and interpret diagrammatic representations of data, including line graphs, pie charts, bar charts and histograms
- plot data on graph paper with the variables correctly orientated on the axes and with each axis scaled appropriately
- recognise when it is appropriate to join the points on a graph with straight ruled lines and when it is appropriate to use a line (straight or curved) of best fit
- determine the gradient of graphs
- · calculate the rate of change from the gradient of a straight line on a graph
- calculate the rate of change from the gradient of a tangent to a curved line on a graph
- change the subject of an equation
- solve simple algebraic equations
- use percentages to express changes.

# 5 What else you need to know

This section is an overview of other information you need to know about this syllabus. It will help to share the administrative information with your exams officer so they know when you will need their support. Find more information about our administrative processes at **www.cambridgeinternational.org/eoguide** 

# Before you start

### Previous study

We recommend that learners starting this course should have completed a course in Physical Education equivalent to Cambridge  $IGCSE^{TM}$  or Cambridge O Level.

### Guided learning hours

We design Cambridge International AS Level syllabuses based on learners having about 180 guided learning hours for each Cambridge International AS Level. The number of hours a learner needs to achieve the qualification may vary according to local practice and their previous experience of the subject.

### Availability and timetables

All Cambridge schools are allocated to one of six administrative zones. Each zone has a specific timetable.

You can view the timetable for your administrative zone at www.cambridgeinternational.org/timetables

You can enter candidates in the June and November exam series.

Check you are using the syllabus for the year the candidate is taking the exam.

Private candidates cannot enter for this syllabus. For more information, please refer to the *Cambridge Guide to Making Entries*.

### Combining with other syllabuses

Candidates can take this syllabus alongside other Cambridge International syllabuses in a single exam series. The only exceptions are:

• syllabuses with the same title at the same level.

# Making entries

Exams officers are responsible for submitting entries to Cambridge International. We encourage them to work closely with you to make sure they enter the right number of candidates for the right combination of syllabus components. Entry option codes and instructions for submitting entries are in the *Cambridge Guide to Making Entries*. Your exams officer has a copy of this guide.

### Exam administration

To keep our exams secure, we produce question papers for different areas of the world, known as administrative zones. We allocate all Cambridge schools to one administrative zone determined by their location. Each zone has a specific timetable. Some of our syllabuses offer candidates different assessment options. An entry option code is used to identify the components the candidate will take relevant to the administrative zone and the available assessment options.

### Support for exams officers

We know how important exams officers are to the successful running of exams. We provide them with the support they need to make your entries on time. Your exams officer will find this support, and guidance for all other phases of the Cambridge Exams Cycle, at **www.cambridgeinternational.org/eoguide** 

### Retakes and carry forward

Candidates can retake Cambridge International AS Level as many times as they want to. Information on retake entries is at **www.cambridgeinternational.org/entries**. To confirm what entry options are available for this syllabus, refer to the *Cambridge Guide to Making Entries* for the relevant series.

Marks achieved in Component 2 Coursework can be carried forward to future series, subject to the requirements set out in the *Cambridge Handbook*.

Candidates cannot resubmit, in whole or in part, coursework from a previous series. For information, refer to the *Cambridge Handbook* for the relevant year of assessment at **www.cambridgeinternational.org/eoguide** 

### Language

This syllabus and the related assessment materials are available in English only.

# Accessibility and equality

### Syllabus and assessment design

Cambridge International works to avoid direct or indirect discrimination in our syllabuses and assessment materials. We aim to maximise inclusivity for candidates of all national, cultural or social backgrounds and with other protected characteristics. In addition, the language and layout used are designed to make our materials as accessible as possible. This gives all learners the opportunity, as fairly as possible, to demonstrate their knowledge, skills and understanding and helps to minimise the requirement to make reasonable adjustments during the assessment process.

### Access arrangements

Access arrangements (including modified papers) are the principal way in which Cambridge International complies with our duty, as guided by the UK Equality Act (2010), to make 'reasonable adjustments' for candidates with special educational needs (SEN), disability, illness or injury. Where a candidate would otherwise be at a substantial disadvantage in comparison to a candidate with no SEN, disability, illness or injury, we may be able to agree pre-examination access arrangements. These arrangements help a candidate by minimising accessibility barriers and maximising their opportunity to demonstrate their knowledge, skills and understanding in an assessment.

### Important:

- Requested access arrangements should be based on evidence of the candidate's barrier to assessment
  and should also reflect their normal way of working at school; this is in line with the Cambridge Handbook
  www.cambridgeinternational.org/eoguide
- For Cambridge International to approve an access arrangement, we will need to agree that it constitutes
  a reasonable adjustment, involves reasonable cost and timeframe and does not affect the security and
  integrity of the assessment.
- Availability of access arrangements should be checked by centres at the start of the course. Details of our standard access arrangements and modified question papers are available in the Cambridge Handbook www.cambridgeinternational.org/eoguide
- Please contact us at the start of the course to find out if we are able to approve an arrangement that is not included in the list of standard access arrangements.
- Candidates who cannot access parts of the assessment may be able to receive an award based on the parts they have completed.

### After the exam

### Grading and reporting

Grades a, b, c, d or e indicate the standard a candidate achieved at Cambridge International AS Level. 'a' is the highest and 'e' is the lowest grade.

'Ungraded' means that the candidate's performance did not meet the standard required for the lowest grade (e). 'Ungraded' is reported on the statement of results but not on the certificate. In specific circumstances your candidates may see one of the following letters on their statement of results:

- Q (PENDING)
- X (NO RESULT).

These letters do not appear on the certificate.

On the statement of results and certificates, Cambridge International AS Level is shown as General Certificate of Education, GCE Advanced Subsidiary Level (GCE AS Level).

**School feedback:** 'Cambridge International A Levels are the 'gold standard' qualification. They are based on rigorous, academic syllabuses that are accessible to students from a wide range of abilities yet have the capacity to stretch our most able.'

Feedback from: Director of Studies, Auckland Grammar School, New Zealand

# How students, teachers and higher education can use the grades

### Cambridge International AS Level

Assessment at Cambridge International AS Level has two purposes:

- to measure learning and achievement
  - The assessment:
  - confirms achievement and performance in relation to the knowledge, understanding and skills specified in the syllabus.
- to show likely future success

The outcomes:

- help predict which students are well prepared for a particular course or career and/or which students are more likely to be successful
- help students choose the most suitable course or career.

# Grade descriptions

Grade descriptions are provided to give an indication of the standards of achievement candidates awarded particular grades are likely to show. Weakness in one aspect of the examination may be balanced by a better performance in some other aspect.

Grade descriptions for Cambridge International AS Level Sport & Physical Education will be published after the first assessment of the AS Level in 2024. Find more information at **www.cambridgeinternational.org/alevel** 

# Changes to this syllabus for 2024, 2025 and 2026

The syllabus has been reviewed and revised for first examination in 2024.

You must read the whole syllabus before planning your teaching programme.

# Changes to syllabus code

 This syllabus is AS Level only. The final examination for Cambridge International AS & A Level Physical Education 9396 at both AS and A Level will be in the November 2023 series. The 9396 syllabus has been replaced with AS Level Sport & Physical Education 8386.

# Changes to syllabus content

- Learner attributes have been added to the syllabus.
- Key concepts have been added to the syllabus to reflect the overarching ideas that run throughout sport and physical education.
- The subject content has been updated but the teaching time still falls within the recommended guided learning hours.
- The wording in the learning outcomes has been updated to provide clarity on the depth to which each topic should be taught.
- A list of command words with definitions has been included.

# Changes to assessment (including changes to specimen papers)

### **Component 1 Theory**

- The weighting for Component 1 has changed to 50% of the AS Level.
- The number of marks available for Component 1 has changed to 70 marks.
- The duration of Component 1 has changed to 1 hour 45 minutes.
- Component 1 is now a combined question paper and answer booklet.
- Any question may sample any of the subject content, rather than the paper being divided into sections.

### **Component 2 Coursework**

- The weighting for Component 2 has changed to 50% of the AS Level.
- The number of marks available for Component 2 has changed to 70 marks (35 marks for each physical activity).
- Candidates are no longer required to choose from activity profiles. They
  choose any two activities from the physical activities listed in the syllabus.
  The list of physical activities has been revised and some physical activities
  are no longer available.
- The assessment of performance will take place in competitive conditioned practices and formal competitive games, competitions or situations.
- Candidates will be assessed against generic assessment criteria.
- A log of competitive participation is required for **all** candidates to show their level and frequency of competition in their **two** physical activities.
- The requirement for candidates to produce a written action plan has been removed.

### Other changes

 Coursework information can be found in this syllabus document rather than in a Coursework Guidelines Booklet.

In addition to reading the syllabus, you should refer to the updated specimen paper. The specimen paper will help your students become familiar with exam requirements and command words in questions. The specimen mark scheme explains how students should answer questions to meet the assessment objectives.

