



Syllabus

Cambridge IGCSE™

Physical Education 0413

Use this syllabus for exams in 2022, 2023 and 2024.
Exams are available in the June and November series.



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Changes to this syllabus



For information about changes to this syllabus for 2022, 2023 and 2024, go to page 36.

The latest syllabus is version 1, published September 2019. 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

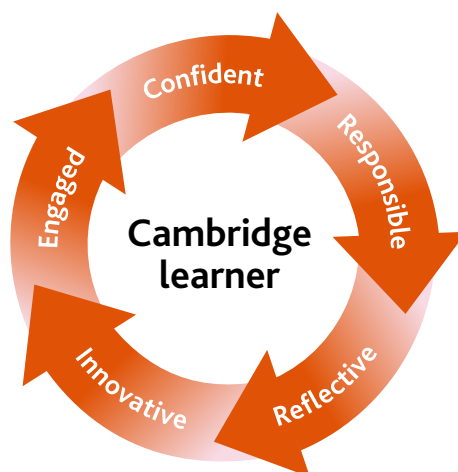
Cambridge IGCSE is the world's most popular international qualification for 14 to 16 year olds, although it can be taken by students of other ages. It is tried, tested and trusted.

Students can choose from 70 subjects in any combination – it is taught by over 4700 schools in 150 countries.

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.

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



'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.'

Gary Tan, Head of Schools and CEO, Raffles International Group of Schools, Indonesia

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. 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 & A Level Physical Education.

Cambridge IGCSEs are accepted and valued by leading universities and employers around the world as evidence of academic achievement. Many universities require a combination of Cambridge International AS & A Levels and Cambridge IGCSEs or equivalent to meet their entry requirements.

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 IGCSE and found it to be comparable to the standard of 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



Cambridge Assessment International Education is an education organisation and politically neutral. The content 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.

'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.'

Managing Director of British School in Egypt BSE

Supporting teachers

We provide a wide range of practical resources, detailed guidance, and innovative training and professional development so that you can give your students the best possible preparation for Cambridge IGCSE.

Teaching resources

- School Support Hub
www.cambridgeinternational.org/support
- Syllabuses
- Schemes of work
- Learner guides
- Discussion forums
- Endorsed resources

Exam preparation resources

- Question papers
- Mark schemes
- Example candidate responses to understand what examiners are looking for at key grades
- Examiner reports to improve future teaching

Support for Cambridge IGCSE

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- Introductory – face-to-face or online
- Extension – face-to-face or online
- Enrichment – face-to-face or online
- Coursework – online
- Cambridge Professional Development Qualifications

Find out more at

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Community

You can find useful information, as well as share your ideas and experiences with other teachers, on our social media channels and community forums.

Find out more at

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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 candidates 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.

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 27–28. Physical activities make a significant contribution to syllabus aims and objectives, serving as a source of material to facilitate learning.



Support for Cambridge IGCSE Physical Education

The School Support Hub is our secure online site for Cambridge teachers where you can find the resources you need to deliver our programmes, including schemes of work, past papers, mark schemes and examiner reports. You can also keep up to date with your subject and the global Cambridge community through our online discussion forums.

www.cambridgeinternational.org/support

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/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 suitable subject context, 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.

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 27–28).

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.

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 27–28 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 • Rock Climbing • Sailing • Skiing or Snowboarding • Windsurfing
Swimming	<ul style="list-style-type: none"> • Competitive Swimming • Life Saving or Personal Survival • 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).

Pupils with disabilities

You should not prevent candidates from participating in any of the physical activities required by Cambridge IGCSE 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, you must take steps to ensure that they are not penalised. In such instances, and before beginning to teach the course, you 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. See 'Access arrangements' in the *Cambridge Handbook* for the relevant year of assessment.

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 32, 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.

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 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.

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.

The samples database at www.cambridgeinternational.org/samples explains how the sample will be selected.

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*. For information, dates and method of submission of the coursework and sample, please refer to the *Cambridge Handbook* for the relevant year of assessment and the samples database at www.cambridgeinternational.org/samples

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:

- MS1 (or equivalent)
- 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, printouts, etc.

Submission of filmed evidence

- Each activity should be between 10 and 15 minutes' duration.
- Select an appropriate sample of candidates from each submitted activity. Select candidates from across the ability range.
- Identify candidates by large numbered bibs or card numbers pinned back and front in **each** activity.

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 do not expect learners starting this course to have previously studied physical education.

Guided learning hours

We design Cambridge IGCSE syllabuses based on learners having about 130 guided learning hours for each subject during the course but this is for guidance only. 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.

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)
- 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 allows schools to offer a broad and balanced curriculum by recognising the achievements of learners who pass examinations 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 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

Candidates can retake the whole qualification as many times as they want to. This is a linear qualification so candidates cannot re-sit individual components.

Candidates cannot resubmit, in whole or in part, coursework from a previous series. To confirm if an option is available to carry forward marks for this syllabus, see the *Cambridge Guide to Making Entries* for the relevant series. Regulations for carrying forward internally assessed marks can be found in the *Cambridge Handbook* for the relevant year at www.cambridgeinternational.org/eoguide

Equality and inclusion

We have taken great care to avoid bias of any kind in the preparation of this syllabus and related assessment materials. In compliance with the UK Equality Act (2010) we have designed this qualification to avoid any direct and indirect discrimination.

The standard assessment arrangements may present unnecessary barriers for candidates with disabilities or learning difficulties. We can put arrangements in place for these candidates to enable them to access the assessments and receive recognition of their attainment. We do not agree access arrangements if they give candidates an unfair advantage over others or if they compromise the standards being assessed.

Candidates who cannot access the assessment of any component may be able to receive an award based on the parts of the assessment they have completed.

Information on access arrangements is in the *Cambridge Handbook* at www.cambridgeinternational.org/eoguide

Language

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

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)
- Y (to be issued).

These letters do not appear on the certificate.

How students and teachers can use the grades

Assessment at Cambridge IGCSE 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 the levels described in the grade descriptions.
- 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 IGCSE Physical Education will be published after the first assessment of the syllabus in 2022. Find more information at www.cambridgeinternational.org/igcse

Changes to this syllabus for 2022, 2023 and 2024

This is version 1, published September 2019.

We have updated the look and feel of this document. The subject content remains the same.

Minor changes to the wording of some sections have been made to improve clarity.

There are no significant changes which affect teaching.

You are strongly advised to read the whole syllabus before planning your teaching programme.

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



'While studying Cambridge IGCSE and Cambridge International A Levels, students broaden their horizons through a global perspective and develop a lasting passion for learning.'

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

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