Physical Education: Unit 1&2

Rationale:

Physical Education examines the biological, physiological, psychological, social and cultural influences on performance and participation in physical activity. Physical Education focuses on the complex interrelationship between motor learning and psychological, biomechanical, physiological and sociological factors that influence physical performances, together with the wider social attitudes to and understanding of physical activity.

A theoretical and practical approach towards physical activity is taken in this study. It provides the means by which theory and practice are integrated. Participation in physical activity and development of performance skills provide opportunities for students to reflect on factors that affect performance and participation in physical activity, as well as improve their own performance.

The study of physical activity is important to the health and wellbeing of Australians. There is increasing evidence that regular, moderate physical activity throughout a person’s life is necessary for physical, social and emotional health. There is also increasing evidence of the health risks associated with a lack of physical activity. The current research, focusing on the measurement of physical activity patterns and trends at a national level, has led to the development of National Physical Activity Guidelines for Australians. This provides a benchmark against which individuals and groups can evaluate their patterns of physical activity.

Physical Education is relevant to students with a wide range of expectations, including those who wish to pursue further formal study at tertiary level or in vocational education and training settings. The study prepares students for such fields as human movement, nursing or physiotherapy, as well as providing valuable knowledge and skills for participating in their own sporting and physical activity pursuits.
Unit 1: Learning and Improving Skill

Unit Description:

This unit looks at a range of factors that influence learning and improving physical skills and the role of the coach in making this happen. The ways in which a coach influences his or her athletes can have a significant effect on their performance, and the methods and approaches that the coach puts into practice will impact on the individual athlete in different ways. By studying various sports psychology concepts such as arousal and anxiety, and the effects these can have on performance, students will be able to apply these psychological principles to the sporting arena. Students will also focus on general principles that are common to analysing physical performance and learning physical skills, and the biomechanical principles of movement involved in these skills. The unit approaches the biomechanics of physical skills from the perspective of improving physical performance. Students use practical activities to enhance the theoretical understanding of factors involved in learning and improving skill.

Area of Study / Outcome

AREA OF STUDY 1: Movement Analysis

Outcome 1

On completion of this unit the student should be able to explain the application of biomechanical and skill learning principles in analysing how motor skills are learnt and improved.

To achieve this outcome the student will draw on knowledge and related skills outlined in area of study 1.

Key knowledge

This knowledge includes:

- skill learning principles such as stages of skill learning, factors affecting skill learning (for example types of skills, stages of learning, transfer and mental practice); information processing systems and the provision and use of feedback in enhancing performance;
- ways in which skill levels vary from beginner through to the skilled elite athlete;
- developing and refining basic movement patterns (for example striking, throwing, running and stopping) by applying a selection of biomechanical principles such as force and momentum, impact, transfer of momentum, inertia, balance, action and reaction, pushing and pulling.

Key skills

These skills include the ability to:

- describe biomechanical and skill learning principles using the correct terminology;
- perform, observe, analyse and report on practical and laboratory exercises related to biomechanics and skill learning;
- compare and contrast the impact of different techniques on performance;
- evaluate the efficiency of movement techniques using biomechanical principles.
AREA OF STUDY 2: Coaching for Enhanced Performance

Outcome 2

On completion of this unit the student should be able to identify and evaluate a range of coaching practices that lead to enhanced sports performance.

To achieve this outcome the student will draw on knowledge and related skills outlined in area of study 2.

Key knowledge

This knowledge includes:

- sports psychology in coaching; for example, motivation, arousal and anxiety, confidence, mental imagery and concentration;
- the roles of a coach in catering for individual needs such as elite and novice, child, adolescent, adult;
- styles of coaching;
- sports coaching skills, including the characteristics and responsibilities of a respected coach.

Key skills

These skills include the ability to:

- describe the characteristics and responsibilities of a respected coach;
- perform and evaluate coaching styles in relation to the suitability for the target audience;
- explain how motivation, arousal and anxiety, confidence, mental imagery and concentration in sport and physical activity affect learning and performance.
Unit 2: The Active Body

Unit Description:

This unit introduces the students to an understanding of physical activity, including the relationships between body systems and physical activity, the place of physical activity in contributing to well being in students own lives as well as within the wider community, and the classification of physical activity in terms of type and experience. Such knowledge is important to student understanding and is best delivered through a variety of practical activities.

The students will look at a range of factors that influence performance in physical activity. It is recognised that regular participation in physical activity is important for the health of individuals and the community. Students will investigate how the patterns of physical activity vary across the lifespan, including the physical, social and emotional benefits of participation in physical activity. A theoretical model, the Stages of Change, will be used to understand engagement with physical activity.

Area of Study / Outcome

AREA OF STUDY 1: Body Systems and Performance

Outcome 1

On completion of this unit the student should be able to explain how the musculoskeletal, cardio respiratory and energy systems function during physical activity, including how the energy systems work together to enable activity to occur.

To achieve this outcome the student will draw on knowledge and related skills outlined in area of study 1.

Key knowledge

This knowledge includes:

- the musculoskeletal system: movement terminology, major joints and joint action, major muscles, characteristics and functions of skeletal muscle fibre, nervous control of muscles, the mechanics of breathing, types of muscular contraction;
- the cardio-respiratory system: structure of the heart and lungs, mechanics of breathing, gaseous exchange, blood vessels, blood flow around the body at rest and during exercise;
- introduction to aerobic and anaerobic energy systems, including aerobic and anaerobic glycolysis.

Key skills

These skills include the ability to:

- use correct terminology to describe the role of the body systems at rest and when undertaking physical activity;
- observe and record how the body systems function during physical activity;
- identify and discuss the range of acute effects that physical activity has on the body;
- perform, observe, analyse, evaluate and report on laboratory exercises related to the body systems.
AREA OF STUDY 2: The Impact of Physical Activity on the Individual

Outcome 2

On completion of this unit the student should be able to explain the impact of participation in physical activity on the health of selected population(s) and analyse factors affecting participation in physical activity.

To achieve this outcome the student will draw on knowledge and related skills outlined in area of study 2.

Key knowledge

This knowledge includes:

- the concepts of exercise, physical fitness and physical activity;
- dimensions of physical activity including type, frequency, intensity and duration;
- the nature of physical activity across the human lifespan;
- health benefits (physical, social, and emotional) of regular physical activity;
- health consequences of physical inactivity including mental health, Type 2 diabetes, obesity, cardiovascular disease, hypertension and high cholesterol levels;
- factors influencing participation in physical activity including individual, social and physical environment;
- understanding the Stages of Change model to explain engagement with physical activity.

Key skills

These skills include the ability to:

- compare and contrast the concepts of exercise, physical fitness and physical activity;
- participate in a variety of activities that target particular age groups across the lifespan and evaluate the associated health benefits (physical, social and emotional);
- identify the Stages of Change of involvement in physical activity (Pre-Contemplation, Contemplation, Preparation, Action, Maintenance and Termination);
- collect and analyse data related to positive health effects of physical activity;
- identify the consequences of physical inactivity as related to mental health, Type 2 diabetes, obesity, cardiovascular disease, hypertension & high cholesterol levels.

School Assessed Coursework:

The award of satisfactory completion for this unit of Physical Education is based on:

- a decision that the student has demonstrated achievement of the set of outcomes specified for the unit;
- the teacher’s assessment of the student’s performance on assessment tasks designated for this unit;
- work related to the outcomes are authentic, that is work will only be accepted if the teacher can attest that, to the best of their knowledge, all unacknowledged work is the student’s own.

Levels of Achievement: Units 1 and 2
Schools will report a result for this unit to the Victorian Curriculum and Assessment Authority as S (Satisfactory) or N (Not Satisfactory). Schools may choose to report levels of achievements using grades, descriptive statements or other indicators.

LINK TO: 'CRC Sydenham VCE Policies' placed here

Graded Assessment Tasks:

- SAC 1: Open and Closed Skills Laboratory Report
- SAC 2: Learning, Practising and Processing Skills Test
- SAC 3: Profile of a Coach Written Report
- SAC 4: Biomechanics PowerPoint Presentation
- End of Semester Examination

LINK TO: 'Physical Education Unit 1: Parent/Student Timeline' placed here