VCE Physical Education
Units 3 and 4 from 2025

Frequently asked questions

Teachers are advised to consult the frequently asked questions (FAQs) and answers in this document, as well as other support materialsprovided on the [VCE Physical Education study page](https://www.vcaa.vic.edu.au/curriculum/vce/vce-study-designs/physicaleducation/Pages/Index.aspx), when implementing the VCE Physical Education Study Design from 2025.

The FAQs will be updated, if required, during the accredited period of the study design and teachers will be notified of changes via a VCAA Notice to Schools.

This document provides information on the following:

Characteristics of the study

Key Concepts, contexts and skills

* + - biophysical and psychosocial concepts
		- definitions of movement, physical activity, sport and exercise
		- participation and performance context
		- sociocultural definition

Approaches to learning in VCE Physical Education

* + - the role of practical activity
		- use of the reflective folio
		- primary and secondary data
		- interdisciplinary approach

Unit 1 and Unit 2

anatomical lever systems

thermoregulation

lifestyle diseases

ethical and sociocultural considerations for permitted and prohibited substances and methods

Functional Movement Assessment (FMA)

intrapersonal and interpersonal contemporary issues

scope of delivery of Unit 2 Area of Study 2

Unit 3 and Unit 4

coaching approaches

scheduling of practice

psychological skills and strategies

linear and non-linear skill acquisition theories and their link to coaching approaches (direct and constraints-based)

changes to biomechanics scope of knowledge

biomechanical data and calculations

energy system terms such as ‘predominant’ and ‘dominant’

fatigue mechanisms

dietary and hydration strategies

Lactate Inflection Point (LIP)

absolute and relative oxygen consumption

fitness testing

measuring intensity

wearable technologies

High Intensity Interval Training (HIIT)

progression

resistance training protocols

Unit 4 Area of Study 3

choosing and communicating the practical activity context

the role of the inquiry question

the role of the reflective folio

materials that are allowed into the written assessment

other practicalities of completing the written assessment

Assessment

assessment requirements for Unit 1 and Unit 2

assessment of skill acquisition and biomechanics (Unit 3 Outcome 1)

reduction in Unit 3 SAC tasks

absence or injury and the impact on completing practical activity linked to assessment

fitness components required for Unit 4 Outcome 2 Case Study

Unit 4 Outcome 3 assessment considerations

use of abbreviations and acronyms

Characteristics of the study

Key concepts, contexts and skills

What is meant by the terms biophysical and psychosocial in the context of VCE Physical Education?

VCE Physical Education explores the complex interrelationships between biophysical (including anatomical, biomechanical, physiological and skill acquisition concepts) and psychosocial (including psychological and sociocultural concepts) principles to understand their role in producing and refining movement for participation and performance in physical activity, sport and exercise.

What do the terms movement, physical activity, sport and exercise mean in the context of VCE Physical Education?

In VCE Physical Education, movement (any change in the body [or part of the body] in space) includes all physical activity, sport and exercise. Page 11 of the study design provides accepted definitions and a visual concept map that defines the context of the use of these terms throughout the study design.

What contexts should be used to apply theoretical concepts related to movement performance in VCE Physical Education?

In VCE Physical Education, the learning context for students to develop understanding across all units is focused on the participation and performance aspects of physical activity, sport and exercise. Specifically, the intention is for students to develop their understanding of how to enhance participation and optimise performance in physical activity, sport and exercise.

The word ‘sociocultural’ appears throughout the study design. What does this term mean?

The term ‘sociocultural’ is included in the [Glossary](https://www.vcaa.vic.edu.au/curriculum/vce/vce-study-designs/physicaleducation/Pages/Planning.aspx) within the Support Materials*.* In the context of VCE Physical Education it means ‘relating to the interaction of social and cultural elements such as family, peers, community (including role models), gender, socio-economic status, cultural beliefs and traditions’. Geographical factors are considered their own subset of factors that can influence participation and performance and for the purposes of VCE Physical Education these factors are **not** considered sociocultural factors.

Approaches to learning in VCE Physical Education

What role does practical activity play in delivering VCE Physical Education? How much practical activity should be delivered?

VCE Physical Education sits within the Health and Physical Education learning area, which is unique in its focus on explicitly developing the movement skills and concepts that students require to participate in physical activities with competence and confidence. Students who choose to study VCE Physical Education are likely motivated by an interest in being active and understanding how movement participation and performance can be improved. Therefore, practical activity should underpin the delivery of all units of VCE Physical Education.

VCE Physical Education acknowledges the academically supported concept that learning *in* and *through* movement is a valuable way of acquiring knowledge. The idea of **integration** is fundamental to the study of VCE Physical Education, referring to the theoretical knowledge and skills that are developed and applied in practical activities, contexts and settings.

Students shouldbe provided withopportunities to engage in various types of practical activities including laboratory work, data collection, physical activity, sport and exercise. These activities can be used for guided investigation, to introduce theoretical concepts and to reinforce previously taught content.

Practical activities should not be seen as an extra time requirement but rather as an essential opportunity to enhance understanding. As a guideline, a minimum of 20 hours of class time per unit should be dedicated to practical activities.

How should the reflective folio be used throughout VCE Physical Education?

Students undertaking this study must maintain a reflective folio of activities completed in each of Units 1–4. This folio allows students to reflect on and record their participatory perspectives for each activity completed, as well as document primary data.

While the reflective folio is not a designated assessment task, it should be used to collect data and record reflections that may assist in completing written assessments.

A sample proforma of the reflective folio is available [here](https://www.vcaa.vic.edu.au/curriculum/vce/vce-study-designs/physicaleducation/Pages/Planning.aspx) and examples of possible folio entries are outlined on pages 13 and 14 of the study design.

What is the difference between primary and secondary data collection?

Primary data includes numbers, descriptions or images collected through participation in practical activities.

Secondary data may also include numerical data, visual evidence and written accounts. It can be sourced from a range of organisations (see the [Support materials](https://www.vcaa.vic.edu.au/curriculum/vce/vce-study-designs/physicaleducation/Pages/Index.aspx) for a comprehensive list ) and used for analysis and/or for comparison with primary data.

Certain assessment tasks in the study design require the collection of primary data. While an agreed set of primary data may be compiled and used for an assessment task, all students should participate in both the activity and data collection.

What is meant by an interdisciplinary approach in the context of VCE Physical Education?

Teachers are encouraged to create opportunities for students to use practical contexts to connect biophysical and psychosocial theoretical concepts across discipline areas within the study. For example, a practical activity used to develop knowledge in Unit 4 Area of Study 2, can also serve as an opportunity to explore concepts from earlier sections of the study in Units 3 and 4.

While the Unit 4 Outcome 3 SAC task provides a clear opportunity to apply an interdisciplinary approach, teachers of Units 1 and 2 are also encouraged to use the reflective folio to help students make connections between knowledge across each unit.

Unit 1 and Unit 2

What is the intent and scope of coverage of lever systems in Unit 1?

Unit 1 requires the teaching of examples of anatomical lever systems (1st class, 2nd class, and 3rd class).as outlined in the key knowledge point: *interactions of muscles and bones to produce movement, including the structure and examples of anatomical lever systems*. Therefore, anatomical lever systems should be taught within the broader context of musculoskeletal interactions that enable movement, with students developing this knowledge through participation in a range of physical activities.

Unit 1 focuses on basic labelling and describing the function of lever systems in the human body. Concepts related to mechanical advantage and performance are not within the scope of Unit 1 and should instead be covered in Unit 3 Area of Study 1.

Is hypothermia and hyperthermia still within scope when covering thermoregulation in Unit 1 Area of Study 2?

The revised study design has removed explicit references to homeostasis, hypothermia and hyperthermia narrowing the focus to the thermoregulatory process during rest, physical activity and sport. Teachers may still choose to reference hypothermia and hyperthermia as possible outcomes of the thermoregulatory process, but the emphasis should be on the role of the cardiovascular system to thermoregulate the body rather than on potential negative outcomes.

Is the teaching of lifestyle diseases still within scope for Unit 1 Area of Study 2?

Unit 1 Area of Study 2 key knowledge includes reference to ‘the impacts of regular aerobic exercise on enhancing the capacity and function of…’. This revision to the study promotes a strength-based approach, rather than a deficit model that primarily focuses on lifestyle diseases. While lifestyle diseases can still be included when teaching this key knowledge point, the emphasis should be on the benefits of regular exercise (i.e. health and fitness benefits) rather than placing a heavy focus on cardiorespiratory system disease.

Ethical and sociocultural considerations for permitted and prohibited substances and methods is now only listed in Unit 1 Area of Study 2. What does this mean about delivering these concepts in Unit 1?

To reduce overlap, there is now a single reference to ethical and sociocultural considerations related to permitted and prohibited performance enhancing substances in Unit 1 Area of Study 2. However, this key knowledge point is designed to cover substances and methods that target both the musculoskeletal and cardiorespiratory systems, hence the placement of this key knowledge at the end of Unit 1 Area of Study 2.

What approach should be taken in delivering the key knowledge point related to Functional Movement Assessment (FMA) in Unit 2 Area of Study 1?

A Functional Movement Assessment (FMA) is a new component of the revised VCE Physical Education Unit 2 Area of Study 1. It is designed to give students the opportunity to deepen their understanding of the importance of movement competence across the life span for physical activity participation and functional living, as well as prescribing movement to enhance the body system function.

Students are required to use their understanding of health-related fitness components to:

* justify an appropriate FMA for a targeted individual/group, from physiological, psychological and sociocultural perspectives
* conduct and evaluate an FMA using reliable, valid and accurate methodology

There are various FMA tools available that may be suitable for use, including this example. Additional details on completing an FMA can be found in the [Support Materials](https://www.vcaa.vic.edu.au/curriculum/vce/vce-study-designs/physicaleducation/Pages/TeachingandLearning.aspx)

What is meant by the terms intrapersonal and interpersonal in Unit 2 Area of Study 2?

The [*glossary*](https://www.vcaa.vic.edu.au/curriculum/vce/vce-study-designs/physicaleducation/Pages/Planning.aspx)in the Support Materials provides the definitions for the term intrapersonal (issues that occur within oneself, either physiologically or psychologically) and interpersonal (issues that occur with interactions and relationships between people and the dynamics of how individuals relate to and influence one another). In Unit 2 Area of Study 2, these terms are used to capture the various contemporary issues that affect access to, inclusion, participation and performance in physical activity and sport.

What changes have occurred to the delivery of Unit 2 Area of Study 2?

This area of study is not solely an investigation project where students investigate one issue. The intent is for students to first be guided through a range of contemporary issues before selecting one to explore in detail. To reinforce this, the first three key skills for Unit 2 Area of Study 2 emphasise the need for students to develop the ability to:

* explain a range of contemporary intrapersonal and interpersonal issues through participation,
* collect information and propose strategies to that enhance participation and performance.

The use of the term ‘such as’ indicates that not all issues need to be covered, providing schools and teachers with the flexibility to explore issues that are relevant to students in their context.

The final three key knowledge points and the accompanying final two key skills for this area of study, describe the scope for the student investigation where students will use their developed knowledge of a range of issues to explore one chosen issue in more detail through an investigation.

Unit 3 and Unit 4

What is the intent behind the revision to the key knowledge and key skill related to coaching approaches and how should this influence teaching and learning?

The key skill communicates the intent that coaching approach knowledge should be developed through a variety of practical activities. These activities should t allow students to consider both:

* the needs of the learner (e.g. stages of learning, motivation, feedback, practice scheduling)
* the performance requirements of the skill (e.g. complexity of the task, fatiguability, environment).

There may be **overlap** between these factors, such as the **fatiguability of the learner** (e.g., a **younger child**) and the **fatiguability of skill performance** (e.g., a **complex, gross movement that leads to quick fatigue**)

The key skill recognises the connectedness of the key knowledge and enables the use of practical activities to develop knowledge related to coaching approaches in an engaging manner.

What are students required to know with respect to key knowledge linked to the scheduling of practice for Unit 3 Area of Study 1?

The revised study design now includes examples of the required content for scheduling of practice. This includes **type** (part and whole), **distribution** (massed and distributed) and **variability** (blocked and random). It is important for students to link the scheduling terms type, distribution and variability to their respective classifications within each term.

When considering distribution of practice, students should recognise that this includes the distribution of practice sessions **within a week** and the distribution of practice attempts **within a training session**. The terms ‘massed’ and ‘distributed’ (practice) are non-binary and exist on a relative scale They should always be considered in comparison to each other, meaning that one training session can be more massed or more distributed than another.

A massed practice session schedule will involve fewer but longer training sessions per week. A distributed practice schedule consists of more frequent but shorter training sessions. The age, skill level and available training time of the individual will influence the choice between these schedules.

Within a training session:

* massed practice involves minimal rest between practice attempts (i.e. blocked practice of one skill or random practice of multiple skills).
* Distributed practice includes longer rest periods between attempts.

The choice of distribution within a training session depends on factors such as age and skill level of the individual and the type of skill being practiced (for example, continuous versus discrete skills).

Psychological skills and strategies content has been relocated from Unit 4 Area of Study 2 to Unit 3 Area of Study 1. What important considerations should be taken into account regarding this change?

Given the connection between psychological skills training and coaching, this content is now included in the key knowledge point of *considerations when coaching to enhance participation and performance.*

The scope of knowledge related to **psychological skills** (confidence, motivation, optimal arousal and concentration) remains unchanged, as do the **strategies used** to improve these skills. Key theoretical concepts that remain relevant when teaching psychological skills and their strategies include Nideffers Attention Model (concentration), Inverted ‘U’ theory (optimal arousal), intrinsic and extrinsic motivators (motivation).

Students are expected to understand the relationship between each skill and its corresponding strategy, acknowledging that some strategies can influence multiple skills. For example, an athlete using routines as a strategy can enhance concentration, confidence and optimal arousal. However, when applying strategies that develop psychological skills in specific scenarios, students must select the most appropriate and effective response. A ‘one-size fits all approach’ is not appropriate for prescribing psychological skill strategies. In assessments students are required to use the stimulus provided to determine the best strategy for a given psychological skill.

Sleep remains a relevant psychological strategy and can be referenced when discussing improvements in skills like concentration. Sleep is still within scope when students record training data in Unit 4 Area of Study 2.

What is the intended scope for the coverage of theories of skill acquisition (linear and non-linear) applied through direct and constraint-based coaching approaches?

The introduction of linear and non-linear theories of skill acquisition aims to provide a theoretical foundation for the decision-making processes coaches use when selecting direct or constraint-based coaching approaches. Therefore, the intended level of detail for covering linear and non-linear theories should focus on explaining appropriate coaching approaches for a given scenario.

It is important to acknowledge that decisions regarding which coaching approach to apply (direct or constraints) and the skill acquisition theory that informs these approaches (linear and non-linear) should be viewed as dynamic and individualised.

For example, a coach who is teaching two different children to snow ski for the first time, initially chose to provide both learners with direct coaching (using blocked practice). This decision was based on the learner’s stage of development, the complexity of the task and the environment. The coach prioritises clear instructions, feedback and progressive skill drills to safely teach the skill and build the learners’ confidence.

The coach quickly determined that one child developed an effective movement pattern (not necessarily a biomechanically perfect movement pattern, but one that safely achieved the desired outcome). As a result, the coach shifted to a constraints-based approach, incorporating random practice to encourage self-guided discovery. This decision was based on the child’s non-linear skill acquisition, as they experienced rapid skill development in a short period. Conversely, the other child demonstrated linear skill acquisition developing skills at a gradual rate. The coach maintained a direct approach only increasing movement complexity after the child had gained confidence and competence in the previous movement.

This table is designed to highlight the relationship between skill acquisition theories and coaching approaches.

|  |  |  |
| --- | --- | --- |
| **Theories of skill acquisition**  | **Linear**  | **Non-linear**  |
| **Characteristics of each theory** | Skill acquisition is viewed as occurring at a linear rate, progressing from basic movement patterns with minimal variability to more complex movements once mastery has occurred. The theory implies that the rate of learning is proportional to the amount of time spent practicing the skill. | The acquisition of movement skills with a strong emphasis on exploratory behaviors that allow the development of individualised movement skills through the interactions between the individual, the task and the environment.  |
| **Associated coaching approaches**  | Direct  | Constraints-based coaching  |
| **Characteristics of coaching approaches**  | A coach-oriented instruction model where the individual is given direct instruction on skill execution (what to do) and tactical awareness (when to do it). Often used in initial skill development | A discovery-based, learner-orientated model in which coaches facilitate learning of skill execution and tactical awareness within a modified game context. This occurs through the understanding and manipulation of constraints (task, individual and environment) |
| **Common variability of practice scheduling**  | *Blocked*, repetitive closed skill/drill approach  | *Random*, open skill performance in small-sided games  |
| **Example for application** **– *A learner performing Pickleball for the first time*** | A cognitive learner with no previous experience in racquet sports may benefit from a teacher led, structured skill drills (direct approach). This involves providing clear instruction, demonstrations and regular feedback, helping the learner develop an understanding of the required movements before progressing to their application in a game setting.  | An individual with extensive tennis experience but playing pickleball for the first time may benefit from a constraints-based approach. This approach recognises their previous experiences and allows them to move beyond closed drills that they are familiar with, shifting the focus to developing and applying their skills in an unfamiliar (open) small-sided games situation. A coach may adjust task constraints to emphasise specific skill and tactical elements that require greater attention from the performer. |

What changes have occurred within the scope of required biomechanical knowledge in Unit 3 Area of Study 1?

The following changes have occurred in the biomechanics key knowledge point:

* Removal of kinematic concepts distance and displacement
* Removal of Newtons three laws of **angular motion**
* A focus only on third-class levers

Will students need to do mathematical calculations for biomechanics in Unit 3 Area of Study 1?

In relation to biomechanics, the study design requires students to conduct qualitative analysis of movement skills. Students must understand the biomechanical principles outlined in the study design and apply these to a range of movement contexts. They are required to understand the relationship between variables and apply this knowledge across different movement contexts. Students may collect numerical data (such as speed or times) to compare or identify patterns or trends; however, quantitative analysis, including calculations, is not required. Students are not permitted to take a calculator into the end-of-year examination.

Should the terms ‘dominant’ and ‘pre-dominant’ be used to describe energy system contribution?

Students are encouraged to use the terms stated in the study design (such as rate, yield, recovery rates) when describing the contribution of each energy system in an activity, considering factors like intensity, duration and type of activity.

Terms such as, ‘increased/decreased contribution’, ‘most relied upon’, ‘significant’ and ‘minimal’ can be used in conjunction with data to describe the interplay of energy systems.

The terms ‘dominant’ and ‘pre-dominant’ are not included in the study design or Support Materials*.* These terms have been identified as a **source of confusion** for some students when explaining the **interplay of energy systems**. If students choose to use these terms, they must apply them correctly:

* Dominant refers to the energy system that contributes the most over the entire activity.
* Pre-dominant refers to the energy system that has the greatest contribution at a specific point in time during an activity. This distinction is essential to ensure clarity in students’ responses.

What is within scope for delivering knowledge related to the three fatigue mechanisms (fuel depletion, accumulation of metabolic by-products and thermoregulatory fatigue)?

Students must consider both individual factors (such as dietary and hydration status, and training status) and environmental factors (such as weather conditions) that influence fatigue under various exercise intensities and durations.

Fuel depletion includes creatine phosphate (CP) depletion and muscle glycogen depletion.

Metabolic by-product accumulation specifically includes hydrogen ion accumulation. When referring to the effects of hydrogen ion accumulation, students are not required to reference muscle acidity (pH) levels. Instead, the focus should be on its impact, such as reducing the rate and force of muscle contraction and decreasing power output.

Thermoregulatory fatigue refers to elevated body temperature, which may result in dehydration.

While inorganic phosphate accumulation is recognised as a factor limiting performance, the VCE Physical Education study design requires fatigue mechanisms to be explained in connection with their associated energy systems. Since CP depletion is the primary cause of fatigue for the ATP-CP system, inorganic phosphate accumulation is not within the scope of the study design.

What level of detail is required for teaching the revised key knowledge point in Unit 3 Area of Study 2 ‘nutritional and hydration strategies used to enhance performance, delay fatigue and improve recovery including carbohydrate ingestion, protein and water’?

The practice of carbohydrate loading is within scope for endurance events lasting approximately 90 minutes or more. Students should have a basic understanding of:

* the purpose of carbohydrate loading (in conjunction with tapering),
* the timing of the practice before an event
* examples of suitable foods/liquids for carbohydrate loading.

The term ‘carbohydrate ingestion’ includes consuming carbohydrates as part of a pre-event meal (such as 2-3 hours before an event) and during an endurance event. Students should understand the purpose of carbohydrate ingestion at these times and appropriate examples of carbohydrate that can enhance performance and delay fatigue.

The glycaemic index associated with carbohydrate ingestion is not within the scope of this knowledge area.

For hydration strategies, students are expected to know the role of water intake before and during physical activity to enhance performance and delay fatigue and post activity to promote recovery. While sports drinks can be discussed as an additional hydration aid, as well as for carbohydrate ingestion, students are not required to learn about the types of sports drinks or their osmolality as this is not within the scope of this study.

Students are expected to understand the role carbohydrates, protein and the co-ingestion of both in recovery. Specifically, co-ingesting carbohydrates with protein in recovery can enhance the rate of muscle glycogen replenishment.

Is lactate inflection point (LIP) part of the current study design?

Lactate inflection point (LIP) remains part of the revised study design. The concept of LIP relates to key knowledge in Unit 3 Area of Study 2 (energy systems and fatigue) and Unit 4 Area of Study 2 (chronic adaptations).

Clarification of content: LIP can be found on the [VCE Physical Education](https://www.vcaa.vic.edu.au/curriculum/vce/vce-study-designs/physicaleducation/Pages/TeachingandLearning.aspx) webpage of the VCAA website.

Are absolute and relative measures of oxygen consumption within the scope of the study?

Yes. The Unit 3 Area of Study 2 key knowledge point related to oxygen uptake at rest and during exercise requires students to know the accepted units of measurement for VO2 (L/min) and VO2 max (ml/kg/min). Students need to understand the difference between absolute (total amount of oxygen consumed, regardless of weight, age or gender) and relative (considers body weight and therefore can be used to compare measures) oxygen consumption.

What is the focus for applying knowledge related to fitness components in Unit 4 Area of Study 1?

The emphasis has shifted away from isolated definitions of fitness components. Instead, students must use activity analysis to justify the importance of fitness components (and other physiological requirements) for a given activity. However, they are still required to understand the factors that affect each fitness component.

Body composition and reaction time are no longer included in the list of fitness components in the scope of the study.

What is the place of fitness testing in Unit 4 Area of Study 1?

Students are no longer required to know the methods of two standardised, recognised fitness tests.

The key skills for Unit 4 Area of Study 1 require fitness test knowledge (justify the selection of standardised, recognised fitness tests for the specific physiological requirements of the activity) and the assessment of fitness (perform and observe a reliable, valid and accurate assessment of fitness) to be developed through student participation in fitness tests.

A list of recommended fitness tests for student participation is provided in the [Support Materials for Unit 4 Area of Study 1](https://www.vcaa.vic.edu.au/curriculum/vce/vce-study-designs/physicaleducation/Pages/TeachingandLearning.aspx). However, students are not expected to participate in fitness tests for the fitness components coordination and balance.

What are accepted examples of measuring intensity?

Accepted measures for intensity include:

* %HR max
* % VO2 max
* RPE
	+ Modified (Borg’s) RPE Scale 1-10.

This is the **assumed scale of use**, unless a student identifies otherwise. A response in an assessment context of e.g. ‘RPE 9’ is appropriate. Students are not required to write ‘Modified Borg’s scale’ or ‘Borg’s scale’ when using the 1-10 scale.

* + Borg’s 6-20 scale.

If a student wishes to use this scale, **they must make this clear** in their response, e.g. ‘RPE 19 on the 6-20 scale’. A reference to ‘Borg’s’ is not required.

* %1RM
* Qualitative terms such as ‘maximal’ or ‘all-out effort’, which (without doubt) communicate the level of exertion in an activity.

What does the term ‘wearable technologies’ include?

Unit 4 Area of Study 2 requires students to participate in training sessions and record physiological, psychological and sociological data. This includes training diaries, digital tools (such as training data recording Apps.) and wearable technologies.

Examples of wearable technologies include heart rate monitors, GPS devices, smart watches and pedometers.

What information are students required to know when studying high intensity interval training (HIIT)?

Supplementary material on HIIT was published in February 2022 and remains relevant for the revised VCE Physical Education study design. This material is available in the [Clarification of Content](https://www.vcaa.vic.edu.au/curriculum/vce/vce-study-designs/physicaleducation/Pages/TeachingandLearning.aspx) section within the Support Materials.

When teaching HIIT as a training method, it is important to reinforce the following key elements:

* HIIT is an aerobic training method
* While HIIT provides some anaerobic benefits (such as increases in lactate tolerance), for the purposes of VCE Physical Education, HIIT is not classified as a method for targeting anaerobic capacity.
* The distinctive feature of HIIT as an aerobic training method is of its focus on accumulating time spent training at an intensity close to VO2 max
* HIIT training protocols can include both active and passive recovery.

How often should progression be applied within a training program design?

Progression refers to the application of an increased workload stimulus (or stress) within a training program. When the current workload becomes easier to complete and adaptations plateau, it may indicate the need for a new progression. The frequency of progression will vary depending on the individual and the training method. Given this, students should focus on understanding how to correctly apply progression, rather than predicting the exact point at which it should occur in a training program.

What resistance training protocols are accepted?

Given the **variation in literature** regarding suitable **resistance training protocols** for **muscular endurance, muscular strength, and muscular power**, a set of accepted VCE Physical Education protocols has been published in the [Clarification of Content](https://www.vcaa.vic.edu.au/curriculum/vce/vce-study-designs/physicaleducation/Pages/TeachingandLearning.aspx) section of the Teaching and Learning Support Materials.

While these protocols provide a useful starting point for developing understanding, students are expected to apply their knowledge of resistance training and the training principle of ‘individuality’ to different contexts. For example, an individual with limited resistance training experience is likely to begin at the lower end of the prescribed range, whereas a highly trained individual may need to start closer to the upper end of a prescribed range.

What is expected when demonstrating an understanding of chronic adaptations?

The study design requires aerobic, anaerobic and resistance training adaptations to be explicitly linked to performance improvements in VO2 max, LIP, speed and force of muscular contraction and lactate tolerance. Students are expected to demonstrate their understanding by making connections between training methods, the specific adaptations produced (when training principles are correctly applied) and the resulting performance improvements.

Students should recognise that different training methods targeting the same energy system can lead to distinct adaptations. For example, short interval training and plyometrics both target the ATP-CP system as anaerobic training methods. However, plyometrics may lead to increased muscular fibre size, an adaptation not typically associated with short interval training.

Similarly, in resistance training, adaptations will depend on which fitness component is being targeted, meaning the specific adaptations will vary according based on the focus of the resistance training program.

Unit 4 Area of Study 3

Detailed information on the implementation of Unit 4 Area of Study 3 can be found in the [Assessment](https://www.vcaa.vic.edu.au/curriculum/vce/vce-study-designs/physicaleducation/Pages/Assessment.aspx#GAA) section of the Support Materials.

What practical activity choice needs to be made for Unit 4 Area of Study 3?

The two practical activity options for Unit 4 Area of Study 3 are:

* Performance of one movement skill, compared to another person completing the same skill (i.e elite performer, peer, younger child)
* Performance of two movement skills which have suitable similarities and differences that the student can compare their performance

Can the practical activity be the same one completed for a different purpose?

No. The chosen practical activity context for Unit 4 Area of Study 3 is a standalone context (e.g. the activity should not be used as the source of primary data for another assessment, such as Unit 3 Outcome 1) with the intent to maximise practical activity through the study.

Teachers might decide to revisit the U4 AOS 3 practical activity throughout the year at chosen times to coincide with opportunities to complete a folio entry making links to the theoretical concepts (skill acquisition, biomechanics, energy production and training)

Can I let my students know what the practical activity (skill or skills) is at the start of the year?

Yes. Students when completing their folio entries, require the practical activity context to make theoretical links (skill acquisition, biomechanics, energy production and training).

What role does the inquiry question play?

An inquiry question provides the context that links the practical activity to the theoretical connections students are required to make within the discipline areas of skill acquisition, biomechanics, energy production and training.

The inquiry question can be given to students at the start of the year when the practical activity for Unit 4 Area of Study 3 is first introduced. Importantly, this is not the extended response SAC question that students will eventually complete. It is a question that is derived from the Outcome statement and is broad in nature. Examples of how the inquiry question could be framed are available in the Unit 4 Area of Study 3 information in the [Assessment](https://www.vcaa.vic.edu.au/curriculum/vce/vce-study-designs/physicaleducation/Pages/Assessment.aspx#GAA) section of the Support Materials.

How should the reflective folio be used for Unit 4 AOS 3?

As the practical activity is completed and revisited at appropriate times throughout the year, teachers should determine *what*, *when* and *how* students will complete reflective folio entries for U4 AOS 3.

Detailed information is provided in the Unit 4 Area of Study 3 information in the [Assessment](https://www.vcaa.vic.edu.au/curriculum/vce/vce-study-designs/physicaleducation/Pages/Assessment.aspx#GAA) section of the Support Materials. In summary, students need to complete a minimum of four entries that allow for the theoretical connections to be recorded between the practical activity and the four discipline areas (skill acquisition, biomechanics, energy production and training).

Other considerations for using the reflective folio in Unit 4 Area of Study 3 include:

* the need for folio entries to be authenticated. Therefore, student entries should only be done at school in class time
* the teacher retaining the reflective folio throughout the year
* the teacher capping the amount of information (e.g. one page per knowledge area) to assist students in identifying the strongest theoretical connections to the activities completed and ensuring the information can be organised easily when it is time to complete the planning tool

What are students allowed to bring into the assessment from their reflective folio?

Students are only allowed access to the reflective folio entries they made for Unit 4 Area of Study 3. This data will have been authenticated, and students can access this information for both the completion of the planning tool such as concept or mind map) and the extended response.

Are both the planning tool and extended response question completed in same SAC lesson? What are the practicalities of completing the SAC task?

Yes, both elements of the assessment (planning tool and extended response) should be completed in the same lesson. An example of the timing allocated to both elements is approximately 20 minutes for the planning tool and 25-30 minutes for the extended response task.

Once students have completed the planning tool, which requires them to make broad interdisciplinary connections across the four discipline areas relevant to the practical activity context, they are given and must complete the SAC extended response question. This question, which they have not seen before, includes the detail on the elements of the four discipline areas that students are expected to demonstrate their understanding of. Examples of what the SAC question could look like are available in the [Assessment](https://www.vcaa.vic.edu.au/curriculum/vce/vce-study-designs/physicaleducation/Pages/Assessment.aspx) section of the Support Materials.

Assessment

What are the assessment requirements for Unit 1 and Unit 2 VCE Physical Education?

Unit 1 has a designated assessment task (a written report analysing participation in at least 4 physical activities) that encompass both Outcome 1 and Outcome 2. In addition, at least one further task is required to be implemented from the list of tasks outlined on page 18 of the study design.

Unit 2 Outcome 1 is recommended to be assessed through a written plan or multimedia presentation designed to increase physical activity and/or reduce sedentary behavior. Suitable tasks to assess Unit 2 Outcome 2 are listed on page 22 of the study design.

Information on the intended structure of each task type is included in the [Assessment](https://www.vcaa.vic.edu.au/curriculum/vce/vce-study-designs/physicaleducation/Pages/Assessment.aspx) section of the Support Materials.

The Unit 3 Area of Study 1 assessment task requires the application of biomechanical and skill acquisition principles. Can this task be divided into two tasks?

No. The task requires a movement skill to be analysed using biomechanical **and** skill acquisition principles, to be done together as part of the same task.

If the task was to be divided into two smaller tasks (for example, to assess two different movement skills), an analysis using both biomechanical and skill acquisition principles would need to be included in both tasks. It is important to consider that dividing the tasks raises concerns about the VCE assessment principle of ‘efficiency’, which aims to prevent ‘over assessment’ and an increased workload for both students and teachers.

The number of SAC tasks in Unit 3 has been reduced from three to two. What implications does this have for assessing a representative sample of the study design?

Teachers are reminded of the distinction between determining satisfactory completion of an Outcome and the assessment of levels of achievement through School-assessed Coursework (SAC) tasks. Students are required to understand the formative teaching and learning tasks that will contribute to receiving an ‘S’ for the Outcome. These S/N tasks and the key knowledge and key skills they encompass, should provide a broad representation of the Outcome.

In Unit 3 there is now only one SAC task per Outcome. As a result, there is a large amount of key knowledge and key skills against which student achievement could be assessed in these tasks. However, teachers **do not** need to assess every key knowledge and key skill in an individual SAC task. The task should cover a representative sample of key knowledge and key skills, ensuring that overassessment of knowledge does not occur.

Teachers are encouraged to map the key knowledge and key skills being used in formative (S/N) and summative (achievement - SAC) assessment prior to each Outcome to ensure a representative sample is being covered. An example of a mapping template is included in the ‘[Planning](https://www.vcaa.vic.edu.au/curriculum/vce/vce-study-designs/physicaleducation/Pages/Planning.aspx)’ section of the Support Materials.

What happens if a student cannot participate in practical activity contributing to assessment in Unit 3 and Unit 4?

A number of assessments require the participation in and collection of primary data through practical activities.

If injury prevents participation in the practical activity, then the student can be an active participant in the collection of data. This includes allowing the student to record observations of others completing the practical activity in the reflective folio and drawing on this information.

In the event of absence, the assessment tasks requiring primary data collection through a practical activity are often designed with multiple other opportunities for participation (for example Unit 3 Outcome 1, Unit 4 Outcome 2, task 2 and Unit 4 Outcome 3). This structure allows the student to participate in the subsequent activities.

How many fitness components should be included in the case study for the design of a training program (Unit 4 Outcome 2, task 1)?

Teachers need to ensure that the case study provided to students is complex enough to enable differentiation between students. The case study should refer to at least two relevant fitness components, which would then allow students to include different training methods within the design of their six-week training program.

What considerations are there for assessing Unit 4 Outcome 3?

Both the planning tool and the extended response are assessable for the Unit 4 Outcome 3 SAC task. The [performance descriptor](https://www.vcaa.vic.edu.au/curriculum/vce/vce-study-designs/physicaleducation/Pages/Assessment.aspx#GAA) for Unit 4 Outcome 3 provides an appropriate starting point as a tool for assessing this SAC task.

The planning tool aims to assess the student’s broad understanding of the four discipline areas (skill acquisition, biomechanics, energy production and training), in relation to the selected practical activity context. Students who perform at a very high level in this assessment will demonstrate a detailed understanding of each concept providing multiple examples for each knowledge area. They will also make multiple connections between these concepts both within and across discipline areas, with accurate explanations of the nature of the connections.

The extended response task is assessed by evaluating the quantity and quality of interrelationships that students make between the factors identified in the extended response question. A sample of how this task is assessed can be found in the assessment section of the Support Materials.

What abbreviations are acceptable for use in assessment?

In addition to commonly accepted scientific abbreviations (examples include but are not limited to HR, CHO, CO2, H2O and VO2), terms that are written as abbreviations throughout the current study design, the Support Materialdocumentation(examples include but are not limited to PAR-Q, HIIT) can be used in VCE Physical Education assessment without needing to first state the term the abbreviation represents.

If in doubt, students are recommended to write the entire term and not use an abbreviation. Given the use of electronic marking in the end-of-year examination, students can no longer rely on the use of a self-created abbreviation across different exam questions, on different pages.