GLASSHOUSE
CHRISTIAN COLLEGE

SUBJECT SELECTION HANDBOOK

YEAR 10 – 12

FOR STUDENTS GRADUATING 2020

LAST UPDATED: 11 August 2017

Growing in faith and knowledge

CONTENTS

INTRODUCTION

Dear Students

Congratulations and well done on reaching the final stage of your schooling. We are very excited about the road ahead for all of us and we are planning on working together to achieve success.

Our purpose in these years is quite clear; to provide the opportunities, the motivation and the encouragement to enable you to achieve your potential in the subjects you choose to study. We aim to provide a caring Christian educational environment that allows growth and change while at the same time giving safety and direction. This is a delicate balance that requires much attention to detail. We understand that the Senior Years can be an exciting, stressful, joyous, sad, busy and fulfilling time. It is a time where you are closer to being adults than children, but at times it will feel like you are treated like a child and adult simultaneously. We want you to leave this College knowing that you have stretched yourselves as far as you can go, that you have asked for help as you have needed it, and in hindsight that you can confidently say that you made the most of your opportunities.

Your decision to enter these Senior Years in consultation with your parent/s, has placed on you greater responsibilities for self-learning, independent organisation and increased expectations with assessment and assignment submissions. As the senior students of this College, not only are you required to be a positive and exemplary role model to other students, but you now have a greater responsibility in your approach to studies, so that you can afford yourself the best opportunity for achieving your goals.

In developing our Senior Program, we considered a number of pathway options that we will make available to you. We want to ensure that you have the support and pathways necessary for you to successfully move from schooling into the workplace or further education. Our academic pathway will include a selection of General and Applied subjects as well as access to university subjects through the University of the Sunshine Coast and other tertiary studies providers. Our vocational pathway offers VET certificate courses in partnership with TAFE Queensland and various other Registered Training Organisations. Frequently, there is also a number of School-based Traineeships & Apprenticeships available through the College. Our program is flexible enough to allow you the opportunity to keep your options open by doing both academic and VET courses. Changes to TAFE funding arrangements suggest that doing a Cert III level course is best undertaken within the context of a school-based traineeship. We also have access to Distance Education subjects.
We believe that God has a plan for each of you and it is often at this stage of your life that His plan is revealed and started. This is an exciting time and we want to encourage you to work with friends, family and staff under the leadership of Jesus Christ to be all that you have been created to be.

Our goal is to ensure that both you and your parent/s are adequately informed to make decisions regarding subject selection. The purpose of this booklet is to provide you with information you will require to make successful subject choices for your senior years.

God bless you as you move forward into this next exciting phase of your life!

David Heyworth
Head of Senior School

FOREWORD

With the knowledge explosion of the Computer Age; knowing that many of the jobs of the future which our children will enter do not presently exist; and with the prospect that each working person can expect to change jobs two to three times in their working life….

Education must equip students intellectually, physically, socially and spiritually to:

- cope with change
- have skills, not just knowledge
- know how to access more knowledge
- be able to effectively interact with others
- have "get up and go" and initiative
- appreciate aesthetics
- enjoy "leisure time"
- productively contribute to society and
- have a fulfilling life and close relationship with God.

The co-curricular activities offered at Glasshouse Christian College, sporting, social, cultural and spiritual, complement the academic curriculum in ensuring that students are well equipped to meet the future.

In making choices, students should consider:

- choosing subjects they will enjoy
- choosing subjects in which they can achieve
- endeavouring to gain a rounded education incorporating the arts, languages, social sciences and technical studies
- future career aspirations and related areas of study
- future tertiary courses, prerequisite subjects and conditions of entry and
- accessing career counselling

For further information regarding course selection, contact the Dean of Studies, Mr Rob Steffler, or the Future Pathways Coordinator, Mrs Carol McKee.

A NEW SYSTEM FOR THE GRADUATING CLASS OF 2020

WHAT WILL BE DIFFERENT ABOUT THE NEW SYSTEM?

A system of 100% school-based assessment has operated in Queensland for more than 40 years.

In the new system, subject results will be based on a student's achievement in three school-based assessments and one external assessment that is set and marked by the Queensland Curriculum and Assessment Authority (QCAA).

This is fewer assessments than students' currently complete — emphasising quality over quantity.

In the new system, the external assessment results will generally contribute 25% towards a student's result in most subjects. In mathematics and science subjects, it will generally contribute 50%. The school-based assessments will not be scaled by the results of the external assessment when calculating a student's subject result.

The new system will keep all the qualities inherent in school-based assessment while introducing greater consistency and the transparency of common assessments that are sat by students at all schools.

The Australian Tertiary Admission Rank (ATAR) will replace the Overall Position (OP) from 2020.

HOW WILL SCHOOL BASED ASSESSMENT BE STRENGTHENED?

New processes will be adopted to strengthen the quality and comparability of school-based assessment.

The QCAA will provide more specific parameters for developing school-based assessments in each subject. This will include the type of assessment, the conditions under which it should be administered and a common marking scheme.

All school-based assessments will be subject to endorsement by the QCAA before they are used in the classroom. This will ensure that all assessments provide sufficient opportunities for students to demonstrate syllabus requirements and to build teachers' capacity to develop high-quality assessments.

The QCAA will select representative samples of completed student responses from each school. Trained assessors will then review a sample of student work to check the accuracy of grades awarded by teachers. Importantly, the QCAA will select the student work to be reviewed.

WHAT IS AN ATAR?

ATAR stands for Australian Tertiary Admission Rank, and is used by all Australian tertiary institutions when considering applicants to their courses of study. Historically Queensland has had an additional scoring system (the OP system) for High School applicants, but as of 2020, the OP system will be dissolved and the ATAR score will be the only credential used for tertiary admission.

WHAT IS QTAC?

QTAC stands for Queensland Tertiary Admission Centre and is the governing body in Queensland that will be responsible for calculating students ATAR scores at the end of Year 12.

WHAT WILL BE DIFFERENT ABOUT TERTIARY ENTRANCE?

A student's OP is calculated by comparing their results in Authority subjects studied at school with those of other OP-eligible students. Subject results are scaled using Queensland Core Skills (QCS) Test results. The final QCS Test will be held in 2019.

ATARs will also be calculated by comparing student results. But instead of the QCS Test there will be a process of inter-subject scaling.

Scaling is necessary so that student results in different types of subjects can be compared. The method of inter-subject scaling to be used by QTAC is still to be finalised.

WHAT'S THE DIFFERENCE BETWEEN THE OP AND THE ATAR?

The ATAR is a finer grained rank order of students than the OP and is commonly used in other states and territories. It's a number between 0.00 and 99.95 with increments of 0.05, whereas the OP consists of 25 bands. The Queensland Tertiary Admissions Centre will be responsible for calculating students' ATARs.

HOW WILL ATAR'S BE CALCULATED?

The Queensland Tertiary Admissions Centre (QTAC) will be responsible for calculating students' ATARs.

QTAC will calculate ATARs based on either:

A student's best five General (currently Authority) subject results, as is currently the case for the OP system

or

A student's best results in a combination of four General subject results, plus an applied learning subject result. Eligible applied learning subjects are: a QCAA Applied subject (currently Authority-registered subject or Subject Area Syllabus subject), or Certificate III, or Certificate IV, or Diploma, or Advanced diploma.

If a student is eligible for an ATAR in both categories, QTAC will use their highest ATAR.

In the new system of tertiary entrance, eligibility for an ATAR will require satisfactory completion of a QCAA English subject.

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

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

WHAT WILL YEARS 11 & 12 LOOK LIKE AND HOW WILL EXTERNAL EXAMS WORK?

All senior subjects are split up into 4 units of work and are completely prescriptive, particularly in Year 12. Terms 1 to 3 of Year 11 will consist of Unit 1 and 2. The assessments completed in these terms are formative and are designed to prepare students for Year 12 (Units 3 & 4).

In Term 4 of Year 11, students will begin Year 12 work (Unit 3). They will complete their first of 4 summative assessment items at the end of Term 4 of Year 11. These items are endorsed (approved) by the QCAA before they are handed out and are marked using Instrument Specific Marking Guides to ensure quality and consistency of judgements.

Students will then complete the rest of Unit 3 and all of Unit 4 in Term 1-3 of Year 12. By the end of Term 3 of Year 12, students will know their marks for 75% of a given subject, except in Maths & Sciences, where they will know 50% of their mark, leaving the external exams to determine the remainder of a student's subject marks.

The end of Term 3 and beginning of Term 4 will be used to revise and prepare students for subject specific external exams, which are written and marked externally by the QCAA, but facilitated at the College.

External exams for ALL subjects will take place from approximately Week 4 of Term 4 of Year 12 until the end of the school year (approximately a 17-day exam block period). The QCAA will determine the exam schedule so that all students in the state studying a particular subject will complete their external exam for that subject on the same day.

*It is important to note that GCC is considering the impact the above schedule has on Year 10 subjects and how the curriculum in Year 10 might change to accommodate the Year 11 & 12 timeline. More information will be communicated to families as it becomes known and decisions are made.

SENIOR SUBJECT SELECTIONS

TYPES OF COURSES AVAILABLE IN YEARS 10-12

Core- Study of Religion and Ethics & Pastoral Care classes that will incorporate study skills, leadership training, career education, etc. All students study these courses over the senior years.

Core- English and Mathematics - all students must study an English and a Mathematics subject. There is a choice of General and Applied subjects in each area to allow for different levels of ability.

Elective studies consist of General subjects, Applied subjects, VET courses and possibly a university subject. Each student must select three electives in Year 10, Year 11 and 12 from the choices available. Keep in mind your future career path when choosing elective subjects.

GENERAL AND APPLIED SUBJECTS

WHAT IS A GENERAL SUBJECT?

A General subject is a subject where the course of study is based on a syllabus that has been issued by the Queensland Curriculum and Assessment Authority (QCAA) and involves an external exam, which written and marked by the QCAA. Internal assessment of student achievement is also heavily moderated the QCAA. Results from General subjects will count in the calculation of a student's final school based mark as well as their ATAR (Australian Tertiary Admission Rank), the most common selection device used by the tertiary sector.

WHAT IS AN APPLIED SUBJECT?

An Applied subject is a subject where the course of study is based on a syllabus that has been issued by the Queensland Curriculum and Assessment Authority (QCAA), but does not have an external exam. These subjects are designed for students who may be exploring pathways after high school that do not involve university study. Results from Applied subjects will count in the calculation of a student's final school based mark and can also count in the calculation of their ATAR.

CAN I STUDY A COMBINATION OF GENERAL AND APPLIED SUBJECTS AND STILL RECEIVE AN ATAR TO GET INTO UNIVERSITY?

Yes you can, but it's important to be aware that General subjects and Applied subjects will have a different weighting when it comes to calculating the ATAR, with General subjects being worth more than Applied subjects. QTAC decides the weighting of subjects (referred to as 'inter-subject scaling') and this information will not be available to schools until after the cohort has finished Year 12 and the ATAR scores have been calculated.

It is important to understand that an 'A' grade in an Applied subject will not be worth as much as an 'A' grade in a General subject, and this should be taken into consideration if students are planning on applying for competitive courses at University (Medicine, Physiotherapy, Veterinary Science, Engineering, Law, etc) where a high ATAR is necessary.

QUEENSLAND CERTIFICATE OF EDUCATION (QCE)

**** It is important to note that the QCAA has stated that the QCE guidelines and processes will not be changing much in the new system, however, we have not yet been given any information about the changes that are occurring. The information that follows in this section is based on the current QCE guidelines and processes and are subject to change***.

In order to attain a Queensland Certificate of Education, students will need to acquire 20 credit points of study. One semester of successful study in a General OR Applied subject for example is equivalent to one credit point. In addition to gaining 20 credit points, students will need to meet the literacy and numeracy standards set by the QCAA.

A course of study to attain the QCE will need to include a minimum of 12 credit points from "Core" courses of study. Core courses include General and Applied subjects, Vocational Certificates and School Based Traineeships/Apprenticeships.

The required amount of learning

- Students must attain between 12 and 20 credits from completed core courses of study
- Students may also include up to 8 credits from combination of core, preparatory, enrichment or advanced courses.

CORE COURSES OF STUDY

Course	Set Standard	Credit
General or Applied subjects	At least a Sound level of achievement	4
Subjects assessed by a Senior External Examination	At least a Sound level of achievement	4
VET Certificate II, III or IV qualifications (includes school-based traineeships that incorporate on-the-job training)	Certificate awarded	Certificate II: 4
		Certificate III & IV: 5, 6, 7, or 8
School-based apprenticeships	Certificate III: competencies demonstrated	2
	On-the-job component: completed	4
Tailored training programs	Completed	4
Recognised international learning programs	At least a Pass grade (as defined by the course)	4 for each course

PREPARATORY COURSES OF STUDY

Course	Set Standard	Credit
Nationally recognised VET qualifications, accredited under the Vocational Education, Training and Employment (VETE) Act 2000, that lead to the award of a Certificate I vocational qualification	Certificate awarded	3 for qualifications of 200 nominal hours or more 2 for qualifications of 199 nominal hours or less Max. of 2 qualifications can count.
Employment skills development programs approved under the VETE Act 2000*	Requirements met	2 Max. of 1 program can count
Recognised re-engagement programs	Requirements met	2 Max. of 1 program can count
Recognised certificates and awards	Awarded	As recognised by the QCAA
Short course in literacy developed by the QCAA syllabus, or short course in numeracy developed by the QCAA syllabus	At least a Sound Achievement	1 per course

ENRICHMENT COURSES OF STUDY

Course	Set Standard	Credit
Recognised certificates and awards	Awarded	As recognised by the QCAA
Recognised structured workplace or community-based learning programs	Agreed standard	As recognised by the QCAA
Learning projects - workplace, community, self-directed	Satisfactory	1
Accredited VET courses	Pass	Credit determined by agreement
General subjects such as English Extension	At least a Sound Level of Achievement	2
School-based courses (non-QCAA)	A passing grade as defined by the recognised course	As recognised by the QCAA
Career Development: A short course senior syllabus 2010	At least a Sound Level of Achievement	1

ADVANCED COURSES OF STUDY

Course	Set Standard	Credit
One- or two-semester university subjects completed by a person while enrolled at a school	Pass grade	2 or 4 credits, respectively
Competencies contributing to VET diplomas or advanced diplomas	Competencies demonstrated	Up to 8 credits (on the basis of 1 credit per completed competency)
Recognised certificates and awards	Awarded	As recognised by the QCAA

QCE LITERACY AND NUMERACY REQUIREMENTS

A QCE is awarded to a person who, in addition to achieving 20 credits in the required pattern of learning, has met the requirements for literacy and numeracy. These requirements are satisfied by any of the following options:

Literacy	Numeracy
Students can meet QCE literacy requirements by satisfying any one of these options: At least a Sound Achievement in one semester of one of these subjects[1]: • English • English Extension • Literature • Essential English • English for ESL Learners A student may: • exit the subject after four semesters with a Sound Level of Achievement or higher • exit the subject after one, two or three semesters with at least a Sound Level of Achievement • exit the subject with a Limited or Very Limited Level of Achievement, having achieved a notional Sound2 in a single semester.	**Students can meet QCE numeracy requirements by satisfying any one of these options:** At least a Sound Achievement in one semester of one of these subjects[1]: • General Mathematics • Mathematics Methods • Specialist Mathematics • Essential Mathematics A student may: • exit the subject after four semesters with a Sound Level of Achievement or higher • exit the subject after one, two or three semesters with at least a Sound Level of Achievement • exit the subject with a Limited or Very Limited Level of Achievement, having achieved a notional Sound in a single semester.
At least a Sound Achievement in the short course in literacy developed by the QCAA	At least a Sound Achievement in the short course in numeracy developed by the QCAA
Competence in VET Vocational Literacy 3 (39153QLD)	Competence in VET Vocational Numeracy 3 (39163QLD)
A Pass grade in a literacy course recognised by the QCAA	A Pass Grade in a numeracy course recognised by the QCAA
At least a 4 for an International Baccalaureate examination in Language A1 HL (English) or Language A1 SL (English)	At least a 4 for an International Baccalaureate examination in Mathematics HL or Mathematics SL

FUTURE PATHWAYS

In the Future Pathways Department, we recognise that there are many pathways to success. These can be academic pathway, solely vocational, with a 'hands on' learning emphasis or blended, where students might choose a dual pathway that involves general and/or applied subjects, but contains a vocational education and training component. There is no best pathway, only the one that is perfect for each individual as they explore and develop their own God given gifts and abilities. The College works very hard to make sure that every student is on the correct pathway for them and facilitates change and investigation when it is required.

There are lots of pathways to a rewarding career. The most common options are:

- Study at University
- Complete an Apprenticeship or Traineeship
- Combine school studies with external training
- Study at TAFE or Registered Training Organisation

A career or study choice made today does not limit a person's range of choices in the future. It's no longer common or necessary for people to stay in the same job or even the same field of work for their entire life. Research does show however that people are more likely to get a job if they have a minimum of a Year 12 or equivalent education. They are also more likely to be able to take advantage of new career choices if they continue to learn.

Year 10

Careers Lessons in Year 10 Include:

Term 1 - Preparation for Work Experience:

- How to make a great first impression in the workplace
- Best practices for communication within the workplace and telephone etiquette
- Workplace Health and Safety
- Employability Skills and how to increase your value to an employer

Term 2 - Preparation for choosing subjects for Years 11 and 12:

- How different personality styles are suited to different professions; if you chose a career based on your strengths and personality you will enjoy your job and be happier at work. When your strengths match the job it is a 'good fit'.
- Undertake a Career Personality Profile with suggested professions based on strengths and personality traits
- Researching jobs and the labour market in Australia and abroad
- How to get the most out of careers and education expos.

Term 3 – Students will have a portfolio which they can bring to their Secondary Education and Training (SET) plan meeting which has been developed over Terms 1 and 2.

- Glasshouse Christian College runs its own Carers Expo in early August with exhibitors from many professions, training organisations and tertiary education providers.
- Students have an individual appointment with the Future Pathways Coordinator, Dean of Studies or Head of Senior School along their parents to discuss their SET plans.

Term 4 – Students prepare for mock interviews with real business representatives:

- Researching a job advertisement
- Writing an awesome cover letter
- How to get your resume noticed
- Role plays to prepare for their interview with a business representative

In addition to formal lessons and events Year 10 students are able to explore the many other options available to them in Years 11 and 12 such as school based traineeships, Headstart at University, Distance Education, private training organisations and trade training colleges.

SENIOR EDUCATION AND TRAINING PLAN (SET PLAN)

In Year 10, students have already sampled a range of Senior Subjects, as a result of subject and elective choices made in Year 9 for Year 10. The school and other learning providers will work with you and your parents/carers to develop a Senior Education and Training (SET) Plan in YR10.

This is a formalising of future plans, which are still flexible, based upon decisions started in Year 9 and even earlier. Year 9s for example will have to start thinking about work experience in Semester 2 for early Year 10 the following year.

A range of career experiences are provided for Year 9 students for the following two major reasons:

1. to develop Career Self Awareness
2. to assist in the decision-making process that will help the goals that are set in the SET PLAN of Year 10

Your SET PLAN in Semester two of Year 10 will help you:

- structure your learning in Years 11 and 12 around your abilities, interests and ambitions
- consolidate subject's choices for Year 11, that have been explored as electives, in Year 9 and 10
- be realistic about your choices of subjects for Year 11
- think about your education, training and career options after Year 12
- set and achieve your learning goals in Years 11 and 12, and beyond
- allows for a collaborative planning approach with your parents/carers or teachers/careers, counsellors about your post-school plans

The student, their parents or carers, and the school meet to develop the SET Plan, which details what, where and how a student will study during their final two years of the senior phase of learning. The plan is finalised by the end of Year 10, yet is dynamic in the sense that it can be amended with subject changes in Year 11, after consultation with the Head of Senior, the Future Pathways Co-ordinator or the Dean of Studies. The SET Plan is reviewed periodically to monitor the student's progress and can be updated at any time.

THE SET PLAN INVOLVES SIX STAGES:

Stage 1	Exploring the future options. What pathways exist?
Stage 2	Exploring current preparation, through work experience, career education and attendance at information evenings
Stage 3	Exploring further planning for subject choices in Year 11
Stage 4	Examining subject prerequisites that are necessary, for courses beyond Year 12
Stage 5	Documenting the Plan
Stage 6	Implementing the Plan

Stage 1. Exploring the future options. What pathways exist?

During this stage, young people will be taking a close look at themselves, their strengths and ambitions. This promotes career self-awareness. This exercise involves thinking about where they are now and then considering where they want to go.

Students should reflect upon their subject performances in Years 9 and 10, what they did well at and what they were most interested in. Students should also consider what courses and pathways they may want to pursue beyond Year 12.

This stage is designed to give young people the skills to develop individualised plans of action for the Senior Phase of Learning, through interactive website such as the 'My Future' website. The College Future Pathways Department will coordinate this process.

Stage 2. Exploring current preparation, through work experience, career education and attendance at Information evenings.

To make connections between a student's self-knowledge and future life and career goals, parents can help by assisting them to:

- prepare for Work Experience
- volunteer to do additional work experience
- explore careers, industries and employment data
- do the career quizzes and questionnaires on the My Future website and those suggested on the College Connect website
- complete the interest questionnaires at the beginning of the Job Guide
- set goals, with an awareness that they should be flexible
- recognise personal strengths and attributes. At this stage, career self-awareness is pivotal. It is important that students make connections between this type of self-knowledge (desires, skills and areas for improvement) and their plans for life and future career goals
- discuss these processes with your Year 10 child, with a view to enhancing the partnership with the school and reinforcing the necessity for students to be better prepared, for increasingly major decisions
- attending the information nights for Year 10 students

Stage 3. Exploring further planning for subject choices in Year 11.

In Stage 3 students need to objectively consider whether some subjects should be continued in Year 11. Facing up to the implications of not doing some subjects, can be emotionally painful, yet necessary for personal growth and alternative career planning.

During stage 3 exploring options will take on increasing importance in Year 10. It is suggested that parents and students take time to explore the career and work options available and talk to the Future Pathways Department about information and resources.

Students should take advantage of the many resources available, such as:

- print materials
- career exhibitions, i.e. attendance at Career Expos and TAFE and University Open Days
- websites related to career and future options
- interviews with specialist career personnel
- talking to people doing an occupation that they may be interested in
- thorough discussions with parents
- investigating occupations and career pathways and contacting associations in the Job guide to clarify whether additional, new pathways are available
- the education and training requirements needed by institutions to help them achieve their goals

- the full range of learning options available in the Senior Phase of Learning
- University subjects in Year 11 and 12 through various universities
- the value of different forms of learning i.e. online learning, and learning that involves flexible delivery
- the full range of career options and subject pre-requisites
- tertiary entrance procedures including the range of options

Stage 4. Examining subject prerequisites that are necessary, for courses beyond Year 12

In Year 10 students are issued with a Queensland Tertiary Admissions Centre book on Tertiary Prerequisites. The Tertiary Prerequisites book is a guide to tertiary and TAFE course prerequisites for current Year 10s. It lists all prerequisites needed for tertiary and TAFE courses for entry in two years' time.

If certain courses beyond Year 12 are to be pursued, there may be strict prerequisite subjects. The book is distributed in August and has a moratorium on the subject prerequisites listed for two years. A moratorium simply means that the subject prerequisites listed in this publication cannot change for two years. Note that as new courses become available, prerequisites for these are published on the QTAC website.

Students currently in Year 9 can use the book distributed to Year 10s as a guide only as the definitive guide for subject prerequisites for them will be distributed to them the following year. Prerequisites can change from year to year.

Stage 5. Documenting the Plan

This stage will be completed in Year 10 by the student, the parents and the College. It involves coming to an agreement and documenting the SET Plan. This occurs at the beginning of Term 3. Students should review SET Plans periodically to ensure subject choices are right and that they can maintain a pathway to the courses and career they want after Year 12.

Mutual expectations are very important, hence understanding what you can expect from the school and what the school can expect from you is essential. Similarly, understanding the rights and responsibilities that come with your individualised plan, further establishes that one's education and training is a partnership between the school, training providers and the student's family.

The signing of the SET Plan by students, parents, and the school reinforces the seriousness of the commitment students are making to their own individualised plan in terms of work ethic and time management in particular.

Stage 6. Implementing the Plan

This stage occurs during a student's Senior Phase of Learning in Years 11 and 12. It relates to the Plan being implemented and monitored.

The SET Plan is dynamic and can be changed. When accessed by the school or parents, it should reflect a student's current program. Parents need to work with the learning provider, such as the College, TAFE, or a combination, to ensure the plan is on track and that they are implementing what was agreed.

It is important to remember that whilst it is acceptable to change a SET Plan, any change may impact upon the number of credit points for the Queensland Certificate of Education or a student's eligibility for an OP.

It is incumbent upon parents to stay involved in the SET Plan process so that they can support students through their learning and decision making regarding subjects and careers. The College will support students to monitor and adapt their plan.

HINTS ON CHOOSING SUBJECTS FOR THE FUTURE

Advice from students who have completed secondary school:

- Keep your options and mind open by choosing a wide variety of courses. Start to think about the future.
- Try to obtain some ideas for interest areas which show appeal to you. Having an area of interest is more important than having a specific job in mind. More importantly, choose subjects that will enable you to have the necessary background for a selected course or career.
- Utilise work experience programs offered effectively and gain as much experience as possible. Volunteer to do more work experience. This can demonstrate to an employer your positive commitment and attitude. This approach has often been rewarded with some students being offered apprenticeships.
- Try to gain an idea about what career field's interest you the most, but don't panic if you are not sure. You should stick with what you're good at and what you enjoy the most.
- Keep an open mind and a broader perspective about your future and consider careers with promising employment prospects, but also choose a career you will enjoy
- Try to research and appreciate a wide range of professions, and regularly question people in these industries about their opinions and thoughts on their careers

Essentially the student comments in this section go to confirm two major factors that should be considered when choosing a pathway for your senior phase.

- What are your strengths and interests?
- What types of careers do you have in mind?

Ten years of formal education will have given you a good basic idea of your strengths and interests. Use this as a starting point when selecting subjects. Do not expect miracles in Year 11. Experience shows that very few students make vast improvements over their year 10 performance. If you have always struggled with Maths or History, it is a safe to say that you may continue to do so in your senior years. Go for subjects where you have a proven track record and a high degree of interest. These give you the greatest chances of academic success.

While many students are unsure what careers they will ultimately decide upon, most have an idea of the general area of their future occupation – technical, scientific languages, social science, service industry, etc. If you are uncertain what you would like to do, choose a broadly-based course that allows maximum flexibility and keeps your career options open. If you have a particular career in mind, make sure you find out first if you must study any subject in particular, to qualify for entry into the field of your choice.

Subject Selection

1. Choose at least two career options.
2. Identify and document possible pathways for these options.
3. Check for the necessary prerequisite or recommended subjects.
4. Check with teachers as to your ability to be successful at senior level in these prerequisite subjects.
5. Choose the subjects that represent the most important subjects that you require to meet future career or education leanings.
6. Next choose the additional subjects you wish to study. If your career choice requires admission to a University, you will need to receive an ATAR. This will require you to study a minimum of four General subjects, plus an applied subject or a VET certificate. When the College's subject line system has been completed choose your elected subjects. If there is a clash you will need to choose between the two. Firstly, check to see if either subject is offered on another line. If you choose an alternative subject, ensure that you do not eliminate any prerequisite subjects.

TERTIARY ENTRANCE PROCEDURES

For students contemplating further studies after school

Step 1: Make yourself eligible for tertiary entrance

You do this by selecting subjects which qualify you for an ATAR. To be eligible for an ATAR you must choose to study at least 4 General subjects plus one applied subject or VET course.

Step 2: Become eligible for the course of your choice

The particular General subjects you select should fulfil a number of requirements. Firstly, you should consult the prerequisites subject guide to ascertain if the tertiary course you're interested in has any subjects you must study at school. If so, these must be included in your selection. Fulfil other requirements, particularly in performing arts courses, which may require auditions, folios **and have early application dates.**

Step 3: Get good results at school

In each General and Applied subject studied at school, the result will be reported as one of: -

Very High Achievement	*High Achievement*	*Very Limited Achievement*
Sound Achievement	*Limited Achievement*	

Each tertiary course has a quota or limit on the number of students who can be accepted into that course each year. The higher the results, the better the chances of being admitted into a highly credentialed tertiary course.

Step 5: Certification: The Student Education Profile (SEP)

After you have finished Year 12, you should receive your Senior Statement &/or QCE. This is prepared by the QCAA and will contain the names of the subjects you have studied, the number of semesters for which you have studied each one and your exit levels of achievement in each subject.

You will receive a Tertiary Entrance Statement that is prepared by QTAC. This statement will contain your ATAR score. Together these documents comprise your SEP (Student Education Profile).

Several factors decide whether or not students are accepted into particular courses at university.

1. Prerequisite subjects must be met. Each course will stipulate certain Authority subjects (and possibly minimum levels of achievement), which must be taken in years 11 and 12 if students are to be considered for admission to that course
2. Students must have a sufficient ATAR to be included in the quota for that course
3. Quotas for courses and ATAR Cut-Offs from year to year are subject to change
4. Enabling factors such as being eligible for Bonus Ranks, which increase your ATAR
5. Regional Preference Schemes.
6. Bonus Ranks also apply to students studying Maths C and a language
7. Having completed two University subjects successfully such as The Sunshine Coast University's HEADSTART program, thereby guaranteeing you entry into clearly identified Tertiary Courses
8. Finally, other information may be considered, such as, school references, reports, interviews, folios and auditions.

SENIOR SCHOOL SUBJECT OFFERINGS

YEARS 10 – 12

These are the subjects the College offers on a yearly basis to our students. However, a particular subject may or may not run based on student demand.

SUBJECT OFFERINGS IN YEAR 10

The following subjects are possible choices for Year 10 dependent upon initial student interest in the individual course. All courses are aligned with the Year 11/12 curriculum and although they are not mandatory prerequisites, they are considered preparatory courses for the Year 11/12 subjects and will greatly benefit students who take them and continue on in a given subject through Year 11 and 12.

General Subjects	Applied Subjects
English	Essential English
Literature	
General Mathematics	Essential Mathematics
Mathematical Methods	
Ancient History	
Modern History	
French	
Agricultural Science	
Biology	
Business Management	
Chemistry	
Dance	
Design	Fashion
Digital Solutions	
Drama	
Engineering	Industrial Technology Skills
Food & Nutrition	Hospitality Practices
Legal Studies	
Music	
Physics	
Physical Education	Sport & Recreation (Leads to Certificate II & III)
Visual Art	

SUBJECT OFFERINGS IN YEAR 11 AND 12

The following subjects are possible choices for Year 11 & 12 dependent upon initial student interest in the individual course.

Leads to Authority Subjects	Leads to Authority-Registered Subjects
English	Essential English
Literature	
General Mathematics	Essential Mathematics
Mathematical Methods	
Specialist Mathematics	
Ancient History	
Modern History	
French	
Agricultural Science	
Biology	
Business Management	
Chemistry	
Dance	
Design	Fashion
Digital Solutions	
Drama	
Engineering	Industrial Technology Skills
Food & Nutrition	Hospitality Practices
Legal Studies	
Music	
Physics	
Physical Education	Sport & Recreation (Leads to Certificate II & III)
Visual Art	

Note: The common practice for all schools is to offer students the opportunity to study subjects not offered at their school through Distance Education. Students choosing to study this way are provided with a mentor at the College to oversee their progress and learning program.

SUBJECT OVERVIEWS (BY DEPARTMENT)

ENGLISH

The ability to communicate in written and verbal/signed Standard Australian English is essential to student success during their senior years of schooling and beyond. Both English pathways build upon the skills and understanding students have developed in their middle years of schooling. These two Year 10 programs specifically target the literacy, skills and content reflective of the Year 11 and 12 programs. As students develop their listening, reading, writing and viewing skills they develop confidence in their ability to navigate our world.

ENGLISH (GENERAL)

Beginning in Year 10, English introduces students to senior skills and content required to successfully interact with the texts and written and spoken tasks of English. Leaving behind the combined nature of Middle School Humanities, English follows the English National Curriculum program, whilst also applying a rigour that aims at preparing students for a seamless step into the following two-year program. The Year 11 and 12 programs provide students with opportunities to demonstrate their understanding of a variety of texts and their ability to create texts of their own.

During this senior program students will explore:

- Contemporary and classic novels
- Shakespearean texts (sonnets and plays)
- Australian and international films
- Hypertexts and other media-related texts.

Excursions:

- Guest speakers and theatre visits

LITERATURE (GENERAL)

Recommended for students who enjoy the reading and study of literary texts (novel, film and poetry) as well as creative writing, Literature introduces students to the skills of literary analysis. This subject provides students with an English pathway that gives a greater focus on the appreciation of written and cinematic texts through the tools of critical deconstruction, discussion and the appreciation of the art and construction of writing.

During this senior program students will explore and experience:

- Contemporary and classic novels
- Contemporary and classic plays
- Contemporary and classic poetry
- Contemporary cinematic interpretations of contemporary and classic literature.
- Guest speakers and theatre visits

ESSENTIAL ENGLISH (APPLIED)

Stepping away from the significant focus on textual study and literary analysis, the Essential English stream aligns students with a workplace trajectory. Text studies is replaced with the exploration of workplace and community documentation and rather than focusing on essays and monologues, students are required to compile real-world documents and spoken tasks that showcase their literacy skills.

During this senior program students will explore and experience:

- Hypertexts and social media
- Community and workplace documents
- Interview; verbal and nonverbal skills
- Community focused novels and plays
- their personal learning journey and future plans

HUMANITIES (HISTORY)

The senior stream of History builds upon the skills and understanding of Middle School as students give greater focus to either Ancient or Modern History. In both streams of History, students will use the Inquiry (questioning) learning process to explore significant people, events and movements of the period of study and will, where relevant, make connections to current world issues.

ANCIENT HISTORY (GENERAL)

Students are encouraged to study Ancient History if they have an interest in people and events of the ancient world and if they enjoy researching and exploring complex topics. It is also suggested that students who are on a pathway towards university will benefit from the rigour and skills developed in this subject. These skills include research, extended writing and the evaluation of information. Using the Inquiry (questioning) learning process students will explore people, events and movements such as:

- The role of archaeology and how we gain knowledge about the past
- The lives of people in ancient societies
- Development of government in ancient times
- Studies of ancient religions
- The Medieval period. In many cases students will be free to choose topics within the period for a deeper study.

Excursions:

- Archaeological dig (Abbey Museum)
- Research/ lecture at a university campus.

MODERN HISTORY (GENERAL)

Students are encouraged to study Modern History if they have an interest in people and events of the recent past and if they enjoy researching and exploring complex topics. It is also suggested that students who are on a pathway towards university will benefit from the rigour and skills developed in this subject. These skills include research, extended writing and the evaluation of information.

Using the Inquiry (questioning) learning process students will explore people, events and movements such as:

- Famous and infamous leaders
- Conflicts of the 20th century and beyond
- Issues of ethics and human rights
- Movements of the modern world
- The role of Australia in world events. In many cases students will be free to choose topics within the period for a deeper study.

Excursions:

- Research/ lecture at a university campus
- Museum/ speaker.

In Year 10, the above History courses can be offered as separate courses, or as one composite course which will cover aspects of both Ancient and Modern History. This decision will be based on student interest in these courses and can change from year to year.

LANGUAGES

French is a major world language spoken as the first language in 24 countries on 5 continents and as an official language in 33 countries. Learning an additional language helps you to live and learn as part of our global community. It gives you insights into other cultures, as well as the language and communication skills to interact with members of local and international communities.

The ability to speak an additional language can be essential in areas such as tourism and hospitality, business, international relations and diplomacy, education and communications. This ability also opens up opportunities to study abroad, and to travel and live in parts of the world that would not have been possible without the local language.

FRENCH (GENERAL)

In the senior program learners' use written and spoken French to socialise with peers, teachers and other French speakers in local contexts and online environments. They communicate about immediate and personal interests and involvements (family, friends, and interests) and some broader social and cultural issues (health, social media, international experience, the environment).

Year 10 is a period of language exploration and vocabulary expansion along with the increasing control of language structures and systems. Learners use French to communicate and interact, to access and exchange information, to express feelings and opinions, to participate in imaginative and creative experiences, and to design, interpret and analyse a wider range of texts and online materials.

In Year 11 and 12 students will study a wide variety of topics drawn from four key themes:
- leisure, recreation and human creativity
- school and post-school options
- social issues
- family and community

Learning a language requires communicating in meaningful and realistic situations. Students will use the skills of listening, reading, speaking and writing in activities such as:

- listening to radio broadcasts, television programs, webcasts and podcasts
- viewing videos and films
- communicating with students in other schools and countries
- holding debates or participating in discussions

- reading cartoons, short stories, poems and song lyrics

Languages are assessed by listening, reading, speaking and writing. Students may be assessed, for example, by:

- answering questions about spoken and written texts in the language
- engaging in conversations and interviews
- writing letters, emails and articles.

During this senior program students can participate in:

- Immersion courses at USC and Alliançe Française events
- French music and film festivals in Brisbane
- Exchange program (via email and/ or international visit).

If you would like more information, please visit the QCAA website www.qcaa.qld.edu.au and search for 'Languages'.

*Note: It is highly suggested that students who choose French in Year 10 should have taken French in Year 9.

MATHEMATICS

MATHEMATICS RATIONALE

Mathematics is an integral part of a general education. It can enhance understanding of our world and the quality of our participation in a rapidly changing society. Mathematics pervades so many aspects of daily life that a sound knowledge is essential for informed citizenship. Through enhanced understanding of mathematics, individuals can become better informed economically, socially and politically in an increasingly mathematically oriented society. It is our hope that students will develop an awareness of the order, precision, design and constancy of God's creation as expressed through the discipline of mathematics.

The Mathematics courses on offer in Year 10 are Essential Mathematics, General Mathematics and Mathematical Methods. These courses are designed to prepare students for the new senior syllabuses of the same name.

The Mathematics courses on offer in Year 11 and 12 from 2019 are Essential Mathematics, General Mathematics, Mathematical Methods and Specialist Mathematics. Students who wish to study Specialist Mathematics must also study Mathematical Methods.

ESSENTIAL MATHEMATICS (APPLIED)

Why Study Essential Mathematics?

Essential Mathematics is an applied subject suited to students who are interested in pathways beyond Year 12 that lead to tertiary studies, vocational education or work. 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 will 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.

What do Students Learn and how are they Assessed?

Essential Mathematics			
Unit 1	**Unit 2**	**Unit 3**	**Unit 4**
Number, Data and Graphs	**Money, Travel and Data**	**Measurement, Data and Graphs**	**Loans, Probability and Scale Drawings**
Topic 1: Number Topic 2: Representing data Topic 3: Graphs 1	Topic 1: Managing money Topic 2: Time and motion Topic 3: Data collection	Topic 1: Measurement Topic 2: Summarising and comparing data Topic 3: Graphs 2	Topic 1: Loans and compound interest Topic 2: Probability and relative frequencies Topic 3: Scales, plans and models
Assessment			
Formative internal assessment 1: Problem-solving and modelling task Formative internal assessment 2: Authority-developed assessment	Formative internal assessment 3: Problem-solving and modelling task Formative internal assessment 4: Examination	Summative internal assessment 1: Problem-solving and modelling task Summative internal assessment 2: Authority-developed assessment	Summative internal assessment 3: Problem-solving and modelling task Summative internal assessment 4: Examination

GENERAL MATHEMATICS (GENERAL)

Why Study General Mathematics?

General Mathematics is a General subject suited to students who are interested in pathways beyond school that lead to tertiary studies, vocational education or work. A course of study in 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.

What do Students Learn and how are they Assessed?

General Maths			
Unit 1	**Unit 2**	**Unit 3**	**Unit 4**
Money, Measurement and Relations	**Applied Trigonometry, Algebra, Matrices and Univariate Data**	**Bivariate Data, Sequences & Change, and Earth Geometry**	**Investing and Networking**
Topic 1: Consumer arithmetic Topic 2: Shape and measurement Topic 3: Linear equations and their graphs	Topic 1: Applications of trigonometry Topic 2: Algebra and matrices Topic 3: Univariate data analysis	Topic 1: Bivariate data analysis Topic 2: Time series analysis Topic 3: Growth and decay in sequences Topic 4: Earth geometry and time zones	Topic 1: Loans, investments and annuities Topic 2: Graphs and networks Topic 3: Networks and decision mathematics
Assessment			
Formative internal assessment 1: Problem-solving and modelling task (20%) Formative internal assessment 2: Examination (15%)	Formative internal assessment 3: Examination (15%) Formative internal assessment 4: Examination (50%)	Summative internal assessment 5: Problem-solving and modelling task (20%) Summative internal assessment 6: Examination (15%)	Summative internal assessment 7: Examination (15%) Summative external assessment 8: Examination (50%)

MATHEMATICAL METHODS (GENERAL)

Why Study Mathematical Methods?

Mathematical Methods is a General subject suited to students who are interested in pathways beyond school that lead to tertiary studies, vocational education or work. A course of study in 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.

What do Students Learn and how are they Assessed?

Mathematical Methods			
Unit 1	**Unit 2**	**Unit 3**	**Unit 4**
Algebra, Statistics and Functions	**Calculus and further Functions**	**Further Calculus**	**Further Functions and Statistics**
Topic 1: Arithmetic & Geometric Sequences and Series 1 Topic 2: Functions and Graphs Topic 3: Counting and Probability Topic 4: Exponential Functions 1 Topic 5: Arithmetic & Geometric Sequences and Series 2	Topic 1: Exponential Functions 2 Topic 2: The Logarithmic function 1 Topic 3: Trigonometric functions 1 Topic 4: Introduction to Differential Calculus Topic 5: Further Differentiation and Applications 1 Topic 6: Discrete Random Variables 1	Topic 1: The logarithmic function 2 Topic 2: Further differentiation and applications 2 Topic 3: Integrals	Topic 1: Further differentiation and applications 3 Topic 2: Trigonometric functions 2 Topic 3: Discrete random variables 2 Topic 4: Continuous random variables and the normal distribution Topic 5: Interval estimates for proportions
Assessment			
Formative internal assessment 1: Problem-solving and modelling task (20%) Formative internal assessment 2: Examination (15%)	Formative internal assessment 3: Examination (15%) Formative internal assessment 4: Examination (50%)	Summative internal assessment 5: Problem-solving and modelling task (20%) Summative internal assessment 6: Examination (15%)	Summative internal assessment 7: Examination (15%) Summative external assessment 8: Examination (50%)

SPECIALIST MATHEMATICS (GENERAL)

Why Study Specialist Mathematics?

Specialist Mathematics is a General subject suited to students who are interested in pathways beyond school that lead to tertiary studies, vocational education or work. A course of study in 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.

What do Students Learn and how are they Assessed?

Specialist Mathematics			
Unit 1	**Unit 2**	**Unit 3**	**Unit 4**
Combinatorics, vectors and proof	**Complex numbers, trigonometry, functions and matrices**	**Mathematical induction, and further vectors, matrices and complex numbers**	**Further statistical and calculus inference**
Topic 1: Combinatorics Topic 2: Vectors in the plane Topic 3: Introduction to proof	Topic 1: Complex numbers 1 Topic 2: Trigonometry and functions Topic 3: Matrices	Topic 1: Proof by Mathematical Induction Topic 2: Vectors and Matrices Topic 3: Complex Numbers 2	Topic 1: Integration and Applications of Integration Topic 2: Rates of Change and Differential Equations Topic 3: Statistical Inference
Assessment			
Formative internal assessment 1: Problem-solving and modelling task (20%) Formative internal assessment 2: Examination (15%)	Formative internal assessment 3: Examination (15%) Formative internal assessment 4: Examination (50%)	Summative internal assessment 5: Problem-solving and modelling task (20%) Summative internal assessment 6: Examination (15%)	Summative internal assessment 7: Examination (15%) Summative external assessment 8: Examination (50%)

THE SCIENCES

Science is fundamental to our understanding of the world. It enables us to grapple with the big questions facing our society: from where do we get our energy? How do we live in harmony with our environment? What lies beyond our solar system? What is the future of the human race?

Science impacts on all facets of life. It is a systematic way of thinking, involving creative and critical reasoning. As a human endeavour, science is a collaborative activity that integrates a range of disciplines, technologies and techniques used to investigate natural phenomena. It is the source of innovative and creative solutions through evidence based problem-solving, and is responsible for improving our understanding of the world and our place in it. Consequently, science enables students to develop the skills to actively engage and participate in the 21st century. It enriches our lives and builds on our symbiotic relationship with the world around us.

Science is comprised of a number of interacting disciplines with unique though complementary perspectives. All sciences use concepts, models, systems and theories to understand the nature of the world. Biology investigates living systems; Chemistry investigates substances and matter; Earth and Environmental Science investigate global systems; Physics investigates the nature and properties of matter and energy. There are many overlaps between the disciplines and an engagement in science is invariably multi-disciplinary.

BIOLOGY (GENERAL)

Why study Biology?

Biology provides opportunities for students to engage with living systems. Students will learn valuable skills required for the scientific investigation of questions. In addition, they will become citizens who are better informed about the world around them and who have the critical skills to evaluate and make evidence-based decisions about current scientific issues. This subject will also provide a foundation in biological knowledge, understanding and skills for those students who wish to pursue tertiary study in a range of careers, including those in medical, veterinary, food and marine sciences, agriculture, biotechnology, environmental rehabilitation, biosecurity, quarantine, conservation and eco-tourism.

Biology aims to develop students':

- sense of wonder and curiosity about life and respect for all living things and the environment
- understanding of how biological systems interact and are interrelated; the flow of matter and energy through and between these systems; and the processes by which they persist and change
- understanding of major biological concepts, theories and models related to biological systems at all scales, from subcellular processes to ecosystem dynamics
- appreciation of how biological knowledge has developed over time and continues to develop; how scientists use biology in a wide range of applications; and how biological knowledge influences society in local, regional and global contexts
- ability to plan and carry out fieldwork, laboratory and other research investigations including the collection and analysis of qualitative and quantitative data and the interpretation of evidence
- ability to use sound, evidence-based arguments creatively and analytically when evaluating claims and applying biological knowledge
- ability to communicate biological understanding, findings, arguments and conclusions using appropriate representations, modes and genres.

COURSE OUTLINE (YR 10 - YR 12)

YEAR 10 BIOLOGY

Term 1: Cell Biology
1. Cell Theory
2. Cell Structure and Function
3. Developing fair tests
4. Analysing data and Error analysis

Term 2: Genetics
1. Inheritance Patterns
2. Probability: Breeding flies to observe differences between experimental and theoretical results.

Term 3: Origins of Species
1. Origin Theories
2. Evolution Theory
3. Intelligent Design Theory
4. Critically analysing claims for evidence based justification

Term 4: Ecology
1. Living and Non-living factors in ecosystems
2. Survival in different environments
3. Structure and Function - Anatomy of organisms
4. Developing investigations using living organisms ethically

These concepts are explored more specifically in the following units in Year 11 and 12:

YEAR 11 BIOLOGY (FORMATIVE)

Unit 1: Biodiversity and the interconnectedness of life
- describing biodiversity
- ecosystem dynamics

Unit 2: Cells and systems
- cells as the basis of life
- multicellular organisms and systems
-

YEAR 12 BIOLOGY (SUMMATIVE)

Unit 3: Heredity and the continuity of life
1. DNA, genes and the continuity of life.
2. Continuity of Life on Earth

Unit 4: **Maintaining the internal environment**
1. Homeostasis
2. Infectious diseases

Assessment: Year 12 (2020)
1. **50% external assessment**
2. **50% internal assessment**

CHEMISTRY (GENERAL)

Why study Chemistry?

Chemistry is the study of materials and their properties and structure. Studying senior secondary Science provides students with a suite of skills and understandings that are valuable to a wide range of further study pathways and careers. An understanding of chemistry is relevant to a range of careers, including those in forensic science, environmental science, engineering, medicine, pharmacy and sports science. Additionally, chemistry knowledge is valuable in occupations that rely on an understanding of materials and their interactions, such as art, winemaking, agriculture and food technology. Some students will use this course as a foundation to pursue further studies in chemistry, and all students will become more informed citizens, able to use chemical knowledge to inform evidence-based decision making and engage critically with contemporary scientific issues.

Chemistry aims to develop students':

- interest in and appreciation of chemistry and its usefulness in helping to explain phenomena and solve problems encountered in their ever-changing world
- understanding of the theories and models used to describe, explain and make predictions about chemical systems, structures and properties
- understanding of the factors that affect chemical systems, and how chemical systems can be controlled to produce desired products
- appreciation of chemistry as an experimental science that has developed through independent and collaborative research, and that has significant impacts on society and implications for decision making
- expertise in conducting a range of scientific investigations, including the collection and analysis of qualitative and quantitative data and the interpretation of evidence
- ability to critically evaluate and debate scientific arguments and claims in order to solve problems and generate informed, responsible and ethical conclusions
- ability to communicate chemical understanding and findings to a range of audiences, including through the use of appropriate representations, language and nomenclature.

COURSE OUTLINE (YR 10 - YR 12)

YEAR 10 CHEMISTRY

Term 1: Atomic structure and the history of its discovery

1. Elements and the periodic table
2. Types of bonding
3. Radioactivity
4. Types of mixtures and separating methods

Term 2: Physical vs chemical change

1. Writing equations using formula
2. Types of chemical reactions
3. Reduction-oxidation reactions and corrosion
4. Energy of chemical reactions

Term 3: Acids and bases and their uses

1. The chemistry of acids and bases
2. Chemical equilibrium
3. The chemistry of swimming pools
4. Gases and the effect of temperature and pressure

Term 4: An introduction to the chemistry of carbon

1. Carbon cycle in nature
2. The use of fossil fuels and their effect
3. Polymers and their uses
4. Biochemistry: the chemistry of life
5. Application of chemistry in food; nutrition, manufacture and preservation

These concepts are explored more specifically in the following units in Year 11 and 12:

YEAR 11 CHEMISTRY (FORMATIVE)

Unit 1: **Chemical fundamentals: Structure, properties and reactions**

1. Properties and structure of atoms.
2. Properties and structure of materials.
3. Chemical reactions: reactants, products and energy.

Unit 2: Molecular Interactions and reactions

1. Intermolecular forces and gases
2. Aqueous solutions and acidity.
3. Rates of chemical reactions.

YEAR 12 CHEMISTRY (SUMMATIVE)

Unit 3: Equilibrium, acids and redox reaction

1. Chemical Equilibrium systems.
2. Oxidation and reduction.

Unit 4: Structure, synthesis and design

1. Properties and structure of organic materials.
2. Chemical synthesis and design.

Assessment: Year 12 (2020)

3. 50% external assessment
4. 50% internal assessment

PHYSICS (GENERAL)

Why study Physics?

Physics provides opportunities for students to engage with the classical and modern understandings of the universe. Students will learn valuable skills required for the scientific investigation of questions. In addition, they will become citizens who are better informed about the world around them and who have the critical skills to evaluate and make evidence-based decisions about current scientific issues. This subject will also provide a foundation in physics knowledge, understanding and skills for those students who wish to pursue tertiary study in science, engineering, medicine and technology.

Physics aims to develop students':

- appreciation of the wonder of physics and the significant contribution physics has made to contemporary society
- understanding that diverse natural phenomena may be explained, analysed and predicted using concepts, models and theories that provide a reliable basis for action
- understanding of the ways in which matter and energy interact in physical systems across a range of scales
- understanding of the ways in which models and theories are refined and new models and theories are developed in physics; and how physics knowledge is used in a wide range of contexts and informs personal, local and global issues
- investigative skills, including the design and conduct of investigations to explore phenomena and solve problems, the collection and analysis of qualitative and quantitative data, and the interpretation of evidence
- ability to use accurate and precise measurement, valid and reliable evidence, and scepticism and intellectual rigour to evaluate claims
- ability to communicate physics understanding, findings, arguments and conclusions using appropriate representations, modes and genres.

COURSE OUTLINE (YR 10 - YR 12)

YEAR 10 PHYSICS

Term 1: Motion

1. Distance & Displacement
2. Speed & Velocity
3. Acceleration & Newton's Laws
4. Energy, Work and Power

Term 2 Electricity

5. Charge carriers
6. Ohm Law – Current, Voltage (potential) and Resistance
7. Circuit Creation – Power, Efficiency, energy generation
8. Renewable energy

Term 3 Astrophysics and Gravity

9. Galaxy classification
10. Structure of Stars
11. The Big Bang Theory
12. Gravity

Term 4 Light and Quantum Mechanics

13. Reflection and refraction
14. Young's double slit experiment
15. Quantum Wave theory
16. Spectral Analysis

These concepts are explored more specifically in the following units in Year 11 and 12:

YEAR 11 PHYSICS (FORMATIVE)

Unit 1: Thermal, nuclear and electrical physics
1. Heating processes.
2. Ionising radiation and nuclear reactions.
3. Electrical circuits

Unit 2: Linear motion and waves
1. Linear motion and force
2. Waves

YEAR 12 PHYSICS (SUMMATIVE)

Unit 3: Gravity and Electromagnetism
1. Gravity and motion.
2. Electromagnetism.

Unit 4: Revolutions in modern physics
1. Special Relativity.
2. Quantum Theory.
3. The Standard Model

Assessment: Year 12 (2020)
4. 50% external assessment
5. 50% internal assessment

PATHWAYS INTO SCIENCE

Science provides opportunities for students to develop an understanding of important science concepts and processes, the practices used to develop scientific knowledge, of science's contribution to our culture and society, and its applications in our lives. It provides an understanding of scientific enquiry methods, a foundation of knowledge across the disciplines of science, and develops an ability to communicate scientific understanding and use evidence to solve problems and make evidence-based decisions. The school's curriculum pathways have been designed to support students to develop the scientific knowledge, understandings and skills to make informed decisions about local, national and global issues and to participate, if they so wish, in science-related careers.

AGRICULTURAL SCIENCE (GENERAL)

Why study Agricultural Science?

Agricultural Science is an interdisciplinary science subject suited to students who are interested in the application of science in a real-world context. They understand the importance of using science to predict possible effects of human and other activity, and to develop management plans or alternative technologies that minimise these effects and provide for a more sustainable future. Agricultural Science provides students with a suite of skills and understandings that are valuable to a wide range of further study pathways and careers. A study of Agricultural Science can allow students to transfer learned skills to studies of other subject disciplines in the school environment.

What is studied?

Agricultural Science provides opportunities for students to engage with agricultural production systems as they constantly adapt to meet the changing needs of society. As human activities and resource demands increase and diversify, agricultural scientists, managers and producers encounter opportunities and challenges associated with the sustainable management of resources and production of food and fibre. In Unit 1, students examine the plant and animal science required to understand agricultural systems, their interactions and their components. In Unit 2, students examine resources and their use and management in agricultural enterprises, the implications of using and consuming these resources, and associated management approaches. In Unit 3, students investigate how agricultural production systems are managed through an understanding of plant and animal physiology, and how they can be manipulated to ensure productivity and sustainability. In Unit 4, students consider how environmental, social and financial factors can be used to evaluate production systems, and how research and innovation can be used and managed to improve food and fibre production.

How are students assessed?

Assessment techniques to determine the relationships between student achievement and the exit criteria of the course include:

- Animal and plant production, and agricultural enterprises data test
- Student experiment based on animal or plant production or agricultural enterprises
- Research investigation into animal or plant production or agricultural enterprises

Pathways

Agricultural Science is a General subject suited to students who are interested in pathways beyond school that lead to tertiary studies, vocational education or work. A course of study in Agricultural Science can establish a basis for further education and employment in the fields of agriculture, horticulture, agronomy, ecology, food technology, aquaculture, veterinary science, equine science, environmental science, natural resource management, wildlife, conservation and ecotourism, biotechnology, business, marketing, education and literacy, research and development.

BUSINESS AND INFORMATION TECHNOLOGY

Every day, we encounter and experience situations directly influenced by a business organisation and its management decisions - the colours used in advertising and marketing materials, the employees hired to assist us with our enquiries, the latest must-have product to hit the market, the design of a particular facility, the impact of certain actions on our environment and economy . . . the list goes on. By studying Business and Economics, learners will gain a greater understanding of the nature and role of business, and appreciate the influence their decisions and actions as future business leaders will have on society.
This course of study prepares students for Business in Years 11 & 12.

Areas of study may include:

- business planning
- finances
- marketing
- human resources
- operations
- e-business
- International business
- macroeconomics (unemployment, inflation, globalisation)
- micro-economics (supply/demand, price mechanism, allocation of resources)

BUSINESS – YEAR 11 & 12 (GENERAL)

Business is multifaceted. It is a contemporary discipline with representation in every aspect of society including individuals, business, community and government. As a dynamic discipline, Business encompasses business management, business creation, entrepreneurship, business analytics, economics, business law, accounting and finance, international business, marketing, human resource management, and business information systems. Business, as an evolving discipline, is responsive to environmental changes including emerging technologies, globalisation, sustainability, resources, economy and society.

A study of Business is relevant to all individuals in a rapidly changing technology-focused and innovation-driven world. Through the study of business, students are academically challenged whilst being exposed to authentic and real-life practices. The knowledge and skills developed in business will allow students to contribute meaningfully to society, the workforce and the marketplace and prepare them as potential leaders, managers and entrepreneurs of the future. Students investigate the business life cycle through the seed stage to post-maturity developing skills in examining business data and information. Students learn business concepts, processes and strategies relevant to business environments and situations exploring the implications that influence strategic development.

Studying Business enhances opportunities for students to pursue entrepreneurial avenues and a wide range of careers in the public, private and non-profit sectors. The comprehensive and progressive nature of the course lays a strong foundation for students in tertiary study or in future employment. Business develops student confidence and capacity to participate as members of the global workforce through the integration of the 21st century skills.

Business allows students to engage with the dynamic business world, in both national and global contexts, the changing workforce and emerging digital technologies. It addresses contemporary implications, giving students a competitive edge in the workplace as socially responsible and ethical members of the business community, and as informed citizens, employees, consumers and investors.

Areas of study may include:

- Business creation
- fundamentals of business
- creation business ideas
- Business growth
- establishment of a business
- entering markets
- Business diversification
- competitive markets
- strategic development
- Business evolution
- repositioning a business
- transformation of business

LEGAL STUDIES (GENERAL)

Legal Studies focuses on the interaction between society and the discipline of law. 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. An understanding of legal processes and concepts enables citizens to be better informed and able to constructively question and contribute to the improvement of laws and legal processes. This is important as the law is dynamic and evolving, based on values, customs and norms that are challenged by technology, society and global influences.

Knowledge of the law enables students to have confidence in approaching and accessing the legal system, and provides them with an appreciation of the influences that shape the system. Legal knowledge empowers students to make constructive judgments on, and knowledgeable commentaries about, the law and its processes. Students examine and justify viewpoints involved in legal issues, while also developing respect for diversity. Legal Studies satisfies interest and curiosity as student's question, explore and discuss tensions between changing social values, justice and equitable outcomes.

Legal Studies enables students to appreciate how the legal system is relevant to them and their communities. The subject enhances students' abilities to contribute in an informed and considered way to legal challenges and change, both in Australia and globally.

Pathways

Legal Studies is a General subject suited to students who are interested in pathways beyond school that lead to tertiary studies, vocational education or work. A course of study in 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 Legal Studies students gain are transferable to all discipline areas and post-schooling tertiary pathways.

YEAR 10

Areas of study may include:

- What is law?
- Where do our laws come from?
- What is civil law?
- What is criminal law?
- What are my rights & responsibilities?
- How does the law affect me?

YEAR 11 & 12

Legal Studies explores the role and development of law in response to current issues. The subject starts with the foundations of law and explores the criminal justice process through to punishment and sentencing. Students then study the civil justice system, focusing on contract law and negligence. With increasing complexity, students critically examine issues of governance that are the foundation of the Australian and Queensland legal systems, before they explore contemporary issues of law reform and change. The study finishes with considering Australian and international human rights issues. Throughout the course, students analyse issues and evaluate how the rule of law, justice and equity can be achieved in contemporary contexts.

Areas of study may include:

- 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

DIGITAL SOLUTIONS (GENERAL)

In Digital Solutions, students learn about algorithms, code, user interfaces through generating digital solutions to simple problems. They engage with data, information and applications, to visualise digital information, and investigate new and emerging fields in digital technologies. Students learn creative problem-solving, critical thinking, effective communication skills and collaborative techniques. Students understand the global impact of computing and the issues associated with ethically integrating technology in our daily lives.

Digital solutions benefits students by preparing them for digital contexts in a range of careers. It develops thinking skills that are relevant for digital and non-digital real-world challenges. It prepares them to be successful in a range of Science, Technology, Engineering and Mathematics (STEM) careers and provides them with skills to engage in and improve the society in which we work and play.

Learning in digital technologies provides students with opportunities to 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. Australia's workforce required people that understand the techniques and issues that will allows them to collaborate and use creativity to be innovative and entrepreneurial and to transform traditional approaches in exciting new directions.

YEAR 10

This subject prepares students for Digital Solutions in Years 11 and 12.

Areas of study may include:

- Blogging
- Podcasting
- Photography
- Creating video tutorials
- Graphic design production
- Digital citizenship
- Coding

YEAR 11 & 12

Students engage in practical problem-based learning that enables them to explore and develop ideas, generate digital solutions and evaluate impacts, inputs, processes and solutions. They understand solutions enhance their world and benefit society. Students analyse and critique problems and situations and apply computational design, and systems thinking approaches to structure, and model digital solutions. Students apply a user-centred approach to the development of digital solutions, appreciating that progress is driven by people and their needs.

By using a problem-based learning approach students develop confidence in dealing with complexity, tolerance for ambiguity, and persistence in working with difficult problems that may have many solutions. Students are able to communicate and work with others, in order to achieve a common goal or solution. Digital Solutions seeks to provide students with a foundation in computing principles to adequately prepare them with both the knowledge and skills to live and meaningfully participate in our increasingly digital society, economy, and culture.

Areas of study may include:

- creative coding
- computer programs to solve simple problems
- algorithms, coding, user interface design and digital solutions
- practical understanding of coding concepts
- digital solutions through experimentation
- applications and data
- data can be used to create innovative data-driven applications
- effective data use impacts on all facets of our lives
- applications that store, access, uses and presents data from multiple sources
- the impact of data on individuals and society
- digital innovation
- new trends in technology use to solve digital problems
- agile projects management
- choice of digital context in which to work
- digital impact
- digital technologies that learn, adapt, connect and protect
- the potential of technological advancement relating to security and computational intelligence
- object-oriented code-segments
- the impacts of future technologies

THE ARTS

PATHWAYS IN THE ARTS

The Arts are a language that everyone speaks. They cut across racial, social, educational and cultural barriers and enhance cultural appreciation and awareness. Through studying the Arts subjects within senior students develop many skills such as critical thinking, verbal skill, motivation, concentration, confidence and teamwork, along with analysis, synthesis and evaluation skills. All of the Arts subjects use both practical and theoretical means to develop an in-depth understanding into the role the Arts play in our lives and culture. The year 10 courses in Dance, Drama, Music and Visual Art are all designed to develop the necessary skills and understanding required for the successful progression into the Arts subjects within Year 11 and 12.

DANCE (GENERAL)

Dance is one of the earliest and most natural forms of expression. It is pre-verbal, beginning in children before words can be formed. Dance is a natural method of learning and a traditional form of cultural expression. Dance within years 10 - 12 develops student's physical, emotional and social awareness, whilst enhancing the skills of critical thinking, analysis and evaluation. Students learn in the Dance classroom by structuring dance works, performing dance works, learning and developing technical and expressive skills, developing physical and sensory awareness, examining different contexts, genres and styles, and fostering a critical awareness of the aesthetic values of others, within and across cultural and social groups.

YEAR 10

Dance in year 10 focuses on the Social, Ritual and Artistic aspects of dance and its relevance in today's society. Students begin to develop the technical and expressive skills required to perform numerous dance styles, as well as experimenting with the creation of dance works across a number of genres. Students will also begin to develop critical analysis and evaluation skills whilst responding dance works. As a part of this course students will attend live theatre productions and participate in professional workshops.

Areas of study may include:

- Popular dance styles (Jazz, Hip Hop)
- Stomp
- Health (Anatomy, Nutrition)
- Fitness (Pilates, Body Balance, Aqua Aerobics, Zumba)
- Contemporary Dance
- Contact Improvisation
- Children's Theatre

YEAR 11 & 12

Dance in Year 11 and 12 builds on the knowledge and skills that students have developed in year 10. Dance in Year 10 is not a prerequisite for study in Year 11 and 12 but it is encouraged. In Year 11 and 12 students explore in greater depth the role that dance plays in Australian and global history, as well as in today's society. Students experiment in detail the ways in which dance can be used as a tool for not only self-expression, but also political, social and cultural communication. As a part of this course students will also attend live theatre and participate in professional workshops.

Areas of study may include:

- Commercial Dance
- Musical Theatre
- Popular Dance (Jazz, Hip Hop)
- Contemporary Dance
- Australian Pioneers
- Dance and Technology
- Site Specific Dance
- Ballet
- Careers in Dance

DRAMA (GENERAL)

A lot of what happens in the drama classroom requires students to think on their feet. Through improvisation activities, students learn to be spontaneous and creative. Group work requires cooperation and collaboration. As students actively explore characters and situations of their own imagining, and in written scripts, they build on their ability to empathise and understand. It is also a subject that requires a great deal of peer trust, and so it plays an important role in teaching communication, listening and empathy skills. For most students, Drama is a way of building self-confidence.

YEAR 10

In year 10 Drama students develop their knowledge and understanding in realistic acting, as this is the most prominent form of performance in modern entertainment, and it is a skill that will benefit student's public speaking ability. Students also develop improvisation skills, which although is a style of performance in and of itself, also allows students to strengthen their ability to think on their feet, speak confidently and encourages the expression of creative ideas and effective collaboration. Students will also utilise their knowledge and understanding of drama styles and forms to evaluate, assess and critique both written and live performances.

Areas of study may include:

- Realism
- Australian Theatre
- Improvisation
- Commedia Dell Arte
- Mask work
- Documentary / Collage drama

YEAR 11 & 12

Drama in year 11 and 12 builds on the knowledge and skills that students have developed in year 10. Students study in more depth the social, cultural and political driving forces behind dramatic art, and the impact of this on audiences. Students study various dramatic styles and practitioners in order to develop a well-rounded understanding of the art form and the numerous avenues students can pursue in the field after school.

Areas of study may include:

- Realism
- Australian Gothic Theatre
- Aboriginal and Torres Strait Islander Theatre forms
- Physical Theatre
- The Theatre of the Absurd
- Greek Theatre
- Shakespeare

MUSIC (GENERAL)

This music course is a practical based subject where students discover the abilities of performing, listening to and composing music. Students will explore, evaluate and discover composers and musicians from a variety of historical and present contexts. Basic skills will be taught and developed according to each individual's level of music understanding in order to increase their participation in and appreciation of music. The main aim of the music course is to develop student's awareness of the music around them and to develop their analytic skills in order to appreciate music further.

YEAR 10

Year 10 Music follows the Studio Sessions program. This program integrates keyboards, computers and Jamhub (for live performance). Students will explore the skills of a music producer, audio engineer and film composer. Students will learn and develop performance skills on their chosen instrument/voice, composition (writing your own music) and theory, listening and analysing skills, all- important skills necessary for completing senior music. It is highly recommended that students are receiving lessons on their chosen instrument from a private tutor. Although it is not necessary to read music, it will greatly help you succeed in this subject. Attending live shows and concerts are also part of the Music course.

Areas of study include:

- Music production
- Audio Engineering
- Film composing
- Musical Theatre

YEAR 11 & 12

Music in Year 11 and 12 extends on the learning that takes place in Year 10. Students are required to explore the areas of composition, musicology (theory of music) and performance, both individually and in ensembles. Senior Music enables students to develop the skills necessary for further study in performance, composition and sound engineering.

Areas of study may include:

- Jazz
- Small ensemble
- Folk music
- Australian music
- Independent study

VISUAL ART (GENERAL)

Visual Art is a powerful and pervasive means which students use to make images and objects, communicating aesthetic meaning and understanding from informed perspectives. In a world of increasing communication technologies, knowledge and understanding of how meanings are constructed and 'read' is fundamental to becoming a critical consumer and/or producer of art works.

YEAR 10

Students are involved in in-depth studies of the principles of art and design, the social, historical and cultural influences of art and artists, and the technical skills required to become proficient in a variety of visual media for self-expression. Students complete units of work in fundamental, 2- dimensional and 3-dimensional studies.

Areas of study may include:

- Creating Art works from varied media
- 2D and 3D Art forms
- Painting/drawing
- Mixed media
- Digital Art
- Journaling
- Critiquing Art works

YEAR 11 & 12

Visual Art uses an enquiry learning model, enabling multimodal thinking and individual responses though researching, developing, resolving and reflecting. Through making and appraising, resolution and display of artworks, students understand and acknowledge the role of visual art and the contributions of visual artists, designers and craftspeople.

In making artworks, students define and solve visual problems by using visual language and expression, experimenting and applying media to communicate thoughts, feelings, ideas, experiences and observations. In appraising artworks, students investigate artistic expression and critically analyse artworks within diverse contexts.

In Year 11 the focus of study is experimental leading towards the completion of a body of work. In Year 12 the sole focus is the resolution of two bodies of work, which includes in depth research, experimentation, image development and completion of the art work.

Areas of study may include:

- Experimental folios
- Appraising / Critiquing Art works
- Social commentary
- Identity
- Cultural Communication

DESIGN and TECHNOLOGIES

PATHWAYS IN DESIGN AND TECHNOLOGIES

In the Senior School there are three main pathways offered to students - Industrial Technology Skills, Engineering and Design. Industrial Technology Skills (Applied Subject) leads on from Industrial Technology in the Middle School Years 7-9. The main focus of this pathway is on the development of practical skills in the making of wooden, metal and plastic products. Engineering (General Subject) leads on from Design Technology, which was studied in the Middle School Years 7-9. This pathway focuses on the development of skills in the Engineering design process and on producing design prototypes. Design (General Subject) leads on from Interior Fashion and Design which was studied in the Middle School Years 7-9. This pathway focuses on the design process used in industry, business, fashion, graphics, interior and digital design.

INDUSTRIAL TECHNOLOGY SKILLS (APPLIED)

Why study Industrial Technology Skills?

The Sunshine Coast region is experiencing an increased demand for proficient young people who can service the Trade and Manufacturing industry. The Industrial Technology Skills subject focuses on the industry practices and production processes in the areas of automotive and engineering skills. It provides a unique opportunity for students to experience the challenge and personal satisfaction of undertaking practical work while developing beneficial vocational and life skills.

Through both individual and collaborative learning experiences, students learn to manage a practical task and meet customer expectations of product quality, while using a range of materials, resources and specialised machinery. The majority of learning is done through manufacturing tasks that promote adaptable, competent, self-motivated and safe individuals who can work with colleagues to solve problems and complete practical work.

The course would benefit those students who wish to pursue trade careers in Engineering, Industrial Design, Manufacturing, Automotive and the Construction Industry.

How do students learn?

During the course, students will develop their skills in the use of graphics, both hand-written and CAD, to communicate product details. They will also communicate their understanding of procedures, techniques and technical facts for the production process. Students will construct products using wood, plastics and metals by applying various cutting, bending, joining and shaping techniques. They will make logical decisions on the most appropriate hand and power tools, specialised machinery and processes to use when creating products.

YEAR 10

This subject prepares students for Industrial Technology Skills in Years 11 and 12. This introductory course in primarily introduces students to metal fabrication. The following exemplify the kinds of topics which may be studied:

- Metal fabrication - Steel Hacksaw, decorative metal scroll craft
- Sheet Metal working - Sheet metal helicopter, Letter-box and tool-box designs
- Metal fabrication - Recreational and domestic implements
- Oxy-Acetylene theory and practice
- CNC routing, Laser and CAD program prototyping with plastic.

YEAR 11 & 12

The course in Year 11 and 12 builds on the knowledge and skills that students have developed in Year 10. The two-year course involves an integrated practical approach to equip students with a basic knowledge and practical skill in Automotive mechanical/ body repair and engineering fabrication. The following exemplify the kinds of topics which may be studied:

Automotive Studies:

- Small engine, Car engine assembly, service and maintenance
- Ignition systems
- Car Suspension and brake systems
- Safety in the automotive workplace

Engineering Studies:

- Metal fabrication using oxy/acetylene welding and cutting, MIG welding procedures and CNC plasma cutting technology
- Scale model boat design, "hot-rod" and pedal car production
- "Metal Art" creations – sheet metal shaping, forming techniques
- Car body component metal shaping and forming
- CNC routing and Laser cutting technology for creating plastic, timber and metal components
- Recreational and domestic equipment products.

How are students assessed?

Students are assessed through:

- the products they produce
- written and digital folios which include technical drawings, production procedures and management plans
- written examinations involving technical theory and practice

ENGINEERING (GENERAL)

Why study Engineering?

Engineering involves Year 10, 11 and 12 students in designing, engineering and producing innovative and creative products. This course helps students to investigate the many ways in which people design/create and use different forms of technology to benefit the local and global community. Our community needs enterprising and innovative individuals with the ability to be effective problem solvers concerning the development, use and impact of technology.

This course would establish a basis for further education and employment in engineering areas such as: civil, mechanical, mechatronic, electrical, aerospace, mining, marine, biomedical, telecommunications and environmental, as well as in the manufacturing and construction industries.

How do students learn?

The Engineering process involves the practical application of science, technology, engineering and mathematics (STEM) knowledge in real-world contexts to explore complex, open-ended problems and develop engineered solutions. Students will develop and communicate ideas and evaluate prototype solutions. Students learn 21st century skills including critical thinking, creative thinking, communication, collaboration and teamwork, and information and communication technologies skills. Students will be required to test and produce innovative engineered products, prototypes or models using wood, plastics,

metals and composite materials. They will make decisions on the most appropriate materials, tools, processes and systems to use when solving design problems. Investigations will integrate the use of CAD programs, CNC router, Laser and 3D printing technologies for product design prototyping and testing.

YEAR 10

This subject prepares students for Engineering in Years 11 and 12. It is also important to note that, because of the application of science and mathematics in this subject, it is beneficial that students study Physics and/or Mathematics B at a senior level.

During this course, the following investigations exemplify the kinds of topics studied:

- Aerodynamics in Design: CO2 Dragster challenge
- All-terrain vehicle and Programmable Robotics
- The Way Things Work – Rube Goldberg Machine challenge
- The Way Things Work – Trebuchet/ catapult design, Automatic gate opener
- The Way Things Work – Hydraulic Robot design
- Power boat design

How are students assessed?

During this Year 10 course students will produce written project design folios for each unit of work and also complete internal examinations.

YEAR 11 & 12

The course in Year 11 and 12 builds on the knowledge and skills that students have developed in Year 10. It consists of four units of work:

- Engineering Fundamentals and society
- Emerging Technologies
- Civil Structures
- Machines and Mechanisms

During this course, the following investigations exemplify the kinds of topics studied:

- Bridge and crane design and construction
- Power boat/ marine technology design
- Agriculture technology
- Household appliance and mechanical devices
- Sustainable housing and environmental technology
- Programmable Robotics/ Drone technology
- Alternative energy vehicle and automation
- All-terrain vehicle and mechatronics
- Disability aide technology

How are students assessed?

During the two-year course students will produce written project design folios for each unit of work, as well as internal examinations. However, in Year 12 students will complete one external examination 25%.

DESIGN (GENERAL)

Why study Design?

The Design subject focuses on the practical application of design thinking, drawing skills and prototyping skills required to develop creative ideas in response to human needs, wants and opportunities. Designing is a complex and sophisticated skill that can be analysed, developed and practised. Design is a service, used to develop objects, spaces and information communications in disciplines such as architecture, business, fashion design, graphic and digital media design, industrial design, interior design and landscape architecture. Designers are required to balance technical, commercial, human, cultural and aesthetic requirements.

How do students learn?

Students will learn how design has influenced the economic, social and cultural context in which they live. The application of the design process will be used in a problem-based learning framework to develop valuable 21st century skills in critical thinking, creative thinking, communication, collaboration and teamwork, personal and social skills and information and communication (ICT) skills.

This will enable students to learn about design through exploring needs, wants and opportunities; developing ideas and design concepts; using drawing and prototyping skills; and evaluating ideas and design concepts. Students will communicate design proposals to suit different audiences. In responding to design problems, they will learn how to challenge their own thinking and research new knowledge.

YEAR 10

This subject prepares students for Design in Years 11 and 12. During this course, the following topics exemplify the kinds of concepts studied:

- Design and culture: Research task on cultures
- Design and colour: Students study different ways of applying colour while meeting the Design brief requirements
- Design and Society: Students explore social trends and how they impact on teen Choices
- Design Needs and opportunities: Students develop a brief that meets set guidelines exploring sustainability in a chosen discipline.

How are students assessed?

During this Year 10 course students will produce written project design folios for each unit of work and also complete internal examinations.

YEAR 11 & 12

The course in Year 11 and 12 builds on the knowledge and skills that students have developed in Year 10. It consists of four units of work:

- Design in Practice
- Design Influences
- Human-centred Design
- Sustainable Design

During this course, the following topics exemplify the kinds of concepts studied:

- Drawing and prototyping skills
- The design processes used by designers
- Contemporary styles of design
- Collaboration in design development
- History and Culture when creating innovative design
- Ethical issues in design, developing sustainable solutions
- Human needs and wants in design

How are students assessed?

During the two-year course students will produce written project design folios for each unit of work, as well as internal examinations. However, in Year 12 students will complete one external examination 25%.

FASHION STUDIES (APPLIED)

The Australian fashion industry is thriving, with expanding career pathways. Advances in technology have enabled more efficient textile manufacturing and garment production, and together with media and digital technologies, have made fashion a global industry. An awareness of the impacts of the fashion industry on our environment has resulted in a major focus on sustainability.

Through undertaking this course students will be challenged to use their imagination to create, innovate and express their ideas, through the production of products in a range of fashion contexts.

How do students learn?

Students will explore the design aesthetics of others while developing their own personal style and aesthetic. They will study contemporary and historical fashion culture, learn to identify, understand and interpret fashion trends and examine how the needs of different markets are met.

Students undertake and manage both group and individual projects to investigate fashion merchandising and marketing as well as the visual literacies of fashion. They will become discerning consumers of fashion while appraising and critiquing fashion items and trends, as well as their own products.

What is studied?

YEAR 10

This subject prepares students for producing fashion products in Year 11 and 12. The following topics exemplify the types of projects undertaken:

Fashion Culture: Students will design and produce a garment with a cultural influence.

Fashion Technologies: Students will investigate the new materials in the market and use this information to produce a garment, meeting the set criteria.

Fashion Design: Students will produce a garment demonstrating a range of design influences, such as media and social trends.

YEAR 11 AND 12

Students will further investigate the fashion industry to produce garments/articles and products through the following contexts:

- Fashion history and trends

• Fashion career pathways
• Adornment (millinery, wearable art, fashion accessories)
• Fashion designers
• Haute couture
• Sustainable clothing
• Theatrical design
• Merchandising

How are students assessed?

Students are assessed through projects which involve written, spoken and digital media responses, as well as the production of fashion products.

HEALTH AND PHYSICAL EDUCATION

PHYSICAL EDUCATION (GENERAL)

Why Study Physical Education?

Physical Education involves students learning in, about and through physical activity. The Senior Physical Education course focuses on the complex interrelationships between motor learning, psychological and other factors that influence individual and team physical performances. It also focuses on the wider social attitudes to and understandings of physical activity.

YEAR 10

Students participate in both a theoretical and practical component, designed to prepare them for the Year 11 and 12. The themes/activities involved in the practical component are:

- Indirect Interceptive- Volleyball, Tennis, Lawn Bowls
- Mountain Biking
- Direct Interceptive- Golf, Touch Football, Futsal/Soccer
- Swimming (Recreational Bronze)

The themes that make up the theoretical component are:

- Skill Acquisition and Motor Learning
- Fitness and Training
- Biomechanics
- Life Saving Theory

YEAR 11 & 12

Students study four (4) physical activities over the 2-year senior course of study, with equal time and emphasis given to each activity:

- Touch Football (9 Weeks in Year 11 & 8 Weeks in Year 12)
- Team Volleyball (9 Weeks in Year 11 & 8 Weeks in Year 12)
- Netball (9 Weeks in Year 11 & 8 Weeks in Year 12)
- Mountain Biking (9 Weeks in Year 11 & 8 Weeks in Year 12)

Integrated subject matter is drawn from the following three (3) focus areas of study:

- Learning physical skills related to the activities.
- Processes and effects of training and exercise including physiology of exercise, training and program development and how these can improve team and individual performance.
- Equity and access to exercise, sport and physical activity in Australian society.

How Do Students Learn?

At least 50 per cent of timetabled time involves students engaging in physical activity. Students are involved in a variety of written, oral and physical learning experiences that are focused on the study of the four (4) physical activities. As part of our program we provide electronic access to student-centred and student-paced learning in Physical Education via E-Learning Physical Education and Datafish Biomechanical Analysis Software.

How Is Student Work Assessed?

A wide range of assessment techniques are used including physical, oral and written activities such as examination essays, research assignments, oral presentations as well as practical performance evaluations. The achievement level awarded to each student on exit from the course is based on student performance in the assessable exit criteria of the course as outlined in the syllabus. These criteria are Acquiring, Applying and Evaluating.

SPORT & RECREATION (CERTIFICATE II & III)

This Physical Education subject has been developed to expose learners to variety of aspects within the Sport & Recreation industry. Students are assessed on ability to plan and lead sporting and outdoor recreation programs rather than their individual physical ability and sporting skills. This course is suited to those students looking to progress to the Sport & Rec certificate course in Year 11 and 12. The Sport and Recreation program involves a range of experiences that provide knowledge, processes and skills contributing too many vocational pathways. Skills learned include the demonstration of effective communication techniques when coaching as well as event planning and outdoor recreational experiences.

What is studied?

- Learning experiences include:
- Umpiring and Officiating competition
- Organising of gym and fitness programs
- Peer teaching and coaching experiences
- Coaching techniques
- Bush survival techniques
- Event planning and management
- Outdoor activities include but not limited to - Rock Climbing, Mountain Bike Riding and Canoeing.

Assessment

Assessment techniques include: practical tasks, oral and seminar presentations that may be supported by visual aids, reports, response to stimulus and written tests.

Further information regarding this course can be found here on the course provider - Binnacle Training website.

HOSPITALITY

FOOD AND NUTRITION (GENERAL)

Food and Nutrition is the study of food in the context of nutrition, food science and food technology in the contemporary lives of Australians. Students will learn about the whole food system, which includes production, processing, distribution, consumption and waste management. Students will also actively engage in food (practical) and problem solving that contributes positively to social, ethical, economic, technological and environmental futures. Using a problem-based learning approach means students will develop ideas; generating, communicating and implementing solutions; and evaluating the process and solutions.
Students will learn to relate and apply their science, nutrition and technologies knowledge to the study of food and nutrition. Undertaking Food and Nutrition supports further study in tertiary programs in Queensland; students might choose to study food technology; science, majoring in food, or majoring in both food and nutrition; exercise and nutrition science; nutrition science; nutrition; and dietetics.

HOSPITALITY PRACTICES (APPLIED)

The Hospitality Practices syllabus emphasizes the food and beverage sector, which includes food and beverage production and service. Through this focus, students develop an understanding of hospitality and structure, scope and operation of related activities in food and beverage sector. The three electives- kitchen operations, beverage operations and service and food and beverage service, represent key employment areas within the food and beverage sector, enabling students to develop a solid understanding of the sector.
This subject will involve practical and theory components. 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 services for customers in real-world hospitality contexts. 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.

INTRODUCTION TO HOSPITALITY (YEAR 10 ONLY)

Introduction to Hospitality gives students a foundation that, with further development of their skills and understandings in Year 11 and 12 Hospitality, could lead to professional hospitality careers in food and beverages, catering, resorts, tourist attractions, events or tourism.

Introduction to Hospitality covers the most important aspects of professional food preparation and service within the Australian Hospitality Industry. Students will develop skills in workplace health and hygiene, espresso and non-alcoholic beverage making skills. Students throughout the year will assist with different restaurants, coffee shops and functions often playing a key role to the success of the event egg. Cafe Cuisine and Multicultural Cuisine.

Students will analyse and evaluate these functions, giving recommendations for improvement at future events. Topics include Cafe´ Culture and World on a Plate.

Assessment

Students will be assessed on three criteria:
Knowledge and Understanding
Planning
Performance

This will be demonstrated using the following techniques: practical tasks, oral and seminar presentations that may be supported by visual aids, research reports and written tests.

HOSPITALITY PRACTICES – YEAR 11 & 12 (APPLIED)

This Hospitality subject has been developed to engage learners in a range of contemporary real-life contexts. Hospitality learning involves a range of experiences that provide knowledge, processes and skills contributing to vocational pathways. Skills implicit in hospitality include working in teams, demonstrating effective communication, and organisational and interpersonal skills.

What is studied?

Learning experiences include:

- participating in workshops using hygienic, safe and efficient work methods to practise food
- production techniques
- evaluating the suitability of a range of foods for different situations and customers
- planning menus within the constraints of kitchen equipment, utensils, dining area and staff skill levels
- developing menus and completing cost analyses to meet profit requirements for functions designing a product and its image
- Interacting with guest speakers
- completing requisitions and order forms
- purchasing commodities
- front office and housekeeping scenarios
- planning and evaluating hospitality ventures and events

Assessment

Assessment techniques include practical tasks, oral and seminar presentations that may be supported by visual aids, reports, response to stimulus and written tests. Students will be assessed in three areas:

- Practical skills and Application
- Planning and Decision-making
- Knowledge

DISTANCE EDUCATION

GENERAL SUBJECTS OFFERED:

- French
- German
- Chinese
- Japanese
- Economics
- Geography
- Modern History
- Senior Dance
- Music
- Visual Art
- IPT-Information Processing and Technology
- Accounting

APPLIED SUBJECTS OFFERED:

- Visual Art Studies
- Hospitality Practices
- Community Services and Children's Services
- Science in Practice
- Career Education
- Information Technology
- Business

Note: There are prerequisite requirements for some of these subjects. For more information, please see our Dean of Studies Mr Rob Steffler or contact him by email: rob.steffler@glasshouse.qld.edu.au

ADDITIONAL INFORMATION YOU MIGHT FIND HELPFUL

WHICH ENGLISH SHOULD I CHOOSE?

ENGLISH/LITERATURE	ESSENTIAL ENGLISH
• Syllabus that emphasises critical literacy as the theoretical underpinning of course – in order to up the 'ante' of intellectual rigour of subject English. • Inclusion of metalanguage – i.e. discourse, intertextuality, privileging, foregrounding, register etc. • Emphasis on extensive reading and writing. • Written pieces ranging from 600 words under exam conditions to 1000 words in assignment • Examples of tasks include: a marketing proposal, interior monologues, short story construction, analytical essays, and extended research assignment. • Spoken tasks that range from 4 minutes to 10 minutes	• A variety of practical communication genres relevant to the three strands of work, community and leisure. • Written pieces range from 200 words – 500 words. • Range of assessment strategies with a stronger emphasis on spoken tasks. • Spoken tasks that range from 3 – 5 minutes • Examples of tasks include: multi-media presentation of travel itinerary, marketing for selected charities, conflict resolution interview and the planning of a music festival. • An emphasis on practical application of genres.

WHICH MATHS SHOULD I CHOOSE?

	Essential Maths	General Maths	Mathematical Methods	Specialist Maths
ATAR Eligibility	NO	YES	YES	YES
QCE Eligibility	YES	YES	YES	YES
Prerequisite	Desire to learn	***C*** or higher in Grade 9/10 Mathematics	***B*** or higher in Grade 9/10 Mathematics	You must also study Maths B
Content	Focus on measurement & money in specific work or everyday life applications.	Focus on measurement, money & statistics in real life applications in a trade or business.	Focus on algebra, calculus, geometry & statistics in preparation for further studies.	Focus on applied higher mathematics including functions, calculus, trigonometry for tertiary studies
Assessment	• Practical activities • Folio of work completed • Quizzes • Projects – in-class	• Supervised Examinations (one per term) • Assignments	• Supervised Examinations (one per term) • Assignments	• Supervised Examinations (one per term) • Assignments
Future Pathways	Workplace • Retail • Service Trades • Carpentry • Building • Plumbing	Trades and careers in: • Carpentry / Plumbing / Building Industry • Accounts clerk • Tax agent • Health & recreation Tertiary studies in humanities or business such as: • Teaching • Nursing • Management	Tertiary studies in sciences such as: • Engineering • Business • Medicine • Accounting • Scientist • Statistician • Teaching	Tertiary studies in sciences such as: • Engineering • Business • Medicine • Accounting • Physics • Astronomy • Statistician • Actuarial Studies • Pure Mathematics
Recommended for	• Students enrolled in a school based traineeship or apprenticeship • Students who have had difficulty with Maths in Middle School.	• Students who are competent at Mathematics	• Students who enjoy the challenge of mathematics • Students who are prepared to work hard • Students who are undecided on a University course and have the recommended pre-requisite ability	• Students who enjoy the challenge of mathematics • Students who are prepared to work hard • Students who intend to pursue tertiary study requiring higher mathematics