



# Exercise Science

A / T / M

Cover Art provided by Canberra College student Aidan Giddings

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## The ACT Senior Secondary System

The ACT senior secondary system recognises a range of university, vocational or life skills pathways.

The system is based on the premise that teachers are experts in their area: they know their students and community and are thus best placed to develop curriculum and assess students according to their needs and interests. Students have ownership of their learning and are respected as young adults who have a voice.

A defining feature of the system is school-based curriculum and continuous assessment. School-based curriculum provides flexibility for teachers to address students' needs and interests. College teachers have an opportunity to develop courses for implementation across ACT schools. Based on the courses that have been accredited by the BSSS, college teachers are responsible for developing programs of learning. A program of learning is developed by individual colleges to implement the courses and units they are delivering.

Teachers must deliver all content descriptions; however, they do have flexibility to emphasise some content descriptions over others. It is at the discretion of the teacher to select the texts or materials to demonstrate the content descriptions. Teachers can choose to deliver course units in any order and teach additional (not listed) content provided it meets the specific unit goals.

School-based continuous assessment means that students are continually assessed throughout years 11 and 12, with both years contributing equally to senior secondary certification. Teachers and students are positioned to have ownership of senior secondary assessment. The system allows teachers to learn from each other and to refine their judgement and develop expertise.

Senior secondary teachers have the flexibility to assess students in a variety of ways. For example: multimedia presentation, inquiry-based project, test, essay, performance and/or practical demonstration may all have their place. College teachers are responsible for developing assessment instruments with task specific rubrics and providing feedback to students.

The integrity of the ACT Senior Secondary Certificate is upheld by a robust, collaborative and rigorous structured consensus-based peer reviewed moderation process. System moderation involves all Year 11 and 12 teachers from public, non-government and international colleges delivering the ACT Senior Secondary Certificate.

Only students who desire a pathway to university are required to sit a general aptitude test, referred to as the ACT Scaling Test (AST), which moderates student course scores across subjects and colleges. Students are required to use critical and creative thinking skills across a range of disciplines to solve problems. They are also required to interpret a stimulus and write an extended response.

Senior secondary curriculum makes provision for student-centred teaching approaches, integrated and project-based learning inquiry, formative assessment and teacher autonomy. ACT Senior Secondary Curriculum makes provision for diverse learners and students with mild to moderate intellectual disabilities, so that all students can achieve an ACT Senior Secondary Certificate.

The ACT Board of Senior Secondary Studies (BSSS) leads senior secondary education. It is responsible for quality assurance in senior secondary curriculum, assessment and certification. The Board consists of representatives from colleges, universities, industry, parent organisations and unions. The Office of the Board of Senior Secondary Studies (OBSSS) consists of professional and administrative staff who support the Board in achieving its objectives and functions.

## **ACT Senior Secondary Certificate**

Courses of study for the ACT Senior Secondary Certificate:

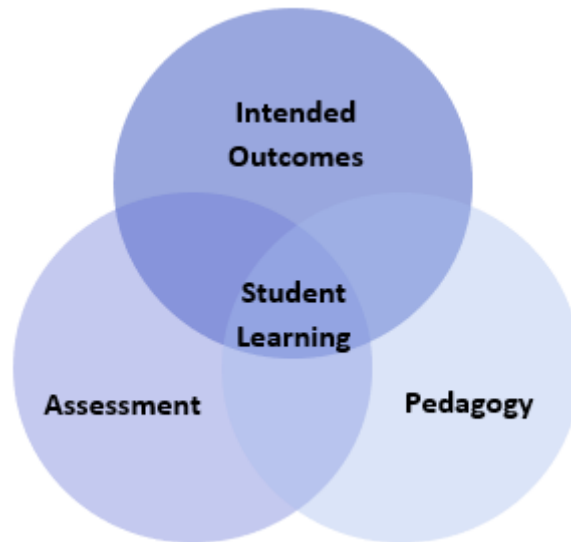
- provide a variety of pathways, to meet different learning needs and encourage students to complete their secondary education
- enable students to develop the essential capabilities for twenty-first century learners
- empower students as active participants in their own learning
- engage students in contemporary issues relevant to their lives
- foster students' intellectual, social and ethical development
- nurture students' wellbeing, and physical and spiritual development
- enable effective and respectful participation in a diverse society.

Each course of study:

- comprises an integrated and interconnected set of knowledge, skills, behaviours and dispositions that students develop and use in their learning across the curriculum
- is based on a model of learning that integrates intended student outcomes, pedagogy and assessment
- outlines teaching strategies which are grounded in learning principles and encompass quality teaching
- promotes intellectual quality, establish a rich learning environment and generate relevant connections between learning and life experiences
- provides formal assessment and certification of students' achievements.

## Underpinning beliefs

- All students are able to learn.
- Learning is a partnership between students and teachers.
- Teachers are responsible for advancing student learning.



## Learning Principles

1. Learning builds on existing knowledge, understandings and skills.  
*(Prior knowledge)*
2. When learning is organised around major concepts, principles and significant real world issues, within and across disciplines, it helps students make connections and build knowledge structures.  
*(Deep knowledge and connectedness)*
3. Learning is facilitated when students actively monitor their own learning and consciously develop ways of organising and applying knowledge within and across contexts.  
*(Metacognition)*
4. Learners' sense of self and motivation to learn affects learning.  
*(Self-concept)*
5. Learning needs to take place in a context of high expectations.  
*(High expectations)*
6. Learners learn in different ways and at different rates.  
*(Individual differences)*
7. Different cultural environments, including the use of language, shape learners' understandings and the way they learn.  
*(Socio-cultural effects)*
8. Learning is a social and collaborative function as well as an individual one.  
*(Collaborative learning)*
9. Learning is strengthened when learning outcomes and criteria for judging learning are made explicit and when students receive frequent feedback on their progress.  
*(Explicit expectations and feedback)*

## General Capabilities

All courses of study for the ACT Senior Secondary Certificate should enable students to develop essential capabilities for twenty-first century learners. These 'capabilities' comprise an integrated and interconnected set of knowledge, skills, behaviours and dispositions that students develop and use in their learning across the curriculum.

The capabilities include:

- literacy
- numeracy
- information and communication technology (ICT)
- critical and creative thinking
- personal and social
- ethical behaviour
- intercultural understanding

Courses of study for the ACT Senior Secondary Certificate should be both relevant to the lives of students and incorporate the contemporary issues they face. Hence, courses address the following three priorities. These priorities are:

- Aboriginal and Torres Strait Islander histories and cultures
- Asia and Australia's engagement with Asia
- Sustainability

Elaboration of these General Capabilities and priorities is available on the ACARA website at [www.australiancurriculum.edu.au](http://www.australiancurriculum.edu.au).

### Literacy

Exercise Science assists in the development of literacy by introducing specific terminology used in exercise science on texts. Students understand the language used to describe physiology, biomechanics, body systems, exercise information products and services. They also develop skills that empower them to be critical consumers able to access, interpret, analyse, challenge and evaluate the ever-expanding and changing knowledge base and influences in the fields of health and physical education. In physical activity settings, students develop an understanding of the language of movement and movement sciences. This is essential in analysing their own and others' movement performances.

Students also learn to comprehend and compose texts related to Exercise Science. This includes learning to communicate effectively for a variety of purposes to different audiences, express their own ideas and opinions, evaluate the viewpoints of others and express their emotions appropriately in a range of social and physical activity contexts.

Students become literate as they develop the knowledge, skills and dispositions to interpret and use language confidently for learning and communicating in and out of school and for participating effectively in society. Literacy involves students in listening to, reading, viewing, speaking, writing and creating oral, print, visual and digital texts, and using and modifying language for different purposes in a range of contexts.

## **Numeracy**

Exercise Science provides students with opportunities to recognise the mathematics that exists in Health and Physical Education learning experiences. As they engage with Exercise Science, students see the importance of numeracy, select relevant numeracy knowledge and skills, and apply these skills in a range of contexts. Students use calculation, estimation and measurement to collect and make sense of information related to, for example, nutrition, fitness, oxygen intake or various skill performances. They use spatial reasoning in movement activities and in developing concepts and strategies for improving performance in individual and team sports or recreational pursuits. Students interpret and analyse health and physical activity information using mathematical formulae, statistical reasoning, identifying patterns and relationships in data to consider trends, draw conclusions, make predictions and inform exercise science behaviour and practices.

## **Information and Communication Technology (ICT) Capability**

Exercise Science enhances ICT learning by helping students to effectively and safely access online health and physical activity information and services to manage their own and others' health and wellbeing. Students use ICT as key tools for communicating, collaborating, creating content, seeking help, accessing information and analysing performance in the Exercise Science field.

They use a range of ICT to analyse, measure and enhance movement performances and to access and critically evaluate exercise science information, products and services. They also use ICT to develop plans for nutrition and physical activity participation.

In the Australian Curriculum, students develop ICT capability as they learn to use ICT effectively and appropriately to access, create and communicate information and ideas, solve problems and work collaboratively in all learning areas at school, and in their lives beyond school. The capability involves students in learning to make the most of the digital technologies available to them, adapting to new ways of doing things as technologies evolve and limiting the risks to themselves and others in a digital environment.

## **Critical and Creative Thinking**

Exercise Science develops students' ability to think logically, critically and creatively in response to a range of Health and Exercise Science issues, ideas and challenges. Students learn how to critically evaluate evidence related to the learning area and the broad range of associated media messages to creatively generate and explore original alternatives and possibilities.

In Health and Physical Education, students' critical and creative thinking skills are developed through learning experiences that encourage them to pose questions and seek solutions to health issues by designing appropriate strategies to promote and advocate personal, social and community health and wellbeing through exercise science. Students also use critical thinking to challenge societal factors that negatively influence their own and others' health and wellbeing.

Exercise Science also provides learning opportunities that support technique refinement and improved physical performance.

## **Personal and Social Capability**

Exercise Science contributes to the development of personal and social capability for all students. Working collaboratively with others in movement- and non-movement-based activities develops students' personal and social skills as well as an appreciation of their own strengths and abilities and those of their peers. They develop a range of interpersonal skills such as communication, negotiation, teamwork and leadership, and an appreciation of diverse perspectives.

The curriculum provides opportunities for students to explore their own identities and develop an understanding of factors that influence and shape who they are. They learn how to recognise, understand, validate and respond appropriately to their own emotions, strengths and values.

They develop the knowledge, understanding and skills to set and monitor personal and academic goals, effectively manage their time, and prioritise tasks and responsibilities in order to balance their school, home, work and social commitments.

## **Ethical Understanding**

Students examine ethical principles and codes of practice appropriate to different contexts, such as at school, at home, in the community, in relationships, on the sporting field, in the natural environment. As students explore concepts and consequences of fair play, equitable participation, empathy and respect, they develop skills to make ethical decisions and understand the consequences of their actions. They also develop the capacity to apply these skills in everyday situations and exercise science-based contexts.

Building ethical understanding throughout all stages of schooling will assist students to engage with the more complex issues that they are likely to encounter in the future, and to navigate a world of competing values, rights, interests and norms.

Exercise Science provides some content that demands consideration from an ethical perspective. This includes analysing and evaluating the ethics of the actions and motivations of individuals and groups, understanding the ethical dimensions of research and information, debating ethical dilemmas and applying ethics in a range of situations.

## **Intercultural Understanding**

Exercise Science provides opportunities for students to recognise and respect different ways of thinking about personal, family and social health issues. They also learn about different individual, group and intergroup participation in physical activity and health practices. Students learn to appreciate that differences in beliefs and perspectives may affect how some people make food and health choices, or how they are able to participate in physical activities.

Students recognise occasions when tensions between individuals and groups are based on cultural differences, and learn to act in ways that maintain individual and group integrity and that respect the rights of all. They examine stereotypical representations of various social and cultural groups in relation to exercise science issues and concepts of participation, success and failure in physical activity. In doing so, students gain an understanding of how culture shapes personal and social perspectives and interactions. They also gain an understanding of what is valued in terms of health and physical activity within their families, social groups and institutions, and within other cultures in the broader community.

## **Cross-Curriculum Priorities**

### **Aboriginal and Torres Strait Islander Histories and Cultures**

The Aboriginal and Torres Strait Islander histories and cultures priority provides the opportunity for all young Australians to gain a deeper understanding and appreciation of Aboriginal and Torres Strait Islander histories and cultures, deep knowledge traditions and holistic world views. This knowledge and understanding will enrich all learners' ability to participate positively in the ongoing development of Australia through a deepening knowledge and connection with the world's oldest continuous living cultures.

### **Asia and Australia's Engagement with Asia**

The priority of Asia and Australia's engagement with Asia provides opportunities for students to explore the synergy between Asia and Australia in the areas of health and physical activity. An understanding of the engagement between Australia and Asia contributes to the capacity of students to be active and informed citizens.

### **Sustainability**

Students explore how they connect and interact with natural, managed and built environments, and with people in different social groups within their social networks and wider communities. They consider how these connections and interactions within systems play an important role in promoting, supporting and sustaining the wellbeing of individuals, the community and the environment as a whole, now and into the future.

Students develop an understanding of their potential to contribute to sustainable patterns of living. They will develop their world view by exploring concepts of diversity, social justice and consumerism as these relate to the promotion and maintenance of health and wellbeing. Through movement experiences, students are provided with opportunities to develop a connection in and with environments and to gain an appreciation of the interdependence of the health of people and that of environments.

# Exercise Science

## A / T / M

### Rationale

Exercise science examines theories of the biological, physiological, biomechanical and psychological, the interrelationship and influences on performance and participation in physical activity. Students develop insights into the science underpinning sports performance and movement. When students undertake practical activities in Exercise Science they gain knowledge through experiential learning.

This course prepares students for further study and provides pathways into careers such as physiotherapy, sport and injury prevention, fitness training and allied health.

### Goals

This course should enable students to:

- analyse Exercise Science theories, concepts, principles, methodologies, assumptions, perspectives and ideas
- analyse the nature and purpose of Exercise Science and the impact of factors that influence self, others and well-being
- analyse values and attitudes and evaluate their influence on Exercise Science
- communicate in a range of modes and mediums for specific purposes and audiences
- reflect on and apply concepts, skills and strategies.

### Unit Titles

- Anatomy and Physiology of the Human Body
- Factors Affecting Performance
- Preparation for Training and Performance
- The Body in Motion
- Independent Study

### Organisation of Content

#### Anatomy and Physiology of the Human Body

In this unit, students will examine and explore the structure and function of musculoskeletal and cardiorespiratory systems and analyse how the systems adapt and adjust to the demands of physical activity. Students will investigate these systems from a cellular to systemic level allowing them to develop and understanding of how each system acts as an enabler or barrier to physical performance.

## **Factors Affecting Performance**

In this unit, students will examine the physiological, psychological and behavioural theories that influence athletic performance. Students will be introduced to factors affecting performance and develop basic insights into the science underpinning the management of sports injuries and athletic mindset. Students will examine and explore how the extent and intensity of sports participation relates to the incidence of sports injuries and explore a range of technical and scientific approaches for maintaining the physical and mental well-being of athletes.

## **Preparation for Training and Performance**

In this unit, students investigate the factors that influence sports performance. Students will critically analyse the effectiveness of training and nutritional guidelines and how they contribute to the improvement of athletic performance. Students will explore a variety of training and nutritional principles to develop an understanding of the varying needs of community target groups and elite athletes.

## **The Body in Motion**

In this unit, students will explore the biomechanical and physiological principles involved in analysing and interpreting the body in motion and energy production. Students will apply a variety of methods used to analyse movement patterns and examine the physiological adaptations to exercise. Students will investigate the biomechanical and physiological factors that influence athletic performance.

## **Independent Study**

An Independent Study unit has an important place in senior secondary courses. It is a valuable pedagogical approach that empowers students to make decisions about their own learning. An Independent Study unit can be proposed by an individual student for their own independent study and negotiated with their teacher. The program of learning for an Independent Study unit must meet the unit goals and content descriptions as they appear in the course.

Independent Study units are only available to individual students in Year 12. A student can only study a maximum of one Independent Study unit in each course. Students must have studied at least three standard 1.0 units from this course. An Independent Study unit requires the principal's written approval. Principal approval can also be sought by a student in Year 12 to enrol concurrently in an Independent Study unit and their third 1.0 unit in this course of study.

## Assessment

The identification of criteria within the achievement standards and assessment task types and weightings provides a common and agreed basis for the collection of evidence of student achievement.

**Assessment Criteria** (the dimensions of quality that teachers look for in evaluating student work) provide a common and agreed basis for judgement of performance against unit and course goals, within and across colleges. Over a course, teachers must use all these criteria to assess students' performance but are not required to use all criteria on each task. Assessment criteria are to be used holistically on a given task and in determining the unit grade.

**Assessment Tasks** elicit responses that demonstrate the degree to which students have achieved the goals of a unit based on the assessment criteria. The Common Curriculum Elements (CCE) is a guide to developing assessment tasks that promote a range of thinking skills (see Appendix C). It is highly desirable that assessment tasks engage students in demonstrating higher order thinking.

**Rubrics** are constructed for individual tasks, informing the assessment criteria relevant for a particular task and can be used to assess a continuum that indicates levels of student performance against each criterion.

### Assessment Criteria

Students will be assessed on the degree to which they demonstrate:

- knowledge and understanding
- skills.

## Assessment Task Types

Task Type	Knowledge and understanding	Skills
	<b>Suggested tasks:</b> <ul style="list-style-type: none"> <li>• research essays</li> <li>• assignments</li> <li>• reports</li> <li>• exam/tests</li> <li>• multimedia tasks</li> <li>• reflective diaries</li> <li>• journals</li> <li>• portfolios</li> <li>• logs</li> </ul>	<b>Suggested tasks:</b> <ul style="list-style-type: none"> <li>• practical laboratories</li> <li>• presentations</li> <li>• orals</li> <li>• physical activity tasks</li> <li>• practical tests</li> <li>• campaigns &amp; case studies</li> <li>• debates</li> <li>• seminars</li> <li>• field trips</li> </ul>
<b>Weightings in A 1.0 and 0.5 units</b>	40 - 60%	40 - 60%
<b>Weightings in T 1.0 and 0.5 units</b>	40 - 60%	40 - 60%
<b>Weightings in M 1.0 and 0.5 units</b>	10 - 90%	10 - 90%

### Additional Assessment Information

- For a standard unit (1.0), students must complete a minimum of three assessment tasks and a maximum of five.
- For a half standard unit (0.5), students must complete a minimum of two and a maximum of three assessment tasks.
- Assessment tasks for a standard (1.0) or half-standard (0.5) unit must be informed by the Achievement Standards.
- Students should experience a variety of task types and different modes of communication to demonstrate the Achievement Standards.
- Suggested guidelines for a written task - A: 500-800 words, T: 800-1500 words.
- Suggested guidelines for an oral presentation - A: 5-8 minutes, T: 8-15 minutes.

## **Achievement Standards**

Years 11 and 12 achievement standards are written for A/T courses. A single achievement standard is written for M courses.

A Year 12 student in any unit is assessed using the Year 12 achievement standards. A Year 11 student in any unit is assessed using the Year 11 achievement standards. Year 12 achievement standards reflect higher expectations of student achievement compared to the Year 11 achievement standards. Years 11 and 12 achievement standards are differentiated by cognitive demand, the number of dimensions and the depth of inquiry.

An achievement standard cannot be used as a rubric for an individual assessment task. Assessment is the responsibility of the college. Student tasks may be assessed using rubrics or marking schemes devised by the college. A teacher may use the achievement standards to inform development of rubrics. The verbs used in achievement standards may be reflected in the rubric. In the context of combined Years 11 and 12 classes, it is best practice to have a distinct rubric for Years 11 and 12. These rubrics should be available for students prior to completion of an assessment task so that success criteria are clear.

**Achievement Standards for Exercise Science A Course - Year 11**

	<i>A student who achieves an A grade typically</i>	<i>A student who achieves a B grade typically</i>	<i>A student who achieves a C grade typically</i>	<i>A student who achieves a D grade typically</i>	<i>A student who achieves an E grade typically</i>
<b>Knowledge and understanding</b>	<ul style="list-style-type: none"> <li>analyses exercise science theories, concepts and models used to explain health, outdoor and physical activity</li> <li>analyses exercise science principles, strategies, methodology, approaches to data and procedures</li> <li>analyses exercise science topics</li> <li>communicates ideas with coherent arguments using appropriate evidence, language and accurate referencing</li> </ul>	<ul style="list-style-type: none"> <li>discusses exercise science theories, concepts and models used to explain health, outdoor and physical activity</li> <li>discusses exercise science principles, strategies, methodology, approaches to data and procedures</li> <li>discusses exercise science topics</li> <li>communicates ideas and arguments using appropriate evidence, language and accurate referencing</li> </ul>	<ul style="list-style-type: none"> <li>interprets exercise science theories, concepts and models used to explain health, outdoor and physical activity</li> <li>interprets exercise science principles, strategies, methodology, approaches to data and procedures</li> <li>interprets exercise science topics</li> <li>communicates ideas and arguments with referencing</li> </ul>	<ul style="list-style-type: none"> <li>describes exercise science theories, concepts and models used to explain health, outdoor and physical activity</li> <li>describes exercise science principles, strategies, methodology, approaches to data and procedures</li> <li>describes exercise science topics</li> <li>communicates ideas and information with minimal referencing</li> </ul>	<ul style="list-style-type: none"> <li>identifies exercise science theories, concepts and models used to explain health, outdoor and physical activity</li> <li>identifies exercise science principles, strategies, methodology, approaches to data and procedures</li> <li>identifies exercise science topics</li> <li>communicates limited ideas and information with limited or no referencing</li> </ul>
<b>Skills</b>	<ul style="list-style-type: none"> <li>applies exercise science concepts, models, principles, methodology, ideas with control and precision to a practical context and specific physical, health or outdoor education activities</li> <li>plans and undertakes independent inquiries and analyses relevant data and information based on critical evaluation of valid and reliable sources</li> <li>makes discerning and effective choice of principles, strategies, methodology, procedures to solve a wide range of complex problems and to enhance meaning and the physical performances of self and others</li> <li>analyses practical techniques and performance with reference to specific skills criteria</li> </ul>	<ul style="list-style-type: none"> <li>applies exercise science concepts, models, principles, methodology, ideas with control to a practical context and specific physical, health or outdoor education activities</li> <li>plans and undertakes independent inquiries and explains relevant data and information based on an assessment of valid and reliable sources</li> <li>makes effective and justified choice of principles, strategies, methodology, procedures to solve a range of problems and to enhance meaning and the physical performances of self and others</li> <li>discusses practical techniques and performance with reference to specific skills criteria</li> </ul>	<ul style="list-style-type: none"> <li>applies exercise science concepts, models, principles, methodology, ideas with some control to a practical context and specific physical, health or outdoor education activities</li> <li>undertakes guided inquiries and describes data and information based on appropriate sources</li> <li>makes effective choice of strategies, methodology, procedures to solve problems and to enhance physical performances of self and others</li> <li>interprets practical techniques and performance with reference to specific skills criteria</li> </ul>	<ul style="list-style-type: none"> <li>applies exercise science concepts, models, principles, methodology, ideas with minimal control to a practical context and specific physical, health or outdoor education activities</li> <li>undertakes guided inquiries with some reference to data using limited sources</li> <li>makes some effective choice of strategies, methodology, procedures to solve problems with some impact on physical performances of self and others</li> <li>describes practical techniques and performance with some reference to specific skills criteria</li> </ul>	<ul style="list-style-type: none"> <li>applies exercise science concepts, models, principles, methodology, ideas with little or no control in a practical context</li> <li>undertakes guided research with little or no reference to data and sources</li> <li>selects strategies, methodology, procedures to solve problems with little or no impact on physical performances of self and others</li> <li>identifies practical techniques and performance with little or no reference to specific skills criteria</li> </ul>

**Achievement Standards for Exercise Science T Course - Year 11**

	<i>A student who achieves an A grade typically</i>	<i>A student who achieves a B grade typically</i>	<i>A student who achieves a C grade typically</i>	<i>A student who achieves a D grade typically</i>	<i>A student who achieves an E grade typically</i>
<b>Knowledge and understanding</b>	<ul style="list-style-type: none"> <li>analyses exercise science theories, concepts and models and evaluates their limitations and assumptions</li> <li>analyses exercise science principles, strategies, methodology, approaches to data, procedures and discusses their validity and reliability</li> <li>analyses representations and interpretations of exercise science topics and discusses their significance</li> <li>communicates ideas with coherent arguments using appropriate evidence, language and accurate referencing</li> </ul>	<ul style="list-style-type: none"> <li>analyses exercise science theories, concepts and models and explains their limitations and assumptions</li> <li>analyses exercise science principles, strategies, methodology, approaches to data, procedures and explains their validity and reliability</li> <li>analyses representations and interpretations of exercise science topics and explains their significance</li> <li>communicates ideas and arguments using appropriate evidence, language and accurate referencing</li> </ul>	<ul style="list-style-type: none"> <li>explains exercise science theories, concepts and models and describes their limitations and assumptions</li> <li>explains exercise science principles, strategies, methodology, approaches to data, procedures and describes their validity and reliability</li> <li>explains representations and interpretations of exercise science topics describes their significance</li> <li>communicates ideas and arguments with referencing</li> </ul>	<ul style="list-style-type: none"> <li>describes exercise science theories, concepts and models with some reference to their limitations and assumptions</li> <li>describes exercise science principles, strategies, methodology, approaches to data, procedures with some reference to their validity and reliability</li> <li>describes representations and interpretations of exercise science topics and makes some reference to their significance</li> <li>communicates ideas and information with minimal referencing</li> </ul>	<ul style="list-style-type: none"> <li>identifies exercise science theories, concepts and models with little to no reference to their limitations and assumptions</li> <li>identifies exercise science principles, strategies, methodology, approaches to data, procedures with little or no reference to their validity and reliability</li> <li>identifies representations and interpretations of exercise science topics and makes little or no reference to their significance</li> <li>communicates limited ideas and information with limited or no referencing</li> </ul>
<b>Skills</b>	<ul style="list-style-type: none"> <li>applies concepts, models, principles, methodology, ideas with control and precision to a practical context and specific physical, Exercise Science activities</li> <li>plans and undertakes independent inquiries and analyses relevant data and information based on critical evaluation of valid and reliable sources</li> <li>makes discerning and effective choice of principles, strategies, methodology, procedures to solve a wide range of complex problems and to enhance meaning and the physical performances of self and others</li> <li>analyses with insight on practical techniques and performance with reference to specific skills criteria</li> </ul>	<ul style="list-style-type: none"> <li>applies concepts, models, principles, methodology, ideas with control to a practical context and specific physical, Exercise Science activities</li> <li>plans and undertakes independent inquiries and explains relevant data and information based on an assessment of valid and reliable sources</li> <li>makes effective and justified choice of principles, strategies, methodology, procedures to solve a range of problems and to enhance meaning and the physical performances of self and others</li> <li>analyses practical techniques and performance with reference to specific skills criteria</li> </ul>	<ul style="list-style-type: none"> <li>applies concepts, models, principles, methodology, ideas with some control to a practical context and specific physical, Exercise Science activities</li> <li>undertakes guided inquiries and describes data and information based on appropriate sources</li> <li>makes effective choice of strategies, methodology, procedures to solve problems and to enhance physical performances of self and others</li> <li>explains practical techniques and performance with reference to specific skills criteria</li> </ul>	<ul style="list-style-type: none"> <li>applies concepts, models, principles, methodology, ideas with minimal control to a practical context and specific physical, Exercise Science activities</li> <li>undertakes guided inquiries with some reference to data using limited sources</li> <li>makes some effective choice of strategies, methodology, procedures to solve problems with some impact on physical performances of self and others</li> <li>describes practical techniques and performance with some reference to specific skills criteria</li> </ul>	<ul style="list-style-type: none"> <li>applies concepts, models, principles, methodology, ideas with little or no control in a practical context</li> <li>undertakes guided research with little or no reference to data and sources</li> <li>selects strategies, methodology, procedures to solve problems with little or no impact on physical performances of self and others</li> <li>identifies practical techniques and performance with little or no reference to specific skills criteria</li> </ul>

**Achievement Standards for Exercise Science A Course - Year 12**

	<i>A student who achieves an A grade typically</i>	<i>A student who achieves a B grade typically</i>	<i>A student who achieves a C grade typically</i>	<i>A student who achieves a D grade typically</i>	<i>A student who achieves an E grade typically</i>
<b>Knowledge and understanding</b>	<ul style="list-style-type: none"> <li>analyses exercise science theories, concepts and models and explains their limitations and assumptions</li> <li>analyses exercise science principles, strategies, methodology, approaches to data, procedures and explains their validity and reliability</li> <li>analyses exercise science topics and explains their significance</li> <li>communicates ideas with coherent arguments using appropriate evidence, language and accurate referencing</li> </ul>	<ul style="list-style-type: none"> <li>explains exercise science theories, concepts and models and discusses their limitations and assumptions</li> <li>explains exercise science principles, strategies, methodology, approaches to data, procedures and discusses their validity and reliability</li> <li>explains exercise science topics and discusses their significance</li> <li>communicates ideas and arguments using appropriate evidence, language and accurate referencing</li> </ul>	<ul style="list-style-type: none"> <li>discusses exercise science theories, concepts and models and describes their limitations and assumptions</li> <li>discusses exercise science principles, strategies, methodology, approaches to data, procedures and describes their validity and reliability</li> <li>discusses exercise science topics describes their significance</li> <li>communicates ideas and arguments with referencing</li> </ul>	<ul style="list-style-type: none"> <li>describes exercise science theories, concepts and models with some reference to their limitations and assumptions</li> <li>describes exercise science principles, strategies, methodology, approaches to data, procedures with some reference to their validity and reliability</li> <li>describes exercise science topics and makes some reference to their significance</li> <li>communicates ideas and information with minimal referencing</li> </ul>	<ul style="list-style-type: none"> <li>identifies exercise science theories, concepts and models with little to no reference to their limitations and assumptions</li> <li>identifies exercise science principles, strategies, methodology, approaches to data, procedures with little or no reference to their validity and reliability</li> <li>identifies exercise science topics and makes little or no reference to their significance</li> <li>communicates limited ideas and information with limited or no referencing</li> </ul>
<b>Skills</b>	<ul style="list-style-type: none"> <li>applies concepts, models, principles, methodology, ideas with control and precision to a practical context and specific physical, health or outdoor education activities</li> <li>plans and undertakes independent inquiries and analyses relevant data and information based on critical evaluation of valid and reliable sources</li> <li>makes discerning and effective choice of principles, strategies, methodology, procedures to solve a wide range of complex problems and to enhance meaning and the physical performances of self and others</li> <li>analyses practical techniques and performance with reference to specific skills criteria</li> </ul>	<ul style="list-style-type: none"> <li>applies concepts, models, principles, methodology, ideas with control to a practical context and specific physical, health or outdoor education activities</li> <li>plans and undertakes independent inquiries and explains relevant data and information based on an assessment of valid and reliable sources</li> <li>makes effective and justified choice of principles, strategies, methodology, procedures to solve a range of problems and to enhance meaning and the physical performances of self and others</li> <li>explains practical techniques and performance with reference to specific skills criteria</li> </ul>	<ul style="list-style-type: none"> <li>applies concepts, models, principles, methodology, ideas with some control to a practical context and specific physical, health or outdoor education activities</li> <li>undertakes guided inquiries and describes data and information based on appropriate sources</li> <li>makes effective choice of strategies, methodology, procedures to solve problems and to enhance physical performances of self and others</li> <li>describes practical techniques and performance with reference to specific skills criteria</li> </ul>	<ul style="list-style-type: none"> <li>applies concepts, models, principles, methodology, ideas with minimal control to a practical context and specific physical, health or outdoor education activities</li> <li>undertakes guided inquiries with some reference to data using limited sources</li> <li>makes some effective choice of strategies, methodology, procedures to solve problems with some impact on physical performances of self and others</li> <li>identifies practical techniques and performance with some reference to specific skills criteria</li> </ul>	<ul style="list-style-type: none"> <li>applies concepts, models, principles, methodology, ideas with little or no control in a practical context</li> <li>undertakes guided research with little or no reference to data and sources</li> <li>selects strategies, methodology, procedures to solve problems with little or no impact on physical performances of self and others</li> <li>identifies practical techniques and performance with little or no reference to specific skills criteria</li> </ul>

**Achievement Standards for Exercise Science T Course - Year 12**

	<i>A student who achieves an A grade typically</i>	<i>A student who achieves a B grade typically</i>	<i>A student who achieves a C grade typically</i>	<i>A student who achieves a D grade typically</i>	<i>A student who achieves an E grade typically</i>
<b>Knowledge and Understanding</b>	<ul style="list-style-type: none"> <li>critically analyses exercise science theories, concepts and models and evaluates their limitations and assumptions</li> <li>critically analyses exercise science principles, strategies, methodology, approaches to data, procedures and evaluates their validity and reliability</li> <li>critically analyses the nature and purpose of exercise science and evaluates the impact of strategies and techniques on individuals' performance, health and well-being in varied and changing contexts</li> <li>critically analyses representations and interpretations of exercise science topics and evaluates their significance</li> <li>communicates ideas with coherent arguments using appropriate evidence, language and accurate referencing</li> </ul>	<ul style="list-style-type: none"> <li>analyses exercise science theories, concepts and models and explains their limitations and assumptions</li> <li>analyses exercise science principles, strategies, methodology, approaches to data, procedures and explains their validity and reliability</li> <li>analyses the nature and purpose of exercise science and explains the impact of factors on individuals' performance, health and well-being in changing contexts</li> <li>analyses representations and interpretations of exercise science topics and explains their significance</li> <li>communicates ideas and arguments using appropriate evidence, language and accurate referencing</li> </ul>	<ul style="list-style-type: none"> <li>explains exercise science theories, concepts and models and describes their limitations and assumptions</li> <li>explains exercise science principles, strategies, methodology, approaches to data, procedures and describes their validity and reliability</li> <li>explains the nature and purpose of exercise science theories and describes the impact of factors on individuals' performance, health and well-being in familiar contexts</li> <li>explains representations and interpretations of exercise science topics and describes their significance</li> <li>communicates ideas and arguments with referencing</li> </ul>	<ul style="list-style-type: none"> <li>describes exercise science theories, concepts and models with some reference to their limitations and assumptions</li> <li>describes exercise science principles, strategies, methodology, approaches to data, procedures with some reference to their validity and reliability</li> <li>describes the nature and purpose of exercise science theories and identifies the impact of factors on individuals' performance, health and well-being in familiar contexts</li> <li>describes representations and interpretations of exercise science topics and makes some reference to their significance</li> <li>communicates ideas and information with minimal referencing</li> </ul>	<ul style="list-style-type: none"> <li>identifies exercise science theories, concepts and models with little or no reference to their limitations and assumptions</li> <li>identifies exercise science principles, strategies, methodology, approaches to data, procedures with little or no reference to their validity and reliability</li> <li>identifies the nature and purpose of exercise science theories with little or no reference to the impact of factors on individuals' performance, health and well-being</li> <li>identifies representations and interpretations of exercise science topics and makes little or no reference to their significance</li> <li>communicates limited ideas and information with limited or no referencing</li> </ul>
<b>Skills</b>	<ul style="list-style-type: none"> <li>applies concepts, models, principles, methodology, ideas with control and precision to a practical context and specific physical, health or outdoor education activities</li> <li>plans and undertakes independent inquiries and analyses relevant data and information based on critical evaluation of valid and reliable sources</li> <li>makes discerning and effective choice of principles, strategies, methodology, procedures to solve a wide range of complex problems and to enhance meaning and the physical performances of self and others</li> <li>evaluates with insight on practical techniques and performance with reference to specific skills criteria</li> </ul>	<ul style="list-style-type: none"> <li>applies concepts, models, principles, methodology, ideas with control to a practical context and specific physical, health or outdoor education activities</li> <li>plans and undertakes independent inquiries and explains relevant data and information based on an assessment of valid and reliable sources</li> <li>makes effective and justified choice of principles, strategies, methodology, procedures to solve a range of problems and to enhance meaning and the physical performances of self and others</li> <li>analyses with insight on practical techniques and performance with reference to specific skills criteria</li> </ul>	<ul style="list-style-type: none"> <li>applies concepts, models, principles, methodology, ideas with some control to a practical context and specific physical, health or outdoor education activities</li> <li>undertakes guided inquiries and describes data and information based on appropriate sources</li> <li>makes effective choice of strategies, methodology, procedures to solve problems and to enhance physical performances of self and others</li> <li>explains practical techniques and performance with reference to specific skills criteria</li> </ul>	<ul style="list-style-type: none"> <li>applies concepts, models, principles, methodology, ideas with minimal control to a practical context and specific physical, health or outdoor education activities</li> <li>undertakes guided inquiries with some reference to data using limited sources</li> <li>makes some effective choice of strategies, methodology, procedures to solve problems with some impact on physical performances of self and others</li> <li>describes practical techniques and performance with some reference to specific skills criteria</li> </ul>	<ul style="list-style-type: none"> <li>applies concepts, models, principles, methodology, ideas with little or no control in a practical context</li> <li>undertakes guided research with little or no reference to data and sources</li> <li>selects strategies, methodology, procedures to solve problems with little or no impact on physical performances of self and others</li> <li>identifies practical techniques and performance with little or no reference to specific skills criteria</li> </ul>

**Achievement Standards for Exercise Science M Course - Years 11 and 12**

	<i>A student who achieves an A grade typically</i>	<i>A student who achieves a B grade typically</i>	<i>A student who achieves a C grade typically</i>	<i>A student who achieves a D grade typically</i>	<i>A student who achieves an E grade typically</i>
<b>Knowledge and understanding</b>	<ul style="list-style-type: none"> <li>describes exercise science strategies, procedures with independence</li> <li>describes exercise science practical techniques and performance with independence</li> </ul>	<ul style="list-style-type: none"> <li>describes exercise science strategies, procedures with some assistance</li> <li>describes exercise science practical techniques and performance with some assistance</li> </ul>	<ul style="list-style-type: none"> <li>recounts exercise science strategies, procedures with assistance</li> <li>recounts exercise science practical techniques and performance with assistance</li> </ul>	<ul style="list-style-type: none"> <li>identifies exercise science strategies, procedures with continuous guidance</li> <li>identifies exercise science practical techniques and performance with continuous guidance</li> </ul>	<ul style="list-style-type: none"> <li>identifies exercise science strategies, procedures with direct instruction</li> <li>identifies exercise science practical techniques and performance with direct instruction</li> </ul>
<b>Skills</b>	<ul style="list-style-type: none"> <li>communicates ideas and arguments using appropriate evidence, terminology and accurate referencing with independence</li> <li>makes discerning choice of strategies and procedures to enhance physical performances of self with independence</li> <li>plans and undertakes independent inquiries with independence</li> </ul>	<ul style="list-style-type: none"> <li>communicates ideas and arguments using appropriate evidence, terminology and accurate referencing with some assistance</li> <li>selects strategies and procedures to enhance physical performances of self with some assistance</li> <li>plans and undertakes independent inquiries with some assistance</li> </ul>	<ul style="list-style-type: none"> <li>communicates ideas and arguments using appropriate evidence, terminology and accurate referencing with assistance</li> <li>selects strategies and procedures to enhance physical performances of self with assistance</li> <li>undertakes guided inquiries with assistance</li> </ul>	<ul style="list-style-type: none"> <li>communicates ideas and arguments using appropriate evidence, terminology and accurate referencing with continuous guidance</li> <li>selects strategies and procedures to enhance physical performances of self with continuous guidance</li> <li>undertakes guided inquiries with continuous guidance</li> </ul>	<ul style="list-style-type: none"> <li>communicates ideas and arguments using appropriate evidence, terminology and accurate referencing with direct instruction</li> <li>selects strategies and procedures to enhance physical performances of self with direct instruction</li> <li>undertakes simple research on a topic with direct instruction</li> </ul>

## Anatomy and Physiology of the Human Body

Value: 1.0

Anatomy and Physiology of the Human Body a

Value 0.5

Anatomy and Physiology of the Human Body b

Value 0.5

### Unit Description

**In this unit students will examine and explore the structure and function of musculoskeletal and cardiorespiratory systems and analyse how these systems adapt and adjust to the demands of physical activity. Students will investigate these systems from a cellular to systemic level allowing them to develop an understanding of how each system acts as an enabler or barrier to physical performance. Students may be introduced to other systems such as the nervous and endocrine systems**

### Specific Unit Goals

This unit should enable students to:

A Course	T Course	M Course
<ul style="list-style-type: none"> <li>analyse and understand anatomical terminology, organisational structures and its application to human performance through movement analysis</li> <li>describe and explore the structure and function of human body systems and investigate how they work together to enhance human performance</li> </ul>	<ul style="list-style-type: none"> <li>critically analyse and understand anatomical terminology, organisational structures and its application to human performance through movement analysis</li> <li>explore and examine the structure and function of human body systems and investigate how they work together to enhance human performance</li> </ul>	<ul style="list-style-type: none"> <li>describe anatomical terms and identify structures and functions related to human performance</li> <li>identify the structure and functions of human body systems</li> </ul>

### Content Descriptions

All knowledge, understanding and skills below must be delivered:

A Course	T Course	M Course
<b>Concepts, theories and models</b>		
<ul style="list-style-type: none"> <li>analyse concepts, theories and models of the anatomy and physiology of body systems including; muscular, respiratory and circulatory</li> </ul>	<ul style="list-style-type: none"> <li>critically analyse concepts, theories and models of the anatomy and physiology of body systems including; muscular, respiratory and circulatory</li> </ul>	<ul style="list-style-type: none"> <li>describe the fundamental concepts, theories and models within the anatomy and physiology of the human body</li> </ul>

<b>A Course</b>	<b>T Course</b>	<b>M Course</b>
<ul style="list-style-type: none"> <li>analyse concepts, theories and models of the anatomy and physiology of the human body, for example; cells and tissue structures, anatomical reference system</li> <li>analyse and research the anatomy and physiology of the human body systems and apply these concepts to human performance for example; circulation, respiration and musculoskeletal movement</li> </ul>	<ul style="list-style-type: none"> <li>critically analyse concepts, theories and models of the anatomy and physiology of the human body, for example; cells and tissue structures, anatomical reference system</li> <li>critically analyse and research the anatomy and physiology of the human body systems and apply these concepts to human performance for example; circulation, respiration and musculoskeletal movement</li> </ul>	
<b>Principles, strategies, methodology</b>		
<ul style="list-style-type: none"> <li>analyse and apply the strategies, principles and methodologies of the anatomy and physiology of the human body, for example; identifying skeletal and muscle structures and their connection with circulatory and nervous systems</li> </ul>	<ul style="list-style-type: none"> <li>critically analyse and apply the strategies, principles and methodologies of the anatomy and physiology of the human body, for example; identifying skeletal and muscle structures and their connection with circulatory and nervous systems</li> <li>apply the principles of the human body systems and analysis</li> </ul>	<ul style="list-style-type: none"> <li>makes discerning choices of strategies to describe functions of the human body</li> </ul>
<b>Nature and purpose</b>		
<ul style="list-style-type: none"> <li>analyse and evaluate the significance and nature of the anatomy and physiology of human body systems</li> <li>investigate the role of the anatomy and physiology of the human body systems in developing human performance</li> </ul>	<ul style="list-style-type: none"> <li>critically analyse and evaluate the significance and nature of the anatomy and physiology of human body systems</li> <li>investigate the role of the anatomy and physiology of the human body systems in developing human performance</li> </ul>	<ul style="list-style-type: none"> <li>describe the fundamental functions of the human body</li> </ul>

<b>A Course</b>	<b>T Course</b>	<b>M Course</b>
<ul style="list-style-type: none"> <li>• understand the relationships between the human body systems, for example; homeostasis and the relationship between body systems</li> <li>• understand the anatomy and physiology of body systems and its response to exercise</li> </ul>	<ul style="list-style-type: none"> <li>• understand and examine the relationships between the human body systems, for example; homeostasis and the relationship between body systems</li> <li>• understand the anatomy and physiology of body systems and be able to describe its response to exercise</li> </ul>	
<b>Representations and interpretations</b>		
<ul style="list-style-type: none"> <li>• understands the sequence of anatomy and physiology of the human body systems</li> <li>• analyse issues, problems and practices in relation to the anatomy and physiology of the human body systems</li> <li>• analyse protocols and procedures of the anatomy and physiology of the human body systems</li> <li>• evaluate whether sources of information are valid and reliable</li> <li>• interpret physiological data based on human performance, for example; graphs, tables and diagrams</li> </ul>	<ul style="list-style-type: none"> <li>• understands the significance and sequence of the anatomy and physiology of the human body systems</li> <li>• critically analyse issues, problems and practices in relation to the anatomy and physiology of the human body systems</li> <li>• critically analyse protocols, procedures, future trends and their implications of the anatomy and physiology of the human body systems</li> <li>• critically evaluate whether sources of information are valid and reliable</li> <li>• interpret data and predict physiological outcomes in human performance, for example; graphs, tables and diagrams</li> </ul>	<ul style="list-style-type: none"> <li>• describe the fundamental functions of the human body</li> </ul>
<b>Communication</b>		
<ul style="list-style-type: none"> <li>• apply varying communication skills and methodologies within the context of anatomy and physiology of the human body</li> </ul>	<ul style="list-style-type: none"> <li>• evaluate and apply varying communication skills and methodologies within the context of the human body</li> </ul>	<ul style="list-style-type: none"> <li>• use communication skills and appropriate terms in anatomy and physiology in the human body</li> </ul>

A Course	T Course	M Course
<ul style="list-style-type: none"> <li>• using measuring instruments to compare measurements, grouping, estimating, counting, statistical information, interpreting, and using graphs, tables and diagrams</li> <li>• communicates correct terminologies, language convention, forms and acknowledging sources</li> </ul>	<ul style="list-style-type: none"> <li>• understands numerical comparisons of size and measurements, grouping, estimating, counting, space, statistical information, interpreting, and using graphs, tables and diagrams</li> <li>• communicates using effective language, correct terminologies, language convention, forms and acknowledging sources appropriately</li> </ul>	<ul style="list-style-type: none"> <li>• plans and undertakes inquiries using appropriate terms in anatomy and physiology in the human body</li> </ul>

### **A guide to reading and implementing content descriptions**

In this course there are opportunities to use a range of practical and theoretical applications to promote understanding.

Content descriptions specify the knowledge, understanding and skills that students are expected to learn and that teachers are expected to teach. Teachers are required to develop a program of learning that allows students to demonstrate all the content descriptions. The lens which the teacher uses to demonstrate the content descriptions may be either guided through provision of electives within each unit or determined by the teacher when developing their program of learning.

A program of learning is what a college provides to implement the course for a subject. It is at the discretion of the teacher to emphasis some content descriptions over others. The teacher may teach additional (not listed) content provided it meets the specific unit goals. This will be informed by the student needs and interests.

### **Assessment**

Refer to pages 10-12.

## Factors Affecting Performance

**Value: 1.0**

**Factors Affecting Performance a**

**Value 0.5**

**Factors Affecting Performance b**

**Value 0.5**

### Unit Description

In this unit students will examine the physiological, psychological and behavioural theories that influence athletic performance. Students will be introduced to factors affecting performance and develop basic insights into the science underpinning the management of sports injuries and athletic mindset. Students will examine and explore how the extent and intensity of sports participation relates to the incidence of sports injuries. Students will explore a range of technical and scientific approaches for maintaining the physical and mental well-being of athletes.

### Specific Unit Goals

This unit should enable students to:

<b>A Course</b>	<b>T Course</b>	<b>M Course</b>
<ul style="list-style-type: none"> <li>analyse and understand athlete behaviour and interpret behavioural theories in relation to performance</li> <li>describe and explore the detrimental aspects that athletes experience and strategies employed to overcome in order to maximise their best performance</li> </ul>	<ul style="list-style-type: none"> <li>critically analyse and understand athlete behaviour and interpret behavioural theories in relation to performance</li> <li>explore and examine the detrimental aspects that athletes experience and strategies employed to overcome in order to maximise their best performance</li> </ul>	<ul style="list-style-type: none"> <li>describe the factors that affect athlete behaviour and participation</li> <li>identify the factors that affect performance through injury</li> </ul>

### Content Descriptions

All knowledge, understanding and skills below must be delivered:

<b>A Course</b>	<b>T Course</b>	<b>M Course</b>
<b>Concepts, theories and models</b>		
<ul style="list-style-type: none"> <li>research the concepts, theories and models related to factors affecting performance, for example; physiological healing process and motivation for athletic performance</li> </ul>	<ul style="list-style-type: none"> <li>critically analyse and research the concepts, theories and models related to factors affecting performance, for example; physiological healing process and motivation for athletic performance</li> </ul>	<ul style="list-style-type: none"> <li>describe the fundamental concepts, theories and models related to factors affecting performance</li> </ul>

<b>A Course</b>	<b>T Course</b>	<b>M Course</b>
<ul style="list-style-type: none"> <li>• analyse the limitations and assumptions of factors affecting performance, for example; cognitive differences between individuals and their approach to performance</li> <li>• apply concepts, theories and models in activities in relating to factors affecting performance, for example; mental preparation and treatment of injuries</li> </ul>	<ul style="list-style-type: none"> <li>• critically analyse the limitations and assumptions of factors affecting performance, for example; cognitive differences between individuals and their approach to performance</li> <li>• apply concepts, theories and models in a range of activities in relation to factors affecting performance, for example; mental preparation and treatment of injuries</li> </ul>	
<b>Principles, strategies, methodology</b>		
<ul style="list-style-type: none"> <li>• analyse principles related to factors affecting performance, for example; injury treatment practices and goal setting for performance</li> <li>• analyse strategies on factors affecting performance, for example; management of injuries and mental preparation</li> <li>• analyse methodologies of factors affecting performance, for example; injury and psychological management tools</li> </ul>	<ul style="list-style-type: none"> <li>• critically analyse principles related to factors affecting performance, for example; injury treatment practices and goal setting for performance</li> <li>• critically analyse strategies on factors affecting performance, for example; management of injuries and mental preparation</li> <li>• critically analyse methodologies of factors affecting performance, for example; injury and psychological management tools</li> </ul>	<ul style="list-style-type: none"> <li>• makes discerning choices of strategies to describe factors affecting performance</li> </ul>
<b>Nature and purpose</b>		
<ul style="list-style-type: none"> <li>• evaluate the nature and purpose of factors affecting performance</li> <li>• understand the theoretical and practical links of factors affecting performance, for example; implementation of concentration and attentional focus techniques</li> </ul>	<ul style="list-style-type: none"> <li>• evaluate the significance, nature and purpose of factors affecting performance</li> <li>• understand the theoretical and practical links of factors affecting performance, for example; implementation of concentration and attentional focus techniques</li> </ul>	<ul style="list-style-type: none"> <li>• describe the fundamental factors affecting performance</li> </ul>

A Course	T Course	M Course
<ul style="list-style-type: none"> <li>• understand the responses and adaptations to factors affecting performance, for example; rehabilitation and simulation</li> <li>• understand the physical and mental approaches to training and its effect on performance</li> </ul>	<ul style="list-style-type: none"> <li>• understand the responses and adaptations to factors affecting performance, for example; rehabilitation and simulation</li> <li>• understand and evaluate the physical and mental approaches to training and its effect on performance</li> </ul>	
<b>Representations and interpretations</b>		
<ul style="list-style-type: none"> <li>• analyse issues, problems and practices in relation to factors affecting performance, for example; goal setting for athletic performance and application of cold therapy</li> <li>• analyse protocols and procedures in factors affecting performance</li> <li>• evaluate whether sources of information are valid and reliable</li> <li>• understands the sequence of protocols and procedures in factors affecting performance, for example; assessment of injuries and goal setting for athletic performance</li> <li>• interpret data and physiological and mental outcomes in the factors affecting human performance</li> </ul>	<ul style="list-style-type: none"> <li>• critically analyse issues, problems and practices in relation to factors affecting performance, for example; goal setting for athletic performance and application of cold therapy</li> <li>• critically analyse protocols, procedures, future trends and their implications in factors affecting performance</li> <li>• critically evaluate whether sources of information are valid and reliable</li> <li>• understands the significance and sequence of protocols and procedures in factors affecting performance, for example; assessment of injuries and goal setting for athletic performance</li> <li>• interpret data and predict physiological and mental outcomes in factors affecting human performance</li> </ul>	<ul style="list-style-type: none"> <li>• describe the fundamental factors affecting sports performance</li> </ul>

A Course	T Course	M Course
<b>Communication</b>		
<ul style="list-style-type: none"> <li>• apply varying communication skills and methodologies within the context of structure and function of the human body</li> <li>• using measuring instruments to compare measurements, grouping, estimating, counting, statistical information, interpreting, and using graphs, tables and diagrams</li> <li>• communicates correct terminologies, language convention, forms and acknowledging sources</li> </ul>	<ul style="list-style-type: none"> <li>• evaluate and apply varying communication skills and methodologies within the context of the human body</li> <li>• understands numerical comparisons of size and measurements, grouping, estimating, counting, space, statistical information, interpreting, and using graphs, tables and diagrams</li> <li>• communicates using effective language, correct terminologies, language convention, forms and acknowledging sources appropriately</li> </ul>	<ul style="list-style-type: none"> <li>• use communication skills and appropriate terms in structure and function in the human body</li> <li>• plan and undertake inquiries using appropriate terms in structure and function in the human body</li> </ul>

### A guide to reading and implementing content descriptions

In this course there are opportunities to use a range of practical and theoretical applications to promote understanding.

Content descriptions specify the knowledge, understanding and skills that students are expected to learn and that teachers are expected to teach. Teachers are required to develop a program of learning that allows students to demonstrate all the content descriptions. The lens which the teacher uses to demonstrate the content descriptions may be either guided through provision of electives within each unit or determined by the teacher when developing their program of learning.

A program of learning is what a college provides to implement the course for a subject. It is at the discretion of the teacher to emphasis some content descriptions over others. The teacher may teach additional (not listed) content provided it meets the specific unit goals. This will be informed by the student needs and interests.

### Assessment

Refer to pages 10-12.

## Preparation for Training and Performance

**Value: 1.0**

**Preparation for Training and Performance a**

**Value 0.5**

**Preparation for Training and Performance b**

**Value 0.5**

### Unit Description

In this unit students investigate the factors that influence sports performance. Students will critically analyse the effectiveness of training and nutritional guidelines and how they contribute to the improvement of athletic performance. Students will explore a variety of training and nutritional principles to develop an understanding of the varying needs of community target groups and elite athletes.

### Specific Unit Goals

This unit should enable students to:

<b>A Course</b>	<b>T Course</b>	<b>M Course</b>
<ul style="list-style-type: none"> <li>understand the significance of preparation for training and performance and identify physiological changes and outcomes</li> <li>explore techniques used in the preparation for training and performance and apply to participants in physical activity</li> </ul>	<ul style="list-style-type: none"> <li>understand and analyse the significance of preparation for training and performance and interpret physiological changes and outcomes</li> <li>explore and examine techniques used in the preparation for training and performance and apply to participants in physical activity</li> </ul>	<ul style="list-style-type: none"> <li>describe the significant training principles for training performance</li> <li>identify the techniques that explore various training performances</li> </ul>

### Content Descriptions

All knowledge, understanding and skills below must be delivered:

<b>A Course</b>	<b>T Course</b>	<b>M Course</b>
<b>Concepts, theories and models</b>		
<ul style="list-style-type: none"> <li>analyse concepts, theories and models related to preparation for training and performance, for example; components of fitness, digestive and energy systems and food as a fuel source</li> </ul>	<ul style="list-style-type: none"> <li>critically analyse concepts, theories and models related to preparation for training and performance, for example; components of fitness, digestive and energy systems and food as a fuel source</li> </ul>	<ul style="list-style-type: none"> <li>describe the fundamental concepts, theories and models related to training performances and nutrition</li> </ul>

<b>A Course</b>	<b>T Course</b>	<b>M Course</b>
<ul style="list-style-type: none"> <li>• analyse limitations and assumptions related to preparation for training and performance for example, fitness as a continuum, fitness testing and ergogenic aids</li> <li>• analyse data and procedures related to preparation for training and performance, for example, methods of training. nutritional data, food as an energy source, energy systems</li> <li>• apply concepts, theories and models implemented in training and performance for example, principles and methods of training and fuelling strategies</li> </ul>	<ul style="list-style-type: none"> <li>• critically analyse the limitations and assumptions related to preparation for training and performance, for example, fitness as a continuum, fitness testing and ergogenic aids</li> <li>• critically analyse data and procedures related to preparation for training and performance, for example, methods of training. nutritional data, food as an energy source, energy systems</li> <li>• apply concepts, theories and models implemented in training and performance for example, principles and methods of training and fuelling strategies</li> </ul>	
<b>Principles, strategies, methodology</b>		
<ul style="list-style-type: none"> <li>• analyse principles of preparation for training and performance, for example, principles of training, energy balance and fuelling for exercise</li> <li>• analyse strategic methodology in preparation for training and performance, for example, methods of training, glycaemic index and fuelling strategies</li> <li>• understand strategies and methods related to training and performance, for example; training and nutrition strategies</li> </ul>	<ul style="list-style-type: none"> <li>• critically analyse principles of preparation for training and performance, for example, principles of training, energy balance and fuelling for exercise</li> <li>• critically analyse strategic methodology in preparation for training and performance, for example, methods of training, glycaemic index and fuelling strategies</li> <li>• understand the significance of the strategies and methods related to training and performance, for example; training and nutrition strategies</li> </ul>	<ul style="list-style-type: none"> <li>• describe practical techniques associated with the principles of fitness</li> <li>• makes discerning choices of strategies to describe the fundamental guidelines for nutrition</li> </ul>

A Course	T Course	M Course
<b>Nature and purpose</b>		
<ul style="list-style-type: none"> <li>• evaluate the nature and purpose of preparation for training and performance, for example, components of fitness, energy systems and energy sources</li> <li>• understand the responses and adaptations of the human body to training and performance, for example; environmental factors of performance, nutritional response to exercise</li> <li>• understands the significance of preparation for training and performance</li> </ul>	<ul style="list-style-type: none"> <li>• critically evaluate the significance, nature and purpose of preparation for training and performance, for example, components of fitness, energy systems and energy sources</li> <li>• comprehensively understand the responses and adaptations of the human body to training and performance, for example; environmental factors of performance, nutritional response to exercise</li> <li>• comprehensively understand the significance of preparation for training and performance</li> </ul>	<ul style="list-style-type: none"> <li>• describe the fundamental purpose of preparation for training and performance</li> </ul>
<b>Representations and interpretations</b>		
<ul style="list-style-type: none"> <li>• analyse issues, problems and practices in relation to preparation for training and performance, for example; principles of training, athlete nutrition and ergogenic aids</li> <li>• analyse protocols and procedures and their implications on preparation for training and performance, for example; methods of training, Australian guide to healthy eating</li> <li>• evaluate whether sources of information are valid and reliable</li> </ul>	<ul style="list-style-type: none"> <li>• critically analyse issues, problems and practices in relation to preparation for training and performance, for example; principles of training, athlete nutrition and ergogenic aids</li> <li>• critically analyse protocols and procedures and future trends and their implications on preparation for training and performance, for example; methods of training, Australian guide to healthy eating and comparisons with nutrition for sports performance</li> <li>• critically evaluate whether sources of information are valid and reliable</li> </ul>	<ul style="list-style-type: none"> <li>• describe the fundamental factors performance in sport</li> </ul>

<b>A Course</b>	<b>T Course</b>	<b>M Course</b>
<ul style="list-style-type: none"> <li>• understands the significance and sequence of preparation for training and performance, for example; principles and methods of training, adsorption and distribution of nutrients</li> <li>• interpret data of physiological outcomes in preparation for training and performance, for example, fitness protocols and food labelling</li> </ul>	<ul style="list-style-type: none"> <li>• comprehensively understand the significance and sequence of preparation for training and performance, for example; principles and methods of training, adsorption and distribution of nutrients</li> <li>• interpret data and predict physiological outcomes in preparation for training and performance, for example; fitness protocols and food labelling</li> </ul>	
<b>Communication</b>		
<ul style="list-style-type: none"> <li>• apply varying communication skills and methodologies within the context of structure and function of the human body</li> <li>• using measuring instruments to compare measurements, grouping, estimating, counting, statistical information, interpreting, and using graphs, tables and diagrams</li> <li>• communicates correct terminologies, language convention, forms and acknowledging sources</li> </ul>	<ul style="list-style-type: none"> <li>• evaluate and apply varying communication skills and methodologies within the context of preparation for training and performance</li> <li>• understand numerical comparisons of size and measurements, grouping, estimating, counting, space, statistical information, interpreting, and using graphs, tables and diagrams</li> <li>• communicate using effective language, correct terminologies, language convention, forms and acknowledging sources appropriately</li> </ul>	<ul style="list-style-type: none"> <li>• use communication skills and appropriate terms in training performances</li> <li>• plans and undertakes inquiries using appropriate terms in the principles of training and performance</li> </ul>

## **A guide to reading and implementing content descriptions**

In this course there are opportunities to use a range of practical and theoretical applications to promote understanding.

Content descriptions specify the knowledge, understanding and skills that students are expected to learn and that teachers are expected to teach. Teachers are required to develop a program of learning that allows students to demonstrate all the content descriptions. The lens which the teacher uses to demonstrate the content descriptions may be either guided through provision of electives within each unit or determined by the teacher when developing their program of learning.

A program of learning is what a college provides to implement the course for a subject. It is at the discretion of the teacher to emphasis some content descriptions over others. The teacher may teach additional (not listed) content provided it meets the specific unit goals. This will be informed by the student needs and interests.

### **Assessment**

Refer to pages 10-12.

## The Body in Motion

**Value: 1.0**

**The Body in Motion a**

**Value 0.5**

**The Body in Motion b**

**Value 0.5**

### Unit Description

In this unit students will explore the biomechanical and physiological principles involved in analysing and interpreting the body in motion and energy production. Students will apply a variety of methods used to analyse movement patterns and examine the physiological adaptations to exercise. Students will investigate the biomechanical and physiological factors that influence athletic performance.

### Specific Unit Goals

This unit should enable students to:

<b>A Course</b>	<b>T Course</b>	<b>M Course</b>
<ul style="list-style-type: none"> <li>understand biomechanical and physiological terminology and theories which relate to movement</li> <li>investigate the use of technology and techniques used to analyse the physiological demands of sports performance</li> </ul>	<ul style="list-style-type: none"> <li>understand and examine biomechanical and physiological terminology and theories which relate to movement</li> <li>investigate the use of technology and techniques used to analyse and explore physiological demands of sports performance</li> </ul>	<ul style="list-style-type: none"> <li>identify biomechanical and physiological terminology which relates to movement</li> <li>describe technology and techniques used to analyse sports performance</li> </ul>

### Content Descriptions

All knowledge, understanding and skills below must be delivered:

<b>A Course</b>	<b>T Course</b>	<b>M Course</b>
<b>Concepts, theories and models</b>		
<ul style="list-style-type: none"> <li>analyse concepts, theories and models related to the body in motion, for example; biomechanical terminology, newton's laws of motion, sliding filament theory</li> <li>analyse the limitations and assumptions of the body in motion, for example; physiological responses and biomechanical influences</li> </ul>	<ul style="list-style-type: none"> <li>critically analyse concepts, theories and models related to the body in motion, for example; biomechanical terminology, newton's laws of motion, sliding filament theory</li> <li>critically analyse the limitations and assumptions of the body in motion, for example; physiological responses and biomechanical influences</li> </ul>	<ul style="list-style-type: none"> <li>describe the fundamental concepts, theories and models related on the body in motion</li> </ul>

<b>A Course</b>	<b>T Course</b>	<b>M Course</b>
<ul style="list-style-type: none"> <li>• analyses data, procedures and evaluates their validity and reliability, for example; physiological responses, mass/ weight, speed/velocity, distance/displacement, acceleration, momentum</li> <li>• apply concepts, theories and models in a range of activities related to the body in motion, for example; biomechanical and physiological laboratories</li> </ul>	<ul style="list-style-type: none"> <li>• critically analyses data, procedures and evaluates their validity and reliability, for example; physiological responses, mass/ weight, speed/velocity, distance/displacement, acceleration, momentum</li> <li>• apply concepts, theories and models in a range of activities related to the body in motion, for example; biomechanical and physiological laboratories</li> </ul>	
<b>Principles, strategies, methodology</b>		
<ul style="list-style-type: none"> <li>• analyses principles that influence the body in motion, for example; biomechanical principles and physiological responses to exercise</li> <li>• analyses strategies used to examine the body in motion, for example; testing strategies and movement analysis</li> <li>• understand the strategic methodologies of the body in motion</li> </ul>	<ul style="list-style-type: none"> <li>• critically analyses principles that influence the body in motion, for example; biomechanical principles and physiological responses to exercise</li> <li>• critically analyses strategies used to examine the body in motion, for example; testing strategies and movement analysis</li> <li>• comprehensive understanding of the strategic methodologies of the body in motion</li> </ul>	<ul style="list-style-type: none"> <li>• identify principles that influence the body in motion</li> </ul>
<b>Nature and purpose</b>		
<ul style="list-style-type: none"> <li>• evaluate the nature and purpose of the body in motion, for example; acute and chronic physiological responses</li> <li>• understand the basic physiological responses of the body in motion</li> <li>• understand the mechanics of the body in motion</li> </ul>	<ul style="list-style-type: none"> <li>• critically evaluate the nature and purpose of the body in motion, for example; acute and chronic physiological responses</li> <li>• understand the physiological response of the body in motion</li> <li>• understand and evaluate the mechanics of the body in motion</li> </ul>	<ul style="list-style-type: none"> <li>• describe the physiological response of the body in motion</li> </ul>

A Course	T Course	M Course
<b>Representations and interpretations</b>		
<ul style="list-style-type: none"> <li>• analyse issues, problems and practices associated with the body in motion, for example; technique analysis, muscle contraction physiology (sft), fatigue and recovery</li> <li>• analyse protocols and procedures for the body in motion</li> <li>• evaluate whether sources of information are valid and reliable</li> <li>• understands the implications on the body in motion for example; physiological responses</li> <li>• understands the significance and sequence of the body in motion, for example; sliding filament theory, and laws of motion</li> <li>• interpret data of physiological outcomes of the body in motion for example; biomechanical and physiological laboratories</li> </ul>	<ul style="list-style-type: none"> <li>• critically analyse issues, problems and practices associated with the body in motion, for example; technique analysis, muscle contraction physiology (sft), fatigue and recovery</li> <li>• critically analyse protocols, procedures, future trends and their implications for the body in motion</li> <li>• critically evaluate whether sources of information are valid and reliable</li> <li>• comprehensively understand the implications on the body in motion for example; physiological responses</li> <li>• comprehensively understand the significance and sequence of the body in motion, for example; sliding filament theory, and laws of motion</li> <li>• interpret data and predict physiological outcomes of the body in motion for example; biomechanical and physiological laboratories</li> </ul>	<ul style="list-style-type: none"> <li>• describe the fundamental factors that influence the body in motion</li> </ul>
<b>Communication</b>		
<ul style="list-style-type: none"> <li>• apply varying communication skills and methodologies within the context of structure and function of the human body</li> <li>• use instruments to compare measurements, grouping, estimating, counting, statistical information, interpreting, and using graphs, tables and diagrams</li> </ul>	<ul style="list-style-type: none"> <li>• evaluate and apply varying communication skills and methodologies within the context of the body in motion</li> <li>• understand numerical comparisons of size and measurements, grouping, estimating, counting, space, statistical information, interpreting, and using graphs, tables and diagrams</li> </ul>	<ul style="list-style-type: none"> <li>• use communication skills and appropriate terms in the body in motion</li> <li>• plans and undertakes inquiries using appropriate terms in the body in motion</li> </ul>

A Course	T Course	M Course
<ul style="list-style-type: none"> <li>communicates correct terminologies, language convention, forms and acknowledging sources</li> </ul>	<ul style="list-style-type: none"> <li>communicates using effective language, correct terminologies, language convention, forms and acknowledging sources appropriately</li> </ul>	

### **A guide to reading and implementing content descriptions**

In this course there are opportunities to use a range of practical and theoretical applications to promote understanding.

Content descriptions specify the knowledge, understanding and skills that students are expected to learn and that teachers are expected to teach. Teachers are required to develop a program of learning that allows students to demonstrate all the content descriptions. The lens which the teacher uses to demonstrate the content descriptions may be either guided through provision of electives within each unit or determined by the teacher when developing their program of learning.

A program of learning is what a college provides to implement the course for a subject. It is at the discretion of the teacher to emphasis some content descriptions over others. The teacher may teach additional (not listed) content provided it meets the specific unit goals. This will be informed by the student needs and interests.

### **Assessment**

Refer to pages 10-12.

## Independent Study

**Value: 1.0**

**Independent Study a**

**Value 0.5**

**Independent Study b**

**Value 0.5**

### Prerequisite

Independent Study units are only available to individual students in Year 12. A student can only study a maximum of one Independent Study unit in each course. Students must have studied at least three standard 1.0 units from this course. An Independent Study unit requires the principal's written approval. Principal approval can also be sought by a student in Year 12 to enrol concurrently in an Independent Study unit and their third 1.0 unit in this course of study.

### Unit Description

An Independent Study unit has an important place in senior secondary courses. It is a valuable pedagogical approach that empowers students to make decisions about their own learning. An Independent Study unit can be proposed by an individual student for their own independent study and negotiated with their teacher. The program of learning for an Independent Study unit must meet the unit goals and content descriptions as they appear in the course.

### Specific Unit Goals

This unit should enable students to:

A Course	T Course	M Course
<ul style="list-style-type: none"> <li>understand and apply deep knowledge associated with the negotiated topic of study</li> <li>participate in and reflect on, the value associated with negotiated topic of study</li> </ul>	<ul style="list-style-type: none"> <li>understand and apply deep knowledge associated with the negotiated topic of study</li> <li>participate in and reflect on, the value associated with negotiated topic of study</li> </ul>	<ul style="list-style-type: none"> <li>recount and apply knowledge associated with the negotiated topic of study</li> <li>participate in practical components of negotiated topic of study</li> </ul>

### Content Descriptions

All knowledge, understanding and skills below must be delivered:

A Course	T Course	M Course
<b>Concepts, theories and models</b>		
<ul style="list-style-type: none"> <li>analyse concepts, theories and models in a topic within exercise science studies</li> <li>explain the limitations and assumptions of concepts of exercise science studies on individuals' health</li> <li>develop and apply skills in specific physical activities</li> </ul>	<ul style="list-style-type: none"> <li>critically analyse concepts, theories and models in a topic within exercise science studies</li> <li>investigate and explain the limitations and assumptions of concepts of exercise science studies on individuals' health</li> <li>develop and apply skills in specific physical activities</li> </ul>	<ul style="list-style-type: none"> <li>describe a topic within exercise science studies</li> <li>describe concepts of exercise science studies on individuals' health</li> <li>apply skills in specific physical activities</li> </ul>

A Course	T Course	M Course
<b>Principles, strategies, methodology</b>		
<ul style="list-style-type: none"> <li>analyse and apply principles, strategies and methodologies in a topic within exercise science studies</li> <li>apply practical techniques with reference to specific skill criteria of topic</li> </ul>	<ul style="list-style-type: none"> <li>critically analyse and apply principles, strategies and methodologies in a topic within exercise science studies</li> <li>apply practical techniques with reference to specific skill criteria of topic</li> </ul>	<ul style="list-style-type: none"> <li>apply strategies in a topic within exercise science studies</li> <li>apply practical techniques to a specific sport</li> </ul>
<b>Nature and purpose</b>		
<ul style="list-style-type: none"> <li>evaluate the significance, nature and purpose of a topic within exercise science studies</li> </ul>	<ul style="list-style-type: none"> <li>critically evaluate the significance, nature and purpose of a topic within exercise science studies</li> </ul>	<ul style="list-style-type: none"> <li>describe the purpose of a topic within exercise science studies</li> </ul>
<b>Representations and interpretations</b>		
<ul style="list-style-type: none"> <li>analyse issues, problems and practices in a topic within exercise science studies</li> <li>plan and undertake an independent inquiry, evaluating and analysing data</li> <li>critically evaluate whether sources of information are valid and reliable</li> </ul>	<ul style="list-style-type: none"> <li>critically analyse issues, problems and practices in a topic within exercise science studies</li> <li>predict and undertake an independent inquiry, evaluating and analysing data</li> <li>critically evaluate whether sources of information are valid and reliable</li> </ul>	<ul style="list-style-type: none"> <li>locate sources of information which are valid and reliable</li> </ul>
<b>Communication</b>		
<ul style="list-style-type: none"> <li>evaluate and apply varying communication skills and methodologies within the context of exercise science studies</li> <li>communicates ideas and arguments using appropriate evidence, language and referencing</li> <li>understands numerical comparisons, grouping, estimation, counting, interpreting and using graphs, tables and diagrams</li> </ul>	<ul style="list-style-type: none"> <li>critically evaluate and apply varying communication skills and methodologies within the context of exercise science studies</li> <li>investigate and communicates ideas and arguments using appropriate evidence, language and referencing</li> <li>understand numerical comparisons, grouping, estimation, counting, statistical, measuring interpreting and using graphs, tables and diagrams</li> </ul>	<ul style="list-style-type: none"> <li>communicates ideas and arguments using appropriate evidence</li> <li>describes numerical comparisons, grouping, estimation, counting</li> </ul>

A Course	T Course	M Course
<ul style="list-style-type: none"> <li>communicates using effective language, correct terminologies, language convention, forms and acknowledging sources appropriately</li> </ul>	<ul style="list-style-type: none"> <li>communicates using effective language, correct terminologies, language convention, forms and acknowledging sources appropriately</li> </ul>	

### **A guide to reading and implementing content descriptions**

In this course there are opportunities to use a range of practical and theoretical applications to promote understanding.

Content descriptions specify the knowledge, understanding and skills that students are expected to learn and that teachers are expected to teach. Teachers are required to develop a program of learning that allows students to demonstrate all the content descriptions. The lens which the teacher uses to demonstrate the content descriptions may be either guided through provision of electives within each unit or determined by the teacher when developing their program of learning.

A program of learning is what a college provides to implement the course for a subject. It is at the discretion of the teacher to emphasis some content descriptions over others. The teacher may teach additional (not listed) content provided it meets the specific unit goals. This will be informed by the student needs and interests.

### **Assessment**

Refer to pages 10-12.

## Appendix A – Implementation Guidelines

### Available course patterns

A standard 1.0 value unit is delivered over at least 55 hours. To be awarded a course, students must complete at least the minimum units over the whole minor, major, major/minor or double major course.

Course	Number of standard units to meet course requirements
Minor	Minimum of 2 units
Major	Minimum of 3.5 units

Units in this course can be delivered in any order.

### Prerequisites for the course or units within the course

Students must have studied at least three standard 1.0 units from this course in order to access the Independent Study unit. An Independent Study unit requires the principal's written approval. Principal approval can also be sought by a student in Year 12 to enrol concurrently in an Independent Study unit and their third 1.0 unit in this course of study.

### Arrangements for students continuing study in this course

Students who studied the previous course may undertake any units in this course provided there is no duplication of content.

### Duplication of Content Rules

Students cannot be given credit towards the requirements for a Senior Secondary Certificate for a unit that significantly duplicates content in a unit studied in another course. The responsibility for preventing undesirable overlap of content studied by a student rests with the principal and the teacher delivering the course. Students will only be given credit for covering the content once.

### Guidelines for Delivery

#### Program of Learning

A program of learning is what a school provides to implement the course for a subject. This meets the requirements for context, scope and sequence set out in the Board endorsed course. Students follow programs of learning in a college as part of their senior secondary studies. The detail, design and layout of a program of learning are a college decision.

The program of learning must be documented to show the planned learning activities and experiences that meet the needs of particular groups of students, taking into account their interests, prior knowledge, abilities and backgrounds. The program of learning is a record of the learning experiences that enable students to achieve the knowledge, understanding and skills of the content descriptions. There is no requirement to submit a program of learning to the OBSSS for approval. The Principal will need to sign off at the end of Year 12 that courses have been delivered as accredited.

## Content Descriptions

Are all content descriptions of equal importance? No. It depends on the focus of study. Teachers can customise their program of learning to meet their own students' needs, adding additional content descriptions if desired or emphasising some over others. A teacher must balance student needs with their responsibility to teach all content descriptions. It is mandatory that teachers address all content descriptions and that students engage with all content descriptions.

### Half standard 0.5 units

Half standard units appear on the course adoption form but are not explicitly documented in courses. It is at the discretion of the college principal to split a standard 1.0 unit into two half standard 0.5 units. Colleges are required to adopt the half standard 0.5 units. However, colleges are not required to submit explicit documentation outlining their half standard 0.5 units to the BSSS. Colleges must assess students using the half standard 0.5 assessment task weightings outlined in the framework. It is the responsibility of the college principal to ensure that all content is delivered in units approved by the Board.

## Moderation

Moderation is a system designed and implemented to:

- provide comparability in the system of school-based assessment
- form the basis for valid and reliable assessment in senior secondary schools
- involve the ACT Board of Senior Secondary Studies and colleges in cooperation and partnership
- maintain the quality of school-based assessment and the credibility, validity and acceptability of Board certificates.

Moderation commences within individual colleges. Teachers develop assessment programs and instruments, apply assessment criteria, and allocate Unit Grades, according to the relevant Course Framework. Teachers within course teaching groups conduct consensus discussions to moderate marking or grading of individual assessment instruments and unit grade decisions.

### The Moderation Model

Moderation within the ACT encompasses structured, consensus-based peer review of Unit Grades for all accredited courses over two Moderation Days. In addition to Moderation Days, there is statistical moderation of course scores, including small group procedures, for T courses.

### Moderation by Structured, Consensus-based Peer Review

Consensus-based peer review involves the review of student work against system wide criteria and standards and the validation of Unit Grades. This is done by matching student performance with the criteria and standards outlined in the Achievement Standards, as stated in the Framework. Advice is then given to colleges to assist teachers with, or confirm, their judgments. In addition, feedback is given on the construction of assessment instruments.

### Preparation for Structured, Consensus-based Peer Review

Each year, teachers of Year 11 are asked to retain originals or copies of student work completed in Semester 2. Similarly, teachers of a Year 12 class should retain originals or copies of student work completed in Semester 1. Assessment and other documentation required by the Office of the Board of Senior Secondary Studies should also be kept. Year 11 work from Semester 2 of the previous year is presented for review at Moderation Day 1 in March, and Year 12 work from Semester 1 is presented for review at Moderation Day 2 in August.

In the lead up to Moderation Day, a College Course Presentation (comprised of a document folder and a set of student portfolios) is prepared for each A, T and M course/units offered by the school and is sent into the Office of the Board of Senior Secondary Studies.

### **The College Course Presentation**

The package of materials (College Course Presentation) presented by a college for review on Moderation Days in each course area will comprise the following:

- a folder containing supporting documentation as requested by the Office of the Board through memoranda to colleges, including marking schemes and rubrics for each assessment item
- a set of student portfolios containing marked and/or graded written and non-written assessment responses and completed criteria and standards feedback forms. Evidence of all assessment responses on which the Unit Grade decision has been made is to be included in the student review portfolios.

Specific requirements for subject areas and types of evidence to be presented for each Moderation Day will be outlined by the Board Secretariat through the *Requirements for Moderation Memoranda* and Information Papers.

### **Visual evidence for judgements made about practical performances**

It is a requirement that schools' judgements of standards to practical performances (A/T/M) be supported by visual evidence (still photos or video).

The photographic evidence submitted must be drawn from practical skills performed as part of the assessment process.

Teachers should consult the BSSS website for current information regarding all moderation requirements including subject specific and photographic evidence.

## Appendix B – Course Developers

Name	College
Aaron Hill	Gungahlin College
Kym Darmody	St Clare's College
Joel Richardson	St Edmund's College
Chris Jones	UC Senior Secondary College, Lake Ginninderra

## Appendix C – Common Curriculum Elements

Common curriculum elements assist in the development of high-quality assessment tasks by encouraging breadth and depth and discrimination in levels of achievement.

Organisers	Elements	Examples
create, compose and apply	apply	ideas and procedures in unfamiliar situations, content and processes in non-routine settings
	compose	oral, written and multimodal texts, music, visual images, responses to complex topics, new outcomes
	represent	images, symbols or signs
	create	creative thinking to identify areas for change, growth and innovation, recognise opportunities, experiment to achieve innovative solutions, construct objects, imagine alternatives
	manipulate	images, text, data, points of view
analyse, synthesise and evaluate	justify	arguments, points of view, phenomena, choices
	hypothesise	statement/theory that can be tested by data
	extrapolate	trends, cause/effect, impact of a decision
	predict	data, trends, inferences
	evaluate	text, images, points of view, solutions, phenomenon, graphics
	test	validity of assumptions, ideas, procedures, strategies
	argue	trends, cause/effect, strengths and weaknesses
	reflect	on strengths and weaknesses
	synthesise	data and knowledge, points of view from several sources
	analyse	text, images, graphs, data, points of view
	examine	data, visual images, arguments, points of view
investigate	issues, problems	
organise, sequence and explain	sequence	text, data, relationships, arguments, patterns
	visualise	trends, futures, patterns, cause and effect
	compare/contrast	data, visual images, arguments, points of view
	discuss	issues, data, relationships, choices/options
	interpret	symbols, text, images, graphs
	explain	explicit/implicit assumptions, bias, themes/arguments, cause/effect, strengths/weaknesses
	translate	data, visual images, arguments, points of view
	assess	probabilities, choices/options
identify, summarise and plan	select	main points, words, ideas in text
	reproduce	information, data, words, images, graphics
	respond	data, visual images, arguments, points of view
	relate	events, processes, situations
	demonstrate	probabilities, choices/options
	describe	data, visual images, arguments, points of view
	plan	strategies, ideas in text, arguments
	classify	information, data, words, images
	identify	spatial relationships, patterns, interrelationships
summarise	main points, words, ideas in text, review, draft and edit	

## Appendix D – Glossary of Verbs

Verbs	Definition
Analyse	Consider in detail for the purpose of finding meaning or relationships, and identifying patterns, similarities and differences
Apply	Use, utilise or employ in a particular situation
Argue	Give reasons for or against something
Assess	Make a Judgement about the value of
Classify	Arrange into named categories in order to sort, group or identify
Compare	Estimate, measure or note how things are similar or dissimilar
Compose	The activity that occurs when students produce written, spoken, or visual texts
Contrast	Compare in such a way as to emphasise differences
Create	Bring into existence, to originate
Critically analyse	Analysis that engages with criticism and existing debate on the issue
Demonstrate	Give a practical exhibition an explanation
Describe	Give an account of characteristics or features
Discuss	Talk or write about a topic, taking into account different issues or ideas
Evaluate	Examine and judge the merit or significance of something
Examine	Determine the nature or condition of
Explain	Provide additional information that demonstrates understanding of reasoning and /or application
Extrapolate	Infer from what is known
Hypothesise	Put forward a supposition or conjecture to account for certain facts and used as a basis for further investigation by which it may be proved or disproved
Identify	Recognise and name
Interpret	Draw meaning from
Investigate	Planning, inquiry into and drawing conclusions about
Justify	Show how argument or conclusion is right or reasonable
Manipulate	Adapt or change
Plan	Strategize, develop a series of steps, processes
Predict	Suggest what might happen in the future or as a consequence of something
Reflect	The thought process by which students develop an understanding and appreciation of their own learning. This process draws on both cognitive and affective experience
Relate	Tell or report about happenings, events or circumstances
Represent	Use words, images, symbols or signs to convey meaning
Reproduce	Copy or make close imitation
Respond	React to a person or text
Select	Choose in preference to another or others
Sequence	Arrange in order
Summarise	Give a brief statement of the main points
Synthesise	Combine elements (information/ideas/components) into a coherent whole
Test	Examine qualities or abilities
Translate	Express in another language or form, or in simpler terms
Visualise	The ability to decode, interpret, create, question, challenge and evaluate texts that communicate with visual images as well as, or rather than, words



## Appendix E – Glossary for ACT Senior Secondary Curriculum

Courses will detail what teachers are expected to teach and students are expected to learn for year 11 and 12. They will describe the knowledge, understanding and skills that students will be expected to develop for each learning area across the years of schooling.

**Learning areas** are broad areas of the curriculum, including English, mathematics, science, the arts, languages, health and physical education.

A **subject** is a discrete area of study that is part of a learning area. There may be one or more subjects in a single learning area.

**Frameworks** are system documents for Years 11 and 12 which provide the basis for the development and accreditation of any course within a designated learning area. In addition, frameworks provide a common basis for assessment, moderation and reporting of student outcomes in courses based on the framework.

The **course** sets out the requirements for the implementation of a subject. Key elements of a course include the rationale, goals, content descriptions, assessment, and achievement standards as designated by the framework.

BSSS courses will be organised into units. A unit is a distinct focus of study within a course. A standard 1.0 unit is delivered for a minimum of 55 hours generally over one semester.

**Core** units are foundational units that provide students with the breadth of the subject.

**Additional** units are avenues of learning that cannot be provided for within the four core 1.0 standard units by an adjustment to the program of learning.

An **Independent Study unit** is a pedagogical approach that empowers students to make decisions about their own learning. Independent Study units can be proposed by a student and negotiated with their teacher but must meet the specific unit goals and content descriptions as they appear in the course.

An **elective** is a lens for demonstrating the content descriptions within a standard 1.0 or half standard 0.5 unit.

A **lens** is a particular focus or viewpoint within a broader study.

**Content descriptions** refer to the subject-based knowledge, understanding and skills to be taught and learned.

A **program of learning** is what a college develops to implement the course for a subject and to ensure that the content descriptions are taught and learned.

**Achievement standards** provide an indication of typical performance at five different levels (corresponding to grades A to E) following completion of study of senior secondary course content for units in a subject.

ACT senior secondary system **curriculum** comprises all BSSS approved courses of study.

## Appendix F – Course Adoption

### Conditions of Adoption

The course and units of this course are consistent with the philosophy and goals of the college and the adopting college has the human and physical resources to implement the course.

### Adoption Process

Course adoption must be initiated electronically by an email from the principal or their nominated delegate to [bssscertification@ed.act.edu.au](mailto:bssscertification@ed.act.edu.au). A nominated delegate must CC the principal.

The email will include the **Conditions of Adoption** statement above, and the table below adding the **College** name, and circling the **Classification/s** required.

<b>College:</b>	
<b>Course Title:</b>	<b>Exercise Science</b>
<b>Classification/s:</b>	<b>A      T      M</b>
<b>Accredited from:</b>	2019
<b>Framework:</b>	Health, Outdoor and Physical Education 2016