



VCE INDUCTION PACKAGE 2022

UNITS 3 AND 4

PHYSICAL EDUCATION



[Please don't call our subject 'sport'. It is Physical Education!](#)

Welcome letter

Dear students,

Welcome to Physical Education Units 3 and 4.

If you are well organised, motivated and have a good work ethic, you will have an enjoyable and successful year in Physical Education.

In order to get the most out of this course, there are a number of things that I strongly suggest that you do over the summer and continue throughout 2022.

1. Complete the holiday homework task by the due date. (Jan 31/1/2022 – this is the first day of school!)
2. Familiarise yourself with the detailed course outline provided in this package.
3. Develop a good working relationship with your class teacher and maintain regular communication with them throughout the year.
4. Develop a study timetable that will assist you in meeting the work deadlines.
5. Ensure that you become familiar with the resources (prescribed textbook, websites, notes, other textbooks)
6. Visit the VCAA website regularly to familiarise yourself with past examination papers and to read the examiners' reports: www.vcaa.vic.edu.au
7. Become familiar with the school's VCE compliance policy by reading the VCE handbook located on Compass.
8. Communicate with students who have studied the subject in previous years to get their perspective and suggestions for success.
9. Ensure that you have a balanced life that consists of schoolwork, exercise, sport, leisure, rest and a healthy diet. If you want to do well, there are aspects of your life that you need to manage. Time on screens and extra work shifts need to be minimized.

If you have any queries about the course, please contact me at school or by email.

I wish you all the best for your studies next year,

Regards,
Cara Macfarlane

Email addresses/Staffroom locations of Staff teaching subject

NAME OF TEACHER	EMAIL ADDRESS	LOCATION
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OUTLINE OF STUDY

Unit 3: Movement skills and energy for physical activity

Outcome 1

On completion of this unit the student should be able to collect and analyse information from, and participate in, a variety of physical activities to develop and refine movement skills from a coaching perspective, through the application of biomechanical principles.

Outcome 2

On completion of this unit the student should be able to use data collected in practical activities to analyse how the major body and energy systems work together to enable movements to occur, and explain the factors causing fatigue and suitable recovery strategies.

Unit 4: Training to improve performance

Outcome 1

On completion of this unit the student should be able to analyse data from an activity analysis and fitness tests to determine and assess the fitness components and energy system requirements of the activity.

Outcome 2

On completion of this unit the student should be able to participate in a variety of training methods, and design and evaluate training programs to enhance specific fitness components.

KEY KNOWLEDGE CRITERIA

UNIT THREE

Outcome 1

Key knowledge:

- classification of movement skills including fundamental movement skills, sport specific skills, open and closed skills, gross and fine skills, and discrete, serial and continuous motor skills
- influences on movement including individual, task and environmental constraints on motor skill development
- the link between motor skill development and participation and performance
- qualitative movement analysis principles (preparation, observation, evaluation and error correction)
- biomechanical principles for analysis of human movement including:
 - – angular and linear kinetic concepts of human movement: Newton's three laws of motion, inertia, mass, force, momentum and impulse
 - – angular and linear kinematic concepts of human movement: distance, displacement, speed, velocity, acceleration and projectile motion (height, angle and speed of release)
 - – equilibrium and human movement: levers (force, axis, resistance and the mechanical advantage of anatomical levers), stability and balance (centre of gravity, base of support and line of gravity)
- direct and indirect constraints based approaches to coaching and instruction
- sociocultural factors that have an effect on skill development, and the characteristics of the three stages of learning (cognitive, associative and autonomous)
- practice strategies to improve movement skills including amount, distribution (massed and distributed) and variability (blocked and random)
- feedback including type (intrinsic, augmented, knowledge of results and knowledge of performance) and frequency.

Outcome 2

Key knowledge:

- fuels (both chemical and food) required for resynthesis of ATP at rest and during physical activity, including the relative contribution of fuels at varying exercise intensities
- characteristics of the three energy systems (ATP-CP, anaerobic glycolysis, aerobic system) for physical activity, including rate of ATP production, the yield of each energy system, fatigue/limiting factors and recovery rates associated with active and passive recoveries
- interplay of energy systems in relation to the intensity, duration and type of activity
- oxygen uptake at rest, and during exercise and recovery, including oxygen deficit, steady state, and excess post-exercise oxygen consumption
- acute physiological responses to exercise in the cardiovascular, respiratory and muscular systems.

UNIT FOUR

Outcome 1

Key knowledge:

- activity analysis, including skill frequencies, movement patterns, heart rates and work to rest ratios
- fitness components: definitions and factors affecting aerobic power, agility, anaerobic capacity, balance, body composition, coordination, flexibility, muscular endurance, power and strength, reaction time and speed
- assessment of fitness including:
 - – the purpose of fitness testing including physiological, psychological and sociocultural perspectives
 - – pre-participation health screening (PAR-Q)
 - – informed consent
 - – test aims and protocols
 - – test reliability and validity
- methods of at least two standardised, recognised tests for aerobic power, agility, anaerobic capacity, body composition, flexibility, muscular endurance, power and strength and speed.

Outcome 2

Key knowledge:

- strategies to monitor and record physiological, psychological and sociological training data, including training diaries, digital activity trackers and apps
- components of an exercise training session including warm up, conditioning phase and cool down
- training program principles, including frequency, intensity, time, type, progression, specificity, individuality, diminishing returns, variety, maintenance, overtraining and detraining
- training methods including continuous, interval (short, intermediate, long and high intensity), fartlek, circuit, weight/resistance, flexibility and plyometrics
- psychological strategies used to enhance performance and aid recovery including sleep, confidence and motivation, optimal arousal, mental imagery and concentration
- nutritional and rehydration recovery strategies including water, carbohydrate and protein replenishment
- chronic adaptations of the cardiovascular, respiratory and muscular systems to aerobic, anaerobic and resistance training.

Key Dates/Timelines of Topics, Outcomes and Activities

Assessment dates 2022.

Unit 3- Movement skills and energy for physical activity

Task	Date
Outcome 1 – 50 marks Collect and analyse information from, and participate in a variety of practical activities, coaching perspective and application of biomechanical and skill acquisition principles.	
SAC 1 – 30 marks Structured questions that draw on primary data which analyses a movement skill using biomechanical and skill acquisition principles.	Term 1 Wk 5
SAC 2 – 20 marks Structured questions drawing on primary data analysing skill acquisition principles.	Term 1 Wk 8
Outcome 2 – 50 marks Use data collected in practical activities to analyse how the major body and energy systems work together to enable movements to occur, and explain factors causing fatigue and recovery strategies.	
SAC 1 - 25 marks Laboratory report based on primary data collected during participation in a practical activity, which analyses the relative contribution of energy systems and acute responses to exercise.	Term 2 Wk 4
SAC2 – 25 marks Structured questions which focus on energy system interplay, fatigue and/or recovery.	Term 2 Wk 6

Unit 4 – Training to improve performance

Task	Date
Outcome 1 – 30 marks Analyse data from an activity analysis and fitness tests to determine and assess the fitness components and energy system requirements of the activity.	
SAC 1 – 30 marks A written report analysing data from an activity analysis to determine the relevant fitness components and energy system requirements in a selected activity, and including justification of the selection of appropriate tests to assess fitness.	Term 3 Wk 2
Outcome 2 – 70 marks Analyse and evaluate strategies designed to enhance performance or promote recovery.	
**SAC 1- 20 marks Structured questions which link chronic adaptations of the cardiovascular, respiratory and muscular systems to training methods and improved performance.	Term 2 Wk 10
SAC 2 – 25 marks A reflective folio of participation in a minimum of 5 different training sessions focusing on the components of the session, the training method completed and the implementation of training principles to the fitness components being trained.	Term 3 Wk 3-7.
SAC 3 – 25 marks A written report that will draw on the personal experiences recorded in the folio to design a six week training program for a given case study.	Term 3 Wk 9

Please note only the approximate week of the assessment task is listed. Confirm the dates with your teacher during the year. It is subject to changes.

Assessment – Tasks, Dates (Weeks), Relative Weighting etc

UNIT 3 and 4

COURSEWORK AND SAC REQUIREMENTS:

In order to successfully pass a Unit, all students are required to;

- complete all set coursework.
- obtain a pass in all scheduled School Assessed Coursework (SACS).

Where a student does not pass a SAC they will be given the opportunity to redeem the task in order to reach a satisfactory standard, however where this occurs the students will retain their original mark for VCAA purposes.

All students are required to be up to date with their coursework prior to sitting a SAC.

Percentage contributions to the study score in STUDY are as follows:

Unit 3 School-assessed Coursework:	25%
Unit 4 School-assessed Coursework:	25%
End-of-year examination:	50%

Assessment of levels of achievement

The student's level of achievement in Unit 3 and 4 will be determined by school-assessed coursework and an end of year examination.

UNIT 3 and 4

Assessment Summary – STUDY Unit 3&4 :

	<i>Week:</i>	<i>Task:</i>	<i>Marks (to VCAA):</i>
<i>Unit 3-</i>			<i>/100</i>
SAC 1	Term 1 Wk 5	<i>Structured questions – drawing on primary data to analyse movement skills using biomechanical principles</i>	<i>/30</i>
SAC 2	Term 1 Wk 8	<i>Structured questions – drawing on primary data analysing skill acquisition principles.</i>	<i>/20</i>
SAC 3	Term 2 Wk 4	<i>Laboratory report – based on collection of primary data, analysing relative contribution of energy systems and acute responses to exercise.</i>	<i>/25</i>
SAC 4	Term 2 Wk 6	<i>Structured questions – focus on energy system interplay, fatigue and recovery.</i>	<i>/25</i>
<i>Unit 4-</i>			<i>/100</i>
SAC 1	Term 2 Wk 10	<i>Structured questions – chronic adaptations</i>	<i>/20</i>
SAC 2	Term 3 Wk 2	<i>Written Report – analysing data from activity analysis. Fitness components, energy system requirements and fitness tests</i>	<i>/30</i>
SAC 3	Term 3 Wk 3-7	<i>Reflective folio – participation in minimum 5 different training sessions.</i>	<i>/ 25</i>
SAC 4	Term 3 Wk 9	<i>Written report – design six- week training program.</i>	<i>/25</i>
			<i>TOTAL OF UNIT 1 &2 Converted to 50%</i>
<i>Exam</i>	<i>Nov 2022</i>		<i>50%</i>

Sources of support for the Study – inc. key staff, websites, documentation

Links

VCAA Physical Education <http://www.vcaa.vic.edu.au>

MS Teams: Year 12 PE team

Materials Required – Texts, Stationery, and other Resources

Required Materials to be brought to each class

Writing materials and a Folder with Plastic pockets and writing paper or A4 writing books. (you need a system that works for you! You will have a lot of course content to organise)

Text Book – Nelson Physical Education, units 3 & 4

Printed Notes

Nelson Student workbook

Holiday Tasks to be completed in preparation for the beginning of the 2022 school year

EVERYONE HAS TO COMPLETE:

Task 1: The Projectile Motion laboratory report.

Task 2: Read chapter Four Nelson Phys Ed and complete a summary. This could be chapter questions, mind maps, etc. However you choose!

Task 3: Complete the Nelson Peak Performance Warm Up workbook questions on Chapter four. Answers you could answer in one colour, questions you needed help with in another colour. These should be completed JUST prior to starting school in 2021.

FANTASIC PHYS ED FANATICS TO COMPLETE:

Task 1: Read and summarise Chapter 3 (pages 43 - 63).

Task 2: Read and summarise Chapter 5 (pages 89-105).

Task 3: Complete the 'Warm Up questions in the Workbook.

If you complete any Chapter summaries early – feel free to email them to your teacher.