

# VCE: Physical Education

VCE Physical Education explores the complex interrelationships between anatomical, biomechanical, physiological and skill acquisition principles to understand their role in producing and refining movement, and examines behavioural, psychological, environmental and sociocultural influences on performance and participation in physical activity.

The assimilation of theoretical understanding and practice is central to the study of VCE Physical Education.

Students participate in practical activities to examine the core concepts that underpin movement and that influence performance and participation in physical activity, sport and exercise.

Through integrated physical, written, oral and digital learning experiences, students apply theoretical concepts and reflect critically on factors that affect all levels of performance and participation in sport, exercise and physical activity.

**STRUCTURE:** The study is made up of four units: Each unit contains two areas of study

Unit 1: The human body in motion

Unit 2: Physical activity, sport and society

Unit 3: Movement skills and energy for physical activity

Unit 4: Training to improve performance

## Unit 1: The human body in motion

In this unit students explore how the musculoskeletal and cardiorespiratory systems work together to produce movement. Through practical activities students explore the relationships between the body systems and physical activity, sport and exercise, and how the systems adapt and adjust to the demands of the activity.

Students investigate the role and function of the main structures in each system and how they respond to physical activity, sport and exercise. They explore how the capacity and functioning of each system acts as an enabler or barrier to movement and participation in physical activity.

Using a contemporary approach, students evaluate the social, cultural and environmental influences on movement.

They consider the implications of the use of legal and illegal practices to improve the performance of the musculoskeletal and cardiorespiratory systems, evaluating perceived benefits and describing potential harms.

They also recommend and implement strategies to minimise the risk of illness or injury to each system.

### AREA OF STUDY 1

#### How does the musculoskeletal system work to produce movement?

In this area of study students examine the musculoskeletal system of the human body and how the muscles and bones work together to produce movement. Through practical activities they explore the major components of the musculoskeletal system and their contributions and interactions during physical activity, sport and exercise.

Students evaluate the social, cultural and environmental influences on movement, and how the capacity and functioning of the muscular and skeletal systems may act as an enabler or barrier to participation in physical activity.

Sedentary behaviour, overtraining and participation at the elite and recreational level are investigated as possible causes of illness and injury to the musculoskeletal system. Students consider a variety of legal and illegal practices and substances used to enhance performance from an ethical and a biophysical perspective.



### AREA OF STUDY 2

#### How does the cardiorespiratory system function at rest and during physical activity?

In this area of study students examine the cardiovascular and respiratory systems of the human body and how the heart, blood vessels and lungs function at rest and during physical activity. Through practical activities students explore

the structure and function of the cardiorespiratory system and their contributions and interactions during physical activity, sport and exercise. Enablers and barriers to the capacity and functioning of the cardiovascular and respiratory systems are investigated from a sociocultural, environmental and physical perspective. Students explore the ethical and performance considerations of the use of a variety of legal and illegal practices and substances specific to each system.

## Unit 2: Physical activity, sport and society

This unit develops students' understanding of physical activity, sport and society from a participatory perspective. Students are introduced to types of physical activity and the role participation in physical activity and sedentary behaviour plays in their own health and wellbeing as well as in other people's lives in different population groups. Through a series of practical activities, students experience and explore different types of physical activity promoted in their own and different population groups. They gain an appreciation of the level of physical activity required for health benefits. Students investigate how participation in physical activity varies across the lifespan. They explore a range of factors that influence and facilitate participation in regular physical activity. They collect data to determine perceived enablers of and barriers to physical activity and the ways in which opportunities for participation in physical activity can be extended in various communities, social, cultural and environmental contexts. Students investigate individual and population-based consequences of physical inactivity and sedentary behaviour. They then create and participate in an activity plan that meets the physical activity and sedentary behaviour guidelines relevant to the particular population group being studied.

Students apply various methods to assess physical activity and sedentary behaviour levels at the individual and population level, and analyse the data in relation to physical activity and sedentary behaviour guidelines. Students study and apply the social-ecological model and/or the Youth Physical Activity Promotion Model to critique a range of individual- and settings-based strategies that are effective in promoting participation in some form of regular physical activity.



### AREA OF STUDY 1

#### What are the relationships between physical activity, sport, health and society?

In this area of study students focus on the role of physical activity, sport and society in developing and promoting healthy lifestyles and participation in physical activity across the lifespan. Students explore the social, cultural and historical influences on participation in various forms of physical activity, including sport. They investigate at the individual and population levels the physical, social, mental and emotional benefits of participation in regular physical activity and the potential negative physical, social, mental and emotional consequences of physical inactivity and sedentary behaviour, including hypokinetic diseases such as Type 2 diabetes and obesity.

### AREA OF STUDY 2

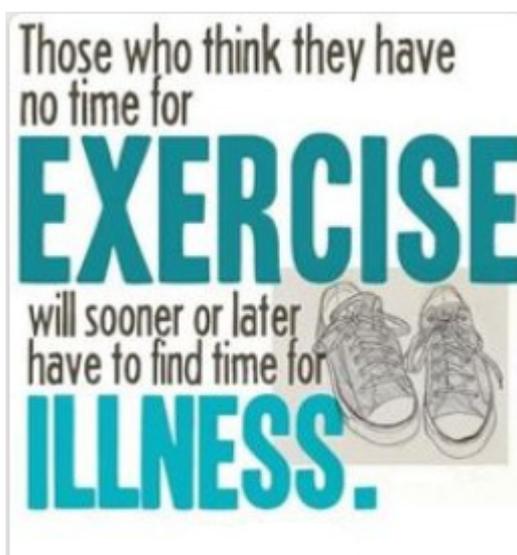
#### What are the contemporary issues associated with physical activity and sport?

In this area of study students focus on a range of contemporary issues associated with physical activity and/or sport at the local, national and global level. They investigate in detail one issue relevant to physical activity and/or sport. Possible issues suitable for investigation include declining levels of physical activity across the lifespan, active transport, gender equity in physical activity and sport, cultural diversity and inclusion in physical activity, risk management and safety in physical activity and sport, children and competitive sport, the community and recreation, access to physical activity for population groups such as children, rural and remote communities, cultural groups, Aboriginal and Torres Strait Islanders and people with disabilities.

### Assessment

Assessment tasks for Unit 1 & 2 may include:

- practical laboratory reports
- data and case study analyses
- participation in practical activities.
- written responses
- tests/exams



## Unit 3: Movement skills and energy for physical activity

This unit introduces students to the biomechanical and skill acquisition principles used to analyse human movement skills and energy production from a physiological perspective. Students use a variety of tools and techniques to analyse movement skills and apply biomechanical and skill acquisition principles to improve and refine movement in physical activity, sport and exercise. They use practical activities to demonstrate how correct application of these principles can lead to improved performance in physical activity and sport.

Students investigate the relative contribution and interplay of the three energy systems to performance in physical activity, sport and exercise. In particular, they investigate the characteristics of each system and the interplay of the systems during physical activity. Students explore the causes of fatigue and consider different strategies used to postpone fatigue and promote recovery.

### AREA OF STUDY 1

#### How are movement skills improved?

In this area of study students examine the biomechanical and skill acquisition principles that can be applied when analysing and improving movement skills used in physical activity and sport. Through coaching and involvement in a variety of practical activities, students investigate and analyse movements to develop an understanding of how the correct application of biomechanical and skill acquisition principles leads to greater efficiency and accuracy in movement skills.

### AREA OF STUDY 2

#### How does the body produce energy?

In this area of study students explore the various systems and mechanisms associated with the production of energy required for human movement. They consider the cardiovascular, respiratory and muscular systems and the roles of each in supplying oxygen and energy to the working muscles. They examine the way in which energy for activity is produced by the three energy systems and the associated fuels used for activities of varying intensity and duration. Students also consider the many factors contributing to fatigue as well as recovery strategies used to return to pre-exercise conditions. Through practical activities students explore the interplay of the energy systems during physical activity.



## Unit 4: Training to improve performance

In this unit students analyse movement skills from a physiological, psychological and sociocultural perspective, and apply relevant training principles and methods to improve performance within physical activity at an individual, club and elite level. Improvements in performance, in particular fitness, depend on the ability of the individual and/ or coach to gain, apply and evaluate knowledge and understanding of training. Students analyse skill frequencies, movement patterns, heart rates and work to rest ratios to determine the requirements of an activity. Students consider the physiological, psychological and sociological requirements of training to design and evaluate an effective training program.

Students participate in a variety of training sessions designed to improve or maintain fitness and evaluate the effectiveness of different training methods. Students critique the effectiveness of the implementation of training principles and methods to meet the needs of the individual, and evaluate the chronic adaptations to training from a theoretical perspective.

### AREA OF STUDY 1

#### What are the foundations of an effective training program?

In this area of study students focus on the information required to form the foundation of an effective training program. They use data from an activity analysis and determine the fitness requirements of a selected physical activity. They also use data collected from participating in a series of fitness tests to inform the design of the training program. Students determine the relevant factors that affect each of the fitness components, and conduct a series of fitness tests that demonstrate correct and ethical implementation of testing protocols and procedures.

### AREA OF STUDY 2

#### How is training implemented effectively to improve fitness?

In this area of study students focus on the implementation and evaluation of training principles and methods from a practical and theoretical perspective. They consider the manner in which fitness can be improved through the application of appropriate training principles and methods. Students identify and consider components of an exercise training session, they monitor, record and adjust training. Students explain the chronic adaptations to the cardiovascular, respiratory and muscular systems.

## Assessment of levels of achievement

School-assessed Coursework for Unit 3 will contribute 25 per cent.

School-assessed Coursework for Unit 4 will contribute 25 per cent.

End-of-year examination will contribute 50 per cent.

