



CAMBRIDGE
International Education

Syllabus

Cambridge IGCSE™ Physical Education 0413

Use this syllabus for exams in 2027 and 2028.
Exams are available in the June and November series.



Version 1

For the purposes of screen readers, any mention in this document of Cambridge IGCSE refers to Cambridge International General Certificate of Secondary Education.

Why choose Cambridge?

We work with schools worldwide to build an education that shapes knowledge, understanding and skills. Together, we give learners the confidence they need to thrive and make a positive impact in a changing world.

As part of the University of Cambridge, we offer a globally trusted and flexible framework for education from age 3 to 19, informed by research, experience, and listening to educators.

With recognised qualifications, high-quality resources, comprehensive support and valuable insights, we help schools prepare every student for the opportunities and challenges ahead.

Qualifications that are recognised and valued worldwide

From the world's top-ranked universities to local higher education institutions, Cambridge qualifications open doors to a world of opportunities.

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With over 160 years of experience in delivering fair, valid and reliable assessments to students worldwide, we offer a global, recognised performance standard for international education.

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Cambridge learners build subject knowledge and conceptual understanding, and develop a broad range of skills, learning habits and attributes to help make them ready for the world.

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Our trusted baseline and diagnostic assessments, together with our insights and evaluation service, help schools turn data into knowledge and actionable insights, to inform teaching decisions and improve learner outcomes.

Bringing together a community of experts

We bring together the collective knowledge of experts and our diverse community of educators worldwide, supporting them to learn from one another and share ideas and information.

Tackling the climate crisis together

We believe that education is key to tackling the climate crisis. Together with Cambridge schools, we can empower young people with the skills and knowledge to take action on climate change, helping them be ready for the world.

School feedback: 'We think the Cambridge curriculum is superb preparation for university.'

Feedback from: Christoph Guttentag, Dean of Undergraduate Admissions, Duke University, USA

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Important: Changes to this syllabus

The latest syllabus is version 1, published September 2024. There are no significant changes which affect teaching.

Any textbooks endorsed to support the syllabus for examination from 2019 are still suitable for use with this syllabus.

1 Why choose this syllabus?

Key benefits

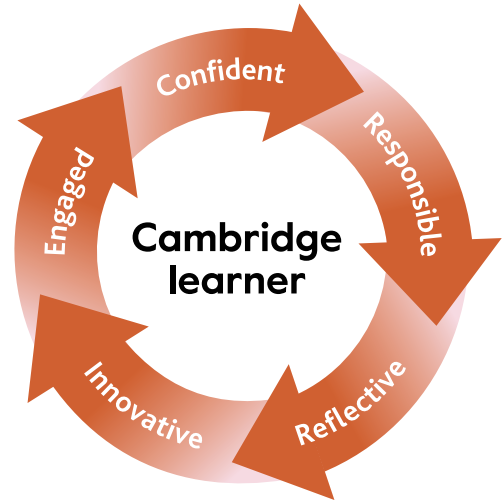
Cambridge IGCSE is the world's most popular international qualification for 14 to 16 year olds, although it can be taken by students at any age. Taught by over 5000 schools in 150 countries, it is tried, tested and trusted.

Students can choose from 70 subjects in any combination, including 30 languages.

Our programmes promote a thorough knowledge and understanding of a subject and help to develop the skills learners need for their next steps in education or employment.

Cambridge IGCSE Physical Education encourages learners to develop:

- knowledge, skills and understanding of a range of relevant physical activities
- an ability to plan, perform and evaluate physical activities
- an understanding of effective and safe performance
- an understanding of the role of sport and physical activity in society and in the wider world
- an excellent foundation for advanced study
- an enjoyment of physical activity.



School feedback: 'The strength of Cambridge IGCSE qualifications is internationally recognised and has provided an international pathway for our students to continue their studies around the world.'

Feedback from: Gary Tan, Head of Schools and CEO, Raffles Group of Schools, Indonesia

Qualifications that are recognised and valued worldwide

Cambridge qualifications prepare and equip learners with the skills they need to thrive at university and beyond. The world's best higher education institutions recognise our qualifications and value the critical thinking skills, independent research abilities and deep subject knowledge that Cambridge learners bring.

We continually work with universities and colleges in every part of the world to ensure that they understand and accept our qualifications. Cambridge IGCSE provides a springboard to the Cambridge Advanced stage, as well as other post-16 routes. The combination of knowledge and skills in Cambridge IGCSE Physical Education gives learners a solid foundation for further study. Candidates who achieve grades A* to C are well prepared to follow a wide range of courses including Cambridge International AS Level Sport & Physical Education.

Many universities require a combination of Cambridge International AS & A Levels and Cambridge IGCSEs or equivalent to meet their entry requirements.

UK ENIC, 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 IGCSE and found it to be comparable to the standard of the GCSE in the UK. This means students can be confident that their Cambridge IGCSE qualifications are accepted as equivalent to UK GCSEs by leading universities worldwide.

Learn more at www.cambridgeinternational.org/recognition

School feedback: 'Cambridge IGCSE is one of the most sought-after and recognised qualifications in the world. It is very popular in Egypt because it provides the perfect preparation for success at advanced level programmes.'

Feedback from: Managing Director of British School of Egypt BSE

Supporting teachers

We believe education works best when teaching and learning are closely aligned to the curriculum, resources and assessment. Our high-quality teaching support helps to maximise teaching time and enables teachers to engage learners of all backgrounds and abilities.

We aim to provide the following support for each Cambridge qualification:

- Syllabus
- Specimen question papers and mark schemes
- Specimen paper answers
- Schemes of Work
- Example candidate responses
- Past papers and mark schemes
- Principal examiner reports for teachers

These resources are available on the School Support Hub at www.cambridgeinternational.org/support, our secure online site for Cambridge teachers. Your exams officer can provide you with a login.

Additional teaching & learning resources are also available for many syllabuses and vary according to the nature of the subject and the structure of the assessment of each syllabus. These can include ready-built lesson materials, digital resources and multimedia for the classroom and homework, guidance on assessment and much more. Beyond the resources available on the Schools Support Hub, a wide range of endorsed textbooks and associated teaching and learning support are available from Cambridge at www.cambridge.org/education and from other publishers. Resources vary according to the nature of the subject and the structure of the assessment of each syllabus.

You can also contact our global Cambridge community or talk to a senior examiner on our discussion forums.

Sign up for email notifications about changes to syllabuses, including new and revised products and services, at www.cambridgeinternational.org/syllabusupdates

Professional development

Find the next step on your professional development journey.

- **Introduction courses** – An introduction to Cambridge programmes and qualifications. For teachers who are new to Cambridge programmes or new to a specific syllabus.
- **Focus on Teaching courses** – These are for teachers who want to explore a specific area of teaching and learning within a syllabus or programme.
- **Focus on Assessment courses** – These are for teachers who want to understand the assessment of a syllabus in greater depth.
- **Marking workshops** – These workshops help you become more familiar with what examiners are looking for, and provide an opportunity to raise questions and share your experiences of the syllabus.
- **Enrichment Professional Development** – Transform your approach to teaching with our Enrichment workshops. Each workshop focuses on a specific area of teaching and learning practice.
- **Cambridge Professional Development Qualifications (PDQs)** – Practice-based programmes that transform professional learning for practicing teachers. Available at Certificate and Diploma level.

For more information visit www.cambridgeinternational.org/support-for-teachers

Supporting exams officers

We provide comprehensive support and guidance for all Cambridge exams officers. Find out more at: www.cambridgeinternational.org/eoguide



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 theory underpinning physical performance in a modern world
- use and apply this knowledge and understanding to improve their performance
- perform in a range of physical activities, developing skills and techniques, and selecting and using tactics, strategies and/or compositional ideas
- understand and appreciate safe practice in physical activity and sport
- understand and appreciate the benefit of physical activity and sport for health, fitness and well-being
- gain a sound basis for further study in the field of Physical Education.

We are 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

The syllabus provides candidates with an opportunity to study both the practical and theoretical aspects of Physical Education. It is also designed to foster enjoyment in physical activity. The knowledge gained should enable candidates to develop an understanding of effective and safe physical performance.

Candidates will study all of the following topics:

- 1 Anatomy and physiology
- 2 Health, fitness and training
- 3 Skill acquisition and psychology
- 4 Social, cultural and ethical influences

Candidates will also undertake four different physical activities chosen from at least two of the seven categories listed on pages 30–31. Physical activities make a significant contribution to syllabus aims and objectives, serving as a source of material to facilitate learning.

Assessment overview

All candidates take two components. Candidates will be eligible for grades A* to G.

All candidates take:

Paper 1

1 hour 45 minutes
 Theory 50%
 100 marks
 Short and structured questions.
 Candidates answer all questions.
 Externally assessed

and:

Component 2

Coursework 50%
 100 marks
 Candidates undertake **four** physical activities from at least **two** different categories.
 Internally assessed and externally moderated

Information on availability is in the **Before you start** section.

Assessment objectives

The assessment objectives (AOs) are:

AO1

Demonstrate knowledge and understanding of the theoretical principles that underpin performance in physical activity / sport

AO2

Apply knowledge and understanding of the theoretical principles to a variety of physical activities / sports, including the analysis and evaluation of performance

AO3

Demonstrate the ability to select and perform appropriate skills to produce effective performance in practical activities

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 IGCSE %
AO1	25
AO2	25
AO3	50
Total	100

Assessment objectives as a percentage of each component

Assessment objective	Weighting in components %	
	Paper 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 and subject contexts 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.

The following areas of study are designed to contribute to the development of understanding and knowledge of the principles involved in safe, health-related exercise. All these sections are interrelated.

Candidates should be able to:

- show an understanding of the learning objectives listed in this section
- apply their knowledge and understanding of the content to physical activities (as listed on pages 30–31).

1 Anatomy and physiology

Skeletal and muscular system

Functions of the skeleton

The functions of the skeleton, to include:

- shape and support
- muscle attachment for movement
- protection
- red blood cell production.

Skeleton

The location and function of the following bones:

- cranium
- clavicle
- scapula
- humerus
- radius
- ulna
- carpals, metacarpals, phalanges
- ribs
- pelvis
- femur
- tibia
- fibula
- patella
- talus
- tarsals, metatarsals, phalanges.

Classify bones as long, short or flat.

Joint types

Examples of the different types of joints:

- fixed or immovable joints / fibrous joints
- slightly movable / cartilaginous joints
- freely movable joints / synovial joints – ball and socket and hinge.

Joint structure and function

The structure of a synovial joint and function of its components:

- synovial membrane
- synovial fluid
- joint (fibrous) capsule
- cartilage
- ligaments.

Movement at joints

Describe types of movement in physical activities:

- flexion / extension
- abduction / adduction
- rotation
- plantar flexion / dorsiflexion.

Compare the range of movement and stability of ball and socket joints with hinge joints.

Muscles

The location and role of the following muscles:

- latissimus dorsi
- trapezius
- deltoid
- pectorals
- biceps
- triceps
- abdominals
- gluteals
- hip flexors
- hamstring group (not individual names)
- quadriceps group (not individual names)
- gastrocnemius
- tibialis anterior.

The role of tendons.

Antagonistic muscle action

With reference to the shoulder, elbow, hip, knee and ankle:

- the action of agonists (prime movers) and antagonists
- how the muscles / muscle groups work using isotonic (concentric / eccentric) and isometric contractions.

Muscle fibre types

The differences between muscle fibre types (slow and fast twitch) with reference to physical activities, limited to:

- force created
- fatigue tolerance
- aerobic/anaerobic energy supply.

Respiratory system

Pathway of air

The pathway of air into the body:

- mouth/nasal passage
- trachea
- bronchi
- bronchioles
- alveoli.

Gaseous exchange at the alveoli

Identify and explain the characteristics of alveoli that enable gaseous exchange to occur.

Mechanics of breathing

The function of the diaphragm and intercostal muscles in normal breathing.

Breathing volumes and minute ventilation

Describe and explain:

- tidal volume
- vital capacity
- residual volume
- minute ventilation.

The effect of exercise on these volumes.

Circulatory system

Components of blood

The function of:

- plasma
- red blood cells
- white blood cells
- platelets.

Haemoglobin

The role of haemoglobin in carrying oxygen and carbon dioxide.

Blood vessels

The basic structure (wall thickness, lumen size and presence of valves) and function of:

- arteries
- capillaries
- veins.

Heart structure and function

The function and location of:

- atria
- ventricles
- valves. (Valve names are **not** required.)

The pathway of blood through the heart, to include:

- aorta
- vena cava
- pulmonary artery
- pulmonary vein.

Cardiac output

Explain the terms cardiac output, stroke volume and heart rate with reference to how cardiac output can be calculated.

The effect of exercise on the heart.

Energy supply and the effects of exercise on the body

Aerobic and anaerobic respiration

Outline how energy can be released, summarising the equations as:

- aerobic
(glucose + oxygen → carbon dioxide + water)
- anaerobic
(glucose → lactic acid).

Link duration and intensity to the use of aerobic and anaerobic respiration:

- longer, low-intensity activities require aerobic
- shorter, intense activities require anaerobic
- examples of aerobic and anaerobic energy demands in physical activities.

Recovery

Recovery is required after exercise, with reference to:

- Excess Post-exercise Oxygen Consumption (EPOC) (also known as oxygen debt)
 - caused by anaerobic exercise, producing lactic acid and requiring high breathing rate after exercise to remove lactic acid
- factors affecting recovery time.

Short-term effects of exercise

The short-term effects of exercise:

- heart rate increases
- breathing rate increases
- red skin / heat control / sweating
- fatigue (feeling tired)
- suffering from nausea / feeling light-headed.

Long-term effects of exercise

The long-term effects of exercise on:

- heart size (hypertrophy)
- resting pulse rate (bradycardia)
- stroke volume
- ability to tolerate lactic acid.

Simple biomechanics

Principles of force

Explain the concepts of force, mass and acceleration:

- a force can be a pull or a push
- $\text{force} = \text{mass} \times \text{acceleration}$
- increases/decreases in force can cause acceleration/deceleration.

Applications of force

Identify and explain the forces acting upon:

- a moving performer (gravity, air resistance, muscular force)
- a sprinter in the blocks (gravity, ground reaction force, air resistance)
- an object flying through the air (force applied at release, air resistance, gravity).

Levers

Identify and draw the three classes of levers:

- first class
- second class
- third class.

Identify the fulcrum, resistance and effort.

State an example of each type of lever in the body.

2 Health, fitness and training

Health and well-being

The World Health Organization (WHO) defines health as ‘a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity’.

Physical health and well-being:

- all body systems working well
- free from illness/injury/disease
- able to carry out everyday tasks.

Mental health and well-being:

- able to cope with stress
- can control emotions
- feeling good/self-esteem.

Social health and well-being:

- essential human needs are met
- friendship and support
- having value within society
- ability to mix with other people.

Fitness

Definition of fitness – the ability to cope with (or meet) the demands of the environment.

The relationship between health and fitness

The relationship between health and fitness, including:

- decreased fitness because of ill health, e.g. ill health can lead to an inability to train (lowering fitness)
- increased fitness despite ill health, e.g. unhealthy but able to train (increasing fitness).

The need to:

- live a healthy, active lifestyle
- eat a balanced diet
- maintain a level of fitness to help maintain health.

Exercise and fitness can have positive effects on physical, mental and social health.

Diet and energy sources

The function of nutrients, including carbohydrates, fats, proteins and water.

Examples of sources of these nutrients in food.

The energy balance suitable for physical activities.

Different energy needs for performers: males compared with females, teenagers compared with children, active lifestyles compared with sedentary lifestyles.

Unused energy is stored as fat, which could cause obesity.

Energy is derived from food sources:

- muscle cells release energy from glucose in a process called respiration
- some glucose is converted to glycogen and stored in the muscles and liver.

Components of fitness

The recognised components of health-related and skill-related fitness, linking these to performance in physical activities:

- agility
- balance: static and dynamic
- cardiovascular endurance/stamina
- coordination
- flexibility
- muscular endurance
- power
- reaction time
- speed
- strength.

Test protocols

How to carry out the following fitness tests:

- cardiovascular endurance/stamina (Multi-Stage Fitness Test/ 12-Minute Cooper Run)
- flexibility (Sit and Reach Test)
- muscular endurance (Multi-Stage Abdominal Curl Conditioning Test)
- power (Vertical Jump Test)
- speed (30-Metre Sprint Test)
- strength (1 Rep Max Test/Hand Grip Dynamometer Test).

Skill-related components of fitness:

- agility (Illinois Agility Test)
- balance: static and dynamic (Standing Stork Test – static)
- coordination (Anderson Wall Toss Coordination Test)
- reaction time (Ruler Drop Test).

Reasons for fitness testing

The main reasons for carrying out fitness tests, linked to:

- suitability for different physical activities
- identifying strengths and weaknesses
- monitoring improvement
- comparison to others
- informing the design of a training programme
- motivation.

VO₂ max (maximum oxygen uptake)

Describe and explain VO₂ max and its importance as a measure of cardiovascular endurance/stamina.

Factors which affect VO₂ max level:

- age
- gender
- genetics
- lifestyle
- training.

Principles of training and overload

How to apply SPORT and FITT to a training programme.

Principles of training (SPORT):

- Specificity
- Progression
- Overload
- Reversibility
- Tedium.

Principles of overload (FITT):

- Frequency
- Intensity
- Time
- Type (method of training).

Identify the dangers of overtraining.

Methods of training

The reasons for using the following training methods, including a description of each type and how to achieve the training aim.

Continuous training:

- advantages and disadvantages
- methods to use – run, swim, cycle, row
- calculating a suitable intensity for aerobic gains – 60–80% of maximal heart rate
- safety considerations, e.g. footwear.

Weight training:

- advantages and disadvantages
- methods to use (isotonically) – free weights, kettle bells, resistance machines
- use of one rep. max. to calculate suitable intensity
- safety considerations, e.g. spotter.

Fartlek training:

- advantages and disadvantages
- methods to use – running, cycling (variation of speed and terrain), etc.
- use of Borg scale to measure intensity
- safety considerations, e.g. equipment checks.

Plyometric training:

- advantages and disadvantages
- links to improvement in power
- methods to use, e.g. depth jumping, hurdle jumps
- safety considerations, e.g. injury prevention.

Circuit training:

- advantages and disadvantages
- stations can be assigned to improve different components of fitness
- periods of work and rest that can be manipulated for different gains
- safety considerations, e.g. equipment.

High-Intensity Interval Training (HIIT):

- advantages and disadvantages
- periods of work and rest that can be manipulated for different gains
- reasons for the period of rest – removal of waste products
- safety considerations, e.g. risk of overexertion.

High-altitude training as a specialist training method

The reasons for carrying out altitude training:

- increase in red blood cell count
- advantages with link to endurance activities
- disadvantages with link to difficulties in completing the training.

Reasons for warming up and cooling down

The physiological and psychological reasons for a warm up and cool down.

The phases of a warm up and cool down.

Describe a suitable warm up and cool down related to a specific physical activity:

- warm up – pulse raiser, stretches, familiarisation/skill-related activities
- cool down – gradual decrease in pulse, stretches.

3 Skill acquisition and psychology

Skill and ability

The difference between skill and ability.

The factors affecting variations in skill level:

- age and maturity
- culture
- motivation
- anxiety
- arousal conditions
- facilities
- environment
- teaching and coaching.

Skilled performance

The characteristics of a skilled performance, including:

- fluent
- aesthetically pleasing
- consistent
- accurate
- goal-directed
- coordinated.

Skill classification continua

Different types of skills, including:

- basic and complex
- fine and gross
- open and closed.

Place specific physical skills on the various continua and justify these choices.

Simple information processing model

The stages of a basic information processing model:

- input
- decision-making
- output
- feedback.

Identify the role of each stage.

Explain the difference between short-term and long-term memory.

Apply the stages of information processing to physical activities.

Explain the concept of limited channel capacity/single-channel hypothesis.

The stages of learning

The characteristics of a performer at each stage of learning, naming and explaining:

- cognitive
- associative
- autonomous.

Feedback

The different types of feedback, naming and describing:

- intrinsic
- extrinsic
- knowledge of performance
- knowledge of results.

Explain examples of how the types of feedback may be given, e.g. extrinsic feedback from a coach.

Make links between the most appropriate types of feedback and the stages of learning:

- cognitive performers make more use of extrinsic feedback/knowledge of results
- autonomous performers can use intrinsic feedback/knowledge of performance.

Explain the importance of receiving feedback.

Guidance

The different types of guidance, naming and describing:

- visual
- verbal
- manual/mechanical.

Explain examples of how the types of guidance may be given, e.g. visual guidance via demonstrations.

Make links between the most appropriate types of guidance and the different stages of learning.

Goal setting

The principles of SMARTER goal setting (Specific, Measurable, Agreed, Realistic, Time-phased, Exciting, Recorded).

Apply knowledge of goal setting to suggest appropriate use of SMARTER targets in physical activities.

Using goal setting as a means to control anxiety.

Motivation

The types of motivation, naming and describing:

- intrinsic
- extrinsic.

Provide examples of intrinsic and extrinsic motivation.

Explain the effect of intrinsic motivation and extrinsic motivation and how they can be used in physical activities.

Arousal

The definition of arousal.

Draw and explain the Inverted-U theory (Yerkes–Dodson law).

Explain how optimal arousal varies for different skills; e.g. fine skills require lower levels of arousal than gross skills.

Apply knowledge to explain the effects of underarousal and overarousal.

Anxiety

The two types of anxiety, naming and describing:

- cognitive
- somatic.

Explain the causes of anxiety in physical activities.

Relaxation techniques

The need to combine techniques to control arousal and anxiety.

Describe appropriate relaxation techniques, including mental rehearsal, visualisation and deep breathing.

Explain how relaxation techniques control arousal, including:

- increased concentration
- controlled breathing
- reduced heart rate.

Personality types

The terms introvert and extrovert.

Describe the typical characteristics of introvert and extrovert personality types.

Suggest physical activities usually adopted by introvert and extrovert personality types.

4 Social, cultural and ethical influences

Leisure and recreation

The terms:

- leisure time
- (physical) recreation
- play
- sport.

Identify and explain factors that influence what recreational activities people do during leisure time:

- age
- interests
- social circumstances
- family influences
- peer influences
- facilities available
- area where you live, e.g. geography/culture/tradition.

Growth in leisure activities

The factors that influence growth in leisure activities:

- increase in leisure time
- advances in technology
- improvements in healthcare
- better health awareness
- more leisure facilities
- reduced cost of equipment
- improvements in travel methods
- wider media coverage.

The sports development pyramid

The characteristics of each level of the sports development pyramid:

- elite (highest)
- performance
- participation
- foundation (lowest).

Sponsorship

The types of sponsorship:

- financial support
- clothing/footwear/equipment
- provision of specialist facilities.

Advantages and disadvantages of sponsorship to:

- the performer or team
- the sponsor
- the sport or event
- the audience/spectators.

Media

The types of media coverage:

- television
- internet and social media
- print
- radio.

The advantages and disadvantages of media coverage to:

- the performer
- the sport or event
- the audience/spectators.

Global events

The advantages of being a host nation:

- stadia and training facilities
- home advantage
- increase in national pride
- improved tourism
- increased employment
- legacy implications
- infrastructure.

Professional and amateur performers

The difference between being a professional and an amateur:

- traditional differences
- increased blurring between professional and amateur status
- both amateurs and professionals competing at the Olympic Games.

Technology

The use of technology in sport, including:

- decision-making by officials, e.g. in tennis, football and rugby
- recording time and distance, e.g. in athletics
- enhancing performance, e.g. in cycling.

The positive and negative impact of technology on:

- officials
- performers
- the audience/spectators
- the sport or event.

Factors affecting access and participation in physical activities

The factors that affect access to physical activity:

- age
- gender
- disability
- social and cultural influences.

The factors that affect participation:

- access
- discrimination
- education
- environment and climate
- family
- financial considerations
- media coverage
- role models
- time and work commitments.

Explain strategies to increase participation and overcome barriers (promotion, provision and access).

Performance-enhancing drugs (PEDs)

The reasons why some performers use prohibited performance-enhancing drugs, including:

- to enhance performance
- to keep up with the competition
- fame and increased wealth.

The types of PEDs and their effects:

- anabolic steroids – increase muscle mass
- beta blockers – reduce anxiety
- stimulants – increase alertness
- diuretics – weight loss.

The role of organising bodies in preventing and reducing the use of PEDs:

- types of testing
- reasons for banning drugs.

Suggest physical activities in which these PEDs could give an advantage.

Disadvantages of PEDs

The disadvantages of PEDs, including:

- health implications
- financial penalty
- public humiliation
- disqualification or being banned
- effect on other competitors.

The negative consequences of drugs scandals.

Blood doping

The reasons why some performers use blood doping.

How blood doping is carried out.

The effects of blood doping on performance.

The potential side effects of blood doping.

Sportsmanship and gamesmanship

The terms sportsmanship and gamesmanship, including:

- how sportsmanship can be displayed
- how gamesmanship can be displayed.

Examples of sportsmanship and gamesmanship in physical activities.

Risk

The difference between real risk and perceived risk.

Identify examples of real and perceived risks.

Risk assessment

Risks in different environments, including indoor sports halls, playing fields, swimming pools, artificial surfaces.

Strategies to reduce the risk and severity of injury in physical activities:

- protective clothing and equipment
- appropriate clothing and footwear
- lifting and carrying equipment safely
- maintaining hydration
- use of warm up and cool down
- following rules
- suitable level of competition.

Injuries

Potential causes of, and simple treatments for, the following minor injuries:

- winding
- simple cuts or grazes
- blisters.

Explain the causes of bruises, muscle, tendon and ligament injuries and the RICE method for treating these injuries.

Faculty feedback: ‘Understanding how and why our climate is changing and providing the knowledge and skills to explore the challenges plays a key role in every student’s education.’

Feedback from: Dr Amy Munro-Faure, Head of Education and Student Engagement of Cambridge Zero

4 Details of the assessment

All candidates take two papers.

Paper 1 – Theory

Written paper, 1 hour 45 minutes, 100 marks

Candidates should answer **all** the questions.

Short answer questions and structured questions testing AO1 and AO2. Candidates are required to demonstrate skills of description, interpretation and evaluation. Note that candidates may **only** use physical activities listed on pages 30–31 as examples in their answers to Paper 1.

Externally assessed.

Component 2 – Coursework

100 marks

The coursework component assesses candidates' performance in **four** physical activities. Each activity is marked out of 25 marks.

This component tests assessment objective AO3.

Candidates must undertake physical activities from at least **two** of the seven categories listed below.

The physical activities are:

Categories	Physical activities
Games	<ul style="list-style-type: none"> • Association Football • Badminton • Baseball, Rounders or Softball • Basketball • Cricket • Golf • Handball • Hockey • Lacrosse • Netball • Rugby League or Rugby Union • Squash • Table Tennis • Tennis • Volleyball
Gymnastic Activities	<ul style="list-style-type: none"> • Artistic Gymnastics (Floor and Vault) or Rhythmic Gymnastics • Individual Figure Skating • Trampolining
Dance Activities	<ul style="list-style-type: none"> • Dance
Athletic Activities	<ul style="list-style-type: none"> • Cross-Country Running • Cycling • Rowing and Sculling • Track and Field Athletics • Weight Training for Fitness

Categories	Physical activities	
Outdoor and Adventurous Activities	<ul style="list-style-type: none"> • Canoeing • Hill Walking or Orienteering • Horse Riding • Mountain Biking 	<ul style="list-style-type: none"> • Rock Climbing • Sailing • Skiing or Snowboarding • Windsurfing
Swimming	<ul style="list-style-type: none"> • Competitive Swimming • Life Saving or Personal Survival 	<ul style="list-style-type: none"> • Water Polo
Combat Activities	<ul style="list-style-type: none"> • Judo or Taekwondo 	

Planning physical activities

The performance of physical activities is a central and integral part of the course. Wherever possible, in the delivery of the course, theory is related to practice and practice is related to theory. This approach enables candidates to understand, as well as to apply, the theoretical concepts.

Physical activities make a significant contribution to syllabus aims and objectives, serving as a source of material to facilitate learning.

The selection of physical activities should be influenced by:

- interests, stages of development and abilities of candidates
- teaching resources and the expertise of staff
- facilities and equipment
- time
- number of candidates.

Candidates may use external facilities and local clubs, but in all cases the centre must retain the responsibility for monitoring the work and for its assessment and standardisation.

Safety

Candidates may be placed in physically demanding situations when taking part in physical activities. It is the responsibility of the centre, through the Head of Physical Education or equivalent, to ensure that:

- candidates are capable of taking part in physical activities; if there is any doubt then medical advice should be sought
- the health and safety of candidates is paramount and is maintained at all times when candidates are engaged in physical activities as part of this course
- the necessary facilities and equipment are available and safe for each activity that candidates take part in.

A textbook that centres may find helpful is *Safe Practice in Physical Education, Sport and Physical Activity*, by the Association for Physical Education (2016; ISBN 978-1-909012-35-6).

Teaching physical activities

For each physical activity candidates must:

- respond readily to instructions
- recognise and follow relevant rules, laws, codes, etiquette and safety procedures for different activities or events, in practice and during competitions
- understand the safety risks of wearing inappropriate clothing, footwear and jewellery, and why particular clothing, footwear and protection are worn for different activities
- know how to use equipment safely
- be familiar with a warm-up routine prior to exercise and cool-down routine after exercise relevant to the exercise or physical activity
- be familiar with the practices, drills and games that are used for assessment.

The assessment, including the production of filmed evidence, of candidates performing in physical activities is an integral part of the Cambridge IGCSE Physical Education course.

It is the responsibility of the centre, through the Head of Physical Education or equivalent, to ensure that:

- they oversee the assessment process and that there is effective internal standardisation across the centre's assessments and all the staff involved in the assessments, including off-site activities
- the filmed evidence is sufficiently comprehensive and in the correct format, see 'Submission of filmed evidence' on page 36, to enable external moderation to take place efficiently.

Centres must refer to the *Cambridge IGCSE Physical Education Coursework Guidelines Booklet* for the relevant year of assessment.

Method of assessment

The mark for Component 2: Coursework is the total of the marks for the four physical activities. Each activity is marked out of 25, giving a total mark out of 100.

It is recommended that assessment takes place at least three times during the course so that records of progress are available and to allow for any unforeseen circumstances, such as candidate ill health, that may prevent a final assessment taking place. Centres are reminded that if physical activities are taught on a modular basis over the course, filmed evidence of candidates' ability may need to be recorded at the end of a module and retained for moderation purposes.

Teachers must ensure that all work produced by candidates and records of assessment are retained and are available for inspection, if required, by the external Coursework Moderator.

Marking criteria for coursework

The marking criteria for each physical activity can be found in the *Coursework Guidelines Booklet*. Assessment of candidates' performance should take place during the activity and should not be based on the filmed evidence.

The general marking principles for activities are as follows:

- each level descriptor covers all the relevant assessment objectives
- the descriptors should be read and applied as a whole
- make a best-fit match between the whole performance and the level descriptors.

Candidates do not have to meet all the requirements within a level before a performance can be placed in that level. The question to be asked about a performance is: does it match this level better than another level, e.g. does it match Level 4 better than it matches Level 3?

To select the most appropriate mark within each set of descriptors, teachers/Examiners should use the following guidance:

- If most of the descriptors fit the work, then the teacher/Examiner will award the middle mark in the band.
- If the descriptors fully fit the work (and the teacher/Examiner had perhaps been considering the band above), the highest mark will be awarded.
- If there is just enough evidence (and the teacher/Examiner had perhaps been considering the band below), then the lowest mark in the band will be awarded.

Activities should be standardised against each other to ensure that all activities and candidates have been marked to a comparable standard (i.e. it should be equally difficult to achieve, for example, 21 marks in Association Football as it is in Hill Walking).

For some activities, candidates' performance is based on times/distances. The marking criteria are objective and measurable and the above guidance may not apply.

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 Component 2 Coursework on the samples database.

You should record marks on the required form(s) which you should download each year from the samples database at www.cambridgeinternational.org/samples. Follow the instructions on the form to complete it. The marks on these form(s) must be identical to the marks you submit to Cambridge International.

Marks should be recorded on the Coursework Assessment Summary Form. For each activity an Order of Merit sheet should also be completed. Please note that there are variations of this form for some activities and a generic form for other activities. For some activities we may require the collection of additional evidence produced by the candidates, such as route sheets for Hill Walking and Orienteering.

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 in the *Cambridge Handbook* and on the samples database for the relevant year of assessment.

You should record the internally moderated marks for all candidates on the required form(s) and submit these marks to Cambridge International according to the instructions on the samples database at www.cambridgeinternational.org/samples

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 a sample of candidates to Cambridge International.

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.

Evidence of assessment

- 1 All centres must provide filmed evidence of performances in **every** physical activity.
- 2 All candidates assessed in an activity should be filmed together and not individually, where possible. Of these, an appropriate sample should be identified who will represent the full range of marks awarded by the centre. These candidates should be identified by large numbered bibs or card numbers pinned back and front in **each** activity. The sample of candidates filmed in each activity should be from across the ability range: ideally two high-scoring candidates including the top ranked candidate, two mid-scoring candidates and one low-scoring candidate.

Using the samples database

The samples database refers you to key information about administering coursework, speaking tests and examined coursework for each syllabus.

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. 0413 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.

Filmed evidence

Centres assessing physical activities as part of the Cambridge IGCSE Physical Education syllabus must provide filmed evidence of their candidates' performances in **all** activities.

The filmed evidence is used by the external Moderator as evidence to check on the standard of assessment. It is therefore important that centres take great care in producing and checking that the filmed evidence shows accurately the performance levels achieved by candidates. Centres could potentially disadvantage their candidates by producing filmed evidence which is either of low quality or fails to provide the right level of evidence to justify the marks awarded.

The filming should allow the following to be seen:

- candidate identifiers at all times
- the execution of skills
- the outcome, e.g. the result of a Tennis serve, the performance of a routine in Dance or Gymnastics, the finish of an Outdoor and Adventurous Activity
- the interaction in conditioned team situations, e.g. marking in Netball.

Further guidance on the production of high-quality filmed evidence can be found in the *Coursework Guidelines Booklet* and the *Coursework Handbook*.

Submission of coursework

Cambridge International will externally moderate all internally assessed components.

- You must submit the internally assessed **marks** of **all** candidates to Cambridge International.
- You must also submit the internally assessed **work** (filmed evidence and documentation) of a **sample** of candidates to Cambridge International.

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

Documentation

The following documents should accompany the filmed evidence:

- Coursework Assessment Summary Form
- Centre Order of Merit sheets for each activity showing all candidates' marks in **rank order**, with boys and girls in separate lists. The sample of candidates shown in the filmed evidence should be identified clearly on the Centre Order of Merit sheets using identifiers, such as Red 2. The marks of all candidates from the centre offering a particular activity should be listed on the Order of Merit sheets. The candidate identification in the filmed evidence should match the identification on the Order of Merit sheets.

Order of Merit sheets, and the instructions for completing them, may be downloaded from www.cambridgeinternational.org/samples. The database will ask you for the syllabus code (i.e. 0413) after which it will take you to the correct forms.

- other supporting evidence for activities, e.g. Hill Walking log books, Orienteering competition results.

Submission of filmed evidence

- Select an appropriate sample of candidates from each submitted activity. Select candidates from across the ability range.
- Identify candidates, e.g. using large numbered bibs or card numbers pinned back and front, in **each** activity.

Supervising coursework

Coursework must be a candidate's own, unaided work. The teacher must be able to authenticate the work is the candidate's own.

A general discussion on the progress of coursework is a natural part of the teacher–candidate relationship, as it is for other parts of the course.

Teachers should not correct or edit draft coursework. Advice should be kept at a general level so that the candidate leads the discussion and makes the suggestions for any amendments. Teachers must not give detailed advice to individual candidates or groups of candidates on how their work can be improved to meet the assessment criteria.

For further information about supervising coursework, see the *Cambridge Handbook* for the relevant year of assessment at www.cambridgeinternational.org/eoguide

Authenticity and academic honesty/avoidance of plagiarism

It is the centre's responsibility to make sure all assessed work is the candidate's original work. Candidates must **not** submit someone else's work as their own, or use material produced by someone else without citing and referencing it properly. You should make candidates aware of the academic conventions governing quotation and reference to the work of others, and teach candidates how to use them.

A candidate taking someone else's work or ideas and passing them off as their own is an example of plagiarism. It is your responsibility as a teacher to prevent plagiarism from happening and to detect it if it does happen. For more information, search for 'Preventing plagiarism – guidance for teachers' on our website at www.cambridgeinternational.org/teachingandassessment

Cambridge International has a policy on the use of generative AI by candidates in coursework. The inappropriate use of AI should be treated as a form of plagiarism. The policy includes guidance on how to detect use of AI in coursework and what action teachers should take. It can be found at: www.cambridgeinternational.org/generative-ai-in-coursework

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 studied a broad curriculum such as the Cambridge Lower Secondary programme or equivalent national educational framework.

Guided learning hours

We design Cambridge IGCSE syllabuses to require about 130 guided learning hours for each subject. This is for guidance only. The number of hours a learner needs to achieve the qualification may vary according to each school and the learners' 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. Find your administrative zone at www.cambridgeinternational.org/adminzone

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:

- Cambridge IGCSE (9–1) Physical Education (0995)
- Cambridge O Level Physical Education (5016)
- syllabuses with the same title at the same level.

Cambridge IGCSE, Cambridge IGCSE (9–1) and Cambridge O Level syllabuses are at the same level.

Group awards: Cambridge ICE

Cambridge ICE (International Certificate of Education) is a group award for Cambridge IGCSE. It encourages schools to offer a broad and balanced curriculum by recognising the achievements of learners who pass exams in a range of different subjects.

Learn more about Cambridge ICE at www.cambridgeinternational.org/cambridgeice

Making entries

Exams officers are responsible for submitting entries. 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 access to 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 an 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 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 carrying forward marks

Candidates can retake the whole qualification as many times as they want to. Information on retake entries is at www.cambridgeinternational.org/retakes

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

Marks achieved in Component 2 Coursework can be carried forward to future series, subject to the requirements set out in the *Cambridge Handbook* for the relevant year of assessment and the *Carry-forward regulations supplement* at www.cambridgeinternational.org/eoguide

To confirm what entry options are available for this syllabus, refer to the *Cambridge Guide to Making Entries* for the relevant series. Regulations for carrying forward component marks can be found in 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

At Cambridge we recognise that our candidates have highly diverse socio-economic, cultural and linguistic backgrounds, and may also have a variety of protected characteristics. Protected characteristics include special educational needs and disability (SEND), religion and belief, and characteristics related to gender and identity.

We follow accessible design principles to make our syllabuses and assessment materials as accessible and inclusive as possible. We review language accessibility, visual resources, question layout and the contexts used in questions. Using this approach means that we give all candidates the fairest possible opportunity to demonstrate their knowledge, skills and understanding.

Access arrangements

Our design principles aim to make sure our assessment materials are accessible for all candidates. To further minimise barriers faced by candidates with SEND, illness or injury, we offer a range of access arrangements and modified papers. This is the principal way in which we comply with our duty to make 'reasonable adjustments', as guided by the UK Equality Act 2010.

Important:

Requested access arrangements should be based on evidence of the candidate's barrier to taking an assessment and should also reflect their normal way of working. This is explained in section 1.3 of the *Cambridge Handbook* www.cambridgeinternational.org/eoguide

- For Cambridge to approve an access arrangement, we need to agree that it constitutes a reasonable adjustment and does not affect the security or integrity of the assessment.
- Details of our standard access arrangements and modified question papers are available in section 1.3 of the *Cambridge Handbook* www.cambridgeinternational.org/eoguide
- Centres are expected to check the availability of access arrangements and modified question papers at the start of the course. All applications should be made by the deadlines published in section 1.3 of the *Cambridge Handbook* www.cambridgeinternational.org/eoguide
- Contact us at the start of the course to find out if we can approve an access 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.

Physical activities for candidates with a disability

The centre should not prevent candidates from choosing this syllabus on the grounds of disability. We understand that some candidates with disabilities require adaptations to physical activities so that they can best demonstrate the relevant assessment objective. If you have a candidate who requires adaptations to physical activities, you should contact us before starting the course, or as soon as possible, on info@cambridgeinternational.org to agree suitable adaptations.

After the exam

Grading and reporting

Grades A*, A, B, C, D, E, F or G indicate the standard a candidate achieved at Cambridge IGCSE.

A* is the highest and G is the lowest. 'Ungraded' means that the candidate's performance did not meet the standard required for grade G. '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, Cambridge IGCSE is shown as INTERNATIONAL GENERAL CERTIFICATE OF SECONDARY EDUCATION (IGCSE).

On certificates, Cambridge IGCSE is shown as International General Certificate of Secondary Education.

How students and teachers can use the grades

Assessment at Cambridge IGCSE has two purposes:

- 1 to measure learning and achievement
The assessment confirms achievement and performance in relation to the knowledge, understanding and skills specified in the syllabus.
- 2 to show likely future success
The outcomes help predict which students are well prepared for or likely to be successful in a particular course or career.
The outcomes help students choose the most suitable course or career.

Changes to this syllabus for 2027 and 2028

The syllabus has been updated. This is version 1, published September 2024.

You must read the whole syllabus before planning your teaching programme. We review our syllabuses regularly to make sure they continue to meet the needs of our schools. In updating this syllabus, we have made it easier for teachers and students to understand, keeping the familiar features that teachers and schools value.

There are no significant changes which affect teaching.

Any textbooks endorsed to support the syllabus for examination from 2019 are still suitable for use with this syllabus.



Syllabuses and specimen materials represent the final authority on the content and structure of all of our assessments.

With a Customer Services team available 24 hours a day, 6 days a week, and dedicated regional teams supporting schools in 160 countries, we understand your local context and are here to guide you so you can provide your learners with everything they need to prepare for Cambridge IGCSE.

Quality management

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



School feedback: ‘While studying Cambridge IGCSE and Cambridge International A Levels, students broaden their horizons through a global perspective and develop a lasting passion for learning.’

Feedback from: Zhai Xiaoning, Deputy Principal, The High School Affiliated to Renmin University of China

We are committed to making our documents accessible in accordance with the WCAG 2.1 Standard. We are always looking to improve the accessibility of our documents. If you find any problems or you think we are not meeting accessibility requirements, contact us at info@cambridgeinternational.org with the subject heading: Digital accessibility. If you need this document in a different format, contact us and supply your name, email address and requirements and we will respond within 15 working days.

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