

Blackwater State High School

2024 Senior Subject Guide



Senior Education Profile

Students in Queensland are issued with a Senior Education Profile (SEP) upon completion of senior studies. This profile may include a:

- Senior Statement
- Queensland Certificate of Education (QCE)
- Queensland Certificate of Individual Achievement (QCIA).

For more information about the SEP see www.qcaa.qld.edu.au/senior/certificates-qualifications/sep.

Senior Statement

The Senior Statement is a transcript of a student's learning account. It shows all QCE-contributing studies and the results achieved that may contribute to the award of a QCE.

If a student has a Senior Statement, then they have satisfied the completion requirements for Year 12 in Queensland.

Queensland Certificate of Education (QCE)

Students may be eligible for a Queensland Certificate of Education (QCE) at the end of their senior schooling. Students who do not meet the QCE requirements can continue to work towards the certificate post-secondary schooling. The QCAA awards a QCE in the following July or December, once a student becomes eligible. Learning accounts are closed after nine years; however, a student may apply to the QCAA to have the account reopened and all credit continued.

Queensland Certificate of Individual Achievement (QCIA)

The Queensland Certificate of Individual Achievement (QCIA) reports the learning achievements of eligible students who complete an individual learning program. At the end of the senior phase of learning, eligible students achieve a QCIA. These students have the option of continuing to work towards a QCE post-secondary schooling.

Senior subjects

The QCAA develops five types of senior subject syllabuses — Applied, General, General (Extension), General (Senior External Examination) and Short Course. Results in Applied and General subjects contribute to the award of a QCE and may contribute to an Australian Tertiary Admission Rank (ATAR) calculation, although no more than one result in an Applied subject can be used in the calculation of a student's ATAR.

Typically, it is expected that most students will complete these courses across Years 11 and 12. All subjects build on the P–10 Australian Curriculum.

For more information about specific subjects, schools, students and parents/carers are encouraged to access the relevant senior syllabuses at www.qcaa.qld.edu.au/senior/senior-subjects and, for Senior External Examinations, www.qcaa.qld.edu.au/senior/see

Applied and Applied (Essential) syllabuses

Applied subjects are suited to students who are primarily interested in pathways beyond senior secondary schooling that lead to vocational education and training or work.

General syllabuses

General subjects are suited to students who are interested in pathways beyond senior secondary schooling that lead primarily to tertiary studies and to pathways for vocational education and training and work.

Underpinning factors

All senior syllabuses are underpinned by:

- literacy — the set of knowledge and skills about language and texts essential for understanding and conveying content
- numeracy — the knowledge, skills, behaviours and dispositions that students need to use mathematics in a wide range of situations, to recognise and understand the role of mathematics in the world, and to develop the dispositions and capacities to use mathematical knowledge and skills purposefully.

Applied and Applied (Essential) syllabuses

In addition to literacy and numeracy, Applied syllabuses are underpinned by:

- applied learning — the acquisition and application of knowledge, understanding and skills in real-world or lifelike contexts
- community connections — the awareness and understanding of life beyond school through authentic, real-world interactions by connecting classroom experience with the world outside the classroom
- core skills for work — the set of knowledge, understanding and non-technical skills that underpin successful participation in work.

General syllabuses and Short Course syllabuses

In addition to literacy and numeracy, General syllabuses and Short Course syllabuses are underpinned by:

- 21st century skills — the attributes and skills students need to prepare them for higher education, work and engagement in a complex and rapidly changing world. These include critical thinking, creative thinking, communication, collaboration and teamwork, personal and social skills, and information & communication technologies (ICT) skills.

Vocational education and training (VET)

Students can access VET programs through the school if it:

- is a registered training organisation (RTO)
- has a third-party arrangement with an external provider who is an RTO
- offers opportunities for students to undertake school-based apprenticeships or traineeships.

Australian Tertiary Admission Rank (ATAR) eligibility

The calculation of an Australian Tertiary Admission Rank (ATAR) will be based on a student's:

- best five General subject results or
- best results in a combination of four General subject results plus an Applied subject result or a Certificate III or higher VET qualification.

The Queensland Tertiary Admissions Centre (QTAC) has responsibility for ATAR calculations.

English requirement

Eligibility for an ATAR will require satisfactory completion of a QCAA English subject.

Satisfactory completion will require students to attain a result that is equivalent to a Sound Level of Achievement in one of five subjects — English, Essential English, Literature, English and Literature Extension or English as an Additional Language.

While students must meet this standard to be eligible to receive an ATAR, it is not mandatory for a student's English result to be included in the calculation of their ATAR.

Applied and Applied (Essential) syllabuses

Course overview

Applied and Applied (Essential) syllabuses are developmental four-unit courses of study.

Units 1 and 2 of the courses are designed to allow students to begin their engagement with the course content, i.e. the knowledge, understanding and skills of the subject. Course content, learning experiences and assessment increase in complexity across the four units as students develop greater independence as learners.

Units 3 and 4 consolidate student learning. Results from assessment in Applied subjects contribute to the award of a QCE and results from Units 3 and 4 may contribute as a single input to ATAR calculation.

A course of study for Applied syllabuses includes core topics and elective areas for study.

Assessment

Applied syllabuses use *four* summative internal assessments from Units 3 and 4 to determine a student's exit result.

Schools should develop at least *two* but no more than *four* internal assessments for Units 1 and 2 and these assessments should provide students with opportunities to become familiar with the summative internal assessment techniques to be used for Units 3 and 4.

Applied syllabuses do not use external assessment.

Instrument-specific standards matrixes

For each assessment instrument, schools develop an instrument-specific standards matrix by selecting the syllabus standards descriptors relevant to the task and the dimension/s being assessed. The matrix is shared with students and used as a tool for making judgments about the quality of students' responses to the instrument. Schools develop assessments to allow students to demonstrate the range of standards.

Essential English and Essential Mathematics — Common internal assessment

For the two Applied (Essential) syllabuses, students complete a total of *four* summative internal assessments in Units 3 and 4 that count toward their overall subject result. Schools develop *three* of the summative internal assessments for each of these subjects and the other summative assessment is a common internal assessment (CIA) developed by the QCAA.

The CIA for Essential English and Essential Mathematics is based on the learning described in Unit 3 of the respective syllabus. The CIA is:

- developed by the QCAA
- common to all schools
- delivered to schools by the QCAA
- administered flexibly in Unit 3
- administered under supervised conditions
- marked by the school according to a common marking scheme developed by the QCAA.

The CIA is not privileged over the other summative internal assessment.

Summative internal assessment — instrument-specific standards

The Essential English and Essential Mathematics syllabuses provide instrument-specific standards for the three summative internal assessments in Units 3 and 4.

The instrument-specific standards describe the characteristics evident in student responses and align with the identified assessment objectives. Assessment objectives are drawn from the unit objectives and are contextualised for the requirements of the assessment instrument.

General syllabuses

Course overview

General syllabuses are developmental four-unit courses of study.

Units 1 and 2 provide foundational learning, allowing students to experience all syllabus objectives and begin engaging with the course subject matter. It is intended that Units 1 and 2 are studied as a pair. Assessment in Units 1 and 2 provides students with feedback on their progress in a course of study and contributes to the award of a QCE.

Students should complete Units 1 and 2 before starting Units 3 and 4.

Units 3 and 4 consolidate student learning. Assessment in Units 3 and 4 is summative and student results contribute to the award of a QCE and to ATAR calculations.

Assessment

Units 1 and 2 assessments

Schools decide the sequence, scope and scale of assessments for Units 1 and 2. These assessments should reflect the local context. Teachers determine the assessment program, tasks and marking guides that are used to assess student performance for Units 1 and 2.

Units 1 and 2 assessment outcomes provide feedback to students on their progress in the course of study. Schools should develop at least *two* but no more than *four* assessments for Units 1 and 2. At least *one* assessment must be completed for *each* unit.

Schools report satisfactory completion of Units 1 and 2 to the QCAA, and may choose to report levels of achievement to students and parents/carers using grades, descriptive statements or other indicators.

Units 3 and 4 assessments

Students complete a total of *four* summative assessments — three internal and one external — that count towards the overall subject result in each General subject.

Schools develop *three* internal assessments for each senior subject to reflect the requirements described in Units 3 and 4 of each General syllabus.

The three summative internal assessments need to be endorsed by the QCAA before they are used in schools. Students' results in these assessments are externally confirmed by QCAA assessors. These confirmed results from internal assessment are combined with a single result from an external assessment, which is developed and marked by the QCAA. The external assessment result for a subject contributes to a determined percentage of a students' overall subject result. For most subjects this is 25%; for Mathematics and Science subjects it is 50%.

Instrument-specific marking guides

Each syllabus provides instrument-specific marking guides (ISMGs) for summative internal assessments.

The ISMGs describe the characteristics evident in student responses and align with the identified assessment objectives. Assessment objectives are drawn from the unit objectives and are contextualised for the requirements of the assessment instrument.

Schools cannot change or modify an ISMG for use with summative internal assessment.

As part of quality teaching and learning, schools should discuss ISMGs with students to help them understand the requirements of an assessment task.

External assessment

External assessment is summative and adds valuable evidence of achievement to a student's profile. External assessment is:

- common to all schools
- administered under the same conditions at the same time and on the same day
- developed and marked by the QCAA according to a commonly applied marking scheme.

The external assessment contributes a determined percentage (see specific subject guides — assessment) to the student's overall subject result and is not privileged over summative internal assessment.

QCAA senior syllabuses



English

Applied

- Essential English

General

- English



Health and Physical Education

Applied

- Sport & Recreation

General

- Health



Humanities and Social Sciences

Applied

- Social Community Studies

General

- Business
- Modern History



Mathematics

Applied

- Essential Mathematics

General

- General Mathematics
- Mathematical Methods



The Arts

Applied

- Visual Arts in Practice

General

- Visual Art



Technologies

Applied

- Information, Communication and Technologies
- Hospitality Practices



Sciences

Applied

- Science in Practice
- Agricultural Practices

General

- Biology
- Chemistry
- Physics



VET and Other

- Certificate III Fitness
- Certificate II Engineering Pathways
- Certificate 1+ Cert II Construction
- QSMART
- SUN Program
- Distance Education

Please note that subjects offering for 2024 will be based on student enrolment numbers in the subject and staffing.

Subject offerings and choices may be subject to change.

Essential English develops and refines students' understanding of language, literature and literacy to enable them to interact confidently and effectively with others in everyday, community and social contexts. Students recognise language and texts as relevant in their lives now and in the future and learn to understand, accept or challenge the values and attitudes in these texts.

Students engage with language and texts to foster skills to communicate confidently and effectively in Standard Australian English in a variety of contemporary contexts and social situations, including every day, social, community, further education and work-related contexts. They choose generic structures, language, language features and technologies to best convey meaning. They develop skills to read for meaning and purpose, and to use, critique and appreciate a range of contemporary literary and non-literary texts.

Students use language effectively to produce texts for a variety of purposes and audiences and engage creative and imaginative thinking to explore their own world and the worlds of others. They actively and critically interact with a range of texts, developing an awareness of how the language they engage with positions them and others.

Pathways

A course of study in Essential English promotes open-mindedness, imagination, critical awareness and intellectual flexibility — skills that prepare students for local and global citizenship, and for lifelong learning across a wide range of contexts.

Objectives

By the conclusion of the course of study, students will:

- use patterns and conventions of genres to achieve particular purposes in cultural contexts and social situations
- use appropriate roles and relationships with audiences
- construct and explain representations of identities, places, events and concepts
- make use of and explain the ways cultural assumptions, attitudes, values and beliefs underpin texts and influence meaning
- explain how language features and text structures shape meaning and invite particular responses
- select and use subject matter to support perspectives
- sequence subject matter and use mode-appropriate cohesive devices to construct coherent texts
- make mode-appropriate language choices according to register informed by purpose, audience and context
- use language features to achieve particular purposes across modes.

Structure

Unit 1	Unit 2	Unit 3	Unit 4
Language that works <ul style="list-style-type: none"> Responding to a variety of texts used in and developed for a work context Creating multimodal and written texts 	Texts and human experiences <ul style="list-style-type: none"> Responding to reflective and nonfiction texts that explore human experiences Creating spoken and written texts 	Language that influences <ul style="list-style-type: none"> Creating and shaping perspectives on community, local and global issues in texts Responding to texts that seek to influence audiences 	Representations and popular culture texts <ul style="list-style-type: none"> Responding to popular culture texts Creating representations of Australian identifies, places, events and concepts

Assessment

Schools devise assessments in Units 1 and 2 to suit their local context.

In Units 3 and 4 students complete *four* summative assessments. Schools develop three summative internal assessments and the common internal assessment (CIA) is developed by the QCAA.

Summative assessments

Unit 3	Unit 4
Summative internal assessment 1 (IA1): <ul style="list-style-type: none"> Extended response — spoken/signed response 	Summative internal assessment 3 (IA3): <ul style="list-style-type: none"> Extended response — Multimodal response
Summative internal assessment 2 (IA2): <ul style="list-style-type: none"> Common internal assessment (CIA) — short response examination 	Summative internal assessment (IA4): <ul style="list-style-type: none"> Extended response — Written response

English focuses on the study of both literary texts and non-literary texts, developing students as independent, innovative and creative learners and thinkers who appreciate the aesthetic use of language, analyse perspectives and evidence, and challenge ideas and interpretations through the analysis and creation of varied texts.

Students are offered opportunities to interpret and create texts for personal, cultural, social and aesthetic purposes. They learn how language varies according to context, purpose and audience, content, modes and mediums, and how to use it appropriately and effectively for a variety of purposes. Students have opportunities to engage with diverse texts to help them develop a sense of themselves, their world and their place in it.

Students communicate effectively in Standard Australian English for the purposes of responding to and creating texts. They make choices about generic structures, language, textual features and technologies for participating actively in literary analysis and the creation of texts in a range of modes, mediums and forms, for a variety of purposes and audiences. They explore how literary and non-literary texts shape perceptions of the world, and consider ways in which texts may reflect or challenge social and cultural ways of thinking and influence audiences.

Pathways

A course of study in English promotes open-mindedness, imagination, critical awareness and intellectual flexibility — skills that prepare students for local and global

citizenship, and for lifelong learning across a wide range of contexts.

Objectives

By the conclusion of the course of study, students will:

- use patterns and conventions of genres to achieve particular purposes in cultural contexts and social situations
- establish and maintain roles of the writer/speaker/signer/designer and relationships with audiences
- create and analyse perspectives and representations of concepts, identities, times and places
- make use of and analyse the ways cultural assumptions, attitudes, values and beliefs underpin texts and invite audiences to take up positions
- use aesthetic features and stylistic devices to achieve purposes and analyse their effects in texts
- select and synthesise subject matter to support perspectives
- organise and sequence subject matter to achieve particular purposes
- use cohesive devices to emphasise ideas and connect parts of texts
- make language choices for particular purposes and contexts
- use grammar and language structures for particular purposes
- use mode-appropriate features to achieve particular purposes.

Structure

Unit 1	Unit 2	Unit 3	Unit 4
Perspectives and texts <ul style="list-style-type: none"> Examining and creating perspectives in texts Responding to a variety of non-literary and literary texts Creating responses for public audiences and persuasive texts 	Texts and culture <ul style="list-style-type: none"> Examining and shaping representations of culture in texts Responding to literary and non-literary texts, including a focus on Australian texts Creating imaginative and analytical texts 	Textual connections <ul style="list-style-type: none"> Exploring connections between texts Examining different perspectives of the same issue in texts and shaping own perspectives Creating responses for public audiences and persuasive texts 	Close study of literary texts <ul style="list-style-type: none"> Engaging with literary texts from diverse times and places Responding to literary texts creatively and critically Creating imaginative and analytical texts

Assessment

Schools devise assessments in Units 1 and 2 to suit their local context.

In Units 3 and 4 students complete *four* summative assessments. The results from each of the assessments are added together to provide a subject score out of 100. Students will also receive an overall subject result (A–E).

Summative assessments

Unit 3		Unit 4	
Summative internal assessment 1 (IA1): <ul style="list-style-type: none"> Extended response — written response for a public audience 	25%	Summative internal assessment 3 (IA3): <ul style="list-style-type: none"> Examination — imaginative written response 	25%
Summative internal assessment 2 (IA2): <ul style="list-style-type: none"> Extended response — persuasive spoken response 	25%	Summative external assessment (EA): <ul style="list-style-type: none"> Examination — analytical written response 	25%

Sport & Recreation

Applied senior subject

Applied

Sport & Recreation provides students with opportunities to learn in, through and about sport and active recreation activities, examining their role in the lives of individuals and communities.

Students examine the relevance of sport and active recreation in Australian culture, employment growth, health and wellbeing. They consider factors that influence participation in sport and recreation, and how physical skills can enhance participation and performance in sport and recreation activities. Students explore how interpersonal skills support effective interaction with others, and the promotion of safety in sport and recreation activities. They examine technology in sport and recreation activities, and how the sport and recreation industry contributes to individual and community outcomes.

Students are involved in acquiring, applying and evaluating information about and in physical activities and performances, planning and organising activities, investigating solutions to individual and community challenges, and using suitable technologies where relevant. They communicate ideas and information in, about and through sport and recreation activities. They examine the effects of sport and recreation on individuals and communities, investigate the role of sport and recreation in maintaining good health, evaluate strategies to promote health and safety, and investigate personal and interpersonal skills to achieve goals.

Pathways

A course of study in Sport & Recreation can establish a basis for further education and employment in the fields of fitness, outdoor recreation and education, sports administration, community health and recreation and sport performance.

Objectives

By the conclusion of the course of study, students should:

- demonstrate physical responses and interpersonal strategies in individual and group situations in sport and recreation activities
- describe concepts and ideas about sport and recreation using terminology and examples
- explain procedures and strategies in, about and through sport and recreation activities for individuals and communities
- apply concepts and adapt procedures, strategies and physical responses in individual and group sport and recreation activities
- manage individual and group sport and recreation activities
- apply strategies in sport and recreation activities to enhance health, wellbeing, and participation for individuals and communities
- use language conventions and textual features to achieve particular purposes
- evaluate individual and group physical responses and interpersonal strategies to improve outcomes in sport and recreation activities
- evaluate the effects of sport and recreation on individuals and communities
- evaluate strategies that seek to enhance health, wellbeing, and participation in sport and recreation activities and provide recommendations
- create communications that convey meaning for particular audiences and purposes.

Structure

The Sport & Recreation course is designed around core and elective topics.

Core topics	Elective topics	Assessments
<ul style="list-style-type: none"> • Sport and recreation in the community • Sport, recreation and healthy living • Health and safety in sport and recreation activities • Personal and interpersonal skills in sport and recreation activities 	<ul style="list-style-type: none"> • Community Recreation • Event Management • Emerging Trends in Sport, Fitness and Recreation. • Coaching and Officiating 	<ul style="list-style-type: none"> • Performance • Projects

Assessment

For Sport & Recreation, assessment from Units 3 and 4 is used to determine the student's exit result, and consists of *four* instruments, including:

- one project (annotated records of the performance is also required)
- one investigation, extended response or examination.

Project	Performance
A response to a single task, situation and/or scenario.	A response involves the application of identified skill/s when responding to a task that involves solving a problem, providing a solution, providing instruction or conveying meaning or intent.
At least two different components from the following: <ul style="list-style-type: none"> • written: 500–900 words • spoken: 2½–3½ minutes • multimodal: 3–6 minutes • performance: 2–4 minutes. * 	<ul style="list-style-type: none"> • Demonstrate fundamental skills to be successful in a sport • Evaluate how participation effects the health and wellbeing of individuals or effectiveness of the activity to increase participation and enjoyment within the sport, recreation and fitness industry.

* Evidence must include annotated records that clearly identify the application of standards to performance.

Health

General senior subject

General

The Health syllabus provides students with a contextualised strengths-based inquiry of the various determinants that create and promote lifelong health, learning and active citizenship. Drawing from the health, behavioural, social and physical sciences, the Health syllabus offers students an action, advocacy and evaluation-oriented curriculum. Embedded in Health is the Health inquiry model that provides the conceptual framework for this syllabus.

The health Syllabus is developmental and becomes increasingly more complex across the four units through the use of overarching approaches, frameworks and resources. Health is underpinned by a salutogenic (strengths based) approach, which focuses on how health resources are accessed and enhanced.

Unit 1: Resilience as a person health resource, establishes key teaching and learning concepts, which build capacity for the depth of understanding over the course of the study. Unit 2: Influence of peers and family as resources through an elective topic of either Alcohol or Body image. Unit 3: Explores the role of community in shaping resources through an elective topic of either; Homelessness, road safety or anxiety. Unit 4: Explores Respectful relationships in the post schooling transition.

Studying Health will highlight the value and dynamic nature of the discipline, alongside the purposeful processes and empathetic approach needed to enact change. The investigative skills required to understand complex issues and problems will enable interdisciplinary learning, and prepare students for further study and a diverse range of career pathways. The development of problem-solving and decision-making skills will serve to enable learning now and in the future.

Pathways

Health is a general subject suited to students who are interested in pathways beyond school that lead to tertiary studies, vocational education or work. A course of study in Health can establish a basis for further education and employment in the fields of health science, public health, health education, allied health, nursing and medical professions

Objectives

By the conclusion of the course of study, students will:

- recognise and describe information about health-related topics and issues
 - comprehend and use health approaches and frameworks
- analyse and interpret information about health-related topics and issues
- critique information to distinguish determinants that influence health status
 - organise information for particular purposes
 - investigate and synthesis information to develop action strategies
 - evaluate and reflect on implemented action strategies to justify recommendations that mediate, advocate and enable health promotion
 - make decisions about and use mode-appropriate features, language and conventions for particular purposes and contexts

Structure

Unit 1	Unit 2	Unit 3	Unit 4
Resilience as a personal health resource	Peers and family as resources for healthy living - Elective topic 1: Alcohol	Community as a resource for healthy living - Elective topic 2: Road safety	Respectful relationships in the post-schooling transition

Assessment

Schools develop internal assessments for each senior subject, based on the learning described in Units 1 and 2 of the subject syllabus. Each unit objective must be assessed at least once.

For reporting purposes, schools should devise at least *two* but no more than *four* assessments for Units 1 and 2 of this subject. At least *one* assessment must be completed for *each* unit

Students will complete a total of *four* summative assessments — three internal and one external — that count towards their final mark in each subject.

Schools develop *three* internal assessments for each senior subject, based on the learning described in Units 3 and 4 of the syllabus.

The three summative internal assessments will be endorsed and the results confirmed by the QCAA. These results will be combined with a single external assessment developed and marked by the QCAA. The external assessment results for Health will contribute 25% towards a student's result.

Summative assessments

Unit 3		Unit 4	
Summative internal assessment 1 (IA1): • Action research	25%	Summative internal assessment 3 (IA3): • Investigation – Analytical exposition	25%
Summative internal assessment 2 (IA2): • Examination – extended response	25%	Summative external assessment (EA): • Examination	25%

Social and Communities Studies

Applied senior subject

Applied

The Social and Community Studies Applied syllabus deals with the skills students need to function efficiently, effectively and positively in current and future life roles. It encourages them to recognise that emotional and social wellbeing are significant to individuals, families, the community and society as a whole.

Social and Community Studies fosters personal development and social skills which lead to self-reliance, self-management and concern for others. It fosters appreciation of, and respect for, cultural diversity and encourages responsible attitudes and behaviours required for effective participation in the community and for thinking critically, creatively and constructively about their future role in it.

In collaborative learning environments, students use an inquiry approach to investigate the dynamics of society and the benefits of working with others in the community, allowing them to establish positive relationships and networks, and to be active and informed citizens.

Social and Community Studies encourages students to explore and refine personal values and lifestyle choices. In partnership with families, the school community and the community beyond the school, including virtual communities, schools may offer a range of contexts and experiences that provide students with opportunities to practise, develop and value social, community and workplace participation skills.

Pathways

A course of study in Social and Community Studies can establish a basis for further education and employment, as it helps students develop the personal, interpersonal and citizenship skills and attributes necessary in all workplaces. It allows them to manage change, to be resilient and adaptive, and to develop strategies so that they can cope with the demands, not only of everyday life, but also of continuing studies, employment and future careers.

Objectives

By the conclusion of the course of study, students should:

- recognise and describe concepts and ideas related to the development of personal, interpersonal and citizenship skills
- recognise and explain the ways life skills relate to social contexts
- explain issues and viewpoints related to social investigations.
- organise information and material related to social contexts and issues
- analyse and compare viewpoints about social contexts and issues
- apply concepts and ideas to make decisions about social investigations
- use language conventions and features to communicate ideas and information, according to purposes.
- plan and undertake social investigations
- communicate the outcomes of social investigations, to suit audiences
- appraise inquiry processes and the outcomes of social investigations.

Structure

The Social and Community Studies course is designed around core and elective topics.

Core topics	Elective topics
<ul style="list-style-type: none"> Personal Skills Interpersonal Skills Citizenship Skills 	<ul style="list-style-type: none"> The Arts and the community Australia's place in the world Gender and identity Health- food and nutrition Health- recreation and leisure Into relationships Legally, it could be you Money management Science and technology Today's society The world of work

Assessment

For Social and Community Studies assessment from Units 3 and 4 is used to determine the student's exit result, and consists of *four* instruments, including:

- one project or investigation
- one examination.

Project	Investigation	Extended response	Examination
A response to a single task, situation and/or scenario.	A response that includes locating and using information beyond students' own knowledge and the data they have been given.	A technique that assesses the interpretation, analysis/examination and/or evaluation of ideas and information in provided stimulus materials.	A response that answers a number of provided questions, scenarios and/or problems.
At least two different components from the following: <ul style="list-style-type: none"> written: 500–900 words spoken: 2½–3½ minutes multimodal: 3–6 minutes performance: 2–4 minutes. * 	Presented in one of the following modes: <ul style="list-style-type: none"> written: 600–1000 words spoken: 3–4 minutes multimodal: 4–7 minutes. 	Presented in one of the following modes: <ul style="list-style-type: none"> written: 600–1000 words spoken: 3–4 minutes multimodal: 4–7 minutes. 	<ul style="list-style-type: none"> 60–90 minutes 50–250 words per item

Business

General senior subject

General

Business provides opportunities for students to develop business knowledge and skills to contribute meaningfully to society, the workforce and the marketplace and prepares them as potential employees, employers, leaders, managers and entrepreneurs.

Students investigate the business life cycle, develop skills in examining business data and information and learn business concepts, theories, processes and strategies relevant to leadership, management and entrepreneurship. They investigate the influence of, and implications for, strategic development in the functional areas of finance, human resources, marketing and operations.

Students use a variety of technological, communication and analytical tools to comprehend, analyse, interpret and synthesise business data and information. They engage with the dynamic business world (in both national and global contexts), the changing workforce and emerging digital technologies.

Pathways

A course of study in Business can establish a basis for further education and employment in the fields of business management, business development, entrepreneurship, business analytics, economics, business law, accounting and finance, international business, marketing, human resources management and business information systems.

Objectives

By the conclusion of the course of study, students will:

- describe business environments and situations
- explain business concepts, strategies and processes
- select and analyse business data and information
- interpret business relationships, patterns and trends to draw conclusions
- evaluate business practices and strategies to make decisions and propose recommendations
- create responses that communicate meaning to suit purpose and audience.

Structure

Unit 1	Unit 2	Unit 3	Unit 4
Business creation Fundamentals of business Creation of business ideas	Business growth Establishment of a business Entering markets	Business diversification Competitive markets Strategic development	Business evolution Repositioning a business Transformation of a business

Assessment

Schools devise assessments in Units 1 and 2 to suit their local context.

In Units 3 and 4 students complete *four* summative assessments. The results from each of the assessments are added together to provide a subject score out of 100. Students will also receive an overall subject result (A–E).

Summative assessments

Unit 3		Unit 4	
Summative internal assessment 1 (IA1): Examination — combination response	25%	Summative internal assessment 3 (IA3): Extended response — feasibility report	25%
Summative internal assessment 2 (IA2): Investigation — business report	25%	Summative external assessment (EA): Examination — combination response	25%

Modern History

General senior subject

General

Modern History provides opportunities for students to gain historical knowledge and understanding about some of the main forces that have contributed to the development of the Modern World and to think historically and form a historical consciousness in relation to these same forces.

Modern History enables students to empathise with others and make meaningful connections between the past, present and possible futures.

Students learn that the past is contestable and tentative. Through inquiry into ideas, movements, national experiences and international experiences they discover how the past consists of various perspectives and interpretations.

Students gain a range of transferable skills that will help them become empathetic and critically-literate citizens who are equipped to embrace a multicultural, pluralistic, inclusive, democratic, compassionate and sustainable future.

Pathways

A course of study in Modern History can establish a basis for further education and employment in the fields of history, education, psychology, sociology, law, business, economics, politics, journalism, the media, writing, academia and strategic analysis.

Objectives

By the conclusion of the course of study, students will:

- comprehend terms, concepts and issues
- devise historical questions and conduct research
- analyse evidence from historical sources to show understanding
- synthesise evidence from historical sources to form a historical argument
- evaluate evidence from historical sources to make judgments
- create responses that communicate meaning to suit purpose.

Structure

Unit 1	Unit 2	Unit 3	Unit 4
Ideas in the modern world Australian Frontier Wars, 1788–1930s Age of Enlightenment, 1750s–1789 Industrial Revolution, 1760s–1890s American Revolution, 1763–1783 French Revolution, 1789–1799	Movements in the modern world Australian Indigenous rights movement since 1967 Independence movement in India, 1857–1947 Workers' movement since the 1860s Women's movement since 1893 May Fourth Movement in China, 1919	National experiences in the modern world Australia, 1914–1949 England, 1756–1837 France, 1799–1815 New Zealand, 1841–1934 Germany, 1914–1945 United States of America, 1917–1945 Soviet Union, 1920s–1945 Japan, 1931–1967 China, 1931–1976	International experiences in the modern world Australian engagement with Asia since 1945 Search for collective peace and security since 1815 Trade and commerce between nations since 1833 Mass migrations since 1848 Information Age since 1936

Unit 1	Unit 2	Unit 3	Unit 4
Age of Imperialism, 1848–1914 Meiji Restoration, 1868–1912 Boxer Rebellion, 1900–1901 Russian Revolution, 1905–1920s Xinhai Revolution, 1911–1912 Iranian Revolution, 1977–1979 Arab Spring since 2010 Alternative topic for Unit 1	Independence movement in Algeria, 1945–1962 Independence movement in Vietnam, 1945–1975 Anti-apartheid movement in South Africa, 1948–1991 African-American civil rights movement, 1954–1968 Environmental movement since the 1960s LGBTIQ civil rights movement since 1969 Pro-democracy movement in Myanmar (Burma) since 1988 Alternative topic for Unit 2	Indonesia, 1942–1975 India, 1947–1974 Israel, 1948–1993 South Korea, 1948–1972	Genocides and ethnic cleansings since the 1930s Nuclear Age since 1945 Cold War, 1945–1991 Struggle for peace in the Middle East since 1948 Cultural globalisation since 1956 Space exploration since 1957 Rights and recognition of First Peoples since 1982 Terrorism, anti-terrorism and counter-terrorism since 1984

Assessment

Schools devise assessments in Units 1 and 2 to suit their local context.

In Units 3 and 4 students complete *four* summative assessments. The results from each of the assessments are added together to provide a subject score out of 100. Students will also receive an overall subject result (A–E).

Summative assessments

Unit 3		Unit 4	
Summative internal assessment 1 (IA1): Examination — essay in response to historical sources	25%	Summative internal assessment 3 (IA3): Investigation — historical essay based on research	25%
Summative internal assessment 2 (IA2): Independent source investigation	25%	Summative external assessment (EA): Examination — short responses to historical sources	25%

Essential Mathematics

Applied senior subject

Applied

Essential Mathematics' major domains are Number, Data, Location and time, Measurement and Finance.

Essential Mathematics benefits students because they develop skills that go beyond the traditional ideas of numeracy.

Students develop their conceptual understanding when they undertake tasks that require them to connect mathematical concepts, operations and relations. They learn to recognise definitions, rules and facts from everyday mathematics and data, and to calculate using appropriate mathematical processes.

Students interpret and use mathematics to make informed predictions and decisions about personal and financial priorities. This is achieved through an emphasis on estimation, problem-solving and reasoning, which develops students into thinking citizens.

Pathways

A course of study in Essential Mathematics can establish a basis for further education and employment in the fields of trade, industry, business and community services. Students learn within a practical context related to general employment and successful participation in society, drawing

on the mathematics used by various professional and industry groups.

Objectives

By the conclusion of the course of study, students will:

- select, recall and use facts, rules, definitions and procedures drawn from Number, Data, Location and time, Measurement and Finance
- comprehend mathematical concepts and techniques drawn from Number, Data, Location and time, Measurement and Finance
- communicate using mathematical, statistical and everyday language and conventions
- evaluate the reasonableness of solutions
- justify procedures and decisions by explaining mathematical reasoning
- solve problems by applying mathematical concepts and techniques drawn from Number, Data, Location and time, Measurement and Finance.

Structure

Unit 1	Unit 2	Unit 3	Unit 4
Number, data and graphs <ul style="list-style-type: none"> Fundamental topic: Calculations Number Representing data Graphs 	Money, travel and data <ul style="list-style-type: none"> Fundamental topic: Calculations Managing money Time and motion Data collection 	Measurement, scales and data <ul style="list-style-type: none"> Fundamental topic: Calculations Measurement Scales, plans and models Summarising and comparing data 	Graphs, chance and loans <ul style="list-style-type: none"> Fundamental topic: Calculations Bivariate graphs Probability and relative frequencies Loans and compound interest

Assessment

Schools devise assessments in Units 1 and 2 to suit their local context.

In Units 3 and 4 students complete *four* summative assessments. Schools develop three summative internal assessments and the common internal assessment (CIA) is developed by the QCAA.

Summative assessments

Unit 3	Unit 4
Summative internal assessment 1 (IA1): <ul style="list-style-type: none"> Problem-solving and modelling task 	Summative internal assessment 3 (IA3): <ul style="list-style-type: none"> Problem-solving and modelling task
Summative internal assessment 2 (IA2): <ul style="list-style-type: none"> Common internal assessment (CIA) 	Summative internal assessment (IA4): <ul style="list-style-type: none"> Examination

General Mathematics

General senior subject

General

General Mathematics' major domains are Number and algebra, Measurement and geometry, Statistics, and Networks and matrices, building on the content of the P–10 Australian Curriculum.

General Mathematics is designed for students who want to extend their mathematical skills beyond Year 10 but whose future studies or employment pathways do not require calculus.

Students build on and develop key mathematical ideas, including rates and percentages, concepts from financial mathematics, linear and non-linear expressions, sequences, the use of matrices and networks to model and solve authentic problems, the use of trigonometry to find solutions to practical problems, and the exploration of real-world phenomena in statistics.

Students engage in a practical approach that equips learners for their needs as future citizens. They learn to ask appropriate questions, map out pathways, reason about complex solutions, set up models and communicate in different forms. They experience the relevance of mathematics to their daily lives, communities and cultural backgrounds. They develop the ability to understand, analyse and take action regarding social issues in their world.

Pathways

A course of study in General Mathematics can establish a basis for further education and employment in the fields of business,

commerce, education, finance, IT, social science and the arts.

Objectives

By the conclusion of the course of study, students will:

- select, recall and use facts, rules, definitions and procedures drawn from Number and algebra, Measurement and geometry, Statistics, and Networks and matrices
- comprehend mathematical concepts and techniques drawn from Number and algebra, Measurement and geometry, Statistics, and Networks and matrices
- communicate using mathematical, statistical and everyday language and conventions
- evaluate the reasonableness of solutions
- justify procedures and decisions by explaining mathematical reasoning
- solve problems by applying mathematical concepts and techniques drawn from Number and algebra, Measurement and geometry, Statistics, and Networks and matrices.

Structure

Unit 1	Unit 2	Unit 3	Unit 4
Money, measurement and relations <ul style="list-style-type: none"> Consumer arithmetic Shape and measurement Linear equations and their graphs 	Applied trigonometry, algebra, matrices and univariate data <ul style="list-style-type: none"> Applications of trigonometry Algebra and matrices Univariate data analysis 	Bivariate data, sequences and change, and Earth geometry <ul style="list-style-type: none"> Bivariate data analysis Time series analysis Growth and decay in sequences Earth geometry and time zones 	Investing and networking <ul style="list-style-type: none"> Loans, investments and annuities Graphs and networks Networks and decision mathematics

Assessment

Schools devise assessments in Units 1 and 2 to suit their local context.

In Units 3 and 4 students complete *four* summative assessments. The results from each of the assessments are added together to provide a subject score out of 100. Students will also receive an overall subject result (A–E).

Summative assessments

Unit 3		Unit 4	
Summative internal assessment 1 (IA1): • Problem-solving and modelling task	20%	Summative internal assessment 3 (IA3): • Examination	15%
Summative internal assessment 2 (IA2): • Examination	15%		
Summative external assessment (EA): 50% • Examination			

Mathematical Methods

General senior subject

General

Mathematical Methods' major domains are Algebra, Functions, relations and their graphs, Calculus and Statistics.

Mathematical Methods enables students to see the connections between mathematics and other areas of the curriculum and apply their mathematical skills to real-world problems, becoming critical thinkers, innovators and problem-solvers.

Students learn topics that are developed systematically, with increasing levels of sophistication, complexity and connection, and build on algebra, functions and their graphs, and probability from the P-10 Australian Curriculum. Calculus is essential for developing an understanding of the physical world. The domain Statistics is used to describe and analyse phenomena involving uncertainty and variation. Both are the basis for developing effective models of the world and solving complex and abstract mathematical problems.

Students develop the ability to translate written, numerical, algebraic, symbolic and graphical information from one representation to another. They make complex use of factual knowledge to successfully formulate, represent and solve mathematical problems.

Pathways

A course of study in Mathematical Methods can establish a basis for further education and employment in the fields of natural and physical sciences (especially physics and chemistry), mathematics and science education, medical and health sciences (including human biology, biomedical science, nanoscience and forensics), engineering (including chemical, civil, electrical and mechanical engineering, avionics, communications and mining),

computer science (including electronics and software design), psychology and business.

Objectives

By the conclusion of the course of study, students will:

- select, recall and use facts, rules, definitions and procedures drawn from Algebra, Functions, relations and their graphs, Calculus and Statistics
- comprehend mathematical concepts and techniques drawn from Algebra, Functions, relations and their graphs, Calculus and Statistics
- communicate using mathematical, statistical and everyday language and conventions
- evaluate the reasonableness of solutions
- justify procedures and decisions by explaining mathematical reasoning
- solve problems by applying mathematical concepts and techniques drawn from Algebra, Functions, relations and their graphs, Calculus and Statistics.

Structure

Unit 1	Unit 2	Unit 3	Unit 4
Algebra, statistics and functions <ul style="list-style-type: none"> Arithmetic and geometric sequences and series 1 Functions and graphs Counting and probability Exponential functions 1 Arithmetic and geometric sequences 	Calculus and further functions <ul style="list-style-type: none"> Exponential functions 2 The logarithmic function 1 Trigonometric functions 1 Introduction to differential calculus Further differentiation and applications 1 Discrete random variables 1 	Further calculus <ul style="list-style-type: none"> The logarithmic function 2 Further differentiation and applications 2 Integrals 	Further functions and statistics <ul style="list-style-type: none"> Further differentiation and applications 3 Trigonometric functions 2 Discrete random variables 2 Continuous random variables and the normal distribution Interval estimates for proportions

Assessment

Schools devise assessments in Units 1 and 2 to suit their local context.

In Units 3 and 4 students complete *four* summative assessments. The results from each of the assessments are added together to provide a subject score out of 100. Students will also receive an overall subject result (A–E).

Summative assessments

Unit 3		Unit 4	
Summative internal assessment 1 (IA1): • Problem-solving and modelling task	20%	Summative internal assessment 3 (IA3): • Examination	15%
Summative internal assessment 2 (IA2): • Examination	15%		
Summative external assessment (EA): 50% • Examination			

Science In Practice

Applied senior subject

Applied

Senior secondary students are able to ask increasingly sophisticated questions about new ideas and information. Science in Practice supports and focuses the development of these questions by encouraging inquiry and a respect for evidence and reasoning. It develops critical thinking skills through the evaluation of claims using systematic reasoning and an enhanced scientific understanding of the natural and physical world. Science in Practice is practical, with experiments and hands-on investigations at its heart. Practical activities engage students, producing excitement and curiosity. Investigations develop a deeper understanding of the nature of science and of a particular topic or context. They foster problem-solving skills that are transferable to new situations.

The core of Science in Practice focuses on 'Scientific literacy and working scientifically', 'Workplace health and safety', and 'Communication and self-management'. Science in Practice uses a contextualised approach, where modules of work deliver the core through electives — 'Science for the workplace', 'Resources, energy and sustainability', 'Health and lifestyles', 'Environments', and 'Discovery and change'. Learning experiences within modules of work are interdisciplinary, including aspects of at least two science disciplines — Biology, Chemistry, Earth and Environmental Science and Physics. The objectives of the course ensure that students apply what they know and understand to plan investigations, analyse research and evaluate evidence.

Pathways

A course of study in Science in Practice is inclusive and caters for a wide range of students with a variety of backgrounds, interests and career aspirations. It can establish a basis for further education and employment in many fields, e.g. animal welfare, food technology, forensics, health and medicine, the pharmaceutical industry, recreation and tourism, research, and the resources sector.

Objectives

By the conclusion of the course of study, students will:

- describe and explain scientific facts, concepts and phenomena in a range of situations
- describe and explain scientific skills, techniques, methods and risks.
- analyse data, situations and relationships
- apply scientific knowledge, understanding and skills to generate solutions
- communicate using scientific terminology, diagrams, conventions and symbols.
- plan scientific activities and investigations
- evaluate reliability and validity of plans and procedures, and data and information
- draw conclusions, and make decisions and recommendations using scientific evidence.

Structure

The Science in Practice course is designed around core and elective topics.

Core topics	Elective topics
<ul style="list-style-type: none"> Scientific literacy and working scientifically Workplace health and safety Communication and self-management 	Unit 1: Ecology Unit 2: Sustainability

Assessment

For Science in Practice assessment from Units 3 and 4 is used to determine the student's exit result, and consists of *four* instruments, including:

- one investigation
- one project, extended response, collection of work or examination.

Project	Investigation	Extended response	Examination	Collection of Work
A response to a single task, situation and/or scenario.	A response that includes locating and using information beyond students' own knowledge and the data they have been given.	A technique that assesses the interpretation, analysis/examination and/or evaluation of ideas and information in provided stimulus materials.	A response that answers a number of provided questions, scenarios and/or problems.	A series of tasks relating to a single topic, which may be provided at different time and contexts
At least two different components from the following: <ul style="list-style-type: none"> written: 500–900 words spoken: 2½–3½ minutes multimodal: 3–6 minutes performance: 2–4 minutes. * 	Presented in one of the following modes: <ul style="list-style-type: none"> written: 600–1000 words spoken: 3–4 minutes multimodal: 4–7 minutes. 	Presented in one of the following modes: <ul style="list-style-type: none"> written: 600–1000 words spoken: 3–4 minutes multimodal: 4–7 minutes. 	<ul style="list-style-type: none"> 60–90 minutes 50–250 words per item 	Presented in one of the following modes: <ul style="list-style-type: none"> written: 600–1000 words spoken: 3–4 minutes multimodal: 4–7 minutes. Performance Examination: 20-30 minutes 50-250 words per item

Agricultural Practices

Applied senior subject

Applied

Agricultural Practices provides opportunities for students to explore, experience and learn knowledge and practical skills valued in agricultural workplaces and other settings. Through these learning experiences, students build their understanding of expectations for work in agricultural settings and develop an understanding of career pathways, jobs and other opportunities available for participating in and contributing to agricultural activities.

Agricultural Practices includes two areas of study, 'Animal studies' and 'Plant studies', which focus on building knowledge and skills suited to practical situations in agricultural workplaces. Schools decide whether to include one or both of the areas of study in their course of study. Learning in the selected areas of study is delivered through modules of work set in specific animal and plant contexts, such as poultry, vegetables or conservation areas.

'Safety and management practices' are embedded across both areas of study and focus on building knowledge and skills in working safely, effectively and efficiently in practical agricultural situations. These practices include skills needed to work effectively as an individual and as part of a team, to build relationships with peers, colleagues and wider networks, to collaborate and communicate appropriately with others, and to plan, organise and complete tasks on time. These skills are valued in all settings where people work together, and therefore position students for successful transition to work, training and other collaborative environments

Pathways

A course of study in Agricultural Practices can establish a basis for further education, training and employment in agriculture, aquaculture, food technology, environmental management and agribusiness. The subject also provides a basis for participating in and contributing to community associations, events and activities, such as agricultural shows.

Objectives

By the conclusion of the course of study, students will:

- demonstrate procedures to complete tasks in agricultural activities
- describe and explain concepts, ideas and processes relevant to agricultural activities.
- analyse agricultural information
- apply knowledge, understanding and skills relevant to agricultural activities
- use appropriate language conventions and features for communication of agricultural information.
- plan processes for agricultural activities
- make decisions and recommendations with evidence for agricultural activities
- evaluate processes and decisions regarding safety and effectiveness.

Structure

The Agricultural Practices course is designed around core and elective topics.

Module 1	Module 2	Module 3	Module 4
<ul style="list-style-type: none"> Rules, regulations and recommendations Equipment maintenance and operation Management practices 	<ul style="list-style-type: none"> Operating machinery Animal Studies <ul style="list-style-type: none"> Infrastructure Production Agribusiness Plant Studies <ul style="list-style-type: none"> Infrastructure Production Agribusiness 	Regenerative Agriculture	Aquaponics

Assessment

For Agricultural Practices assessments from Units 3 and 4 is used to determine the student's exit result, and consists of *four* instruments, including:

- one project
- one investigation, extended response, collection of work or examination.

Project	Investigation	Extended response	Examination	Collection of Work
A response to a single task, situation and/or scenario.	A response that includes locating and using information beyond students' own knowledge and the data they have been given.	A technique that assesses the interpretation, analysis/examination and/or evaluation of ideas and information in provided stimulus materials.	A response that answers a number of provided questions, scenarios and/or problems.	A series of tasks relating to a single topic, which may be provided at different time and contexts
At least two different components from the following: <ul style="list-style-type: none"> written: 500–900 words spoken: 2½–3½ minutes multimodal: 3–6 minutes performance: 2–4 minutes. 	Presented in one of the following modes: <ul style="list-style-type: none"> written: 600–1000 words spoken: 3–4 minutes multimodal: 4–7 minutes. 	Presented in one of the following modes: <ul style="list-style-type: none"> written: 600–1000 words spoken: 3–4 minutes multimodal: 4–7 minutes. 	<ul style="list-style-type: none"> 60–90 minutes 50–250 words per item 	Presented in one of the following modes: <ul style="list-style-type: none"> written: 600–1000 words spoken: 3–4 minutes multimodal: 4–7 minutes. Performance Examination: 20-30 minutes 50-250 words per item

Biology

General senior subject

General

Biology provides opportunities for students to engage with living systems.

Students develop their understanding of cells and multicellular organisms. They engage with the concept of maintaining the internal environment. They study biodiversity and the interconnectedness of life. This knowledge is linked with the concepts of heredity and the continuity of life.

Students learn and apply aspects of the knowledge and skills of the discipline (thinking, experimentation, problem-solving and research skills), understand how it works and how it may impact society. They develop their sense of wonder and curiosity about life; respect for all living things and the environment; understanding of biological systems, concepts, theories and models; appreciation of how biological knowledge has developed over time and continues to develop; a sense of how biological knowledge influences society.

Students plan and carry out fieldwork, laboratory and other research investigations; interpret evidence; use sound, evidence-based arguments creatively and analytically when evaluating claims and applying biological knowledge; and communicate biological understanding, findings, arguments and conclusions using appropriate representations, modes and genres.

Pathways

A course of study in Biology can establish a basis for further education and employment in the fields of medicine, forensics, veterinary, food and marine sciences, agriculture, biotechnology, environmental

rehabilitation, biosecurity, quarantine, conservation and sustainability.

Objectives

By the conclusion of the course of study, students will:

- describe and explain scientific concepts, theories, models and systems and their limitations
- apply understanding of scientific concepts, theories, models and systems within their limitations
- analyse evidence
- interpret evidence
- investigate phenomena
- evaluate processes, claims and conclusions
- communicate understandings, findings, arguments and conclusions.

Structure

Unit 1	Unit 2	Unit 3	Unit 4
Cells and multicellular organisms <ul style="list-style-type: none"> Cells as the basis of life Multicellular organisms 	Maintaining the internal environment <ul style="list-style-type: none"> Homeostasis Infectious diseases 	Biodiversity and the interconnectedness of life <ul style="list-style-type: none"> Describing biodiversity Ecosystem dynamics 	Heredity and continuity of life <ul style="list-style-type: none"> DNA, genes and the continuity of life Continuity of life on Earth

Assessment

Schools devise assessments in Units 1 and 2 to suit their local context.

In Units 3 and 4 students complete *four* summative assessments. The results from each of the assessments are added together to provide a subject score out of 100. Students will also receive an overall subject result (A–E).

Summative assessments

Unit 3		Unit 4	
Summative internal assessment 1 (IA1): • Data test	10%	Summative internal assessment 3 (IA3): • Research investigation	20%
Summative internal assessment 2 (IA2): • Student experiment	20%		
Summative external assessment (EA): 50% • Examination			

Chemistry

General senior subject

General

Chemistry is the study of materials and their properties and structure.

Students study atomic theory, chemical bonding, and the structure and properties of elements and compounds. They explore intermolecular forces, gases, aqueous solutions, acidity and rates of reaction. They study equilibrium processes and redox reactions. They explore organic chemistry, synthesis and design to examine the characteristic chemical properties and chemical reactions displayed by different classes of organic compounds.

Students develop their appreciation of chemistry and its usefulness; understanding of chemical theories, models and chemical systems; expertise in conducting scientific investigations. They critically evaluate and debate scientific arguments and claims in order to solve problems and generate informed, responsible and ethical conclusions, and communicate chemical understanding and findings through the use of appropriate representations, language and nomenclature.

Students learn and apply aspects of the knowledge and skills of the discipline (thinking, experimentation, problem-solving and research skills), understand how it works and how it may impact society.

Pathways

A course of study in Chemistry can establish a basis for further education and employment in the fields of forensic science,

environmental science, engineering, medicine, pharmacy and sports science.

Objectives

By the conclusion of the course of study, students will:

- describe and explain scientific concepts, theories, models and systems and their limitations
- apply understanding of scientific concepts, theories, models and systems within their limitations
- analyse evidence
- interpret evidence
- investigate phenomena
- evaluate processes, claims and conclusions
- communicate understandings, findings, arguments and conclusions.

Structure

Unit 1	Unit 2	Unit 3	Unit 4
Chemical fundamentals — structure, properties and reactions <ul style="list-style-type: none"> • Properties and structure of atoms • Properties and structure of materials • Chemical reactions — reactants, products and energy change 	Molecular interactions and reactions <ul style="list-style-type: none"> • Intermolecular forces and gases • Aqueous solutions and acidity • Rates of chemical reactions 	Equilibrium, acids and redox reactions <ul style="list-style-type: none"> • Chemical equilibrium systems • Oxidation and reduction 	Structure, synthesis and design <ul style="list-style-type: none"> • Properties and structure of organic materials • Chemical synthesis and design

Assessment

Schools devise assessments in Units 1 and 2 to suit their local context.

In Units 3 and 4 students complete *four* summative assessments. The results from each of the assessments are added together to provide a subject score out of 100. Students will also receive an overall subject result (A–E).

Summative assessments

Unit 3		Unit 4	
Summative internal assessment 1 (IA1): • Data test	10%	Summative internal assessment 3 (IA3): • Research investigation	20%
Summative internal assessment 2 (IA2): • Student experiment	20%		
Summative external assessment (EA): 50% • Examination			

Physics

General senior subject

General

Physics provides opportunities for students to engage with classical and modern understandings of the universe.

Students learn about the fundamental concepts of thermodynamics, electricity and nuclear processes; and about the concepts and theories that predict and describe the linear motion of objects. Further, they explore how scientists explain some phenomena using an understanding of waves. They engage with the concept of gravitational and electromagnetic fields and the relevant forces associated with them. They study modern physics theories and models that, despite being counterintuitive, are fundamental to our understanding of many common observable phenomena.

Students develop appreciation of the contribution physics makes to society: understanding that diverse natural phenomena may be explained, analysed and predicted using concepts, models and theories that provide a reliable basis for action; and that matter and energy interact in physical systems across a range of scales. They understand how models and theories are refined, and new ones developed in physics; investigate phenomena and solve problems; collect and analyse data; and interpret evidence. Students use accurate and precise measurement, valid and reliable evidence, and scepticism and intellectual rigour to evaluate claims; and communicate physics understanding, findings, arguments and conclusions using appropriate representations, modes and genres.

Students learn and apply aspects of the knowledge and skills of the discipline (thinking, experimentation, problem-solving

and research skills), understand how it works and how it may impact society.

Pathways

A course of study in Physics can establish a basis for further education and employment in the fields of science, engineering, medicine and technology.

Objectives

By the conclusion of the course of study, students will:

- describe and explain scientific concepts, theories, models and systems and their limitations
- apply understanding of scientific concepts, theories, models and systems within their limitations
- analyse evidence
- interpret evidence
- investigate phenomena
- evaluate processes, claims and conclusions
- communicate understandings, findings, arguments and conclusions.

Structure

Unit 1	Unit 2	Unit 3	Unit 4
Thermal, nuclear and electrical physics <ul style="list-style-type: none"> • Heating processes • Ionising radiation and nuclear reactions • Electrical circuits 	Linear motion and waves <ul style="list-style-type: none"> • Linear motion and force • Waves 	Gravity and electromagnetism <ul style="list-style-type: none"> • Gravity and motion • Electromagnetism 	Revolutions in modern physics <ul style="list-style-type: none"> • Special relativity • Quantum theory • The Standard Model

Assessment

Schools devise assessments in Units 1 and 2 to suit their local context.

In Units 3 and 4 students complete *four* summative assessments. The results from each of the assessments are added together to provide a subject score out of 100. Students will also receive an overall subject result (A–E).

Summative assessments

Unit 3		Unit 4	
Summative internal assessment 1 (IA1): • Data test	10%	Summative internal assessment 3 (IA3): • Research investigation	20%
Summative internal assessment 2 (IA2): • Student experiment	20%		
Summative external assessment (EA): 50% • Examination			

The subject Information and Communication Technology (ICT) focuses on the knowledge, understanding and skills related to engagement with information and communication technology through a variety of elective contexts derived from work, study and leisure environments of today

Across business, industry, government, education and leisure sectors, rapidly changing ICT practices and protocols create corresponding vocational opportunities. To enable students to take advantage of these opportunities, this subject area will equip them with knowledge of current and emerging hardware and software combinations, an understanding of how to apply them in real-world contexts and the skills to use them to solve technical and/or creative problems. Students will develop knowledge, understanding and skills across multiple platforms and operating systems, and will be ethical and responsible users and advocates of ICT, aware of the social, environmental and legal impacts of their actions.

The subject Information and Communication Technology is concerned with skills in applying knowledge of ICT to produce solutions to simulated problems referenced to business, industry, government, education and leisure contexts. Through practice in problem-solving in a variety of contexts, both individually and collaboratively, it promotes adaptable, competent and self-motivated users and consumers of ICT who can work with clients and colleagues to identify issues and solve problems

Pathways

A course of study in Information and Communication Technology can establish a basis for further education and employment in many fields especially the fields of ICT operations, help desk, sales support, digital media support, office administration, records and data management, and call centres

Objectives

By the conclusion of the course of study, students should:

- identify and explain hardware and software requirements related to ICT problems
- identify and explain the use of ICT in society.
- analyse ICT problems to identify solutions
- communicate ICT information to audiences using visual representations and language conventions and features
- apply software and hardware concepts, ideas and skills to complete tasks in ICT contexts.
- synthesise ICT concepts and ideas to plan solutions to given ICT problems
- produce solutions that address ICT problems

Structure

The Information, Communication and Technologies course is designed around core and elective topics.

Core topics	Elective topics
<ul style="list-style-type: none">• Hardware• Software• ICT in society	Module 1: Web Development Module 2: Digital Imaging and Modelling Module 3: App Development (game making)

Assessment

For Information, Communication and Technologies assessment from Units 3 and 4 is used to determine the student's exit result, and consists of *four* instruments, including:

- at least two projects
- at least one one extended response

Project	Extendend Response
A response to a single task, situation and/or scenario.	A technique that assesses the interpretation, analysis/examination and/or evaluation of ideas and information in provided stimulus materials.
A project consists of a product component and one other component from the following: <ul style="list-style-type: none">• written: 500–900 words• spoken: 2½–3½ minutes• multimodal: 3–6 minutes	Presented in one of the following modes: <ul style="list-style-type: none">• written: 600–1000 words• spoken: 3–4 minutes• multimodal: 4–7 minutes.

Hospitality Practices

Applied senior subject

Applied

Hospitality Practices develops knowledge, understanding and skills about the hospitality industry and emphasises the food and beverage sector, which includes food and beverage production and service.

Students develop an understanding of hospitality and the structure, scope and operation of related activities in the food and beverage sector and examine and evaluate industry practices from the food and beverage sector.

Students develop skills in food and beverage production and service. They work as individuals and as part of teams to plan and implement events in a hospitality context. Events provide opportunities for students to participate in and produce food and beverage products and perform service for customers in real-world hospitality contexts.

Pathways

A course of study in Hospitality Practices can establish a basis for further education and employment in the hospitality sectors of food and beverage, catering, accommodation and entertainment. Students could pursue further studies in hospitality, hotel, event and tourism or

business management, which allows for specialisation.

Objectives

By the conclusion of the course of study, students should:

- explain concepts and ideas from the food and beverage sector
- describe procedures in hospitality contexts from the food and beverage sector
- examine concepts and ideas and procedures related to industry practices from the food and beverage sector
- apply concepts and ideas and procedures when making decisions to produce products and perform services for customers
- use language conventions and features to communicate ideas and information for specific purposes.
- plan, implement and justify decisions for events in hospitality contexts
- critique plans for, and implementation of, events in hospitality contexts
- evaluate industry practices from the food and beverage sector.

Structure

The Hospitality Practices course is designed around core topics embedded in a minimum of two elective topics.

Core topics	Elective topics
<ul style="list-style-type: none"> • Navigating the hospitality industry • Working effectively with others • Hospitality in practice 	<ul style="list-style-type: none"> • Kitchen operations • Beverage operations and service • Food and beverage service

Assessment

For Hospitality Practices, assessment from Units 3 and 4 is used to determine the student's exit result, and consists of *four* instruments, including:

- at least two projects
- at least one investigation or an extended response.

Project	Investigation	Extended response	Examination
A response to a single task, situation and/or scenario.	A response that includes locating and using information beyond students' own knowledge and the data they have been given.	A technique that assesses the interpretation, analysis/examination and/or evaluation of ideas and information in provided stimulus materials.	A response that answers a number of provided questions, scenarios and/or problems.
A project consists of a product and performance component and one other component from the following: written: 500–900 words spoken: 2½–3½ minutes multimodal: 3–6 minutes product and performance: continuous class time	Presented in one of the following modes: • written: 600–1000 words • spoken: 3–4 minutes • multimodal: 4–7 minutes.	Presented in one of the following modes: • written: 600–1000 words • spoken: – 3–4 minutes • multimodal: 4–7 minutes.	<ul style="list-style-type: none"> • 60–90 minutes • 50–250 words per item

Visual Arts in Practice

Applied senior subject

Applied

Visual Arts in Practice focuses on students engaging in art-making processes and making virtual or physical visual artworks. Visual artworks are created for a purpose and in response to individual, group or community needs.

Students explore and apply the materials, technologies and techniques used in art-making. They use information about design elements and principles to influence their own aesthetic and guide how they view others' works. They also investigate information about artists, art movements and theories, and use the lens of a context to examine influences on art-making.

Students reflect on both their own and others' art-making processes. They integrate skills to create artworks and evaluate aesthetic choices. Students decide on the best way to convey meaning through communications and artworks. They learn and apply safe visual art practices.

Pathways

A course of study in Visual Arts in Practice can establish a basis for further education and employment in a range of fields, including design, styling, decorating, illustrating, drafting, visual merchandising,

make-up artistry, advertising, game design, photography, animation or ceramics.

Objectives

By the conclusion of the course of study, students should:

- recall terminology and explain art-making processes
- interpret information about concepts and ideas for a purpose
- demonstrate art-making processes required for visual artworks
- apply art-making processes, concepts and ideas
- analyse visual art-making processes for particular purposes
- use language conventions and features to achieve particular purposes
- generate plans and ideas and make decisions
- create communications that convey meaning to audiences
- evaluate art-making processes, concepts and ideas.

Structure

The Visual Arts in Practice course is designed around core and elective topics.

Core	Unit 1	Unit 2	Unit 3	Unit 4
<ul style="list-style-type: none"> • Visual mediums, technologies, techniques • Visual literacies and contexts • Artwork realisation 	Transform and Inspire Project Assessment D2 - Product	Clients Project Assessment C2-product	Looking Outwards Project Assessment D2 – Product	Looking Inwards Project Assessment C2 – Product

Assessment

For Visual Arts in Practice, assessment from Units 3 and 4 is used to determine the student's exit result, and consists of *four* instruments, including:

- at least two projects, with at least one project arising from community connections
- at least one product (composition), separate to an assessable component of a project.

Project	Product
A response to a single task, situation and/or scenario that contains two or more components.	A technique that assesses the application of identified skills to the production of artworks.
A project consists of: a product component and at least one different component from the following <ul style="list-style-type: none"> • written: 500–900 words • spoken: 2½–3½ minutes • multimodal • non-presentation: 8 A4 pages max (or equivalent) • presentation: 3–6 minutes. 	Variable conditions

Visual Art

General senior subject

General

Visual Art provides students with opportunities to understand and appreciate the role of visual art in past and present traditions and cultures, as well as the contributions of contemporary visual artists and their aesthetic, historical and cultural influences. Students interact with artists, artworks, institutions and communities to enrich their experiences and understandings of their own and others' art practices.

Students have opportunities to construct knowledge and communicate personal interpretations by working as both artist and audience. They use their imagination and creativity to innovatively solve problems and experiment with visual language and expression.

Through an inquiry learning model, students develop critical and creative thinking skills. They create individualised responses and meaning by applying diverse materials, techniques, technologies and art processes.

In responding to artworks, students employ essential literacy skills to investigate artistic expression and critically analyse artworks in diverse contexts. They consider meaning, purposes and theoretical approaches when ascribing aesthetic value and challenging ideas.

Pathways

A course of study in Visual Art can establish a basis for further education and employment in the fields of arts practice, design, craft, and information technologies; broader areas in creative industries and cultural institutions; and diverse fields that use skills inherent in the subject, including advertising, arts administration and management, communication, design, education, galleries and museums, film and

television, public relations, and science and technology.

Objectives

By the conclusion of the course of study, students will:

- implement ideas and representations
- apply literacy skills
- analyse and interpret visual language, expression and meaning in artworks and practices
- evaluate art practices, traditions, cultures and theories
- justify viewpoints
- experiment in response to stimulus
- create meaning through the knowledge and understanding of materials, techniques, technologies and art processes
- realise responses to communicate meaning.

Structure

Unit 1	Unit 2	Unit 3	Unit 4
<p>Art as lens Through inquiry learning, the following are explored:</p> <ul style="list-style-type: none"> • Concept: lenses to explore the material world • Contexts: personal and contemporary • Focus: People, place, objects • Media: 2D, 3D, and time-based 	<p>Art as code Through inquiry learning, the following are explored:</p> <ul style="list-style-type: none"> • Concept: art as a coded visual language • Contexts: formal and cultural • Focus: Codes, symbols, signs and art conventions • Media: 2D, 3D, and time-based 	<p>Art as knowledge Through inquiry learning, the following are explored:</p> <ul style="list-style-type: none"> • Concept: constructing knowledge as artist and audience • Contexts: contemporary, personal, cultural and/or formal • Focus: student-directed • Media: student-directed 	<p>Art as alternate Through inquiry learning, the following are explored:</p> <ul style="list-style-type: none"> • Concept: evolving alternate representations and meaning • Contexts: contemporary and personal, cultural and/or formal • Focus: continued exploration of Unit 3 student-directed focus • Media: student-directed

Assessment

Schools devise assessments in Units 1 and 2 to suit their local context.

In Units 3 and 4 students complete *four* summative assessments. The results from each of the assessments are added together to provide a subject score out of 100. Students will also receive an overall subject result (A–E).

Summative assessments

Unit 3		Unit 4	
Summative internal assessment 1 (IA1): • Investigation — inquiry phase 1	15%	Summative internal assessment 3 (IA3): • Project — inquiry phase 3	35%
Summative internal assessment 2 (IA2): • Project — inquiry phase 2	25%		
Summative external assessment (EA): 25%			
• Examination			

Certificate I in Construction CPC10120/ Certificate II in Construction Pathways CPC20220 Blue Dog Training RTO-31193

VET

Description

The dual construction qualification provides a pathway to the primary trades in the construction industry with the exception of plumbing.

The units of competency within the dual qualification cover essential work health and safety requirements, the industrial and work organisation structure, communication skills, work planning, and basic use of tools and materials and have core units of competency requirements that are required in most Certificate III qualifications. The dual qualification is built around a basic construction project unit that integrates the skills and embeds the facets of employability skills in context.

The qualification is suited to vocational education and training (VET) in Schools programs or learners with no previous connection to the construction industry or relevant employment history.

Typically commencing in Year 11 and delivered in the school workshops, during normal school hours as a part of the student's regular school timetable, the course is completed over a period of two (2) years. A student can only participate in a Blue Dog Training VETiS program with the permission of their school.

Application

The learning program should develop trade-like skills but not attempt to develop trade-level skills. The qualification is suited to VET in Schools programs or learners with no previous connection to the construction industry or relevant employment history.

Eligibility – cost

CPC10120 Certificate I in Construction is eligible for funding through the Department of Employment, Small Business and Training (DESBT) who provide funding for secondary school students to complete one (1) approved VETiS qualification while at school, referred to as 'employment stream' qualifications.

This means that if a student is eligible, the course is provided to them fee-free. To be eligible to enrol in a Blue Dog Training VETiS program, students must:

- be currently enrolled in secondary school
- permanently reside in Queensland
- be an Australian citizen, Australian permanent resident (includes humanitarian entrant), temporary resident with the necessary visa and work permits on the pathway to permanent residency, or a New Zealand citizen
- not already completing or have already completed a funded VETiS course with another registered training organisation.

In situations where a student is not eligible for VETiS funding, under the DESBT funding arrangements, fee for service arrangements are available for students through Blue Dog Training. Fee for service cost = \$1200.

CPC20220 Certificate II in Construction Pathways is not currently eligible for funding through the Department of Employment, Small Business and Training (DESBT). This portion of the Dual Qualification is being delivered by Blue Dog Training as a pilot program to 2024 enrolments and will not incur a fee for service cost. Please refer to the Blue Dog Training Website for information on their refund policy. https://bluedogtraining.com.au/storage/app/media/pdf_documents/policies/Student_Fee_Refund_Policy.pdf

Training and Assessment Delivery

The Blue Dog Training VETiS program is delivered at the student's school as part of their timetabled classes by Blue Dog Trainings qualified trainers and assessors.

Secondary school students are enrolled as a student with Blue Dog Training and their qualification or statement of attainment is issued by Blue Dog Training.

Training and assessment are via Blue Dog Training's blended mode of delivery which comprises both on-line training and face to face classroom-based training at the school workshop.

Blue Dog Training trainers and assessors attend the school on a structured basis throughout the school year.

Unit Code	Unit Name	CPC10120	CPC20220
CPCCWHS1001#	Prepare to work safely in the construction industry	✓	
CPCCCM2005*	Use construction tools and equipment	✓	
CPCCOM1014	Conduct workplace communication	✓	
CPCCOM2001*	Read and interpret plans and specifications	✓	
CPCCCM2004*	Handle construction materials	✓	✓
CPCCCM1011	Undertake basic estimation and costing	✓	✓
CPCCOM1012	Work effectively and sustainably in the construction industry	✓	✓
CPCCOM1013	Plan and organise work	✓	✓
CPCCVE1011*	Undertake a basic construction project	✓	✓
CPCCWHS2001	Apply WHS requirements, policies and procedures in the construction industry	✓	✓
CPCCOM1015	Carry out measurements and calculations	✓	✓
CPCCCA2002*	Use carpentry tools and equipment		✓
CPCCCM2006	Apply basic levelling procedures		✓
CPCCWF2002*	Use wall and floor tiling tools and equipment		✓

Notes:

- *Prerequisite units of competency - An asterisk (*) against a unit of competency code in the list above indicates there is a prerequisite requirement that must be met. Prerequisite unit(s) of competency must be assessed before assessment of any unit of competency with an asterisk.
- Elective units are subject to change prior to the commencement of the program. This is to ensure alignment to current industry practices.
- # Mandatory Workplace Health and Safety (WHS) training - The unit CPCCWHS1001 Prepare to work safely in the construction industry is designed to meet WHSQ regulatory authority requirements for General Construction Induction Training (GCIT) and must be achieved before access to any building and construction work site. Successful completion of this unit of competency as part of this Blue Dog Training VETiS program will result in the student being issued with a Workplace Health and Safety Queensland Construction Induction 'White Card'.

More information can be found about each of these individual qualifications at:

<https://training.gov.au/Training/Details/CPC10120>

<https://training.gov.au/Training/Details/CPC20220>

Certificate III Fitness SIS30315

Fit Educate RTO- 31319

VET

This course is for students who have a passion for health and fitness and are looking to expand skill sets and possibly launch a career in the Health and Fitness Industry. The course includes the entry qualification of Certificate II Sport and Recreation (scheduled to be completed Year 11 Term 4)

You will have access to online learning resources throughout the course of your study, with face-to-face resources and lessons in class time supporting online-learning.

Structure

Individual Units studied include-

- Participate in workplace health and safety
- Participate in environmentally sustainable work practices
- Assist with activity session
- Maintain equipment for activities
- Identify risk and apply risk management processes
- Organise and complete daily work activities
- Provide first aid
- Provide cardiopulmonary resuscitation
- Respond to emergency situations
- Work effectively in sport, fitness and recreation environments
- Maintain sport, fitness and recreation industry knowledge
- Provide quality service
- Use routine strategies for work related learning
- Research using the internet

- Incorporate anatomy and physiology principals into fitness programming
- Provide health screening and fitness orientation
- Conduct fitness appraisals
- Instruct fitness programs
- Provide healthy eating information
- Instruct exercise to older clients
- Recognises and apply exercise consideration for specific populations

Objectives

During the course of study, skills acquired include:

- Client screening and health assessment
- Planning and instructing fitness programs
- Providing a service to a range of clients
- Delivering group fitness programs
- Exercise science and nutrition

Pathways-

A Certificate III in Fitness will lead to possible employment and engagement within the health and fitness industry including personal trainer, group fitness instructor or progressing to higher fitness qualifications.

This course is outsourced to an external provider. There is a cost associated with this course. Approximate course cost over two years is \$365.

Certificate II Engineering Pathways

MEM20422 Blue Dog Training RTO- 31193

VET

Description

The qualification MEM20422 provides students with an introduction to an engineering or related working environment.

Students gain skills and knowledge in a range of engineering and manufacturing tasks which will enhance their entry-level employment prospects for apprenticeships, traineeships or general employment in an engineering-related workplace.

Typically commencing in Year 11 and delivered in the school workshops, during normal school hours as a part of the student's regular school timetable, the course is completed over a period of two (2) years. A student can only participate in a Blue Dog Training VETiS program with the permission of their school.

Application

The learning program should develop trade-like skills but not attempt to develop trade-level skills. As an example, the outcome level of welding skills from this qualification is not about learning trade-level welding theory and practice; it is about being introduced to welding, how it can be used to join metal and having the opportunity to weld metal together. Similarly with machining, the outcome should be something produced on a lathe etc., not the theory and practice of machining. The focus should be on using engineering tools and equipment to produce or modify objects. These needs be done in a safe manner for each learner and those around them

Eligibility - Cost

The Department of Employment, Small Business and Training (DESBT) provides funding for secondary school students to complete one (1) approved VETiS qualification while at school, referred to as 'employment stream' qualifications.

This means that if a student is eligible, the course is provided to them fee-free. To be eligible to enrol in a Blue Dog Training VETiS program, students must:

- Be currently enrolled in secondary school
- Permanently reside in Queensland
- Be an Australian citizen, Australian permanent resident (includes humanitarian entrant), temporary resident with the necessary visa and work permits on the pathway to permanent residency, or a New Zealand citizen
- Not already completing or have already completed a funded VETiS course with another registered training organisation.

In situations where a student is not eligible for VETiS funding, under the DESBT funding arrangements, fee for service arrangements are available for students through Blue Dog Training. Fee for service cost = \$1200.

Please refer to the Blue Dog Training Website for information on their refund policy.

https://bluedogtraining.com.au/storage/app/media/pdf_documents/policies/Student_Fee_Refund_Policy.pdf

This course is outsourced to an external provider. There is a cost associated with this course. Approximate course cost over two years is \$1200 if a student has already accessed their VETiS funding.

Training and Assessment Delivery:

The Blue Dog Training VETiS program is delivered at the student's school as part of their timetabled classes by Blue Dog Trainings qualified trainers and assessors.

Secondary school students are enrolled as a student with Blue Dog Training and their qualification or statement of attainment is issued by Blue Dog Training.

Training and assessment are via Blue Dog Training's blended mode of delivery which comprises both on-line training and face to face classroom-based training at the school workshop.

Blue Dog Training trainers and assessors attend the school on a structured basis throughout the school year.

Blue Dog Training are responsible for all training and assessment.

Core

MEM13015	Work safely and effectively in manufacturing and engineering
MEMPE005	Develop a career plan for the engineering and manufacturing industries
MEMPE006	Undertake a basic engineering project
MSAENV272	Participate in environmentally sustainable work practices

Elective

MEM11011*	Undertake manual handling
MEM16006*	Organise and communicate information
MEM16008*	Interact with computing technology
MEM18001*	Use hand tools
MEM18002*	Use power tools/hand held operations
MEMPE001	Use engineering workshop machines
MEMPE002	Use electric welding machines
MEMPE007	Pull apart and re-assemble engineering mechanisms

NOTE: Elective units are subject to change prior to the commencement of the program. This is to ensure alignment to current industry practices.

Notes:

Prerequisite units of competency - An asterisk () against a unit of competency code in the list above indicates there is a

prerequisite requirement that must be met. Prerequisite unit(s) of competency must be assessed before assessment of any unit of competency with an asterisk.

More information about this qualification is available at:

<https://training.gov.au/Training/Details/MEM20422>

QMEA Science and Mathematics and Related Technologies for Engineering and Electrical Apprentices (QSMART) is an innovative course in mathematics and science designed to offer equal opportunity for educational excellence for students enrolled in the senior phase of learning or seeking to be contracted to an engineering and electrical trades. This course delivers the need for a futures-oriented applied mathematics and science course that is hands-on in nature and contextualised by experiences in real workplaces. It provides students with opportunities to develop the key competencies in contexts that arise naturally from the subject matter and from a practical and investigative approach to learning.

There are a wide range of rewarding jobs and careers in the Engineering and Electrical industry sectors. QSMART provides opportunities for students to improve their numeracy and scientific skills and knowledge to assist them in pursuing a career in an engineering or electrical trade. It develops their confidence in applying their mathematical and scientific knowledge and skills, their communication skills and their preparedness for trade workplaces.

Pathways

A course of study in QSMART can establish a basis for employment in the fields of

electrical, engineering, mining apprenticeships and trade-based careers.

Objectives

By the conclusion of the course of study, students will develop:

- Scientific knowledge, scientific processes and numeracy skills
- Confidence when successfully using these skills in both every day and work contexts
- Knowledge, practical skills and work-related practices which are essential for effective workforce
- The ability to communicate effectively.

Structure

QSMART consistence of topics in the following categories

Topic 1	Topic 2	Topic 3	Topic 4
<ul style="list-style-type: none"> Measurement and Calculations in the Workplace 	<ul style="list-style-type: none"> Science in the Workplace 	<ul style="list-style-type: none"> Financial Applications 	<ul style="list-style-type: none"> Applications in Occupational Health and Safety

Throughout these topics, students will learn how to:

- Competently and expeditiously perform arithmetic calculation using appropriate methods.
- Accurately use a range of measuring instruments.
- Effectively communicate results of measurement tasks.
- Understand how the basic principles of mechanical Physics apply to aspects of their workplace.
- Perform basic financial calculations relevant to their trade, their pay and their investments.
- Explain how the molecular structure of workplace materials affects their properties.
- Accurately explain how temperature affects the molecular behaviour and structure of various materials.
- Competently apply material knowledge in the selection of materials for various real-life situations.
- Students should be able to competently identify various materials used in the workplace.
- Define the properties of materials and the effects this has this has on material selection.
- Demonstrate a functional level of understanding of the tax system and understand how it will affect them in their vocation.
- Effectively communicate results of research and calculation tasks
- Competently apply trigonometric theory (in combination with other learned mathematical techniques) to the solution of practical problems.
- Operate a circuit and accurately determine the voltage and current present in the circuit by using a range of measuring instruments.
- Explain the chemical process of electrolytic corrosion and outline preventative measures and how they work
- Construct a personal budget or a budget for an event.

Assessment

For QSMART assessment from course is used to determine the student's exit result, and consists of *multiple* instruments, including:

Practical Project	Portfolio	Workplace Journal	Examination
<ul style="list-style-type: none"> Experimental investigation Demonstration Model building Maintaining systems Presentations 	A response that requires students to respond to a series of tasks relating to a single context.	A collection of work-related experiences, the application of knowledge to work place tasks and evaluation of problem solving.	A response that answers a number of provided questions, scenarios and/or problems.

SUN Program

Other

Whether you want to get a head start on your studies toward your dream career or you are looking to enhance your senior years by undertaking university-level study, Start Uni Now (SUN) has been designed to help you achieve your goals while finishing high school.

SUN is a CQUniversity initiative that provides students in Year 10*, 11 and 12 a real university experience by combining your school study with the challenge of university level study. You can choose from a range of units from CQUni's degree courses that will give you an authentic insight into university life and get you started early on achieving your career aspirations.

After successfully completing study in the SUN program you may be eligible for direct entry into your course and credit towards your degree. You can be confident knowing you have a pathway to university that is not just reliant on your ATAR score.

It is recommended that you dedicate between 10 – 12 hours of study to each of your enrolled units per week (over a 12 – 14 week period). Studying SUN units requires good time management skills, the ability to work independently and a proactive attitude. University study is very flexible and this allows you to work your study time around other commitments such as a part-time job or sport.

Costs

Your first unit in the SUN program is free. Subsequent units (up to an additional three units) are offered at a significantly discounted rate of \$375 per unit. In addition to the unit cost, there may be other expenses such as textbooks and resources. Fees must be paid upfront and cannot be deferred to HECS-HELP, but you may be eligible for financial assistance options

Eligibility

To be eligible to apply for SUN you must be:

- enrolled in Year 11 or 12 (Year 10 students are eligible for Term 3 enrolment only)
- achieving an average 'B' grade (or better) across all school subjects (as per your most recent report card)
- B grade in ATAR level English is desirable
- permission from your Principal or school nominee and a parent or guardian

Distance Education

Students at Queensland Government or non-government schools or other schools of distance education can enrol with distance education schools subject to places being available. A student enrolled at another school may apply to study a subject provided they are unable to study that subject at their base school.

This could be because:

- The school does not offer that subject.
- The school offers that subject, but the school's timetable does not allow the student to study that subject at their base school.
- The student has commenced study in that subject in a previous school and wishes to continue their course of study.

All School-based enrolment queries must be initiated by the student's base school (not the student's parent/carer). If you are an interested parent, please contact your student's base school.

The curriculum is taught by teachers during scheduled online lessons with class groups. These lessons occur according to a timetable, in much the same manner as a face-to-face school. Students are expected to attend all online lessons and to participate in the classroom activities in those lessons. All online lessons are delivered via a web-conferencing platform and require internet access. Interaction during online lessons is both written and spoken. Students will require a headset with a microphone and also a webcam.

Study at an online school requires a high level of self-direction and motivation. Students will require a physical space that is free from distractions, as well as the ability to maintain focus during online lessons. In addition to the time spent in online lessons, students will need to allow sufficient time to complete homework tasks, assessments, study, and revision.