TOWNSVILLE GRAMMAR SCHOOL

Subject Selection Handbook

2022

Years 11-12

TOWNSVILLE GRAMMAR SCHOOL

SENIOR COURSE HANDBOOK (Years 11 & 12)

FOREWARD

This booklet has been prepared to assist students in selecting subjects they wish to undertake in Years 11 and 12. Students (and their parents) will find that in most cases the selection process is relatively straightforward if careful thought is given to appropriate selection criteria.

We urge all students to read the contents of this booklet carefully, to seek as much advice as they can from a variety of sources, including their teachers, the Careers Advisor, Ms Kathryn Tebble, the Director of Curriculum, Dr Carolyn Moores and the IB Co-ordinator, Ms Emma Crassini, and to then choose the subject options that best suit their individual abilities, hopes and ambitions.

CMoores

Dr Carolyn Moores
Director of Curriculum

CONTENTS

CHOOSING SENIOR SUBJECTS

It is important to choose senior subjects carefully as your decisions may affect your success at school, your feelings about school, and also your level of preparedness or eligibility for particular training or tertiary study after school. Even though there are many factors to consider, choosing your program of study can be made easier if you go about the task logically, and follow a set of planned steps.

OVERALL PLAN

As an overall plan, it is suggested that you choose subjects which:

- you enjoy
- you have achieved in or feel confident of achieving good results
- reflect your interests and abilities
- help you reach your career and employment goals
- will develop skills, knowledge and attitudes useful throughout your life.

These are quite general points, so it's wise to look in more detail at the guidelines below.

PROCESS TO FOLLOW

1. Find Out About Occupational Pathways

It is helpful if you have a few career ideas in mind before choosing subjects. If you are uncertain about this at present, then select subjects that will keep several career options open to you. Your Careers Advisor will be able to help you get started.

You will also need to find out about the various pathways you can take to obtain the qualifications you will need to get a job in the occupational areas in which you are interested. Once you know about the different pathways, you can select the most appropriate one for you.

The following resources are available in schools and give you information about occupations and the subjects and courses needed to gain entry to these occupations.

The **QTAC *Guide*** is useful for information on tertiary courses offered through the Queensland Tertiary Admissions Centre (QTAC) at http://www.qtac.edu.au.

QTAC's online Year 10 guide to career pathways and 2024 Tertiary prerequisites, provides information on subjects required for entry to tertiary courses. This document is constantly updated online and gives a guarantee of the prerequisites required for study at university.

The TAFE Queensland website provides details about courses at https://tafeqld.edu.au/courses/ways-you-can-study/tafe-at- school.html .

Australia's national career information service, called ***Myfuture***, at http://www.myfuture.edu.au .

The Australian job website, Job Outlook at http://joboutlook.gov.au/ which shows prospects for the future.

University comparison guides: http://www.gooduniversitiesguide.com.au/ or www.qilt.edu.au
The MyQCE website: https://myqce.qcaa.qld.edu.au/

2. Find Out About Subjects You Are Interested In:

Townsville Grammar School offers two programs of Senior Study:

a) The International Baccalaureate Diploma (IB)
b) The Queensland Curriculum & Assessment Authority – Senior Certificate (QCE)

a) IB Diploma Programe

The IB Diploma programe is a deliberate balance between the need for a broad education, and the need to allow some specialisation. In all subjects the emphasis is on the development of skills, and learning how to learn,

In addition to mastery of subject content. To achieve a broad and balanced program the student must choose one subject from each of these six lines:

Line 1 – Studies in Language and Literature
The study of literature in the student's first language or the language of instruction of the School, including the study of world literature. At Townsville Grammar School students study English at either Standard (SL) or Higher Level (HL).

Line 2 -Language Acquisition
A second language other than the student's first language. At Townsville Grammar we offer **Spanish Ab Initio (**(Standard Level)**, French** (Standard Level) **and Japanese** (Standard Level)

Line 3 – Individuals and Societies
Economics (Standard Level/Higher Level), **Psychology** (Standard Level/Higher Level).

Line 4 – Biology, Chemistry and Physics
(Standard Level/Higher Level).

Line 5 – Mathematics, Analysis and Approaches
(Standard Level/Higher Level)

Line 6 – Music (Standard Level/Higher Level)**, *Visual Arts*** (Standard Level/Higher Level), **Theatre Art** (Standard Level/Higher Level) *or* a second Science subject from Line 4.
Dependent upon student numbers

The student must choose three subjects for study in greater depth at HIGHER LEVEL and three subjects for study in somewhat lesser depth at STANDARD LEVEL.

In addition, the program has three core requirements that are included to broaden the educational experience and challenge students to apply their knowledge and understanding.

The Extended Essay is a requirement for students to engage in independent research through an in-depth study of a question relating to one of the subjects they are studying.

Theory of Knowledge is a course designed to encourage each student to reflect on the nature of knowledge by critically examining different ways of knowing (perception, emotion, language and reason) and different kinds of knowledge (scientific, artistic, mathematical and historical).

Creativity, Activity, Service requires that students actively learn from the experience of doing real tasks beyond the classroom. Students can combine all three components or do activities related to each one of them separately.

Students take written examinations at the end of the program (in November, Year 12), which are marked by external IB examiners. Students also complete assessment tasks in the School, which are either initially marked by teachers and then moderated by external moderators or sent directly to external examiners.

The marks awarded for each course range from 1 (lowest) to 7 (highest). Students can also be awarded up to three additional points for their combined results on Theory of Knowledge and the Extended Essay. The Diploma is awarded to students who gain at least 24 points, subject to certain minimum levels of performance across the whole program. The highest total that a Diploma Program student can be awarded is 45 points. Over the time that Townsville Grammar has been offering the IB Program, our candidates have achieved high levels of success including 2 perfect scores and an overall average ATAR of over 95.

Assessment is criterion based, which means student performance is measured against pre-specified assessment criteria based on the aims and objectives of each subject curriculum, rather than the performance of other students taking the same examinations.

University Recognition

The IBDP is recognised by Universities in Australia and around the world. Most Australian Universities offer bonus points schemes, and have approved credit and exemption arrangements. See University websites for specific and up-to-date information.

b) Queensland Curriculum & Assessment Authority – Queensland Certificate Of Education

General Subjects

- These subjects are offered state wide in Queensland secondary schools and colleges. Achievements in these subjects are recorded on the Queensland Certificate of Education (QCE) and are used in the calculation of the ATAR (Australian Tertiary Admission Rank).
- Students who do not achieve Sound Achievement or better in a Year 10 subject may find the General subjects in Years 11 and 12 difficult.
- Many General subjects may be taken in Year 11 without prior study of similar subjects. It would be very difficult, however, to attempt subjects such as Mathematical Methods or Specialist Mathematics, Chemistry, Physics, Music and Modern Languages without successful background study in related Year 10 subjects.
- Chinese native speakers studying at Townsville Grammar School may be offered the opportunity to study Chinese through Distance Education.
- Some subjects will provide two bonus rank points at certain universities in Queensland. Most universities accept Specialist Mathematics and LOTE as bonus point subjects. However, some universities offer points for other subjects such as Physics, Chemistry and the Humanities. Please refer to individual University websites.

Applied subjects

- Achievements in Applied subjects are recorded on the Queensland Certificate of Education. A student is still eligible to receive an ATAR if completing one or two Applied subjects out of your 6 subject selections. These subjects emphasise practical skills and knowledge relevant to specific industries.

University Subjects

- High achieving students have the option to undertake up to 4 University subjects online through CQ University or equivalent institutions over Year 11 and 12. University subjects are recorded on the Queensland Certificate of Education, as well as providing 2 bonus rank points towards their university entrance rank (ATAR) at some universities. This could also provide direct entry and credits towards future university study. Please refer to individual university websites.

Vocational Education and Training (VET)

- Student achievement in accredited vocational education modules is based on industry-endorsed competency standards and is recorded on the Queensland Certificate of Education. The Queensland Certificate of Education is recognised within the Australian Qualifications Framework (AQF), and this may give advanced standing towards a traineeship or apprenticeship and/or credit on entry to courses at TAFE institutes and other registered training organisations. Courses at Certificate III and above may be used in the calculation of a student's ATAR.

3. Check Out Each Subject Extensively

Take these steps to ensure you understand the content and requirements of each subject:

- Read subject descriptions and course outlines provided by the school.
- Talk to Heads of Faculties and teachers of each subject.
- Look at books and materials used in the subject.
- Listen carefully at subject selection talks.
- Talk to students already studying the subject.
- Visit the MyQCE website: www.myqce.qcaa.qld.edu.au

Traps to avoid:

- Do not select subjects simply because someone has told you that they "will help you get a better ATAR".
- Consider other peoples' opinions of the subjects but do not make your decision on these only. Check the subjects out for yourself.

4. Choose a Combination of Subjects that Suits Your Needs and Abilities

Tertiary Entrance

If you wish to study a degree or diploma courses at university or TAFE after Year 12:

- Ensure you select the prerequisite subjects required for your preferred courses.
  These are listed in QTAC's online Year 10 guide to career pathways and 2024 Tertiary prerequisites, located on the QTAC website.

- Most students gain entry to university on the basis of an ATAR. To be eligible for an ATAR, a student must have:
  - satisfactorily completed an English subject
  - completed five general subjects; or four general subjects plus one applied subject or VET course at AQF Certificate III or above
  - while students must satisfactorily complete an English subject to be eligible for an ATAR, the result in English will only be included in the ATAR calculation if it is one of the student's best five subjects.

VETiS (Vocational Education in School Program)

Consider taking Certificate I or II courses from outside providers, such as the TAFE at School program if:

- The subject relates to or could provide a pathway to a job that attracts you.
- Success in the subject may give you advanced standing (credit) in a higher-level course in which you are interested.
- You are interested in the subject and think you would enjoy studying it.

Note: Courses at Certificate I or II level are ***NOT eligible to be included in the ATAR calculation***, however they will be included as credits for the QCE (Queensland Certificate of Education).
These options are not available to student visa holders under the conditions of their visa.

School-Based Apprenticeship/Traineeship

It is possible to commence an Apprenticeship or Traineeship whilst attending School and undertaking Years 11 and/or 12. By undertaking the School-based Apprenticeship or Traineeship you are able to obtain both a Queensland Certificate of Education and a Vocational Education and Training (VET) qualification simultaneously. Students who wish to apply for this option will need to see the Director of Curriculum or Careers Advisor so arrangements can be made to accommodate both your Employer and Training Organisation requirements in your course of study.

Note: These options are not available to student visa holders under the conditions of their visa.

To apply for a school-based Apprenticeship or Traineeship the student needs to:

1. Notify the Director of Curriculum and Careers Advisor of their interest in this option, preferably before the end of the current School year, as there is a lot of organisation involved between TAFE, the Employer and the School. It is preferable this is done at the end of Year 10 so students start Year 11 with the apprenticeship or traineeship organised.

2. The onus is on the student and their parent to find an employer willing to sign up an apprentice or trainee. Once this opportunity has been confirmed please contact the Careers Advisor in order to initiate the necessary protocols.

3. The time commitment involved in this course means the School will modify the student's timetable to allow time for training and one day per week release with the employer.

4. Employers may be reluctant to sign up an apprentice, but may be willing to agree to a School-based traineeship, which is of a shorter duration, or be willing to provide opportunities for students through Work Experience. Contact the Careers Advisor should this option appeal, as many employers make their selection for apprenticeships based on student's Work Experience. The School does actively support students engaging in Work Experience.

***Points to note*:**

- Not all students will be successful in securing apprenticeships.
- Often Traineeships or Apprenticeships are gained through Work Experience.
- Certificate III qualifications or higher may be included in the ATAR calculation.

5. Create a Set Plan

What is a SET plan?

A SET plan is a confidential document that a student develops, in consultation with their parents/carers and their school, to map their learning and career pathways.

What is the purpose of a SET plan?

The purpose of a SET plan is to help students:

- set and achieve their learning goals in Years 11 and 12
- include flexible and coordinated pathway options in their course of senior study
- think about their education, training and career options after Year 12 and make decisions about their learning pathways
- structure their learning around their abilities, interests and ambitions
- communicate with their parents, teachers and career guidance officers about their learning pathways and post-school plans.

In their SET plan, students will be able to list a variety of different learning pathways, some of which may be accessed outside the current formal structure of school. This provides more options and flexibility in learning.

Once a student's SET plan has been developed, everyone involved in developing the plan should sign and date the plan to show agreement.

The student's course is registered with QCAA and students can access this information at the MyQCE website using their LUI number to login.

6. Glossary of Terms

The following brief explanation of terms may help make subject selection easier.

In reference to IB the following terms describe the qualities which the program seeks to develop in the learner:

Inquirers	Their natural curiosity is nurtured. They acquire the skills necessary to conduct constructive inquiry and research, and become independent learners. They actively enjoy learning, and this love of learning will be sustained throughout their lives.
Knowledgeable	They explore concepts, ideas and issues which have global relevance and importance. In so doing, they acquire, and are able to make use of, a significant body of knowledge across a range of disciplines.
Critical Thinkers	They exercise initiative in applying thinking skills critically and creatively to approach complex problems and make reasoned decisions.
Communicators	They understand and express ideas and information confidently and creatively in more than one language and in a variety of modes of communication.
Risk-takers	They approach unfamiliar situations with confidence and forethought, and have the independence of spirit to explore new roles, ideas and strategies. They are courageous and articulate in defending those things in which they believe.
Principled	They have a sound grasp of the principles of moral reasoning. They have integrity, honesty, a sense of fairness and justice and respect for the dignity of the individual.
Caring	They show empathy, compassion and respect towards the needs and feelings of others. They have a personal commitment to action and service to make a positive difference to the environment and to the lives of others.
Open-minded	Through an understanding and appreciation of their own culture, they are open to the perspectives, values and traditions of other individuals and cultures and are accustomed to

seeking and considering a range of points of view.

Well-balanced	They understand the importance of physical and mental balance and personal well-being for themselves and others. They demonstrate perseverance and self-discipline.
Reflective	They give thoughtful consideration to their own learning and personal development. They are able to analyse their strengths and weaknesses in a constructive manner.

In reference to QCAA:

Advanced standing	Refers to the credit granted to a student towards an accredited course or training program on the basis of previous study, experience or competencies held.
Articulation	The process used to progress from one level of qualification to another.
The Australian Qualifications Framework (AQF)	Shows all the qualifications issued in post compulsory education in Australian and how these qualifications relate to each other.
Credit Transfer	Recognises previous formal study or training based on documented evidence of achievement. For instance, modules assessed as competent in Authority and Authority-registered subjects may attract credit towards study in a TAFE qualification.
ATAR	The ATAR is the standard measure of overall school achievement used in all other Australian states and territories. It is a rank indicating a student's position overall relative to other students. The ATAR is expressed on a 2000-point scale from 99.95 (highest) down to 0, in increments of 0.05. ATARs below 30 will be reported as '30.00 or less'.
Queensland Certificate of Education (QCE)	A school-based qualification awarded to young people at the completion of the senior phase of learning, usually at the end of Year 12. It confirms a student's achievement of: • a significant amount of learning • a set standard of achievement • meeting literacy and numeracy requirements.
Prerequisite	A subject or qualification required for eligibility for entry to a particular course of study or employment.
Queensland Tertiary Admissions Centre	(QTAC) Acts on behalf of universities, institutes and some private institutions to publish course information and to receive and process TAFE applications. QTAC also calculates the ATAR based on the results provided by the QCAA.
Recognition of Prior Learning (RPL)	The process used to assess the competencies a person has gained from past experience and training. RPL is a form of assessment and each person is treated individually.

QUEENSLAND CURRICULUM & ASSESSMENT AUTHORITY
PREREQUISITE LEVELS FOR SENIOR SUBJECTS

Results from Year 10 do provide a useful guide when selecting subjects for senior study. Students who have achieved the suggested prerequisite Level of Achievement have demonstrated their performance and appear able to put the necessary study into the subject. Therefore, these qualities suggest they will cope with the extension of the subject throughout Years 11 & 12.

The following table is a guide for parents and students to enable them to gauge whether the student possesses the required skills and competencies to proceed with a particular subject.

Year 11 Subject	**Year 10 Prerequisite**
English	Sound Achievement or better
Literature	Sound Achievement or better
Essential English	Applied course
Modern Languages: French, Japanese and on-line Chinese* * *native speakers only*	Language studied in Year 10 High Achievement or better at Year 10 level recommended OR demonstrated commitment and interest in continuing
Ancient History Modern History Economics Geography Legal Studies	Sound Plus or higher in English to fulfil the communication requirements of the course.
Accounting	Sound in Methods HL or SL and English Business Studies is **not** a prerequisite
Digital Solutions	High in Mathematics HL or SL and English
General Mathematics	Sound Achievement in Mathematics HL or SL Very High Achievement or High Achievement in General Mathematics
Mathematical Methods	Very High Achievement or High Achievement in Year 10 Mathematics HL or SL
Essential Mathematics	Applied Course
Specialist Mathematics	Very High Achievement in Year 10 Mathematics HL or SL
Chemistry/Physics	High or Very High in Mathematics HL or SL and Physical Sciences
Biology/Earth & Environmental Science	Sound or better in either Physical or Natural Sciences
Drama	Sound or better in English
Visual Art	Sound or better in English
Hospitality Practices	Sound in Year 10 English
Music	Sound plus achievement or better in English with a High or Very High achievement in Year 9/10 Music, and/or a demonstrated aptitude for music performance, composition and musicology, and determination to learn.
Physical Education	Sound or better in Year 10 HPE or/and Sound or better in Year 10 English
Design	Sound or better in Year 10 Design Technology
Furnishing Skills	Sound or better in Year 10 Applied Design

ACCOUNTING

GENERAL SENIOR SUBJECT

Accounting provides opportunities for students to develop an understanding of the essential role of organising, analysing and communicating financial data and information in the successful performance of any organisation.

Students learn fundamental accounting concepts in order to understand accrual accounting and managerial and accounting controls, preparing internal financial reports, ratio analysis and interpretation of internal and external financial reports. They synthesise financial data and other information, evaluate accounting practices, solve authentic accounting problems, make decisions and communicate recommendations.

Students develop numerical, literacy, technical, financial, critical thinking, decision-making and problem-solving skills. They develop an understanding of the ethical attitudes and values required to participate effectively and responsibly in a changing business environment.

Pathways

A course of study in Accounting can establish a basis for further education and employment in the fields of accounting, business, management, banking, finance, law, economics and commerce.

Objectives

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

- describe accounting concepts and principles
- explain accounting concepts, principles and processes
- apply accounting principles and processes
- analyse and interpret financial data and information to draw conclusions
- evaluate accounting practices to make decisions and propose recommendations
- synthesise and solve accounting problems
- create responses that communicate meaning to suit purpose and audience.

Structure

Unit 1	Unit 2	Unit 3	Unit 4
Real world accounting • Accounting for a service business — cash, accounts receivable, accounts payable and no GST • End-of-month reporting for a service business	**Management effectiveness** • Accounting for a trading GST business • End-of-year reporting for a trading GST business	**Monitoring a business** • Managing resources for a trading GST business non-current assets • Fully classified financial statement reporting for a trading GST business	**Accounting — the big picture** • Cash management • Complete accounting process for a trading GST business • Performance analysis of a listed public company

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): • Project — cash management	25%
Summative internal assessment 2 (IA2): • Examination — short response	25%	Summative external assessment (EA): • Examination — short response	25%

ANCIENT HISTORY

GENERAL SENIOR SUBJECT

Ancient History provides opportunities for students to study people, societies and civilisations of the past, from the development of the earliest human communities to the end of the Middle Ages. Students explore the interaction of societies, and the impact of individuals and groups on ancient events and ways of life, and study the development of some features of modern society, such as social organisation, systems of law, governance and religion.

Students analyse and interpret archaeological and written evidence. They develop increasingly sophisticated skills and understandings of historical issues and problems by interrogating the surviving evidence of ancient sites, societies, individuals and significant historical periods. They investigate the problematic nature of evidence, pose increasingly complex questions about the past and formulate reasoned responses.

Students gain multi-disciplinary skills in analysing textual and visual sources, constructing arguments, challenging assumptions, and thinking both creatively and critically.

Pathways

A course of study in Ancient History can establish a basis for further education and employment in the fields of archaeology, history, education, psychology, sociology, law, business, economics, politics, journalism, the media, health and social sciences, writing, academia and research.

Objectives

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

- comprehend terms, issues and concepts
- devise historical questions and conduct research
- analyse historical sources and evidence
- synthesise information from historical sources and evidence
- evaluate historical interpretations
- create responses that communicate meaning.

Structure

Unit 1	Unit 2	Unit 3	Unit 4
Investigating the ancient world • Digging up the past • Ancient societies: Rome - Slavery - Art and architecture - Weapons and warfare - Technology and engineering - The family - Beliefs, rituals and funerary practices.	**Personalities in their time** • Hannibal Barca • Richard the Lionheart	**Reconstructing the ancient world** • The Medieval Crusades • Early Imperial Rome	**People, power and authority** • Ancient Rome — Civil War and the breakdown of the Republic QCAA will nominate one topic that will be the basis for an external examination (2020/2021): • Augustus

Assessment

Schools devise assessments in Units 1 and 2 to suit their local context. Assessments in Year 11 will be based on the Summative assessment types for Year 12.

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%

BIOLOGY

GENERAL SENIOR SUBJECT

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 • Cells as the basis of life • Multicellular organisms	**Maintaining the internal environment** • Homeostasis • Infectious diseases	**Biodiversity and the interconnectedness of life** • Describing biodiversity • Ecosystem dynamics	**Heredity and continuity of life** • DNA, genes and the continuity of life • Continuity of life on • Earth

Assessment

Units 1 and 2 will be assessed internally with an Unsatisfactory/Satisfactory grade reported to QCAA.

In Units 3 and 4 students complete four summative assessments, all of which contribute to the students ATAR. 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

<table>
<tr><th colspan="2">Unit 3</th><th colspan="2">Unit 4</th></tr>
<tr><td>Summative internal assessment 1 (IA1):
• Data test</td><td>10%</td><td rowspan="2">Summative internal assessment 3 (IA3):
• Research investigation</td><td rowspan="2">20%</td></tr>
<tr><td>Summative internal assessment 2 (IA2):
• Student experiment</td><td>20%</td></tr>
<tr><td colspan="4">Summative external assessment (EA): 50%
• Examination</td></tr>
</table>

CHEMISTRY

GENERAL SENIOR SUBJECT

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 • Properties and structure of atoms • Properties and structure of materials • Chemical reactions — reactants, products and	**Molecular interactions and reactions** • Intermolecular forces and gases • Aqueous solutions and acidity • Rates of chemical reactions	**Equilibrium, acids and redox reactions** • Chemical equilibrium systems • Oxidation and reduction	**Structure, synthesis and design** • Properties and structure of organic materials • Chemical synthesis and design

Assessment

Units 1 and 2 will be assessed internally with an Unsatisfactory/Satisfactory grade reported to QCAA. In Units 3 and 4 students complete four summative assessments, all of which contribute to the students ATAR. 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			

CHINESE (ON LINE)

GENERAL SENIOR SUBJECT

The School offers native Chinese speakers the opportunity to study Chinese on-line with Chinese School of Distance Education (CSDE). On-line lessons may be scheduled before School or during regular class times. Students have proved very capable of working independently and achieving academic success in this external course. As the subject is delivered by an external provider, the School cannot guarantee placement in the course. Eligible Hong Kong/Chinese students should see the Director of Curriculum in the first instance, to discuss this option.

Chinese provides students with the opportunity to reflect on their understanding of the Chinese language and the communities that use it, while also assisting in the effective negotiation of experiences and meaning across cultures and languages. Students participate in a range of interactions in which they exchange meaning, develop intercultural understanding and become active participants in understanding and constructing written, spoken and visual texts.

Students communicate with people from Chinese-speaking communities to understand the purpose and nature of language and to gain understanding of linguistic structures. They acquire language in social and cultural settings and communicate across a range of contexts for a variety of purposes.

Students experience and evaluate a range of different text types; reorganise their thinking to accommodate other linguistic and intercultural knowledge and textual conventions; and create texts for a range of contexts, purposes and audiences.

Pathways

A course of study in Chinese can establish a basis for further education and employment in many professions and industries, particularly those where the knowledge of an additional language and the intercultural understanding it encompasses, could be of value, such as business, hospitality, law, science, technology, sociology and education.

Objectives

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

- comprehend Chinese to understand information, ideas, opinions and experiences
- identify tone, purpose, context and audience to infer meaning, values and attitudes
- analyse and evaluate information and ideas to draw conclusions and justify opinions, ideas and perspectives
- apply knowledge of Chinese language elements, structures and textual conventions to convey meaning appropriate to context, purpose, audience and cultural conventions
- structure, sequence and synthesise information to justify opinions, ideas and perspectives
- use strategies to maintain communication and exchange meaning in Chinese.

Structure

Unit 1	Unit 2	Unit 3	Unit 4
我的世界 **My world** • Family/carers and friends • Lifestyle and leisure • Education	探索世界 **Exploring our world** • Travel • Technology and media • The contribution of Chinese culture to the world	社会现象 **Our society** • Roles and relationships • Socialising and connecting with my peers • Individuals in society	我的未来 **My future** • Finishing secondary school, plans and reflections • Responsibilities and moving on

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 — short response	15%	Summative internal assessment 3 (IA3): • Extended response	30%
Summative internal assessment 2 (IA2): • Examination — combination response	30%	Summative external assessment (EA): • Examination — combination response	25%

DANCE

GENERAL SENIOR SUBJECT

Dance fosters creative and expressive communication. It uses the body as an instrument for expression and communication of ideas. It provides opportunities for students to critically examine and reflect on their world through higher order thinking and movement. It encourages the holistic development of a person, providing a way of knowing about oneself, others and the world.

Students study dance in various genres and styles, embracing a variety of cultural, societal and historical viewpoints integrating new technologies in all facets of the subject. Historical, current and emerging dance practices, works and artists are explored in global contexts and Australian contexts, including the dance of Aboriginal peoples and Torres Strait Islander peoples. Students learn about dance as it is now and explore its origins across time and cultures.

Students apply critical thinking and literacy skills to create, demonstrate, express and reflect on meaning made through movement. Exploring dance through the lens of making and responding, students learn to pose and solve problems, and work independently and collaboratively. They develop aesthetic and kinaesthetic intelligence, and personal and social skills.

Pathways

As more organisations value work-related creativity and diversity, the processes and practices of dance develop transferable 21st century skills essential for many areas of employment. As people are asked to think innovatively and differently, unconventionally and from new perspectives, the role of 'the creative' across many workplaces is increasingly in demand. Diverse pathways may include fields such as arts administration and management, psychology, social work, counselling, dance health and specialist medical training, journalism, education, research and human relations.

Objectives

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

- demonstrate an understanding of dance concepts and skills
- apply literacy skills
- organise and apply the dance concepts
- analyse and interpret dance concepts and skills
- apply technical skills
- realise meaning through expressive skills
- create dance to communicate meaning
- evaluate dance, justifying the use of dance concepts and skills

Structure

Unit 1	Unit 2	Unit 3	Unit 4
Moving bodies How does dance communicate meaning for different purposes and in different contexts? Genres: • Contemporary • at least one other genre Subject matter: • meaning, purpose and context • historical and cultural origins of focus genres	**Moving through environments** How does the integration of the environment shape dance to communicate meaning? Genres: • Contemporary • at least one other genre Subject matter: • physical dance environments including site- specific dance • virtual dance environments	**Moving statements** How is dance used to communicate viewpoints? Genres: • Contemporary • at least one other genre Subject matter: • social, political and cultural influences on dance	**Moving my way** How does dance communicate meaning for me? Genres: • fusion of movement styles Subject matter: • developing a personal movement style • personal viewpoints and influences on genre

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

<table>
<tr><th colspan="2">Unit 3</th><th colspan="2">Unit 4</th></tr>
<tr><td>Summative internal assessment 1 (IA1):
• Performance</td><td>20%</td><td rowspan="2">Summative internal assessment 3 (IA3):
• Project — dance work</td><td rowspan="2">35%</td></tr>
<tr><td>Summative internal assessment 2 (IA2):
• Choreography</td><td>20%</td></tr>
<tr><td colspan="4">Summative external assessment (EA): 25%
• Examination — extended response</td></tr>
</table>

DESIGN

GENERAL SENIOR SUBJECT

Design focuses on the application of design thinking to envisage creative products, services and environments in response to human needs, wants and opportunities. Designing is a complex and sophisticated form of problem-solving that uses divergent and convergent thinking strategies that can be practised and improved. Designers are separated from the constraints of production processes to allow them to appreciate and exploit new innovative ideas.

Students learn how design has influenced the economic, social and cultural environment in which they live. They understand the agency of humans in conceiving and imagining possible futures through design. Collaboration, teamwork and communication are crucial skills needed to work in design teams and liaise with stakeholders. They learn the value of creativity and build resilience as they experience iterative design processes, where the best ideas may be the result of trial and error and a willingness to take risks and experiment with alternatives.

Students learn about and experience design through exploring needs, wants and opportunities; developing ideas and design concepts; using drawing and low-fidelity prototyping skills; and evaluating ideas and design concepts. They communicate design proposals to suit different audiences.

Pathways

A course of study in Design can establish a basis for further education and employment in the fields of architecture, digital media design, fashion design, graphic design, industrial design, interior design and landscape architecture.

Objectives

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

- describe design problems and design criteria
- represent ideas, design concepts and design information using drawing and low-fidelity prototyping
- analyse needs, wants and opportunities using data
- devise ideas in response to design problems
- synthesise ideas and design information to propose design concepts
- evaluate ideas and design concepts to make refinements
- 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
Design in practice • Experiencing design • Design process • Design styles	**Commercial design** • Explore — client needs and wants • Develop — collaborative design	**Human-centred design** • Designing with empathy	**Sustainable design** • Explore — sustainable design opportunities • Develop — redesign

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 — design challenge	15%	Summative internal assessment 3 (IA3): • Project	25%
Summative internal assessment 2 (IA2): • Project	35%	Summative external assessment (EA): • Examination — design challenge	25%

DIGITAL SOLUTIONS

GENERAL SENIOR SUBJECT

Digital Solutions enables students to learn about algorithms, computer languages and user interfaces through generating digital solutions to problems. Students engage with data, information and applications to create digital solutions that filter and present data in timely and efficient ways while understanding the need to encrypt and protect data. They understand computing's personal, local and global impact, and the issues associated with the ethical integration of technology into our daily lives.

Students use problem-based learning to write computer programs to create digital solutions that: use data; require interactions with users and within systems; and affect people, the economy and environments. They develop solutions using combinations of readily available hardware and software development environments, code libraries or specific instructions provided through programming.

Students create, construct and repurpose solutions that are relevant in a world where data and digital realms are transforming entertainment, education, business, manufacturing and many other industries.

Pathways

A course of study in Digital Solutions can establish a basis for further education and employment in the fields of ICT, computing, science, technologies, engineering and mathematics.

Objectives

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

- recognise and describe elements, components, principles and processes
- symbolise and explain information, ideas and interrelationships
- analyse problems and information
- determine solution requirements and criteria
- synthesise information and ideas to determine possible digital solutions
- generate components of the digital solution
- evaluate impacts, components and solutions against criteria to make refinements and justified recommendations
- 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
Creating with code • Understanding digital problems • User experiences and interfaces • Algorithms and programming • techniques • Programmed solutions	**Application and data solutions** • Data-driven problems and solution requirements • Data and programming techniques • Prototype data solutions	**Digital innovation** • Interactions between users, data and digital systems • Real-world problems and solution requirements • Innovative digital solutions	**Digital impacts** • Digital methods for exchanging data • Complex digital data exchange problems and solution requirements • Prototype digital data exchanges

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 — technical proposal	20%	Summative internal assessment 3 (IA3): • Project — folio	25%
Summative internal assessment 2 (IA2): • Project — digital solution	30%	Summative external assessment (EA): • Examination	25%

DRAMA

GENERAL SENIOR SUBJECT

Drama seeks to foster 21st century skills by using the techniques of acting to gain a psychological understanding of real people, their reactions and their behaviour, while examining the actions and motives of imaginary characters. This fascinating, relevant subject is transferable to real life proving invaluable for personal and work contexts, especially in jobs that are client-based and require empathy. Drama increases self-awareness, self- discipline and confidence, aiming to equip the student with first class communication skills. Drama allows students to prepare for many real life situations by experiencing them vicariously in the classroom.

Rationale for Selecting this Subject

This subject will suit any student who likes to learn in a practical manner by actively engaging with others. Drama is varied and fun suiting different types of learners. Students learn meditation for focus, how to have a pleasant voice, exploit expression and frame words. They are always physically active as movement training is essential. There are no desks, chairs or computers in Drama. Acting, conversing, negotiating, directing, problem solving and creating dramatic concepts with other people will broaden life skills, social experience and refine English language use. Drama provides contrast during a school day. This subject compliments English, Biology, Law, History and Business, equipping the student for any client-based profession. Drama training is applicable for jobs that demand first-class communication skills, emotional intelligence and social ease, the ability to adopt a calm, relaxing manner or project energetic dynamism as required.

Structure

Unit 1	Unit 2	Unit 3	Unit 4
Share **How does drama promote shared understandings of the human experience?** • cultural inheritances of storytelling • oral history and emerging practices • a range of linear and non-linear forms • plays include *Parramatta Girls*, *Fly-in Fly-out*, *Embers*, *April's Fool*	**Reflect** **How is drama shaped to reflect lived experience?** • Realism, including Magical Realism, Australian Gothic • associated conventions of styles and texts • plays include *Wolf Lullaby*, *Ruby Moon*, *Constance Drinkwater and the Final Days of Somerset*, *Children of the Black Skirt*, *The Golden Age*, *Thursday's Child*	**Challenge** **How can we use drama to challenge our understanding of humanity?** • Theatre of Social Comment, including Theatre of the Absurd and Epic Theatre • associated conventions of styles and texts • plays include *Mother Courage*, *The Caucasian Chalk Circle*, *Waiting for Godot*, *The Birthday Party*, *The Maids*, *The Bald Soprano*	**Transform** **How can you transform dramatic practice with your own ideas** • Contemporary performance • associated conventions of styles and texts • classic texts as stimulus

Assessment

Units 1 and 2, in Year 11 are formative and encourage students to reach their potential. In Units 3 and 4, students in year 12 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

<table>
<tr><th colspan="2">Unit 3</th><th colspan="2">Unit 4</th></tr>
<tr><td>Summative internal assessment 1 (IA1):
• Performance</td><td>20%</td><td rowspan="2">Summative internal assessment 3 (IA3):
• Project — practice-led project</td><td rowspan="2">35%</td></tr>
<tr><td>Summative internal assessment 2 (IA2):
• Project — dramatic concept</td><td>20%</td></tr>
<tr><td colspan="4">Summative external assessment (EA): 25%
• Examination — extended response</td></tr>
</table>

EARTH & ENVIRONMENTAL SCIENCE

GENERAL SENIOR SUBJECT

Earth & Environmental Science is an interdisciplinary subject that provides opportunities for students to engage with the dynamic interactions in and between four systems: geosphere, hydrosphere, atmosphere and biosphere.

Students examine the evidence underpinning theories of the development of the Earth systems, their interactions and their components. They investigate how Earth processes involve interactions of Earth systems and are interrelated through transfers and transformations of energy. They examine renewable and non-renewable resources, the implications of extracting, using and consuming these resources, and associated management approaches. They consider how Earth processes and human activity can contribute to Earth hazards, and the ways in which these hazards can be predicted, managed and mitigated to reduce their impact on earth environments.

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 Earth & Environmental Science can establish a basis for further education and employment in the fields of geoscience, soil science, agriculture, marine science, environmental rehabilitation, urban planning, ecology, natural resource management, wildlife, environmental chemistry, conservation and ecotourism.

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
Introduction to Earth systems • Earth systems and models • Development of the geosphere • Development of the atmosphere and • hydrosphere • Development of the biosphere	**Earth processes — energy transfers and transformations** • Energy for Earth processes • Energy for atmospheric and hydrologic processes • Energy for biogeochemical processes	**Living on Earth — extracting using and managing Earth resources** • Use of non-renewable • Earth resources • Use of renewable Earth resources	**The changing Earth — the cause and impact of Earth hazards** • The cause and impact of • Earth hazards • The cause and impact of global climate change

Assessment

Units 1 and 2 will be assessed internally with an Unsatisfactory/Satisfactory grade reported to QCAA. In Units 3 and 4 students complete four summative assessments, all of which contribute to the students ATAR. 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			

ECONOMICS

GENERAL SENIOR SUBJECT

Economics encourages students to think deeply about the global challenges facing individuals, business and government, including how to allocate and distribute scarce resources to maximise well-being.

Students develop knowledge and cognitive skills to comprehend, apply analytical processes and use economic knowledge. They examine data and information to determine validity, and consider economic policies from various perspectives. They use economic models and analytical tools to investigate and evaluate outcomes to draw conclusions.

Students study opportunity costs, economic models and the market forces of demand and supply. They dissect and interpret the complex nature of international economic relationships and the dynamics of Australia's place in the global economy. They develop intellectual flexibility, digital literacy and economic thinking skills.

Pathways

A course of study in Economics can establish a basis for further education and employment in the fields of economics, econometrics, management, data analytics, business, accounting, finance, actuarial science, law and political science.

Economics is an excellent complement for students who want to solve real-world science or environmental problems and participate in government policy debates. It provides a competitive advantage for career options where students are aiming for management roles and developing their entrepreneurial skills to create business opportunities as agents of innovation.

Objectives

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

- comprehend economic concepts, principles and models
- select data and economic information from sources
- analyse economic issues
- evaluate economic outcomes
- create responses that communicate economic meaning.

Structure

Unit 1	Unit 2	Unit 3	Unit 4
Markets and models • The basic economic problem • Economic flows • Market forces	**Modified markets** • Markets and efficiency • Case options of market measures and strategies	**International economics** • The global economy • International economic issues	**Contemporary macroeconomics** • Macroeconomic objectives and theory • Economic management

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): • Examination — extended response to stimulus	25%
Summative internal assessment 2 (IA2): • Investigation — research report	25%	Summative external assessment (EA): • Examination — combination response	25%

ENGLISH

GENERAL SENIOR SUBJECT

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 • 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** • 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** • 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** • 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): • Extended response — written response for a public audience	25%	Summative internal assessment 3 (IA3): • Extended response — imaginative written response	25%
Summative internal assessment 2 (IA2): • Extended response — persuasive spoken response	25%	Summative external assessment (EA): • Examination — analytical written response	25%

FRENCH

GENERAL SENIOR SUBJECT

French provides students with the opportunity to reflect on their understanding of the French language and the communities that use it, while also assisting in the effective negotiation of experiences and meaning across cultures and languages. Students participate in a range of interactions in which they exchange meaning, develop intercultural understanding and become active participants in understanding and constructing written, spoken and visual texts.

Students communicate with people from French-speaking communities to understand the purpose and nature of language and to gain understanding of linguistic structures. They acquire language in social and cultural settings and communicate across a range of contexts for a variety of purposes.

Students experience and evaluate a range of different text types; reorganise their thinking to accommodate other linguistic and intercultural knowledge and textual conventions; and create texts for a range of contexts, purposes and audiences.

Pathways

A course of study in French can establish a basis for further education and employment in many professions and industries, particularly those where the knowledge of an additional language and the intercultural understanding it encompasses could be of value, such as business, hospitality, law, science, technology, sociology and education.

Objectives

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

- comprehend French to understand information, ideas, opinions and experiences
- identify tone, purpose, context and audience to infer meaning, values and attitudes
- analyse and evaluate information and ideas to draw conclusions and justify opinions, ideas and perspectives
- apply knowledge of French language elements, structures and textual conventions to convey meaning appropriate to context, purpose, audience and cultural conventions
- structure, sequence and synthesise information to justify opinions, ideas and perspectives
- use strategies to maintain communication and exchange meaning in French.

Structure

Unit 1	Unit 2	Unit 3	Unit 4
Ma vie **My world** • Family/carers and friends • Lifestyle and leisure • Education	**L'exploration du monde** **Exploring our world** • Travel • Technology and media • The contribution of French culture to the world	**Notre société** **Our society** • Roles and relationships • Socialising and connecting with my peers • Groups in society	**Mon avenir** **My future** • Finishing secondary school, plans and reflections • Responsibilities and moving on

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 — short response	15%	Summative internal assessment 3 (IA3): • Extended response	30%
Summative internal assessment 2 (IA2): • Examination — combination response	30%	Summative external assessment (EA): • Examination — combination response	25%

Townsville Grammar School offers an optional bi-annual School Tour to France.

GENERAL MATHEMATICS

GENERAL SENIOR SUBJECT

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.

Pre-requisite knowledge

- solve a range of problems using percentages, rates and ratios, surface area and volume, Pythagoras'
- theorem, simple algebraic fractions, linear and quadratic equations
- understand the connection between algebraic and graphical representations, using appropriate technology when necessary
- calculate and compare measures of central tendency (mean, median and mode) and measures of spread;
- determine quartiles, interquartile range (IQR) and range
- construct and interpret box plots and use them to compare datasets; compare shapes of box plots to corresponding histograms and dot plots
- use scatter plots to investigate and comment on relationships between two numerical variables
- understand bivariate numerical data where the independent variable is time
- solve right-angled triangle problems, using trigonometric ratios
- solve simultaneous equations
- construct back-to-back stem-and-leaf plots and histograms
- solve linear equations
- understand the difference between numerical and categorical variables
- solve basic problems involving simple and compound interest

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 • Consumer arithmetic • Shape and measurement • Linear equations and their graphs	**Applied trigonometry, algebra, matrices and univariate data** • Applications of trigonometry • Algebra and matrices • Univariate data analysis	**Bivariate data, sequences and change, and Earth geometry** • Bivariate data analysis • Time series analysis • Growth and decay in sequences • Earth geometry and time zones	**Investing and networking** • 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

<table>
<tr><th colspan="2">Unit 3</th><th colspan="2">Unit 4</th></tr>
<tr><td>Summative internal assessment 1 (IA1):
• Problem-solving and modelling task</td><td>20%</td><td rowspan="2">Summative internal assessment 3 (IA3):
• Examination</td><td rowspan="2">15%</td></tr>
<tr><td>Summative internal assessment 2 (IA2):
• Examination</td><td>15%</td></tr>
<tr><td colspan="4">Summative external assessment (EA): 50%
• Examination</td></tr>
</table>

Prerequisites

Year 11 2021	10 Mathematical Methods HL	10 Mathematical Methods SL	10 General Mathematics
General Mathematics	SA	SA	HA

GEOGRAPHY

GENERAL SENIOR SUBJECT

Geography focuses on the significance of 'place' and 'space' in understanding our world. Students engage in a range of learning experiences that develop their geographical skills and thinking through the exploration of geographical challenges and their effects on people, places and the environment.

Students investigate places in Australia and across the globe to observe and measure spatial, environmental, economic, political, social and cultural factors. They interpret global concerns and challenges including responding to risk in hazard zones, planning sustainable places, managing land cover transformations and planning for population change. They develop an understanding of the complexities involved in sustainable planning and management practices.

Students observe, gather, organise, analyse and present data and information across a range of scales. They engage in real-world applications of geographical skills and thinking, including the collection and representation of data.

Pathways

A course of study in Geography can establish a basis for further education and employment in the fields of urban and environmental design, planning and management; biological and environmental science; conservation and land management; emergency response and hazard management; oceanography, surveying, global security, economics, business, law, engineering, architecture, information technology, and science.

Objectives

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

- explain geographical processes
- comprehend geographic patterns
- analyse geographical data and information
- apply geographical understanding
- synthesise information from the analysis to propose action
- communicate geographical understanding

Structure

Unit 1	Unit 2	Unit 3	Unit 4
Responding to risk and vulnerability in hazard zones • Natural hazard zones • Ecological hazard zones	**Planning sustainable places** • Responding to challenges facing a place in Australia • Managing the challenges facing a megacity	**Responding to land cover transformations** • Land cover transformations and climate change • Responding to local land cover transformations	**Managing population change** • Population challenges in Australia • Global population change

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): • Investigation — data report	25%
Summative internal assessment 2 (IA2): • Investigation — field report	25%	Summative external assessment (EA): • Examination — combination response	25%

JAPANESE

GENERAL SENIOR SUBJECT

Japanese provides students with the opportunity to reflect on their understanding of the Japanese language and the communities that use it, while also assisting in the effective negotiation of experiences and meaning across cultures and languages. Students participate in a range of interactions in which they exchange meaning, develop intercultural understanding and become active participants in understanding and constructing written, spoken and visual texts.

Students communicate with people from Japanese-speaking communities to understand the purpose and nature of language and to gain understanding of linguistic structures. They acquire language in social and cultural settings and communicate across a range of contexts for a variety of purposes.

Students experience and evaluate a range of different text types; reorganise their thinking to accommodate other linguistic and intercultural knowledge and textual conventions; and create texts for a range of contexts, purposes and audiences.

Pathways

A course of study in Japanese can establish a basis for further education and employment in many professions and industries, particularly those where the knowledge of an additional language and the intercultural understanding it encompasses could be of value, such as business, hospitality, law, science, technology, sociology and education.

Objectives

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

- comprehend Japanese to understand information, ideas, opinions and experiences
- identify tone, purpose, context and audience to infer meaning, values and attitudes
- analyse and evaluate information and ideas to draw conclusions and justify opinions, ideas and perspectives
- apply knowledge of Japanese language elements, structures and textual conventions to convey meaning appropriate to context, purpose, audience and cultural conventions
- structure, sequence and synthesise information to justify opinions, ideas and perspectives
- use strategies to maintain communication and exchange meaning in Japanese

Structure

Unit 1	Unit 2	Unit 3	Unit 4
私のくらし **My world** • Family/carers and friends • Lifestyle and leisure • Education	私達のまわり **Exploring our world** • Travel • Technology and media • The contribution of Japanese culture to the world	私達の社会 **Our society** • Roles and relationships • Socialising and connecting with my peers • Groups in society	私の将来 **My future** • Finishing secondary school, plans and reflections • Responsibilities and moving on

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 — short response	15%	Summative internal assessment 3 (IA3): • Extended response	30%
Summative internal assessment 2 (IA2): • Examination — combination response	30%	Summative external assessment (EA): • Examination — combination response	25%

Townsville Grammar School offers an optional bi-annual School Tour to Japan (numbers pending).

LEGAL STUDIES

GENERAL SENIOR SUBJECT

Legal Studies focuses on the interaction between society and the discipline of law and explores the role and development of law in response to current issues. Students study the legal system and how it regulates activities and aims to protect the rights of individuals, while balancing these with obligations and responsibilities.

Students study the foundations of law, the criminal justice process and the civil justice system. They critically examine issues of governance, explore contemporary issues of law reform and change, and consider Australian and international human rights issues.

Students develop skills of inquiry, critical thinking, problem-solving and reasoning to make informed and ethical decisions and recommendations. They identify and describe legal issues, explore information and data, analyse, evaluate to make decisions or propose recommendations, and create responses that convey legal meaning. They question, explore and discuss tensions between changing social values, justice and equitable outcomes.

Pathways

A course of study in Legal Studies can establish a basis for further education and employment in the fields of law, law enforcement, criminology, justice studies and politics. The knowledge, skills and attitudes students gain are transferable to all discipline areas and post-schooling tertiary pathways. The research and analytical skills this course develops are universally valued in business, health, science and engineering industries.

Objectives

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

- comprehend legal concepts, principles and processes
- select legal information from sources
- analyse legal issues
- evaluate legal situations
- create responses that communicate meaning.

Structure

Unit 1	Unit 2	Unit 3	Unit 4
Beyond reasonable doubt • Legal foundations • Criminal investigation process • Criminal trial process • Punishment and sentencing	**Balance of probabilities** • Civil law foundations • Contractual obligations • Negligence and the duty of care	**Law, governance and change** • Governance in Australia • Law reform within a dynamic society	**Human rights in legal contexts** • Human rights • The effectiveness of international law • Human rights in Australian contexts

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): • Investigation — argumentative essay	25%
Summative internal assessment 2 (IA2): • Investigation — inquiry report	25%	Summative external assessment (EA): • Examination — combination response	25%

LITERATURE

GENERAL SENIOR SUBJECT

Literature focuses on the study of 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 literary texts.

Students engage with language and texts through a range of teaching and learning experiences to foster the skills to communicate effectively. They make choices about generic structures, language, textual features and technologies to participate actively in the dialogue and detail of literary analysis and the creation of imaginative and analytical texts in a range of modes, mediums and forms.

Students explore how literary texts shape perceptions of the world and enable us to enter the worlds of others. They explore ways in which literary texts may reflect or challenge social and cultural ways of thinking and influence audiences.

Pathways

A course of study in Literature 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
Introduction to literary studies • Ways literary texts are received and responded to • How textual choices affect readers • Creating analytical and imaginative texts	**Texts and culture** • Ways literary texts connect with each other — genre, concepts and contexts • Ways literary texts connect with each other — style and structure • Creating analytical and imaginative texts	**Literature and identity** • Relationship between language, culture and identity in literary texts • Power of language to represent ideas, events and people • Creating analytical and imaginative texts	**Independent explorations** • Dynamic nature of literary interpretation • Close examination of style, structure and subject matter • Creating analytical and imaginative 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): • Examination — analytical written response	25%	Summative internal assessment 3 (IA3): • Extended response — imaginative written response	25%
Summative internal assessment 2 (IA2): • Extended response — imaginative spoken/multimodal response	25%	Summative external assessment (EA): • Examination — analytical written response	25%

MATHEMATICAL METHODS

GENERAL SENIOR SUBJECT

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.

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.

Pre-requisite knowledge

- factorising, expanding and simplifying algebraic expressions including monic quadratic expressions using a variety of strategies
- applying the four operations to simple algebraic fractions with numerical denominators
- substituting values into formulas to determine an unknown
- solving problems involving linear equations, including those derived from formula and those that involve simple algebraic fractions
- the equation of a line in the form y=mx+c
- parallel and perpendicular lines
- exploring the connection between algebraic and graphical representations of relations such as simple quadratics, circles and exponentials using digital technology as appropriate
- solving simple quadratic equations using a range of strategies
- solving linear simultaneous equations, using algebraic and graphical techniques, including using digital technology
- solving linear inequalities and graphing their solutions on a number line
- solving right-angled triangle problems using trigonometric skills
- describing the results of two- and three-step chance experiments to determine probabilities of events and investigating the concept of independence and conditional probability
- obtaining simple statistics from discrete and continuous data, including mean, median, mode, quartiles, range and interquartile range
- using scatterplots to investigate and comment on relationships between two numerical variables
- investigating and describing bivariate numerical data where the independent variable is time
- translating word problems to mathematical form

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.

Structure

Unit 1	Unit 2	Unit 3	Unit 4
Algebra, statistics and functions • Arithmetic and geometric sequences and series 1 • Functions and graphs • Counting and probability • Exponential functions 1 • Arithmetic and geometric sequences	**Calculus and further functions** • 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** • The logarithmic function 2 • Further differentiation and applications 2 • Integrals	**Further functions and statistics** • 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

<table>
<tr><th colspan="2">Unit 3</th><th colspan="2">Unit 4</th></tr>
<tr><td>Summative internal assessment 1 (IA1):
• Problem-solving and modelling task</td><td>20%</td><td rowspan="2">Summative internal assessment 3 (IA3):
• Examination</td><td rowspan="2">15%</td></tr>
<tr><td>Summative internal assessment 2 (IA2):
• Examination</td><td>15%</td></tr>
<tr><td colspan="4">Summative external assessment (EA): 50%
• Examination</td></tr>
</table>

Prerequisites

Year 11 2021	10 Mathematical Methods HL	10 Mathematical Methods SL	10 General Mathematics
Mathematical Methods	VHA	VHA	
	HA	HA	

MODERN HISTORY

GENERAL SENIOR SUBJECT

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, issues and concepts
- devise historical questions and conduct research
- analyse historical sources and evidence
- synthesise information from historical sources and evidence
- evaluate historical interpretations
- create responses that communicate meaning.

Structure

Unit 1	Unit 2	Unit 3	Unit 4
Ideas in the modern world • Industrial Revolution, 1760s–1890s • Age of Imperialism, 1848–1914 (British Imperialism, including in Australia and India)	**Movements in the modern world** • Independence movement in India, 1857–1947 (Amritsar Massacre of 1919- Salt March of 1930) • Australian Indigenous rights movement since 1967 (1975-2008: Stolen Land and Stolen Children)	**National experiences in the modern world** • Germany, 1914–1945 (Nazis, Anti-Semitism and the Holocaust) • Israel, 1948–1993 (1948-91973 Remaking Nations)	**International experiences in the modern world** • Cold War, 1945–1991 (1962 Cuban Missile Crisis) • Australian engagement with Asia since 1945 QCAA will nominate one topic that will be the basis for an external examination (2020/2021): Australian Involvement in the Vietnam War

Assessment

Schools devise assessments in Units 1 and 2 to suit their local context. Assessments in Year 11 will be based on the Summative assessment types for Year 12.

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%

MUSIC

GENERAL SENIOR SUBJECT

Music fosters creative and expressive communication. It allows students to develop musicianship through making (composition and performance) and responding (musicology).

Through composition, performance and musicology, students use and apply music elements and concepts. They apply their knowledge and understanding to convey meaning and/or emotion to an audience.

Students use essential literacy skills to engage in a multimodal world. They demonstrate practical music skills, and analyse and evaluate music in a variety of contexts, styles and genres.

Pathways
A course of study in Music can establish a basis for further education and employment in the fields of arts administration, communication, education, creative industries, public relations and science and technology.

Objectives

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

- demonstrate technical skills
- explain music elements and concepts
- use music elements and concepts
- analyse music
- apply compositional devices
- apply literacy skills
- interpret music elements and concepts
- evaluate music to justify the use of music elements and concepts
- realise music ideas
- resolve music ideas.

Structure

Unit 1	Unit 2	Unit 3	Unit 4
Designs Through inquiry learning, the following is explored: How does the treatment and combination of different music elements enable musicians to design music that communicates meaning through performance and composition?	**Identities** Through inquiry learning, the following is explored: How do musicians use their understanding of music elements, concepts and practices to communicate cultural, political, social and personal identities when performing, composing and responding to music?	**Innovations** Through inquiry learning, the following is explored: How do musicians incorporate innovative music practices to communicate meaning when performing and composing?	**Narratives** Through inquiry learning, the following is explored: How do musicians manipulate music elements to communicate narrative when performing, composing and responding to music?

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

<table>
<tr><th colspan="2">Unit 3</th><th colspan="2">Unit 4</th></tr>
<tr><td>Summative internal assessment 1 (IA1):
• Performance</td><td>20%</td><td rowspan="2">Summative internal assessment 3 (IA3):
• Integrated project</td><td rowspan="2">35%</td></tr>
<tr><td>Summative internal assessment 2 (IA2):
• Composition</td><td>20%</td></tr>
<tr><td colspan="4">Summative external assessment (EA): 25%
• Examination</td></tr>
</table>

MUSIC EXTENSION (COMPOSITION)

GENERAL SENIOR SUBJECT

(Year 12 only)

Music Extension (Composition) is an extension of the Music General senior syllabus. It provides an opportunity for students with specific abilities in music to extend their expertise. Students select one specialisation only, and follow an individual program of study designed to continue the development of refined musicianship skills. Music Extension encourages students to investigate music concepts and ideas relevant to their specialisation.

In the Composition specialisation (making), students create and resolve new music works. They demonstrate use of music concepts and manipulate music concepts to express meaning and/or emotion to an audience through resolved compositions.

Pathways

A course of study in Music Extension can establish a basis for further education and employment in the fields of arts administration, communication, education, creative industries, public relations and science and technology.

Objectives

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

- apply literary skills
- evaluate music and ideas about music
- examine music and ideas about music
- express meaning, emotion or ideas about music
- apply compositional devices
- manipulate music elements and concepts
- resolve music ideas.

Structure

Unit 3	Unit 4
Explore • Key idea 1: Initiate best practice • Key idea 2: Consolidate best practice	**Emerge** • Key idea 3: Independent best practice

Assessment

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

<table>
<tr><th colspan="2">Unit 3</th><th colspan="2">Unit 4</th></tr>
<tr><td>Summative internal assessment 1 (IA1):
• Composition 1</td><td>20%</td><td rowspan="2">Summative internal assessment 3 (IA3):
• Composition project</td><td rowspan="2">35%</td></tr>
<tr><td>Summative internal assessment 2 (IA2):
• Composition 2</td><td>20%</td></tr>
<tr><td colspan="4">Summative external assessment (EA): 25%
• Examination — extended response</td></tr>
</table>

MUSIC EXTENSION (MUSICOLOGY)

GENERAL SENIOR SUBJECT

(Year 12 only)

Music Extension (Musicology) is an extension of the Music General senior syllabus. It provides an opportunity for students with specific abilities in music to extend their expertise. Students select one specialisation only, and follow an individual program of study designed to continue the development of refined musicianship skills. Music Extension encourages students to investigate music concepts and ideas relevant to their specialisation.

In the Musicology specialisation (responding), students investigate and analyse music works and ideas. They synthesise analytical information about music, and document sources and references about music to support research.

Pathways

A course of study in Music Extension can establish a basis for further education and employment in the fields of arts administration, communication, education, creative industries, public relations and science and technology.

Objectives

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

- apply literary skills
- evaluate music and ideas about music
- examine music and ideas about music
- express meaning, emotion or ideas about music
- analyse music
- investigate music
- synthesise information

Structure

Unit 3	Unit 4
Explore • Key idea 1: Initiate best practice • Key idea 2: Consolidate best practice	**Emerge** • Key idea 3: Independent best practice

Assessment

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

<table>
<tr><th colspan="2">Unit 3</th><th colspan="2">Unit 4</th></tr>
<tr><td>Summative internal assessment 1 (IA1):
• Investigation 1</td><td>20%</td><td rowspan="2">Summative internal assessment 3 (IA3):
• Musicology project</td><td rowspan="2">35%</td></tr>
<tr><td>Summative internal assessment 2 (IA2):
• Investigation 2</td><td>20%</td></tr>
<tr><td colspan="4">Summative external assessment (EA): 25%
• Examination — extended response</td></tr>
</table>

MUSIC EXTENSION (PERFORMANCE)

GENERAL SENIOR SUBJECT

(Year 12 only)

Music Extension (Performance) is an extension of the Music General senior syllabus. It provides an opportunity for students with specific abilities in music to extend their expertise. Students select one specialisation only, and follow an individual program of study designed to continue the development of refined musicianship skills. Music Extension encourages students to investigate music concepts and ideas relevant to their specialisation.

In the Performance specialisation (making), students realise music works, demonstrating technical skills and understanding. They make decisions about music, interpret music elements and concepts, and express music ideas to realise their performances.

Pathways

A course of study in Music Extension can establish a basis for further education and employment in the fields of arts administration, communication, education, creative industries, public relations and science and technology.

Objectives

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

- apply literary skills
- evaluate music and ideas about music
- examine music and ideas about music
- express meaning, emotion or ideas about music
- apply technical skills
- interpret music elements and concepts
- realise music ideas.

Structure

Unit 3	Unit 4
Explore • Key idea 1: Initiate best practice • Key idea 2: Consolidate best practice	**Emerge** • Key idea 3: Independent best practice

Assessment

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

<table>
<tr><th colspan="2">Unit 3</th><th colspan="2">Unit 4</th></tr>
<tr><td>Summative internal assessment 1 (IA1):
• Performance 1</td><td>20%</td><td rowspan="2">Summative internal assessment 3 (IA3):
• Performance project</td><td rowspan="2">35%</td></tr>
<tr><td>Summative internal assessment 2 (IA2):
• Performance 2</td><td>20%</td></tr>
<tr><td colspan="4">Summative external assessment (EA): 25%
• Examination — extended response</td></tr>
</table>

PHYSICAL EDUCATION

GENERAL SENIOR SUBJECT

Physical Education provides students with knowledge, understanding and skills to explore and enhance their own and others' health and physical activity in diverse and changing contexts.

Physical Education provides a philosophical and educative framework to promote deep learning in three dimensions: about, through and in physical activity contexts. Students optimise their engagement and performance in physical activity as they develop an understanding and appreciation of the interconnectedness of these dimensions.

Students learn how body and movement concepts and the scientific bases of biophysical, sociocultural and psychological concepts and principles are relevant to their engagement and performance in physical activity. They engage in a range of activities to develop movement sequences and movement strategies.

Students learn experientially through three stages of an inquiry approach to make connections between the scientific bases and the physical activity contexts. They recognise and explain concepts and principles about and through movement, and demonstrate and apply body and movement concepts to movement sequences and movement strategies.

Through their purposeful engagement in physical activities, students gather data to analyse, synthesise and devise strategies to optimise engagement and performance. They engage in reflective decision-making as they evaluate and justify strategies to achieve a particular outcome.

Pathways

A course of study in Physical Education can establish a basis for further education and employment in the fields of exercise science, biomechanics, the allied health professions, psychology, teaching, sport journalism, sport marketing and management, sport promotion, sport development and coaching.

Objectives

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

- recognise and explain concepts and principles about movement
- demonstrate specialised movement sequences and movement strategies
- apply concepts to specialised movement sequences and movement strategies
- analyse and synthesise data to devise strategies about movement
- evaluate strategies about and in movement
- justify strategies about and in movement
- make decisions about and use language, conventions and mode-appropriate features for particular purposes and contexts.

Structure

Unit 1	Unit 2	Unit 3	Unit 4
Motor learning, functional anatomy, biomechanics and physical activity • Motor learning integrated with a selected physical activity • Functional anatomy and biomechanics integrated with a selected physical activity	**Sport psychology, equity and physical activity** • Sport psychology integrated with a selected physical activity • Equity — barriers and enablers	**Tactical awareness, ethics and integrity and physical activity** • Tactical awareness integrated with one selected 'Invasion' or 'Net and court' physical activity • Ethics and integrity	**Energy, fitness and training and physical activity** • Energy, fitness and training integrated with one selected 'Invasion', 'Net and court' or 'Performance' physical activity

Assessment

Schools devise assessments in Units 1 and 2 (Year 11) to suit their local context. Assessment will include two folios, an exam and a report. In Units 3 and 4 (Year 12) 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 (Year 12)

Unit 3		Unit 4	
Summative internal assessment 1 (IA1): • Project — folio	25%	Summative internal assessment 3 (IA3): • Project — folio	30%
Summative internal assessment 2 (IA2): • Investigation — report	20%	Summative external assessment (EA): • Examination — combination response	25%

PHYSICS

GENERAL SENIOR SUBJECT

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 • Heating processes • Ionising radiation and nuclear reactions • Electrical circuits	**Linear motion and waves** • Linear motion and force • Waves	**Gravity and electromagnetism** • Gravity and motion • Electromagnetism	**Revolutions in modern physics** • Special relativity • Quantum theory • The Standard Model

Assessment
Units 1 and 2 will be assessed internally with an Unsatisfactory/Satisfactory grade reported to QCAA. In Units 3 and 4 students complete four summative assessments, all of which contribute to the student ATAR. 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			

SPECIALIST MATHEMATICS

GENERAL SENIOR SUBJECT

Specialist Mathematics' major domains are Vectors and matrices, Real and complex numbers, Trigonometry, Statistics and Calculus.

Specialist Mathematics is designed for students who develop confidence in their mathematical knowledge and ability, and gain a positive view of themselves as mathematics learners. They will gain an appreciation of the true nature of mathematics, its beauty and its power.

Students learn topics that are developed systematically, with increasing levels of sophistication, complexity and connection, building on functions, calculus, statistics from Mathematical Methods, while vectors, complex numbers and matrices are introduced. Functions and calculus are essential for creating models of the physical world. Statistics are used to describe and analyse phenomena involving probability, uncertainty and variation. Matrices, complex numbers and vectors are essential tools for explaining abstract or complex relationships that occur in scientific and technological endeavours.

Student learning experiences range from practising essential mathematical routines to developing procedural fluency, through to investigating scenarios, modelling the real world, solving problems and explaining reasoning.

Pathways

A course of study in Specialist Mathematics can establish a basis for further education and employment in the fields of science, all branches of mathematics and statistics, computer science, medicine, engineering, finance and economics.

Objectives

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

- select, recall and use facts, rules, definitions and procedures drawn from Vectors and matrices, Real and complex numbers, Trigonometry, Statistics and Calculus
- comprehend mathematical concepts and techniques drawn from Vectors and matrices, Real and complex numbers, Trigonometry, Statistics and Calculus
- communicate using mathematical, statistical and everyday language and conventions
- evaluate the reasonableness of solutions
- justify procedures and decisions, and prove propositions by explaining mathematical reasoning
- solve problems by applying mathematical concepts and techniques drawn from Vectors and matrices, Real and complex numbers, Trigonometry, Statistics and Calculus.

Pre-requisite knowledge

- factorising, expanding and simplifying algebraic expressions including monic quadratic expressions using a variety of strategies
- applying the four operations to simple algebraic fractions with numerical denominators
- substituting values into formulas to determine an unknown
- solving problems involving linear equations, including those derived from formulas and those that involve simple algebraic fractions
- the equation of a line in the form y=mx+c
- parallel and perpendicular lines
- exploring the connection between algebraic and graphical representations of relations such as simple quadratics, circles and exponentials using digital technology as appropriate
- solving simple quadratic equations using a range of strategies
- solving linear simultaneous equations, using algebraic and graphical techniques, including using digital technology
- solving linear inequalities and graphing their solutions on a number line
- describing the results of two- and three-step chance experiments to determine probabilities of events and investigating the concept of independence and conditional probability
- obtaining simple statistics from discrete and continuous data, including mean, median, mode, quartiles, range and interquartile range
- using scatterplots to investigate and comment on relationships between two numerical variables

- investigating and describing bivariate numerical data where the independent variable is time
- determine probabilities of events
- substitute values into formulas to determine an unknown
- solve right-angled and non-right angled triangle problems
- translate word problems to mathematical form
- rational and irrational numbers
- properties of circles
- sketching functions
- factor and remainder theorem

Structure

Specialist Mathematics is to be undertaken in conjunction with, or on completion of, Mathematical Methods.

Unit 1	Unit 2	Unit 3	Unit 4
Combinatorics, vectors and proof • Combinatorics • Vectors in the plane • Introduction to proof	**Complex numbers, trigonometry, functions and matrices** • Complex numbers 1 • Trigonometry and functions • Matrices	**Mathematical induction, and further vectors, matrices and complex numbers** • Proof by mathematical induction • Vectors and matrices • Complex numbers 2	**Further statistical and calculus inference** • Integration and applications of integration • Rates of change and differential equations • Statistical inference

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			

Prerequisites

Year 11 2021	10 Mathematical Methods HL	10 Mathematical Methods SL	10 General Mathematics
Specialist Mathematics	VHA	VHA	

VISUAL ART

GENERAL SENIOR SUBJECT

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
Art as lens Through inquiry learning, the following are explored: • Concept: lenses to explore the material world • Contexts: personal and contemporary • Focus: People, place, objects • Media: 2D, 3D, and time-based	**Art as code** Through inquiry learning, the following are explored: • Concept: art as a coded visual language • Contexts: formal and cultural • Focus: Codes, symbols, signs and art conventions • Media: 2D, 3D, and time-based	**Art as knowledge** Through inquiry learning, the following are explored: • Concept: constructing knowledge as artist and audience • Contexts: contemporary, personal, cultural and/or formal • Focus: student- directed • Media: student-directed	**Art as alternate** Through inquiry learning, the following are explored: • 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).

Formative assessments

Unit 1		Unit 2	
Experimental Folio	25%	Project – inquiry based folio	35%
Reverse Chronology investigation	15%	Examination	25%

Summative assessments

<table>
<tr><th>Unit 3</th><th></th><th>Unit 4</th><th></th></tr>
<tr><td>Summative internal assessment 1 (IA1):
• Investigation — inquiry phase 1</td><td>15%</td><td rowspan="2">Summative internal assessment 3 (IA3):
• Project — inquiry phase 3</td><td rowspan="2">35%</td></tr>
<tr><td>Summative internal assessment 2 (IA2):
• Project — inquiry phase 2</td><td>25%</td></tr>
<tr><td colspan="4">Summative external assessment (EA): 25%
• Examination</td></tr>
</table>

ESSENTIAL ENGLISH

APPLIED SENIOR SUBJECT

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 everyday, 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 • Responding to a variety of texts used in and developed for a work context • Creating multimodal and written texts	**Texts and human experiences** • Responding to reflective and nonfiction texts that explore human experiences • Creating spoken and written texts	**Language that influences** • 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** • 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): • Extended response — spoken/signed response	Summative internal assessment 3 (IA3): • Extended response — Multimodal response
Summative internal assessment 2 (IA2): • Common internal assessment (CIA)	Summative internal assessment (IA4): • Extended response — Written response

ESSENTIAL MATHEMATICS

APPLIED SENIOR SUBJECT

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 • Fundamental topic: Calculations • Number • Representing data • Graphs	**Money, travel and data** • Fundamental topic: Calculations • Managing money • Time and motion • Data collection	**Measurement, scales and data** • Fundamental topic: Calculations • Measurement • Scales, plans and models • Summarising and comparing data	**Graphs, chance and loans** • 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): • Problem-solving and modelling task	Summative internal assessment 3 (IA3): • Problem-solving and modelling task
Summative internal assessment 2 (IA2): • Common internal assessment (CIA)	Summative internal assessment (IA4): • Examination

FURNISHING SKILLS

APPLIED SENIOR SUBJECT

Furnishing Skills focuses on the underpinning industry practices and production processes required to manufacture furnishing products with high aesthetic qualities.

Students understand industry practices; interpret specifications, including technical information and drawings; demonstrate and apply safe practical production processes with hand/power tools and machinery; communicate using oral, written and graphical modes; organise, calculate and plan production processes; and evaluate the products they create using predefined specifications.

Students develop transferable skills by engaging in manufacturing tasks that relate to business and industry, and that promote adaptable, competent, self-motivated and safe individuals who can work with colleagues to solve problems and complete practical work.

Pathways

A course of study in Furnishing Skills can establish a basis for further education and employment in the furnishing industry. With additional training and experience, potential employment opportunities may be found in furnishing trades as, for example, a furniture-maker, wood machinist, cabinet-maker, polisher, shopfitter, upholsterer, furniture restorer, picture framer, floor finisher or glazier.

Objectives

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

- describe industry practices in manufacturing tasks
- demonstrate fundamental production skills
- interpret drawings and technical information
- analyse manufacturing tasks to organise materials and resources
- select and apply production skills and procedures in manufacturing tasks
- use visual representations and language conventions and features to communicate for particular purposes
- plan and adapt production processes
- create products from specifications
- evaluate industry practices, production processes and products, and make recommendations.

Structure

The Furnishing Skills course is designed around core and elective topics.

Core topics	Elective topics
• Industry practices • Production processes	• Furniture finishing • Furniture-making • Glazing and framing

Assessment

For Furnishing Skills, 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 practical demonstration (separate to the assessable component of a project).

Project	Practical demonstration	Examination
A response to a single task, situation and/or scenario.	A task that assesses the practical application of a specific set of teacher-identified production skills and procedures.	A response that answers a number of provided questions, scenarios and/or problems.

A project consists of a product component and at least one of the following components:
• written: 500–900 words
• spoken: 2½–3½ minutes
• multimodal
  • non-presentation: 8 A4 pages max (or equivalent)
  • presentation: 3-6 minutes
• product: continuous class time.
	Students demonstrate production skills and procedures in class under teacher supervision.	• 60–90 minutes
		• 50–250 words per item

HOSPITALITY PRACTICES

APPLIED SENIOR SUBJECT

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
• Navigating the hospitality industry • Working effectively with others • Hospitality in practice	• 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.

Students may be required to participate in outside School hour's hospitality related functions. A set of 'black and white' clothing for function work may be required.

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.	• 60–90 minutes • 50–250 words per item

INDUSTRIAL GRAPHIC SKILLS

APPLIED SENIOR SUBJECT

The Industrial Graphics Skills subject focuses on the underpinning industry practices and drafting processes required to produce the technical drawings used in a variety of industries, including engineering and furnishing.

The majority of learning is done through drafting and modelling tasks that relate to business and industry, and that promote adaptable, competent, self-motivated and safe individuals who can work with colleagues to solve problems and complete tasks.

By doing drafting and modelling tasks, students develop transferrable skills relevant to a range of industry-based electives and future employment opportunities. They understand industry practices, interpret technical drawings, demonstrate and apply safe practical modelling procedures with tools and materials, communicate using oral and written modes, organise and produce technical drawings and evaluate drawings using specifications.

Pathways

A course of study in Industrial Graphics Skills can establish a basis for further education and employment in a range of roles and trades in the manufacturing industries. With additional training and experience, potential employment opportunities may be found in drafting roles such as architectural drafter, estimator, mechanical drafter, electrical drafter, structural drafter, civil drafter and survey drafter.

Objectives

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

1. describe industry practices in drafting and modelling tasks
2. demonstrate fundamental drawing skills
3. interpret drawings and technical information
4. analyse drafting tasks to organise information
5. select and apply drawing skills and procedures in drafting tasks
6. use language conventions and features to communicate for particular purposes.
7. construct models from drawings
8. create technical drawings from industry requirements
9. evaluate industry practices, drafting processes and drawings, and make recommendations

Structure

The Industrial Graphics Skills course is designed around core and elective topics.

Core topics	Elective topics
• industry practices • drafting processes	• engineering drafting • furnishing

Assessment

For Industrial Graphic Skills, assessment from Unit 3 and 4 is used to determine the student's exit result, and consists of four instruments, including:

- at least projects of which one must include a physical model
- at least one practical demonstration (separate to the assessable component of a project)

Project	Practical demonstration	Examination
A response to a single task, situation and / or scenario	This technique assesses the practical application of a specific set of teacher-identified drawing skills and procedures. Responses are completed individually in a set timeframe.	A response that answers a number of provided questions, scenarios and/ or problems.

A project consists of a technical drawing component (which may include a model) and at least one of the following components: • written: 500 – 900 words • spoken: 2 ½ - 3 ½ minutes • Product component: a set period of in-class time • multimodal: ➢ non-presentation: 8 A4 pages max (or equivalent) ➢ presentation : 3 – 6 minutes	students demonstrate drawing skills and procedures over a set period of time under teacher supervision.	<u>Units 1 - 2</u> • 60 -90 minutes • 50 – 150 words per item <u>Units 3 - 4</u> • 60 -90 minutes • 50 – 250 words per item

INTERNATIONAL BACCALAUREATE DIPLOMA PROGRAMME

The International Baccalaureate Diploma Program (IBDP) is a highly regarded two-year pre-university course that is offered to students around the world. The IBDP not only provides students with an enhanced academic focus but also provides a curriculum with an international perspective. The IBDP suits highly motivated senior students and is designed to equip them with the skills and attitudes necessary for success in higher education and life. The IBDP is an academically challenging and balanced program of education for students in Year 11 & 12 with final examinations, in most subjects, that prepare students for success at university. The programme has gained recognition and respect from the world's leading universities and is offered by over 5000 IB World Schools in 156 different countries.

The IBDP curriculum offers a broad range of subjects. At Townsville Grammar School we aim to offer the following subjects (subject to demand):

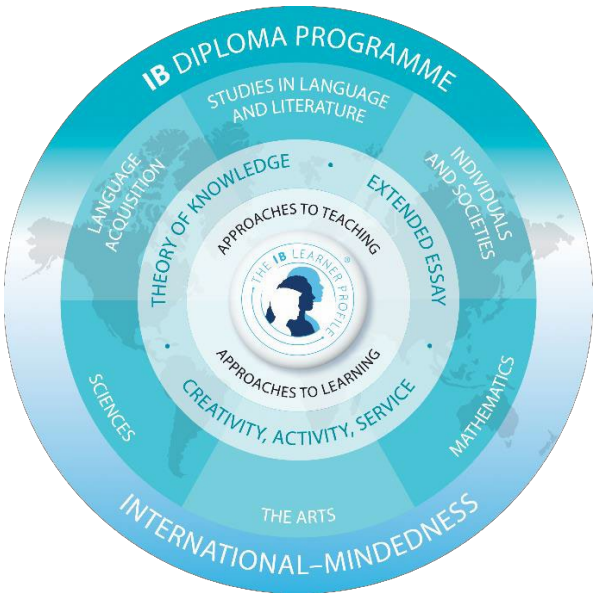
English A: Language and Literature (HL or SL)	Chemistry (HL or SL), Biology (HL or SL), Physics (HL or SL)
French (SL), Japanese (SL), Spanish *ab initio* (SL)	Mathematics: Analysis and Approaches (HL or SL)
Economics (HL or SL), Psychology (HL or SL)	Visual Arts (HL or SL), Music (HL or SL), Theatre (HL or SL)

Students study six subjects, three at the higher level (HL) and three at the standard level (SL). Students choose one subject from each of Groups 1 to 5, thus ensuring breadth of experience in languages, social studies, the experimental sciences and mathematics.

At Townsville Grammar the sixth subject may be an arts subject, or a second science subject.

The subjects are largely externally assessed through examinations in November of the second year, Year 12.

In addition, the IBDP has three core requirements that are included to broaden the educational experience and challenge students to apply their knowledge and understanding: Theory of Knowledge (TOK); Extended Essay (EE) and Creativity, Activity, Service (CAS).



RECOMMENDED PREREQUISITE SUBJECTS

Demonstrated academic performance in Year 10 provides a guide when selecting the International Baccalaureate Diploma Programme. The recommended prerequisites listed below provide a strong indication of success.

IB Group	IB Subject	Levels Offered	Recommended Year 10 Prerequisite
Group 1 (Studies in Language and Literature)	English A: Language and Literature	SL & HL	High Level of Achievement in Semester 1 (Year 10 English or English Literature)
Group 2 (Language Acquisition)	Spanish	(ab initio) SL	Not applicable although it is expected that students should have achieved a High Achievement in a previously studied language
	French	SL	High Achievement in Year 10 French and recommendation of Head of Faculty (Modern Languages)
	Japanese	SL	High Achievement in Year 10 Japanese and recommendation of Head of Faculty (Modern Languages)
Group 3 (Individuals and Societies)	Economics	SL & HL	High Achievement in Year 10 English
	Psychology	SL & HL	High Achievement in Year 10 English
Group 4 (Sciences)	Biology	SL & HL	High Achievement in Year 10 Physical OR Natural Sciences
	Chemistry	SL & HL	High Achievement in Year 10 Physical Sciences
	Physics	SL & HL	High Achievement in Year 10 Physical Sciences
Group 5 (Mathematics)	Mathematics: Analysis and Approaches	SL HL	High Achievement in Year 10 Mathematics SL or HL Very High Achievement in Year 10 in Mathematics SL or HL and recommendation of Head of Faculty (Mathematics)
Group 6 (The Arts)	Visual Arts	SL & HL	High Achievement in Year 10 Art
	Music	SL & HL	High Achievement in Year 10 Music
	Theatre	SL & HL	High Achievement in Year 10 Drama
Core	Theory of Knowledge (TOK)	Not applicable	Not applicable
	Extended Essay (EE)	Not applicable	Not applicable
	Creativity, Activity, Service (CAS)	Not applicable	Not applicable

Note:

Students may choose two of Chemistry, Biology and Physics, but will then have to forgo a Group 6 subject.

ENGLISH A: LANGUAGE AND LITERATURE (SL OR HL)

GROUP 1

Diploma Pattern
This is a two year Group 1 subject and is studied by all IB Diploma students at Townsville Grammar School.

Advice to Students
The course is built on the assumption that literary and non-literary texts are concerned with our conceptions, interpretations and experiences of the world. The study of these texts can therefore be seen as an exploration of the way it represents the complex pursuits, anxieties, joys and fears to which human beings are exposed in the daily business of living. It provides opportunities for encouraging independent, original, critical and clear thinking. It also promotes respect for the imagination and a perceptive approach to the understanding and interpretation of literary and non-literary works.

Learning Outcomes
Through the study of a wide range of texts, the English A: Language and Literature course encourages students to appreciate the artistry of both literary and non-literary texts, and to develop an ability to reflect critically on their reading. The course is divided into three areas of exploration – the exploration of the nature of the interactions between readers, writers and texts; the exploration of how texts interact with time and space and the exploration of intertextuality and how texts connect with each other. Through a range of both literary and non-literary texts, students will explore the crucial role language plays in communication, reflecting experience and shaping the world. Students will also learn about their own roles as producers of language and develop their productive skills through oral and written pieces. Literary texts can include novels, plays, poetry and non-fiction while non-literary texts can include film, photography, radio, art, websites, speeches, advertisements and documentaries. The texts are selected from varying time periods and places to ensure a broad and internationally-minded learning experience.

Content/Assessment

Areas of Exploration	Texts Studied	Assessment
ONE: Readers, Writers and Texts **TWO:** Time and Space **THREE:** Intertextuality	**Standard Level** SL students must study at least 4 literary works. - Minimum of 1 in the language of instruction (English) - Minimum of 1 in translation - 2 freely chosen by the school Students will balance their study of literary works with non-literary works selected by the school.	**Standard Level** <u>Internal Assessment:</u> Individual Oral *15mins* 30% <u>External Assessment:</u> Paper 1: Guided Literary analysis *1hr 15mins* 35% Paper 2: comparative essay *1hr45mins* 35%
	Higher Level HL students must study at least 6 literary works. - Minimum of 2 in the language of instruction (English) - Minimum of 2 in translation - 2 freely chosen by the school Students will balance their study of literary works with non-literary works selected by the school.	**Higher Level** <u>Internal Assessment:</u> Individual Oral *15mins* 20% <u>External Assessment:</u> Paper 1: Guided Literary analysis *2hr15mins* 35% Paper 2: comparative essay *1hr45* 25% Higher Level Essay *1,500 words* 20%

Assumed Abilities
In addition to being independent learners and having a comprehensive knowledge and understanding of English, students will need to be interested in exploring classic, modern and international literature, as well as sharing their ideas and views with peers and a range of audiences. This course is recommended for mother-tongue speakers.

FRENCH (SL)

GROUP 2

Diploma Pattern
This is a two year Group 2 subject within the International Baccalaureate Diploma program.

Advice to Students
The study of IB Diploma French will involve the study and attainment of a language system and applying it in four active and interrelated ways: through listening, speaking, reading and writing. During this course students will participate in the exchange of ideas in order to build their French proficiency. Students will need to have studied French to Year 10.

Learning Outcomes
IB Diploma French provides students the opportunity to reach a high degree of competence in the French language and provides access to the culture and communities of French speaking countries. This promotes an understanding of different attitudes and values within the wider Australian community and beyond. A knowledge of French will also advantage students in certain areas of further study as French is an important language of culture, music, theology and philosophy and a key language in the fields of science, medicine, economics, technology and space exploration. Students develop into successful, effective communicators by considering the conceptual understanding of context, audience, purpose, meaning and variation.

Both language B SL and HL students learn to communicate in the target language in familiar and unfamiliar contexts. The distinction between language B SL and HL can be seen in the level of competency the student is expected to develop in receptive, productive and interactive skills.

At HL the study of two literary works originally written in the target language is required and students are expected to extend the range and complexity of the language they use and understand in order to communicate.

Content/Assessment
The curriculum is organised around five prescribed themes with which the students engage through written, audio, visual and audio-visual texts.

<table>
<tr><th>Theme: Identities</th><th>Assessment</th></tr>
<tr><td>SL and HL:
Explore the nature of the self and what it is to be human.</td><td rowspan="4">External Assessment: (75%)
SL: Paper 1 – Productive Skills – one writing task from a choice of three

HL: Paper 1 – Productive Skills – one writing task from a choice of three. Requires more complex language and structures and demands higher-order thinking skills
Writing: 30 marks
25%

External Assessment:
SL & HL: Paper 2 – Receptive Skills – separate sections for listening and reading
Listening: 25 marks (25%)
Reading: 40 marks (25%)</td></tr>
<tr><th>Theme: Experiences</th></tr>
<tr><td>SL and HL:
Explore and tell the stories of the events, experiences and journeys that shape our lives.</td></tr>
<tr><th>Theme: Human Ingenuity</th></tr>
<tr><td>SL and HL:
Explore the ways in which human creativity and innovation affect our world.</td></tr>
<tr><th>Theme: Social Organisation</th><td rowspan="4">Internal Assessment (25%)
SL: Individual Oral Assessment – Stimulus is a visual image that is clearly relevant to one of the themes of the course

HL: Individual Oral Assessment - Stimulus is an excerpt from one of the two literary works studied
30 marks
25%</td></tr>
<tr><td>SL and HL:
Explore the ways in which groups of people organise themselves, or are organised, through common systems or interests.</td></tr>
<tr><th>Theme: Sharing the Planet</th></tr>
<tr><td>SL and HL:
Explore the challenges and opportunities faced by individuals and communities in the modern world</td></tr>
</table>

Assumed Abilities
This course is designed to further support those students who have maintained an ongoing and successful study of French, and who have exhibited an interest in the culture and a desire to become proficient in the language.

JAPANESE (SL)

GROUP 2

Diploma Pattern
This is a two-year Group 2 Language B subject within the International Baccalaureate Diploma program. It will only be offered if there is sufficient interest from students.

Advice to Students
The study of IP Diploma Japanese will involve the study of and the attainment of a language system through active participation with a range of learning opportunities based on the four macro-skills: listening, reading, speaking and writing. During this course students will participate in an exchange of ideas in order to build their proficiency with the Japanese language. The study of Year 10 Japanese is a prerequisite for entry to this course.

Learning Outcomes
IP Diploma Japanese affords students the opportunity to develop a high level of competence with all aspects of the Japanese language, while at the same time developing an understanding of a culture that is both ancient and very different from their own. Students will extend their knowledge of the third writing system, Kanji and will be required to master the 400 mandatory Kanji for the B level standard course, and a further 200 for the high level course, in their *kunyomi* and *onyomi* readings. Students studying Language B: Japanese, develop into successful, effective communicators by considering the conceptual understanding of context, audience, purpose, meaning and variation.

Both Language B SL and HL students learn to communicate in the target language in familiar and unfamiliar contexts. The distinction between Language B SL and HL can be seen in the level of competency the student is expected to develop in receptive, productive and interactive skills.

At HL the study of two literary works originally written in the target language is required and students are expected to extend the range and complexity of the language they use and understand in order to communicate.

Content/Assessment
The curriculum is organised around five prescribed themes with which the students engage through written, audio, visual and audio-visual texts.

<table>
<tr><th>Theme: Identities</th><th>Assessment</th></tr>
<tr><td>SL and HL:
Explore the nature of the self and what it is to be human.</td><td rowspan="8">External Assessment: (75%)
SL: Paper 1 – Productive Skills – one writing task from a choice of three

HL: Paper 1 – Productive Skills – one writing task from a choice of three. Requires more complex language and structures and demands higher-order thinking skills
Writing: 30 marks
25%

External Assessment:
SL & HL: Paper 2 – Receptive Skills – separate sections for listening and reading
Listening: 25 marks (25%)
Reading: 40 marks (25%)</td></tr>
<tr><td>Theme: Experiences</td></tr>
<tr><td>SL and HL:
Explore and tell the stories of the events, experiences and journeys that shape our lives.</td></tr>
<tr><td>Theme: Human Ingenuity</td></tr>
<tr><td>SL and HL:
Explore the ways in which human creativity and innovation affect our world.</td></tr>
<tr><td>Theme: Social Organisation</td></tr>
<tr><td>SL and HL:
Explore the ways in which groups of people organise themselves, or are organised, through common systems or interests.</td></tr>
<tr><td>Theme: Sharing the Planet</td></tr>
<tr><td>SL and HL:
Explore the challenges and opportunities faced by individuals and communities in the modern world</td></tr>
<tr><td colspan="2">Internal Assessment (25%)
SL: Individual Oral Assessment – Stimulus is a visual image that is clearly relevant to one of the themes of the course

HL: Individual Oral Assessment - Stimulus is an excerpt from one of the two literary works studied
30 marks
25%</td></tr>
</table>

Assumed Abilities
This course is designed to further support those students who have maintained an ongoing and successful study of Japanese, who have exhibited an interest in the culture, and who have demonstrated a desire to become proficient in the language.

SPANISH AB INITIO (SL)

GROUP 2

Diploma Pattern
This is a two year Group 2 subject within the International Baccalaureate Diploma program.

Advice to Students
IB Diploma Spanish *ab initio* is a course designed to allow students to study a Language Other Than English. It will be studied at a highly accelerated pace and is suitable for upper-secondary students. Offered at SL only, Language ab initio is a language acquisition course designed for students with no previous experience in – or very little exposure to – the target language.

Learning Outcomes
Students will be introduced to the language and cultures of the Spanish-speaking world. It will enable students to develop their receptive, productive and interactive skills, while learning to communicate in the target language in familiar and unfamiliar contexts. By the end of the two year course, students will be able to visit a Spanish- speaking country and communicate competently with native speakers. It is a fast-moving, highly-motivating course encompassing many interactive activities.

Content/assessment

Theme: Identities	**Assessment**
Explore the nature of the self and what it is to be human.	**External Assessment: (75%)** Paper 1 – Productive Skills – two writing tasks from a choice of three *Writing*: 30 *marks* (25%) **External Assessment:** Paper 2 – Receptive Skills – separate sections for listening and reading *Listening*: 25 *marks* (25%) *Reading*: 40 *marks* (25%)
Theme: Experiences	
Explore and tell the stories of the events, experiences and journeys that shape our lives.	
Theme: Human Ingenuity	
Explore the ways in which human creativity and innovation affect our world.	
Theme: Social Organisation	
Explore the ways in which groups of people organise themselves, or are organised, through common systems or interests.	**Internal Assessment (25%)** Individual Oral Assessment – Stimulus is a visual image that is clearly relevant to one of the themes of the course *Spoken*: 30 *marks* (25%)
Theme: Sharing the Planet	
Explore the challenges and opportunities faced by individuals and communities in the modern world	

Students will explore the above cultural features via text responses (letters, travel brochures, recipes, film, song, novels, guest speakers and television).

Students will also participate in a range of written expression and conversational exercises aimed at building their fluency and confidence in the chosen language. Language skills to be addressed will include:

- Text-handling skills and strategies
- Creative-writing skills
- Interactive Aural and Oral Activities

Assumed Abilities
There are no prerequisites for this course, although the successful study of another language in prior years is an advantage. Students are expected to make a genuine commitment to learning to read, write and communicate in another language.

ECONOMICS (SL OR HL)

GROUP 3

Diploma Pattern

This is a two year Group 3 subject within the International Baccalaureate Diploma program. As a Group 3 subject it falls within the Individuals and Societies field.

Advice to Students & Learning Outcomes

The study of economics is essentially about dealing with scarcity, resource allocation and the methods and processes by which choices are made in the satisfaction of human wants. The course emphasizes the economic theories of microeconomics, which deal with economic variables affecting individuals, firms and markets, and the economic theories of macroeconomics, which deal with economic variables affecting countries, governments and societies. These economic theories are not to be studied in a vacuum — rather, they are to be applied to real- world issues. Prominent among these issues are fluctuations in economic activity, international trade, economic development and environmental sustainability.

The ethical dimensions involved in the application of economic theories and policies permeate throughout the economics course as students are required to consider and reflect on human end-goals and values. The economics course encourages students to develop international perspectives, fosters a concern for global issues, and raises students' awareness of their own responsibilities at a local, national and international level. The course also seeks to develop values and attitudes that will enable students to achieve a degree of personal commitment in trying to resolve these issues, appreciating our shared responsibility as citizens of an increasingly interdependent world.

Distinction between SL and HL

SL and HL students of economics are presented with a common syllabus, with an HL extension in some topics. While the skills and activity of studying economics are common to both SL and HL students, the HL student is required to acquire a further body of knowledge — including the ability to analyse, synthesise and evaluate that knowledge — and to develop quantitative skills in order to explain and analyse economic relationships. These quantitative skills are specifically assessed at HL in paper 3.

Content/Assessment

<table>
<tr><th>IB Economics Units</th><th colspan="2">External Exams Assessment</th><th>Internal Assessment</th></tr>
<tr><td>Unit 1: Foundations & Microeconomics (Markets, Firms and Industry)</td><td rowspan="10">SL (40%) and HL (30%)
External Exam Paper 1</td><td rowspan="10">HL (20%)
External Exam Paper 3</td><td rowspan="10">SL (20%) and HL (20%)
Portfolio of 3 Commentaries</td></tr>
<tr><td>SL: Core Topics
- Competitive markets (demand & supply)
- Elasticities
- Modified markets and government intervention
- Market failure and externalities

HL: Extension Topics
- Linear functions (Quantitative Economics)
- Indirect taxes/subsidies and social welfare
- Market Failure and asymmetric information
- Theory of the firm and different types of market structures</td></tr>
<tr><td>Unit 2: Macroeconomics (The National Economy)</td></tr>
<tr><td>SL: Core Topics
- The level of economic activity (aggregate demand & aggregate supply)
- Macroeconomic objectives of economic growth, price stability, low unemployment and equity in income distribution
- Demand and supply side policies
HL: Extension Topics
- Calculations related to macroeconomics (Quantitative Economics)</td></tr>
</table>

IB Economics Units	External Exams Assessment		Internal Assessment
Unit 3: International Economics (The Global Economy)	**SL (40%) and HL(30%)** External Exam Paper 2		
SL: Core Topics - International trade, protectionism and integration - Exchange rates and balance of payments **HL: Extension Topics** - Calculations related to international economics (Quantitative Economics) - Terms of Trade & Absolute and Comparative Advantage - Correcting the balance of payments			
Unit 4: Economic Development (The Global Economy)			
SL and HL - Understanding economic development - Barriers to economic development			

Assumed Abilities

The economics course requires no specific prior learning. No particular background in terms of specific subjects studied for national or international qualifications is expected or required. The specific skills of the economics course are developed within the context of the course itself. The ability to understand and analyse abstract concepts and the ability to write in a logically structured manner are distinct advantages in economics.

PSYCHOLOGY (SL OR HL)

GROUP 3

Overview

Psychology is a two-year course within the Individuals and Societies (Group 3) academic area of the International Baccalaureate Diploma program (DP).

Psychology is the study of mental processes and behaviour, which requires a multidisciplinary approach and use of a variety of research techniques. It involves recognising that behaviour is not a static phenomenon; it is adaptive, and as the world and societies face challenges and change, so does behaviour.

Approaches to understanding behaviour

At the core of the Psychology course, there are three different approaches to understanding behaviour:

1. The biological approach looks at:
   - the brain and behaviour
   - hormones and behaviour
   - genetics and behaviour
   - the role of animal research in understanding human behaviour (HL only)

2. The cognitive approach looks at:
   - cognitive processing
   - reliability of cognitive processes
   - emotion and cognition
   - cognitive processing in the digital world (HL only)

3. The sociocultural approach looks at:
   - the individual and the group
   - cultural origins of behaviour
   - cultural influences on individual attitudes, identity and behaviours
   - the influence of globalization on individual attitudes, identities and behaviour (HL only)

The three approaches are also considered in the options through a focus on areas of applied Psychology. The options are:

1. Abnormal Psychology
   - factors influencing diagnosis
   - etiology of Abnormal Psychology
   - treatment of disorders

2. Developmental Psychology
   - influences on cognitive and social development
   - developing an identity
   - developing as a learner

3. Health Psychology
   - determinants of health
   - health problems
   - promoting health

4. Human Relationships
   - personal relationships
   - group dynamics
   - social responsibility

Distinction between SL and HL

There are three main distinctions between the SL and HL course.

1. The following extensions to the core approaches are studied at HL only:
    - the role of animal research in understanding human behaviour
    - cognitive processing in the digital world
    - the influence of globalization on individual attitudes, identities and behaviour.

2. SL students are required to study one option. HL students study two options.

3. HL students will be directly assessed on their understanding of qualitative and quantitative research methods in the Paper 3 external examination.

Assessment at a glance

Type of assessment	Format of assessment	Time (hours)		Weighting of final grade (%)	
		SL	HL	SL	HL
External		3	5	75	80
Paper 1	Three short answer questions on the core. One essay from a choice of three on the biological, cognitive and sociocultural approaches. HL only: essays will reference additional HL	2	2	50	40
Paper 2	SL: one question from a choice of three on one option HL: two questions; one each from a choice of three on two options	1	2	25	20
Paper 3	Three short answer questions on approaches to research		1		20
Internal		20	20	25	20
Experimental study	A report on an experimental study undertaken by the student	20	20	25	20

Prior learning

No prior study of Psychology is expected, and no particular background in terms of specific subjects is required of students.

Psychology and the extended essay

Psychology is a popular subject choice for extended essays. The research skills developed by students undertaking an extended essay in Psychology not only benefit them in their study of DP Psychology, but also prepare them for study in Psychology and other subjects beyond the DP.

IB DP Psychology Guide – First Assessment 2019 (published June 2018)

BIOLOGY (SL OR HL)

GROUP 4

Diploma Pattern

This is a two year Group 4 subject within the International Baccalaureate Diploma program. As a Group 4 subject it falls within the Experimental Sciences field.

Advice to Students

In Diploma Program Biology, students will study a body of knowledge on the most critical of biological concepts, focussing upon Structure and Function, Universality versus Diversity, Equilibrium within systems and evolution. In the process students will develop a broad and general understanding of the principles of the subject.

Learning Outcomes

Through the study of Group 4 subjects students will become aware of how scientists work collaboratively communicating with each other.

The IB Biology study involves, generally, the formation, testing and modification of hypotheses through observation and measurement, under the controlled conditions of an experiment. The students will also accumulate a body of knowledge specific to Biology and also become aware of the moral, ethical and social implications of science and its limitations.

Content/Assessment

<table>
<tr><th>IB Biology Units</th><th colspan="3">External Exams Assessment</th><th>Internal Assessment</th></tr>
<tr><td rowspan="2">SL: Core Topics
1. Cell Biology
2. Molecular Biology
3. Genetics
4. Ecology
5. Evolution and Biodiversity
6. Human Physiology

AHL: Additional Higher Level topics
7. Nucleic Acids
8. Metabolism, cell respiration and photosynthesis
9. Plant Biology
10. Genetics and Evolution
11. Animal Physiology</td><td rowspan="2">SL (20%) and HL (20%)

External Exam Paper 1</td><td rowspan="2">SL (40%) and HL (36%)

External Exam Paper 2</td><td rowspan="2">SL (20%) and HL (24%)

External Exam Paper 3</td><td rowspan="2">SL (20%) and HL (20%)

Scientific Investigation</td></tr>
<tr></tr>
<tr><td>Options Unit – Selected from
A. Neurobiology and behaviour
B. Biotechnology and Bioinformatics
C. Ecology and Conservation
D. Human physiology

There are both SL and HL components in each Options unit.</td><td></td><td></td><td></td><td></td></tr>
</table>

Assumed Abilities

In order to achieve success in IB Biology, students will need to have an interest in all aspects of scientific study and a strong work ethic.

CHEMISTRY (SL OR HL)

GROUP 4

Diploma Pattern
This is a two year Group 4 subject within the International Baccalaureate Diploma program. As a Group 4 subject it falls within the Experimental Sciences field.

Advice to Students
Chemistry is an experimental science that combines academic study with the acquisition of practical and investigational skills. It is called the central science as chemical principles underpin both the physical environment in which we live and all biological systems. Apart from being a subject worthy of study in its own right, chemistry is a prerequisite for many other courses in higher education, such as medicine, biological science and environmental science, and serves as useful preparation for employment.

Learning Outcomes
The Diploma Program Chemistry course allows students to develop traditional practical skills and techniques and increase facility in the use of mathematics, which is the language of physical sciences. It also allows students to develop interpersonal skills, and information and communication technology skills which are essential in modern scientific endeavour and are important life-enhancing, transferable skills in their own right.

Content/Assessment

IB Chemistry Units	External Exams Assessment			Internal Assessment
SL: Core Topics 1. Stoichiometric relationships 2. Atomic structure 3. Periodicity 4. Chemical Bonding and Structure 5. Energetics/thermochemistry 6. Chemical kinetics 7. Equilibrium 8. Acids and Bases 9. Redox Processes 10. Organic Chemistry 11. Measurement and data processing **AHL: Additional Higher Level topics** 12. Atomic Structure 13. The periodic table – the transition metals 14. Chemical bonding and structure 15. Energetics/thermochemistry 16. Chemical kinetics 17. Equilibrium 18. Acids and bases 19. Redox processes 20. Organic chemistry 21. Measurement and analysis	**SL (20%) and HL (20%)** External Exam Paper 1	**SL (40%) and HL (36%)** External Exam Paper 2	**SL (20%) and HL (24%)** External Exam Paper 3	**SL (20%) and HL (20%)** Scientific Investigation
Options Unit D – Medicinal Chemistry **SL Topics** 1. Pharmaceutical products and drug action 2. Aspirin and penicillin 3. Opiates 4. pH regulation of the stomach 5. Anti-viral medications 6. Environmental impact of some medications **HL Topics** 7. Taxol – a chiral auxiliary case study 8. Nuclear medicine 9. Drug detection and analysis				

Assumed Abilities
In order to achieve success in IB Chemistry, students will need to have an interest in all aspects of scientific study, in addition to a strong background in mathematics. It is recommended students have gained a High Achievement in Year 10 Physical Sciences and Mathematical Methods SL or HL.

PHYSICS (SL OR HL)

GROUP 4

Diploma Pattern

This is a two year Group 4 subject within the International Baccalaureate Diploma program. As a Group 4 subject it falls within the Experimental Sciences field.

Advice to Students

Through the study of Physics, students should become aware of how scientists work and communicate with each other. While the "scientific method" may take on a wide variety of forms, it will generally involve the formation, testing and modification of hypotheses through observation and measurement, under the controlled conditions of an experiment. It is this approach, along with the falsifiability of scientific hypotheses that distinguishes Physics from other disciplines, as well as characterising this subject within the IB Experimental Sciences group of subjects.

Learning Outcomes

The Diploma Program Physics course allows students to develop traditional practical skills and techniques and increase facility in the use of mathematics, which is the language of Physics. It also allows students to develop interpersonal skills, and information and communication technology skills which are essential in modern scientific endeavour and are important life-enhancing, transferable skills in their own right.

Content/Assessment

<table>
<tr><th>IB Physics Units</th><th colspan="3">External Exams Assessment</th><th>Internal Assessment</th></tr>
<tr><td rowspan="2">SL: Core Topics
1. Measurement and Uncertainties
2. Mechanics
3. Thermal Physics
4. Waves
5. Electricity and Magnetism
6. Circular Motion and Gravitation
7. Atomic, Nuclear and particle Physics
8. Energy Production

AHL: Additional Higher Level topics
9. Wave Phenomena
10. Fields
11. Electromagnetic Induction
12. Quantum and Nuclear physics</td><td>SL (20%) and HL (20%)

External Exam Paper 1</td><td>SL (40%) and HL (36%)

External Exam Paper 2</td><td>SL (20%) and HL (24%)

External Exam Paper 3</td><td>SL (20%) and HL (20%)

Scientific Investigation</td></tr>
<tr><td colspan="4">Options Unit C - Imaging
SL Topics
1. Introduction to imaging
2. Imaging instrumentation
3. Fibre Optics
HL Topics
1. Medical Imaging</td></tr>
</table>

Assumed Abilities

The Higher and Standard Level courses are taught together in the same class. It is recommended students have gained a High Achievement in Year 10 Physical Sciences and Mathematical Methods SL or HL.

MATHEMATICS : ANALYSIS AND APPROACHES (SL OR HL)

GROUP 5

Diploma Pattern

This is a two year Group 5 subject within the International Baccalaureate Diploma program. As a Group 5 subject it falls within the Mathematics field.

Advice to Students

Students who choose Mathematics: analysis and approaches at SL or HL should be comfortable in the manipulation of algebraic expressions, enjoy the recognition of patterns, and understand the mathematical generalisation of these patterns. Students who wish to take Mathematics: analysis and approaches at higher level will have strong algebraic skills and the ability to understand simple proof. They will be students who enjoy spending time with problems and get pleasure and satisfaction from solving challenging problems.

Learning Outcomes

The IB Mathematics: Analysis and Approaches course aims to enable students to:

- Understand and be able to recall Mathematical facts, concepts and techniques
- Recall, select and use their knowledge of Mathematical skills to both abstract and real world contexts to solve problems
- Communicate and interpret their Mathematics accurately
- Use technology accurately and efficiently to explore new ideas and solve problems
- Construct Mathematical arguments using precise language
- Investigate unfamiliar situations, making conjectures, drawing conclusions and testing their validity

Content

Topic 1 — Number and algebra	19	39
Topic 2 — Functions	21	32
Topic 3 — Geometry and trigonometry	25	51
Topic 4 — Statistics and probability	27	33
Topic 5 — Calculus	28	55
The toolkit and the mathematical exploration Investigative, problem-solving and modelling skills development leading to an individual exploration. The exploration is a piece of written work that involves investigating an area of mathematics.	30	30
Total teaching hours	**150**	**240**

Assessment

Assessment will be according to IBO principles and will consist of 80% external assessment via three papers at HL level, in addition to 20% internal assessment for the mathematical investigation.

Assessment objectives	Details	Marks	%
SL			
External assessment (3 hours)			**80**
Paper 1 (90 minutes)	No technology allowed.	80	40
Paper 2 (90 minutes)	Technology required.	80	40
Internal assessment			
Mathematical exploration		-	20
HL			
External assessment (5 hours)			**80**
Paper 1 (120 minutes)	No technology allowed.	110	30
Paper 2 (120 minutes)	Technology required.	110	30
Paper 3 (60 minutes)	Technology required.	55	20
Internal assessment			
Mathematical exploration		-	20

Assumed Abilities

Students planning to study the HL course should have achieved a VHA standard in 10 Mathematical Methods HL. Students planning to study the SL course should have achieved a HA+ standard in 10 Mathematical Methods HL or SL. In addition to being independent learners with effective time management skills, students will need to be already equipped with fundamental skills and a thorough knowledge of basic mathematical processes.

Costs

Students will need to purchase a Casio fxCG50AU Graphic Display Calculator for use in this course.

MUSIC (SL OR HL)

ACADEMIC AREA: THE ARTS (PREVIOUSLY KNOWN AS GROUP 6)

Diploma Pattern

Music is a two year subject within the International Baccalaureate Diploma program from the academic area, The Arts. It is offered at standard (SL) and higher (HL) levels.

Aims

The aims of the arts subjects are to enable students to:

1. explore the diversity of the arts across time, cultures and contexts
2. develop as imaginative and skilled creators and collaborators
3. express ideas creatively and with competence in forms appropriate to the artistic discipline
4. critically reflect on the process of creating and experiencing the arts
5. develop as informed, perceptive and analytical practitioners
6. enjoy lifelong engagement with the arts.

In addition, the aims of the Music course at SL and HL are to enable students to:

1. explore a range of musical contexts and make links to, and between, different musical practices, conventions and forms of expression
2. acquire, develop and experiment with musical competencies through a range of musical practices, conventions and forms of expression, both individually and in collaboration with others
3. evaluate and develop critical perspectives on their own music and the work of others.

Assessment Objectives

Having followed the music course at SL or HL, students are expected to demonstrate and achieve the following assessment objectives (AOs).

AO1: Demonstrate knowledge and understanding of specified content, contexts and processes.

- Explore the relationship between music and its contexts.
- Identify information from academic and practical inquiry.
- Present ideas, discoveries and learning in authentic ways.

AO2: Demonstrate application and **analysis** of knowledge and understanding.

- Experiment with musical findings in local and global contexts.
- Articulate a clear rationale to support the musical decision-making processes.
- Justify the use of creating and performing elements.

AO3: Demonstrate synthesis and evaluation.

- Communicate and present diverse musical conventions and practices.
- Purposefully present created and performed works.
- Make informed choices in communicating and presenting music.
- Evaluate their own work and the work of others.

AO4: Select, use and apply a variety of appropriate skills and techniques.

- Select musical information in academic and practical inquiry through relevant musical skills and
- techniques.
- Identify, select and apply musical skills and techniques to shape and transform musical material.
- Demonstrate appropriate use of musical conventions and practices when creating and performing in diverse contexts.
- Work collaboratively to achieve defined musical project outcomes (HL only).
- Demonstrate planning, responsibility and ownership in managing and completing a musical project (HL only).

Prior Learning

The Diploma Program Music course is designed to offer students the opportunity to build on prior experience in music while encouraging a broad approach to the subject and developing new skills, techniques and ideas.

Prior music experience is essential. Students interested in IB Music should discuss their level of experience with the Director of Music.

Syllabus Content

This practical course fosters students' musicianship and shapes their musical identities as researchers, creators and performers.

The course defines musicianship as comprising three, intrinsically connected aspects.

1. Knowledge and understanding of diverse musical material
2. Engagement with the musical processes of exploring, experimenting and presenting
3. Competencies and skill in the musical roles of researchers, creators and performers

The course encourages the acquisition of knowledge and understanding of diverse musical material, and development of musical competencies and related musical skills in the roles of researchers, creators and performers through the practical processes of exploring, experimenting and presenting.

Throughout the music course, students at SL and HL:

- engage with diverse musical material
- understand and practise three musical processes
- develop skills and competencies in three musical roles.

Students will engage with diverse musical material through four areas of inquiry. Through the exploration and inquiry into personal, local and global contexts, students engage with both familiar and unfamiliar music.

Areas of inquiry

1. Music for sociocultural and political expression
2. Music for listening and performance
3. Music for dramatic impact, movement and entertainment
4. Music technology in the electronic and digital age.

These areas of inquiry are not intended to categorize all musical genres and **styles** definitively, but to offer a flexible approach for understanding and working with a variety of musical materials and experiences.

Musical processes

The music course identifies three integrated musical processes—**exploring**, **experimenting** and **presenting**—through which students engage in relevant practical activities. Through these processes, students **analyse** diverse musical material, **identify** musical prompts relevant to their own work as researchers, creators and performers, justify their musical choices and prepare music for presentation.

The musical processes are reflected as the three components of the SL music course.

- Exploring music in context
- Experimenting with music
- Presenting music

HL students will have the opportunity to further expand these skills in a real-life music project.

- The contemporary music maker

Musical roles

A major goal of the course is to develop students' musicianship, in line with the IB's philosophy of developing the holistic learner. The development of students' musical roles as **researchers**, **creators** and **performers** is central to the music curriculum as students develop their musical identities through these roles.

Distinction between SL and HL

The greater breadth and depth required for HL is reflected through an additional assessment task. This task requires HL students to demonstrate knowledge and understanding of the core syllabus areas by formulating and communicating intentions for a project that is based on:

- real-life practices of music-making
- their experiences as developing musicians in this course
- their collaboration with others.

Assessment

Assessment outline – SL and HL	External/internal	SL	HL
Exploring music in context Students select samples of their work for a portfolio submission (maximum **2,400 words**). Students submit: a. written work demonstrating engagement with, and understanding of, diverse musical material b. practical exercises: • creating: one creating exercise (score maximum 32 bars • and/or audio 1 minute as appropriate to style) • performing: one performed adaptation of music from a • local or global context for the student's own instrument • (maximum 2 minutes) c. supporting audio material (not assessed).	**External**	**30%** **45 hrs**	**20%** **45 hrs**
Experimenting with music Students submit an experimentation report with evidence of their musical processes in creating and performing in two areas of inquiry in a local and/or global context. The report provides a **rationale** and **commentary** for each process. Students submit: a. a written experimentation report that supports the experimentation (maximum 1,500 words) b. practical exercises: • three related excerpts of creating (total maximum 5 minutes) • three related excerpts of performing (total maximum 5 minutes)	**Internal**	**30%** **45 hrs**	**20%** **45 hrs**
Presenting music Students submit a collection of works demonstrating engagement with diverse musical material from four areas of inquiry. The submission contains: a. Presenting as a researcher • program notes (maximum 600 words) b. Presenting as a creator • composition and/or improvisation (maximum 6 minutes) c. Presenting as a performer • solo and/or ensemble (maximum 12 minutes) • excerpts, where applicable (maximum 2 minutes)	**External**	**40%** **60 hrs**	**30%** **60 hrs**
The contemporary music-maker (HL only) Assessment Students submit a continuous **multimedia presentation** documenting their **real-life project**. Students submit multimedia presentation (maximum **15 minutes**), ***evidencing***: a. the project proposal b. the process and evaluation c. the realized project, or curated selections of it.	**Internal**	**n/a**	**30%** **90 hrs**
	Total	**100%** **150 hrs**	**100%** **240 hrs**

THEATRE ARTS (SL OR HL)

GROUP 6

Diploma Pattern

This is a two year Group 6 subject within the International Baccalaureate Diploma program. As a Group 6 subject it falls within the Arts field.

Advice to Students

The aim of this IB Diploma Theatre Arts course is to provide an environment of authentic holistic learning that helps students to understand the nature and role of theatre in a global society. By encouraging students to work as inquiring, critical thinkers through their participation as theatre practitioners and analysts, students develop a better understanding of themselves, their society and their world.

Learning Outcomes

Theatre Arts encourages discovery through collaborative research and practical experimentation. Students will experience the course from contrasting artistic perspectives. The multifaceted course of study gives the opportunity to make theatre as creators, designers, directors and performers. It emphasises the importance of working both individually and collaboratively as part of an ensemble. The course offers students the opportunity to engage actively in the creative process, transforming ideas into action as inquisitive and productive artists.

Content

Students will study the three compulsory parts of the syllabus:

Theatre in Context examines the personal, theoretical and cultural contexts that inform theatre-making and the ways in which these affect and influence creating, designing, directing, performing and spectating.

Theatre Processes focuses on the skills, techniques and processes involved in theatre-making. Students will reflect on their own creative processes and skill acquisition as well as gaining a practical understanding of the processes of others; creators, designers, directors and performers.

Presenting Theatre focuses on the staging and presentation of theatre as well as the presentation of ideas, research and discoveries through diverse modes of presentation, both practical and written. Students will also consider the impact theatre can have on the spectator.

Assessment

An assessment outline is provided below. Tasks will be according to IBO principles and will consist of 75% external and 25% internal assessment for HL students, and 65% external and 35% internal assessment for SL students. Assessments will include both written and oral presentation as well as practical participation.

External Assessment Tasks	
Unit: Creating theatre based on theatre theory	**Assessment**
HL Only: Research and practically examine the various contexts of a theatre theorist they have not previously studied and identify an aspect(s) of their theory.	Solo Theatre Piece Create and present a solo theatre piece based on this aspect(s) of theory. 4 – 8 minutes 35%
Unit: Working with play texts	**Assessment**
HL and **SL:** Research and practically explore two contrasting published play texts by engaging with the process of creatively directing a scene and transforming a play text into action.	Directors Notebook Choose a published play text they have not previously studied and develop ideas regarding how it could be staged for an audience. 20 pages maximum SL 35% HL 20%

Unit: Examining world theatre traditions	Assessment
HL and **SL:** Research and practically explore the performance conventions of one world theatre tradition and apply this to the staging of a moment of theatre.	Research Presentation Plan and deliver an individual presentation that outlines and practically demonstrates their research into a convention of a world theatre tradition they have not previously studied. 15 minutes SL 30% HL 20%
External Assessment Task:	
Unit: Collaboratively creating original theatre	**Assessment**
HL and **SL**: Reflect on their own personal approaches, interests and skills in theatre. Research and examine at least one starting point and the approaches employed by one appropriate professional theatre company, and consider how this might influence their own personal approaches.	Collaborative Project Collaboratively create and present an original piece of theatre for and to a specified target audience, created from a starting point of their choice. 13 – 15 minutes SL 35% HL 25%

Assumed Abilities

In order to achieve success in IB Theatre Arts students will need to have an interest in all aspects of the theatre, including both on and off stage roles. Study of Drama at Year 10 would be an advantage, but not essential.

Costs

Up to 4 theatre visits per year at $25.00 each.

VISUAL ARTS (SL OR HL)

GROUP 6

Diploma Pattern

This is a two year Group 6 subject within the International Baccalaureate Diploma program. As a Group 6 subject it falls within the Arts field.

Advice to Students

IB Diploma Visual Art is designed according to the personal needs of each student, allowing them to explore, study and practice various media and Visual Art options of interest and expertise.

Learning Outcomes

Students will develop their imaginative, creative and aesthetic skills. The course stimulates and trains the student's visual awareness, perception, and criticism of Art in various cultures. They discover, develop and enjoy creative visual expression in the studio and elsewhere and develop attitudes towards Visual Arts in history, today, locally and internationally.

Content

The course will include core elements, individual and collaborative elements including:

- Practice in the use of various media and the acquisition of studio techniques
- Ways of extending research into practical work
- Art criticism and analysis
- Art in socio-cultural and historical contexts

Topics will include:

- Art criticism and analysis – historical and contemporary
- Historical and technical review of elements and principles of design
- People, places and objects
- Realism, abstraction, idealism and non-objective art
- Cultural and historical research

Assessment

Assessment will be according to IBO principles and will consist of external assessment including a Comparative Study and a Process Portfolio and an internally assessed Exhibition.

Component	Assessment
1. Visual arts in context	**Comparative Study 20%**
• Examine and compare the work of artists from different cultural contexts. • Consider the contexts influencing their own work and the work of others. • Make art through a process of investigation, thinking critically and experimenting with techniques. • Apply identified techniques to their own developing work. • Develop an informed response to work and exhibitions they have seen and experienced. • Begin to formulate personal intentions for creating and displaying their own artworks.	**SL:** • 10-15 screens which examine and compare at least 3 artworks, at least 2 of which should be by different artists • a list of sources used **HL:** • 10-15 screens which examine and compare at least 3 artworks, at least 2 of which need to be by different artist • 3-5 screens which analyse the extent to which the student's work and practices have been influenced by the art and artists examined • a list of sources used

2. *Visual arts methods*	**Process Portfolio** **40%**
• Look at different techniques for making art. • Investigate and compare how and why different techniques have evolved and the processes involved. • Experiment with diverse media and explore techniques for making art. • Develop concepts through processes informed by skills, techniques and media. • Evaluate how their ongoing work communicates meaning and purpose. • Consider the nature of "exhibition" and think about the process of selection and the potential impact of their work on different audiences.	**SL:** • 9-18 screens which evidence the student's sustained experimentation, exploration, manipulation and refinement of a variety of art-making activities **HL:** • 13-25 screens which evidence sustained experimentation, exploration, manipulation and refinement of a variety of art-making activities
3. *Communicating visual arts*	**Exhibition** **40%**
• Explore ways of communicating through visual and written means. • Make artistic choices about how to most effectively communicate knowledge and understanding. • Produce a body of artwork through a process of reflection and evaluation, showing a synthesis of skill, media and concept. • Select and present resolved works for exhibition. • Explain the ways in which the works are connected. • Discuss how artistic judgments impact the overall presentation.	**SL:** • A curatorial rationale that does not exceed 400 words • 4-7 artworks • Exhibition text (stating the title, medium, size and intention) for each artwork **HL:** • A curatorial rationale that does not exceed 700 words • 8-11 artworks • exhibition text (stating the title, medium, size and intention) for each artwork

Costs

Some excursions and materials to enable students to pursue their chosen areas of study will need to be provided or funded by the student. Materials for general classroom teaching and learning will be provided.

TOWNSVILLE GRAMMAR SCHOOL

North Ward Campus
45 Paxton Street, North Ward, Queensland 4810
07 4722 4900

Annandale Campus
1 Brazier Drive, Annandale, Queensland 4814
07 4412 4800

North Shore Campus
70-90 Northshore Boulevard, North Shore, Queensland 4818
07 4412 6600

townsvillegrammar.com