



# Year 11 and 12

## Course Selection Handbook

### 2017 - 2018

## CONTENTS

	<b>Page</b>
Introduction	1
Career Guidance	1
Senior Phase of Learning	2
Exit Levels of Achievement	2
Queensland Core Skills Test (QCST)	3
Overall Position (OP)	3
Subject Achievement Indicators (SAI's)	3
Field Positions (FP)	3
OP Eligibility	3
Types of Subjects	4
Subjects Offered in 2017 and 2018	5
Change of Subject	5
The Procedures for Change	6
Application for Exemption	6
Subject Selection Process	6
Pre-requisites	7
Subject Outlines	8

	<b>Page</b>
Art	9
Business Management	11
Biology	12
Chemistry	14
Christian Studies	15
Dance	16
Drama	18
English	20
English Communication	21
Furnishing (Cert I)	22
Geography	24
Graphics	26
Health: Basic Care (Cert III)	28
Hospitality (Cert II)	30
Information, Processing and Technology	32
Japanese	34
Legal Studies	35
Mathematics	37
Prevocational Mathematics	39
Mathematics A	40
Mathematics B	41
Mathematics C	42
Modern History	43
Music	45
Personal Development	47
Physical Education	48
Physics	50
Technology Studies	52

## INTRODUCTION

This information has been produced to assist students in Year 10 to make informed decisions when selecting subjects for Years 11 and 12 at Pacific Lutheran College.

It is important to choose senior subjects carefully as your decisions will affect the options available for future career paths.

There are many factors to consider when choosing your course of study. Make sure you consider subjects:

- you enjoy or are interested in,
- in which you demonstrated some ability or aptitude,
- which will help you reach your chosen career goals,
- which will develop skills, knowledge and attitudes useful throughout your life.

Choices should be made based on aptitude, interest and future pathways.

Consider that 75% of the jobs our students will do in the future have not yet been invented.

Future Work Skills 2020

- Design Mindset
- Novel and Adaptive Thinking
- New Media Literacy
- Cross-cultural Competencies
- Transdisciplinarity
- Virtual Collaboration
- Cognitive Load Management
- Sense-Making
- Social Intelligence
- Computational Thinking *(Institute for the Future)*

So, in considering options, students are encouraged to select a balanced range of subjects that allow the development of the skills outlined above.

## CAREER GUIDANCE

### Pathways

Students may select from Authority and Authority-registered (SAS) subjects and are encouraged to choose on the basis of their aptitude and interest as well as preparation for future pathways.

Our aim is to provide many pathways towards future study and employment and, in these senior years, present opportunities for students to increase their level of responsibility for their own learning. It is acknowledged that we all learn differently, thus teaching strategies and assessment tasks are designed to cater for such diversity.

### The process of selecting subjects is supported by:

- Career Education lessons incorporated in the Personal Development program.
- Information Sessions on the subject selection process and guidelines for subject selection.
- Individual student interviews
- Students are encouraged, through a series of activities, to focus on their past academic record, their interests and abilities and future pathways that best meet these.
- When the subject selections are finalised, students will complete their Student Career Plan in individual meetings in Term 4.

All Year 10 students are required to have developed a Senior Education and Training Plan (SETP) by the end of Year 10. The SETP will be completed in Semester 2 of Year 10.

The Career Counsellor will be available to provide further support if needed. An additional appointment with the Career Counsellor can be made through student reception.

## SENIOR PHASE OF LEARNING

Throughout the Senior Phase of Learning, students bank their achievement in a Learning Account. At the end of Year 12, all students receive a Senior Statement listing all their learning achievements. Students who have fulfilled the requirements are also awarded the Queensland Certificate of Education (QCE).

### The Senior Statement

The Senior Statement is an official record of all learning achievements in a student's Learning Account. It details what learning was attempted, the standard achieved and where and when the learning took place.

The Queensland Curriculum and Assessment Authority (QCAA) will issue the Senior Statement to students who:

- have met the requirements for the QCE; or
- are attending a school and have banked at least one achievement in their Learning Account and are enrolled at a school until the prescribed date at the end of Year 12; or
- have completed a pattern of study which makes them OP eligible.

Achievement on the QCS Test will also be recorded.

### The Queensland Certificate of Education

The QCE is an achievement-based certificate that recognises a broad range of learning. It attests to a significant amount of learning in the Senior Phase of Learning at or above the set standard, and it includes achievement in literacy and numeracy.

The QCE will be awarded when a student has:

- Attained at least 20 credits for learning achievements of which:
  - at least 12 credits are gained from completed courses of study, at or above the set standard of achievement, selected from the core course of study,
  - up to eight credits are gained from core, preparatory, enrichment and/or advanced courses of study or part-completion of some specified courses of study.
- Met the set standards for literacy and numeracy.

This qualification recognises a broad range of learning options. Students can design a program of study to match career goals. There is flexibility in what, where and when the learning occurs.

### Tertiary Entrance Statement (TES)

Students who are OP eligible will receive a Tertiary Entrance Statement which consists of two pieces of information - an Overall Position (OP) and Field Positions (FPs).

## EXIT LEVELS OF ACHIEVEMENT

This is a record of the Level of Achievement a student has achieved at exit from each QCAA subject, at the end of Year 12.

- Very High Achievement (VHA)
- High Achievement (HA)
- Sound Achievement (SA)
- Limited Achievement (LA)
- Very Limited Achievement (VLA)

These Exit Levels of Achievement are the culmination of continuous assessment over two years of the course. They are awarded according to specified criteria and verified through a statewide process of moderation in each subject.

## QUEENSLAND CORE SKILLS TEST (QCST)

A student's individual results on the Queensland Core Skills Test is recorded on the Senior Statement. This result is obtained from a statewide test conducted towards the end of Year 12, which tests students' abilities in 49 Common Curriculum Elements.

## OVERALL POSITION (OP)

An OP is a rank, ranging from 1 to 25. It is based on a student's five best SAI's (Subject Achievement Indicators) in each Authority subject, in conjunction with the QCS Test means for the student's classes in Authority subjects, within the school. It is used by tertiary institutions in allocating places.

## SUBJECT ACHIEVEMENT INDICATORS (SAI's)

An SAI is a number, which ranks one student's achievement in an Authority subject in relation to the achievement of another student in that same subject, in that school. Each OP eligible student receives SAI for each subject they study for at least one semester, in Years 11 and 12. The ranking of students with SAI reflects the differences between students, for each subject.

## FIELD POSITIONS (FP)

FPS indicate a student's rank order position based on overall achievements in Authority subjects, in up to five areas of study, which emphasise particular skills. The five fields are:

- A extended written expression involving complex analysis and synthesis of facts.
- B short written communication involving reading, comprehension and expression in English or a foreign language.
- C basic numeracy involving simple calculations and graphical and tabular interpretation.
- D solving more complex problems involving mathematical symbols and abstractions.
- E substantial practical performance involving physical or creative arts or expressive skills.

These Field Positions may be used if more discrimination is required in awarding tertiary places.

## OP ELIGIBILITY

**Students wishing to be OP eligible need to complete 20 semester units of Authority subjects.** These 20 units need to be **derived from three subjects studied over four semesters** (or two years) and **eight semester units from two or more subjects**. The sixth subject chosen by an OP-eligible student could be an Authority subject or an Authority Registered (SAS) subject. Students must sit the QCS Test.

Further information on the Senior Education Profile is available from QCAA:  
<http://www.qcaa.qld.edu.au>.



## TYPES OF SUBJECTS

### 1. AUTHORITY SUBJECTS

Queensland Curriculum and Assessment Authority (QCAA) prescribes a syllabus for these subjects. College work programs, which are accredited by the Authority, are based on these syllabuses. The Level of Achievement in these subjects appear on the Senior Statement and are used in the calculation of the Overall Position (OP). Authority subjects also contribute to the QCE, if minimum learning standards are met.

### 2. AUTHORITY - REGISTERED

These subjects are devised and offered on the initiative of the College. Work programs and Study Plans in these subjects must be accredited by the Queensland Curriculum and Assessment Authority (QCAA). The results are moderated by the Authority and although they appear on the Senior Statement, they do not contribute to the calculation of the Overall Position. Authority-registered subjects also contribute to the QCE, if minimum learning standards are met. For OP-ineligible students, these subjects may be used by QTAC in the calculations of a Selection Rank. **We encourage students who are having difficulty with academic subjects to consider enrolling in these courses.** Where courses have VET modules embedded, students will receive appropriate certification listing modules and industry competency standards where competency has been demonstrated.

### 3. SCHOOL SUBJECTS

These are subjects which schools offer on their own initiative. They are not based on any QCAA syllabus. They are not recorded on the QCE or Senior Statement. The college offers two compulsory school subjects, Christian Studies and Personal Development.

### 4. UNIVERSITY SUBJECTS (HeadStart Program at USC)

In conjunction with the University of the Sunshine Coast, students in Year 11 and 12 have the opportunity to study university subjects whilst still at school. Students who successfully complete (Pass or higher) two university subjects during this time, will be eligible for automatic entry into the university with or without an OP. To take this option, certain criteria must be met and it is suggested that the option be taken in Semester 2, Year 11 and Semester 1, Year 12, unless the university's prerequisites dictate otherwise. There is a cost involved for this study and further details can be obtained from the Career Counsellor or the University's School Liaison Officer. Approval to participate in the HeadStart Program must be given by the Director of Teaching and Learning.

Students may also undertake introductory studies in Engineering at the University of the Sunshine Coast by participating in the "Integrated Learning in Engineering" program offered over one year. Application to this program is through the Trade Training Centre at Caloundra and the Vocational Education Coordinator handles the registration.

### 5. SCHOOL BASED TRAINEESHIP

School based traineeships involve students gaining workplace training while completing Years 11 and 12 and obtaining a Senior Certificate. Each traineeship is designed around individual needs of the employer, trainer, College and student. General guidelines include:

- Students study five Authority / SAS subjects.
- Students may choose to be OP ineligible.
- Students complete training in the workplace one day each week.
- Holiday work may be a component of this course.
- School time is available for completion of the required TAFE trainee modules.
- Successful school based traineeships can convert to traineeships / apprenticeships / employment at the completion of Year 12.

Students wishing to undertake a Traineeship or require further information should make an appointment to see the Vocational Education Coordinator, Mr Ian Learoyd.

## 6. OTHER POSSIBLE COURSES FOR OP-INELIGIBLE STUDENTS

There is a selection of other Vocational Education courses of Certificates at Levels II, III and IV and Diplomas available to OP-Ineligible students through other providers by arrangement with the Vocational Education Coordinator. These include TAFE, Trade Training Centre, as well as private Registered Training Organisations.

## SUBJECTS OFFERED IN 2017 AND 2018

The following subjects will be offered in Years 11 and 12:

### AUTHORITY

Art  
 Business Management  
 Biological Science  
 Chemistry  
 Dance  
 Drama  
 English  
 English Extension (Year 12 only)  
 Geography  
 Graphics  
 Information Processing and Technology  
 Japanese  
 Legal Studies  
 Mathematics A  
 Mathematics B  
 Mathematics C  
 Modern History  
 Music  
 Music Extension (Year 12 only)  
 Physical Education  
 Physics  
 Technology Studies

### AUTHORITY REGISTERED

English Communication  
  
 Furnishings (Cert I)  
 Health: Basic Care (Cert III)  
 Hospitality (Cert II)  
 Prevocational Mathematics

### SCHOOL BASED

Christian Studies  
 Personal Development

## CHANGE OF SUBJECT

Students may change subjects during the two year course, however students must remember that to remain OP eligible, subject changes are restricted according to Queensland Curriculum and Assessment Authority (QCAA) rules. Prerequisites for tertiary courses must also be considered.



**Changes must be completed within the first three weeks of the new semester**, unless unusual circumstances necessitate a change. Changes are always dependent on the new subject having fewer than the maximum number in the class.

The result from every completed semester of a QCAA subject will be recorded on a student's Senior Statement and may be used in OP calculations.

## THE PROCEDURES FOR CHANGE

1. Discuss the change with parents, teachers and Heads of Departments. Examine your reasons carefully. The new subject teacher must feel that the student has some aptitude for the new subject and meet the required prerequisites. There must also be evidence of satisfactory effort in the 'current subject'. Find out all the necessary information about the subject into which you intend to change.
2. Complete a Subject Change Form. Forms may be collected from The Director of Teaching and Learning.
3. Completed form must be signed by relevant staff, the Careers Consultant and finally by the student and parent/guardian.  
It is important to note any recommendation made before signing.
4. Return completed form to The Director of Teaching and Learning who will give final approval for subject change to commence.

## APPLICATION FOR EXEMPTION

The college is committed to providing the best opportunities for students in the Senior Phase of Learning. The college acknowledges that some students may require increased flexibility in their SET Plan.

Students may apply for consideration to reduce college commitments. Reasons may include:

- Performance / achievement at the elite level.
- Dual enrolment in an alternative course of study.
- School-based Traineeship / Apprenticeship.
- Extenuating personal circumstances.

When considering a student's application, the following will be taken into account:

- Number of hours the student is committed to (eg. training, lectures).
- Any required absence from class.
- Proven ability to work independently.
- Current academic performance.
- Recognised qualifications / outcomes obtainable.

The Principal will make the final decision in consultation with The Director of Teaching and learning and the Careers Consultant.

## SUBJECT SELECTION PROCESS

1. **19<sup>th</sup> July 2016** Subject Information Night.  
Subject Preference Sheet distributed.
2. **25<sup>th</sup> July 2016** Preference Sheet returned.

3. **1<sup>st</sup> August 2016** Line structure distributed for final subject selection.

## PRE-REQUISITES

Where subjects have indicated pre-requisites, this advice is strongly recommended for success in that subject. We urge students and parents to seriously consider these recommendations.

When final Semester 2 results are available, student subject selections will be reviewed and recommendations made in light of the student's current level of performance.

Where students do not meet the pre-requisite for a given course but would like to study this subject, approval must be sought from The Director of Teaching and Learning.

# Subject Outlines

# 1. ART

**Subject Type:** Authority Subject

**Pre-requisites:** It is an advantage that students have studied Art in Year 10 but not compulsory for Senior Art. Students without this experience should consult with the Art Coordinator during Term 4, to engage in art experiences before their entry into Year 11.



## 28.1 WHY STUDY ART?

*“The Arts are fundamental resources through which the world is viewed, meaning is created and the mind is developed.”* Elliott W, Eisner, Professor of Education and Art, Stanford University, 1997.

Art is a powerful and pervasive means by which students 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”, it is fundamental to become a critical consumer and/or producer of artwork.

It is through Art that visual knowledge is created, meanings communicated and the significance of these meanings connected to the present lives of young people. Art prepares young people for a future in the workforce by requiring them to seek creative solutions to complex design problems, think divergently and use higher order learning skills to articulate an informed and individualised aesthetic (style/expression).

According to the UK body, National Advisory committee on Creative and Cultural Education (NACCCE), (1999):

*. . . young people now live in a complex web of interacting cultures and sub-cultures: of families, gender, peer groups, ideological convictions, political communities and of ethnic and local traditions. They also live in a global culture that is driven by the interplay of commercial interests, the creative energies of young people themselves, and the enveloping influence of information technologies.*

Visual communication is the most dominant mode in a mediatised world, and young people need to make sense of it and be discriminating. Art studies will assist them in this.

## 28.2 COURSE DESCRIPTION

On their personal journey of exploration and expression, Art students engage with a range of concepts and related learning experiences. Art uses an inquiry learning model, enabling the development of students’ investigative and thinking skills and resulting in individual responses through researching, developing, resolving and reflecting. The objective of the course is to foster creative thinking, critical analysis and problem-solving processes by engaging students in making and appreciating artworks.

In *making* artworks, students define and solve visual problems by using visual language and expression to experiment and apply media to communicate thoughts, feelings, ideas, experiences and observations. A diverse range of media will be explored, which may include: drawing, painting, digital imagery, sculpture, installation, mixed media, print-making, design fibre art and animation. In *appraising* artworks students investigate artistic expression and critically analyse artworks within diverse contexts. The students produce a body of work which consists of individual student responses to making and appraising tasks. The body of work comes to represent a coherent journey towards resolution.

Over the two-year course, the units of work progress from teacher-directed focus (experimental, Year 11), through teacher-student negotiated focus (Year 11/12) to the students' selecting and interpreting their own focus to resolve work (Year 12).

### **28.3 ADDITIONAL INFORMATION**

The study of Art does not only help those who are applying for Art-related courses. The skills of problem solving and thinking, with the flexibility to negotiate and consider a variety of solutions and processes, are essential in our society today, both personally and professionally. Art, as a subject, teaches students how to research, develop and resolve their ideas. They participate in research by reacting to a variety of stimuli, develop solutions to problems and resolve individual ideas by communicating in visual, written and spoken forms. This is invaluable preparation for many vocations including: Architecture, Retail Display, Town Planning, Arts Administration, Fashion Design, Film and Television, Web Page Design, Teaching, Engineering, Marketing, Advertising, Interior Design and Industrial Design.

### **28.4 WORKLOAD AND EXPECTATIONS.**

Students are assessed on two Making tasks each year. This is called a body of work. This is class work where the students respond in practice to the concept and focus. In Year 11, they study Past Time and Present time. In year 12, they study Future Time and Transcend. These are board organisers to direct student learning and provide ample opportunity for individual expression.

Students use the inquiry learning model of researching, developing, resolving and reflecting. There is the expectation for students to work effectively in class time and to learn how to manage their time efficiently. Practical work is to be completed in class time to enable students to acquire guidance and direction.

One Appraising task is completed each semester. These are written research assignments producing extended written responses. The topics relate directly to their Making task for each body of work. There is recommended readings each semester to assist the students in producing independent and insightful responses.

As a Art student, they will attend exhibitions and participate in workshops with visiting artists to the school. It is encouraged that students seek out opportunities to experience, reflect and respond to art in their own world by visiting galleries and also searching the internet.

## 2. Business Management

<b>Subject Type:</b>	Authority Subject
<b>Pre-requisites:</b>	Pre-requisites for the Course There are no pre-requisites for studying Business Management; however, a 'C' grade or higher in English is highly recommended. (Students who have studied Business Studies in Year 10 might be at an advantage).

### 1.1 WHY STUDY BUSINESS MANAGEMENT?

Business has a very dominant position within Australian society and significant relevance to our personal lives, making the study of its organisation and management essential for young people if they are to effectively operate within our society. This subject provides students with an understanding of organisations and the role managers play in driving the performance of these businesses. The knowledge and skills learnt in this subject set a foundation for success irrespective of future pathways.

Specifically, students develop practical skills such as planning, decision making, problem solving, critical thinking, and professional oral and written communication.

### 1.2 COURSE DESCRIPTION

Students will study the following areas:

- Management Practices
- Marketing Management
- Operations Management
- Human Resource Management
- Financial Management
- Business Development

### 1.3 ASSESSMENT

Students will be assessed through a variety of written tests, preparation of reports (e.g. Marketing Feasibility Study, Business Feasibility Study etc), computer-based assignments and practical projects using the three criteria of Knowing and Understanding Business Management, Applying and Analysing Management Strategies, and Evaluating and Communicating Management Strategies.

### 1.4 WORKLOAD AND EXPECTATIONS

**Study Commitment** Students should be prepared to devote an average of 2 to 3 hours a week to home study, research and/or assessment in order to ensure success in Business Management. **Pathways** - this subject sets an excellent platform for further study through University, TAFE and other Tertiary institutions. Studying business opens up a diverse range of careers including: marketing, finance, human resources, industrial relations, operations, management and administration.

### 3. BIOLOGY

**Subject Type:** Authority Subject

**Pre-requisites:** Students should have an interest in the units of Biology studied in Years 8 to 10. It is strongly recommended for the students to have obtained at least a 'C' in Year 10 Science.



#### 2.1 WHY STUDY BIOLOGICAL SCIENCE?

Biology is the study of the natural systems of the living world. It is characterised by a view of life as a unique phenomenon with fundamental unity. Living processes and systems have many interacting factors that make quantification and prediction difficult. An understanding of these processes and systems requires integration of many branches of knowledge.

The study of Biology provides students with opportunities to:

- gain insight into the scientific manner of investigating problems pertaining to the living world
- experience the processes of science, which lead to the discovery of new knowledge
- develop a deeper understanding and an enhanced aesthetic appreciation of the living world.

Participation in Biology enables students to engage in creative scientific thinking and to apply their knowledge in practical situations. The study of Biology will help students foresee the consequences of their own, and society's, activities for the living world. This will enable them to participate as informed and responsible citizens in decision-making processes, the outcomes of which will affect the living world both now and in the future.

#### 2.2 COURSE DESCRIPTION

Biology is concerned with the study of the phenomenon of life in all its manifestations. It encompasses studies of the origin, development, functioning and evolution of living systems and the consequences of intervention in those systems. Understandings are developed in terms of concepts inherent in the principles of biology which are:

- Survival of species is dependent on individuals staying alive long enough to reproduce.
- At every level of organisation in the living world, structure and function are interrelated. Each level of organisation in the living world has its own unique aspects and there is continual interaction of structure and function between these levels.
- Continuity and change occur at all organisational levels in the living world. Changes may be cyclical or directional. The continuity of life is a balance between all the change processes.

The specific units / topics investigated in Year 11 Biology include Ecology with a 10 hour mandatory fieldwork component, ***Bacteria and Viruses*** including the emergence of new diseases, ***The Cell and Neuroscience*** - vision and the human senses (with organ dissections) and ***Photosynthesis / Vertical Gardening*** (determining the conditions for optimal algal growth, in order to reduce world hunger).

The specific units/topics investigated in Year 12 Biology include ***Assisted Reproductive Technologies (ART)*** inclusive of IVF, ***Genetics*** including the development of new procedures used in genetic engineering and stem cells, ***Enzymes*** and how to optimise their activity and the ***Theory of Hominid Evolution***.

#### 2.3 ASSESSMENT



The assessment program will include a variety of assessment techniques, which are integrated with the learning experiences. The achievement level awarded each student on exit from the course will be based on the fullest and latest information about student performance on the dimensions of understanding biology, investigating biology, and evaluating biological issues.

A field trip will also be undertaken as part of the course. Assessment will consist of exams, oral presentations, Extended Experimental Investigations, field analysis and Extended Response Tasks.

### **3.4 WORKLOAD AND EXPECTATIONS**

Students of Biology will participate in a wide range of activities to develop their knowledge of biology and their ability to solve problems arising in their everyday experiences.

The course places considerable emphasis upon practical work conducted within a laboratory and in the field. There is a minimum time commitment for fieldwork of ten hours. Fieldwork is integrated with the study of the key concepts to help students better understand biological phenomena. During practical activities students learn to examine collected data, suggest hypotheses that explain observations, and design and conduct experiments.

Students will be expected to do at least two hours of study on Biology per week in addition to time spent on exams and assignments.

## 4. CHEMISTRY

**Subject Type:** Authority Subject

**Pre-requisites:** Students should have an interest in the units of Chemistry studied in Years 8-10. At least a 'C' in both Year 10 Science and Mathematics is strongly recommended. Students should also be studying Mathematics B concurrently.



### 3.1 WHY STUDY CHEMISTRY?

Chemistry engages students in an exciting and dynamic investigation of the material universe. Chemistry helps us to understand the links between the macroscopic properties of the world and the subatomic particles and forces that account for those properties. The application of chemical concepts, models, procedures and intellectual processes aids in humankind's management of the planet's limited resources and could provide the key to our continuing survival. The study of Chemistry provides students with a means of enhancing their understanding of the world around them, a way of achieving useful knowledge and skills and a stepping stone for further study.

### 3.2 COURSE DESCRIPTION

The study of Chemistry is contextually based and includes a significant component of practical work.

The Year 11 Chemistry course includes the following contexts/topics: ***Introduction to Chemistry*** including electrons, bonding models, writing and balancing equations, ***Stoichiometry, Acids and Bases, "Is Quality More Expensive"*** (this unit investigates the relationship between what is advertised on regular household items – quantity - and their cost), and ***Periodic Properties and Atmospheric Gases***.

The Year 12 Chemistry course includes the following contexts/topics: ***Energy and Rates of Reactions, Small Scale Industrial Chemistry*** (this topic investigates the industrial procedures used in jewellery manufacture and plating, and extraction/purification of metals), ***Are We There Yet?*** (which investigates the reversibility of many reactions in chemistry) and ***Biologically Important Molecules*** which is a unit on organic chemistry.

There are three general objectives of the course that represent aspects of chemistry that will help students develop their scientific literacy. They include *Knowledge and Conceptual Understanding, Investigative Processes, and Evaluating and Concluding*.

### 3.3 ASSESSMENT

The syllabus presents a framework that will develop students' understanding and appreciation of Chemistry in real world, relevant contexts. The assessment program consists of a balance of assessment techniques demonstrating the general objectives. The assessment techniques are grouped into three global categories including *Extended Experimental Investigations, Supervised Assessments* and *Extended Response Tasks*.

### 3.3 WORKLOAD AND EXPECTATIONS

Students will be expected to complete at least two hours of study on Chemistry per week, in addition to time spent on their assessment tasks.

## 5. CHRISTIAN STUDIES

**Subject Type:** School Subject, compulsory for all students.

**Pre-requisites:** Nil

### 4.1 WHY STUDY CHRISTIAN STUDIES?

Pacific Lutheran College is owned and managed by the Lutheran Church of Australia which hopes that the history, beliefs and values of the Christian tradition may be handed on to the next generation. Religion has always been a vital part of the human community and Christianity is the largest of the many religions present in the world today. Even people without any formal religious affiliation are challenged by the inescapable questions of the meaning of life and death, of triumph and tragedy, good and evil that is part and parcel of human existence. A study of religion, associated disciplines, and especially Christianity, will help students reflect on some of those issues. Christian Studies provides many opportunities for students to practise skills tested in QCS papers.

### 4.2 COURSE DESCRIPTION

In the subject Christian Studies, students are given the opportunity to explore the nature of religion in general and a number of the world religions in particular. The course content includes studies of relevant global and local social issues from a religious perspective. Students explore a range of contemporary issues related to aspects of global justice and human rights, the nature of ethics and decision making, the place of story in the construction of self and a focus on Islam.

### 4.3 ASSESSMENT

A variety of assessment techniques are employed to reflect the most significant elements of the program.

Assessment may include:

- Research assignments
- Short answer tests
- Essays
- Document study responses

### 4.4 WORKLOAD AND EXPECTATIONS

Christian Studies requires the same academic skills as other humanities subjects in terms of the accumulation of knowledge and understanding of new concepts, the analysis and evaluation of what has been learnt and the effective communication of the information. Students have two lessons a week. Students are expected to complete one piece of assessment each term.

## 6. DANCE

**Subject Type:** Authority Subject

**Pre-requisites:** Nil



### 5.1 WHY STUDY DANCE?

Dance is a language of movement where the potential of the body as an instrument of communication is realised. It is a powerful and dynamic form of human expression. Dance encourages the holistic involvement of the individual. As students explore movement, responding to and making judgments about their experiences, they develop their physical and sensory awareness and strengthen their personal aesthetic. Exploring different contexts, genres and styles fosters a critical awareness of the aesthetic values of others, within and across cultures, and social groups. In contemporary society, dance exists in many forms, fulfilling ritual, cultural, social and entertainment purposes. Dance in Australia is a growing art form that reflects the increasing diversity of Australian society.

The senior school subject, Dance, provides opportunities for students to critically examine their experiences and understandings of dance and dance forms, exploring the interrelationship between practical and theoretical aspects of dance. As they study and participate in various dance contexts, genres and styles, students develop as creative, complex thinkers, effective communicators, reflective and independent learners and participants in an interdependent world. Students learn to choreograph, perform and appreciate danceworks.

### 5.2 COURSE DESCRIPTION

The course is designed to integrate dance components and dance skills with specific dance styles, genres and contexts. Dance in Years 11 and 12 will have a more specific focus on different styles and genres of dance, building from the Year 10 foundation course which focused on building dance skills, components and language.

Students learn in Dance through:

- Exploring movement, responding to and making judgements about their experiences
- Manipulating dance components and skills.
- Structuring danceworks.
- Performing danceworks, learning and developing technical and expressive skills.
- Developing physical and sensory awareness, while exploring and strengthening their personal aesthetic.
- Examining differing contexts, genres and styles, fostering a critical awareness of the aesthetic values of others, within and across cultures and social groups.

### 5.3 ASSESSMENT

Students are assessed through the dimensions of Choreography, Performance and Appreciation. In Choreography, students develop danceworks in response to stimuli to convey their choreographic intent. In Performance, students demonstrate their technical and expressive skills through the performance of danceworks. In Appreciation, students provide an extended response that may involve solving a problem, expressing and justifying a point of view, explaining and evaluating an issue, applying concepts or theories to a circumstance, or critiquing a dancework.

### 5.4 WORKLOAD AND EXPECTATIONS

Students will need to participate in both practical and theoretic lessons. Students will need to arrive to lessons prepared to partake in practical dance classes. Outside of school time will

be required to work on a range of practical and theoretical tasks including homework and assessment tasks. Students will need to conduct rehearsals in their own time.

## 7. DRAMA

**Subject Type:** Authority Subject

**Pre-requisites:** Nil.



### 6.1 WHY STUDY DRAMA?

Drama can be of advantage in any profession, as it helps students gain confidence in expressing themselves. Some pathways that the Study of Drama can lead to are: University degrees in the Performing Arts, Work in Television and Radio, Theatre work.

However, skills learned in drama are not limited to drama courses. They spread into many other directions that students may follow.

### 6.2 COURSE DESCRIPTION

Students' work is assessed in the dimensions of Forming, Presenting and Responding.

The course is a challenging and rewarding course of study for those students willing to engage in the aesthetics of one of the oldest art forms known. Not only can students enjoy the beauty and entertainment that drama has to offer, but they can be empowered by its ability to reflect, inform and shape our world.

#### 6.2.1 Forming:

Students will learn to:

- Manage the elements of Drama to create and shape dramatic meaning and action.
- Explore, analyse and shape dramatic text.
- Transform existing artistic work into new dramatic forms.

#### 6.2.2 Presenting:

Students will learn to:

- Use the elements of Drama to present dramatic action appropriate to a range of audiences.
- Use acting techniques in a variety of dramatic contexts.
- Interpret a range of dramatic styles.

#### 6.2.3 Responding:

Students will learn to:

- Demonstrate an understanding of the elements of Drama.
- Identify and analyse the cultural context and content of Drama.
- Synthesise understandings of form, content and context.

### 6.3 ASSESSMENT

Students will be assessed in both **Performance** and **Theoretical** tasks. Analysis will consist of critiques and reviews of performances, self-evaluation and investigating texts. Performance will be both individually and in groups. A commitment to team work and rehearsal is imperative.

### 6.4 WORKLOAD AND EXPECTATIONS

Students considering studying Drama should note that a significant portion of assessment involves group work. It is therefore important that students are available for all rehearsals and performances, typically this will be scheduled during class time but may involve some after school commitment.

Also before choosing this subject, students must be willing to:

- Perform in front of a variety of live audiences as well as the video camera.
- Learn lines (often lengthy and from different periods).
- Hunt for appropriate sets and costumes.
- Spend time in individual and group preparation.
- Attend and review live theatre in their own time (organised by the College).
- Read widely - play scripts, theories, reviews, text books.
- Develop confident written and oral communication skills.
- Attend and actively participate in practical workshops.
- Take risks and extend one's personal comfort zone in order to develop skills.



## 8. ENGLISH

**Subject Type:** Authority Subject

**Pre-requisites:** Sound Achievement or better in Year 10 English

### 7.1 WHY STUDY ENGLISH?

English provides a firm basis for managing and understanding the various, multi-faceted aspects of communication in our global community. It develops a student's ability to write and speak effectively and to become critical readers and writers of a range of texts. A Sound Achievement at exit is often a prerequisite for entry into a university course of study.

### 7.2 COURSE DESCRIPTION

Students will engage in a wide variety of texts including novels, plays, poetry, media texts and film. They will construct, analyse and critically examine texts to appreciate the meaning, language features and how they represent people, events and ideas. Literary texts form a strong basis for units.

The course is organised on semester-length themes that use a focus text or idea on which to base student learning and assessment.

Year 11	Semester 1	Australian Voices - narrative, film and novel study
	Semester 2	Voices from Afar - text studies from different times and different cultures.
Year 12	Semester 1	The Human Condition - imaginative writing, analytical response to a play text.
	Semester 2	Blurred Realities - versions of reality in novels and films.

### 7.3 ASSESSMENT

Each year, assessment is comprised of two spoken and four written tasks. Two written responses are completed under supervised conditions.

There is a balance between written and spoken assessment tasks across three broad categories:

- Analytical exposition
- Reflective / Persuasive
- Imaginative

### 7.4 WORKLOAD AND EXPECTATIONS

Senior English is a demanding course which requires students to immerse themselves in the material being studied. It will challenge them to interrogate texts more thoroughly and to become more critically aware of language choices and how cultural values underpin texts.

## 9. ENGLISH COMMUNICATION

English Communication is an alternative to the Authority subject Senior English.

**Subject Type:** Study Area Specification  
Does not contribute to OP

**Recommendation:** For students who may be choosing alternate pathways other than university study at the end of Year 12 or who have experienced difficulties in Year 10 English.

### 8.1 WHY STUDY ENGLISH COMMUNICATION?

Effective communication is integral to our society but not all students require Senior English to be able to pursue their career aspirations. English Communication provides an alternative if students do not wish to go on to university but move into work, apprenticeships or training.

### 8.2 COURSE DESCRIPTION

The course of study over four semesters is designed to promote vocational education as well as general knowledge and skills. Units are developed within the contexts of:

- Work
- Community
- Leisure

English Communication establishes a basis for students' further learning and develops essential communication skills to enhance employment opportunities. Students will:

- make meanings from and about everyday, mass media and literary texts
- develop abilities in speaking, listening, reading, viewing and writing responsive to diverse social contexts
- gain confidence in effectively and critically using texts and language, and making judgments.

### 8.3 ASSESSMENT

This subject offers students opportunities, within the context of work, community and leisure, to use language to perform tasks, use technology, express themselves, and interact in groups, organisations and the community. It focuses on developing students' understanding and use of language systems to communicate effectively.

### 8.4 WORKLOAD AND EXPECTATIONS

Students will complete a variety of written and spoken tasks in real-life contexts. Assessment will be conducted in both individual and group situations.

## 10. FURNISHING (CERT 1)

### MSF10113 – Certificate I in Furnishing (Release 1)



<b>Subject Type:</b>	VET (Vocational Education and Training)
<b>QCE Credits and Time:</b>	2 credits over two years (on successful completion of all units of competency in Year 12)
<b>Pre-requisites:</b>	Nil



Pacific Lutheran College is the Registered Training Organisation for this certificate and is solely responsible for delivering the training and assessment. Pacific Lutheran College is responsible for issuing the qualification certificate or statement of attainment for this certificate.

All fees for this certification is included as part of the school-fee arrangement for Pacific Lutheran College's enrolment. VET FEE-HELP is not available as a result.

Simply enrolling in this certification does not ensure:

- That the learner will successfully complete a training product on Pacific Lutheran College's scope of registration.
- That the training product can be completed by just meeting the nominal hours listed in the training package or participating in the selected mode of delivery based on skills, knowledge and experience.
- That the learner will obtain a particular employment outcome.

### 9.1 WHY STUDY FURNISHING?

Furnishing involves the design and manufacture of a number of different projects made from timber and timber products, including fittings and fixtures used to enhance the liveability, comfort or function of the product. Students should be aware that it is possible that they might be required to purchase and deliver additional materials for some major project/s.

#### 9.1.1 Careers

Completion of this program can lead into employment as a Home Improvements Installer or provide opportunity and employability for an apprenticeship in furniture making.

#### 9.1.2 Subject Pathway

Students may apply for further certificate courses through TAFE or seek school based apprenticeships and work experience within the furnishing trade. Further training pathways from this qualification may include a Certificate II or III Furnishing qualification.

### 9.2 COURSE DISCRPTION

This course includes the study of the following core and elective modules:

Core	MSAENV272B	Participate in environmentally sustainable work practices.
Core	MSAPMOHS2100A	Follow OHS procedures.
Core	MSAPMOPS101A	Make measurements.
Core	MSAPMSUP102A	Communicate in the workplace.
Core	MSAPMSUP106A	Work in a team.
Elective	MSFFM1001	Construct a basic timber furnishing product.

Elective	MSFFM1002	Operate basic woodworking machines.
Elective	MSFFM2001	Use furniture making sector hand and power tools.

### **9.3 ASSESSMENT**

Assessment is competency based. Students will be assessed through a variety of tasks such as written tests/folios and practical exercises.

### **9.4 WORKLOAD AND EXPECTATIONS**

Students and parents must also be aware that the school has the right to withdraw students from lessons on the grounds of unsafe practices or property damage.

Parents and students are advised that projects constructed at school may not be compliant with the standard required of similar commercially produced products and are intended for instructional purposes only. The college and/or its teachers accept no liability for injury caused through failure of such projects.

## 11. GEOGRAPHY

**Subject Type:** Authority Subject

**Pre-requisites:** Attainment of a 'C' standard for Studies of Society and Environment at Year 10 would be highly recommended.



### 10.1 WHY STUDY GEOGRAPHY?

Geography is a Social Science, which deals with people and the way they interact with their environments. It is the only Social Science which can be studied as part of Science courses at tertiary institutions.

In the study of Geography, we try to understand why things vary from one place to another on the earth's surface and what these variations mean for people. Geography is relevant whenever interaction occurs either between individuals in society or between individuals and their environments. Geography, therefore, is about asking questions and finding answers; it is not about learning 'facts'. As a result, Geography equips students with valuable life skills and essential study skills.

Years 11 and 12 Geography at Pacific Lutheran College gives students the opportunity to develop skills in photo-interpretation, field research, interview techniques, mapping, graphic interpretation, computer operation, report writing, essay writing and decision making, all of which are essential skills for tertiary study. The study of Geography can lead to courses at most tertiary institutions in Australia as well as employment opportunities too numerous to list.

### 10.2 COURSE DESCRIPTION

The course of study is based on **four themes**. Each theme contains **one focus unit** and, in addition, a minimum of **three elective units** are studied over the two years of study.

The four themes and the core units offered in Senior Geography are:

#### 10.2.1 Theme One - Managing the Natural Environment

- Focus Unit 1 - Responding to Natural Hazards
- Elective Unit - Coastal Studies

#### 10.2.2 Theme Two - Social Environments

- Focus Unit 1 - Investigating Social Environments
- Focus Unit 2 - Sustaining Communities
- Elective Unit - Connecting People and Places

#### 10.2.3 Theme Three - Resources and Environment

- Focus Unit 1 - Investigating Resource Use and the Environment
- Focus Unit 2 - Living with Climate Change
- Elective Unit - Ecotourism

#### 10.2.4 Theme Four - People and Development

- Focus Unit 1 - Investigating People and Development
- Focus Unit 2 - Feeding the World's People

### 10.3 ASSESSMENT

Geography is an academic subject.

There will be four pieces of assessment during each semester from the following:

- Practical activity / data response tests

- Knowledge tests
- Field reports
- Response to stimulus essays
- Non-written response / seminars

#### **10.4 WORKLOAD AND EXPECTATIONS**

Students of Geography will participate in a wide range of learning experiences to develop their understanding of the geographical concepts and issues studied.

Due to the nature of the subjects, students are required to undertake fieldwork in order to observe studied environments and to make recommendations to ensure sustainability. During the course, students will need to access and analyse a broad range of data and information, and therefore they will be expected to develop connections with relevant community and government organisations.

## 12. GRAPHICS

**Subject Type:** Authority Subject

**Pre-requisites:** A Sound or higher Level of Achievement in Year 10 Graphics would be an advantage.



### 11.1 WHY STUDY GRAPHICS?

Graphics contributes to the development of technology literacy and develops the communication and problem-solving skills required for a large number of education and vocational aspirations.

Graphics engages students in solving design problems and presenting their ideas and solutions as graphical products. Students explore design problems through the lens of a design process where they identify and explore a need or opportunity of a target audience. Through the design process, students are required to research, generate and develop ideas; produce and evaluate solutions. The design processes are based in the real-world design areas of industrial design, graphic design and built environment (architecture, interior design or landscape architecture).

### 11.2 COURSE DESCRIPTION

The expected home study will consist of between two to four hours a week.

In both Year 11 and Year 12, students will undertake study across all three topic areas (Built Environment, Industrial Design and Graphic Design). The core subject matter in Graphics is design process, design factors and a range of graphical representations. All core subject matter is included in Year 11 and then revisited and further developed in Year 12 where students formulate deeper understandings.

Graphics develops students' understanding of design factors and design processes in graphical contexts. Design problems provide settings for units of work where students create graphical representations of design solutions for a range of audiences. Students will learn a variety of Computer Aided Design (CAD) modelling software packages as well as substantial sketching components, 3D printing and other technologies.

Some learning experiences could include:

- Exploring design problems through iterative design sketching.
- Developing ideas through research, evaluations and proposing solutions.
- Appraising, recommending and evaluating against design criteria.
- Technical three dimensional modelling and drafting solutions to graphical problems.
- Preparing presentational drawings.
- Communicating solutions using graphical representations.
- Australian Standards 1100.

### 11.3 ASSESSMENT

Assessment is an integral part of the teaching and learning process. As well as design folios, students will be assessed by examination which could include drawing, 3D modelling and knowledge components.

### 11.4 WORKLOAD AND EXPECTATIONS

For Years 11 and 12, a large proportion of class time will be devoted to design folios,



however, workloads are continuous and students will be expected to undertake home study of two to four hours a week. Throughout each unit of work, students will need to work consistently and manage their time effectively to produce their design folios. Some students may benefit from additional tutorials to strengthen understandings of CAD software if not previously studied Graphics in Year 11.

### **11.5 SPECIAL REQUIREMENTS**

This course emphasises student's extensive use of sketching and software systems appropriate to the design areas in which they are working. Other resources available at Pacific for students include industry standard CAD modelling software packages installed on students laptops, sketching equipment, scanning facilities and printing facilities, including 3D printing. Students may use Apple Macintosh computers as most software is compatible.

## 13. HEALTH: BASIC CARE (CERT III)



### HLT33112 – Certificate III in Basic Health Care



<b>Subject Type:</b>	VET (Vocational Education and Training)
<b>QCE Credits and Time:</b>	Up to 8 credits over two years (on successful completion of all units of competency in Year 12)
<b>Pre-requisites:</b>	Acceptance into this course will close by end of March due to TAFE mandates.



TAFE Queensland East Coast is the Registered Training Organisation for this certificate with Pacific Lutheran College responsible for delivering the training and assessment. TAFE Queensland East coast is responsible for issuing the qualification certificate or statement of attainment for this certificate.

All fees for this certification is included as part of the school-fee arrangement for Pacific Lutheran College's enrolment. VET FEE-HELP is not available as a result.

Simply enrolling in this certification does not ensure:

- That the learner will successfully complete a training product on Pacific Lutheran College's scope of registration.
- That the training product can be completed by just meeting the nominal hours listed in the training package or participating in the selected mode of delivery based on skills, knowledge and experience.
- That the learner will obtain a particular employment outcome.

### 12.1 WHY STUDY HEALTH?

It is a Certificate III in Basic Health that centres on units for medical assistance, ambulance work and Defence medical assistance. This qualification covers workers who provide basic health care services to clients and the training involves direct client contact under supervision. It involves 15 units, 5 core and 10 electives with 75 hours of vocational placement. Year 12 will involve industry placement where students will be expected to deliver a very high level of patient care in a health care environment from their extensive Year 11 training base. Practical training will involve hands-on delivery from a registered nurse, not a teacher so this course is suited to individuals that are interested in working in the health industry.

#### 12.1.1 Careers

Completion of this program can lead into employment as a medical assistant or First Aid provider.

#### 12.1.2 Subject Pathway

Students may apply for further certificate courses through TAFE with further training pathways from this qualification may include a Certificate IV or Diploma level qualifications.

## 12.2 COURSE DISCRIPTION

### Vocational Units of Competency

Students will be enrolled in the following units of competency:

HLTIN301C	Comply with infection control policies and procedures.
BSBMED301B	Interpret and apply medical terminology appropriately.
HLTAP301B	Recognise healthy body systems in a health care context.
HLTWHS200A	participate in WHY processes.
BSBFLM303C	Contribute to effective workplace relationships.
HLTHIR301C	Communicate and work effectively in health.
HLTHIR403C	Work effectively with culturally diverse clients and co-workers.
HLTHIR404D	Work effectively with Aboriginal and/or Torres Strait Islander people.
CHCAC310B	Work effectively with older people.
BSBMED305B	Apply the principles of confidentiality, privacy and security within the medical environment
HLTCSD304D	Support the care of clients.
HLTCSD305D	Assist with client movement
HLTCSD306D	Respond effectively to behaviours of concern.

### 9.3 ASSESSMENT

Assessment is competency based. Students will be assessed through a variety of tasks such as written tests/folios and practical exercises.

### 9.4 WORKLOAD AND EXPECTATIONS

Parents and students are advised that all students are expected to complete a minimum of 75 hours of work experience at a Health Care provider to complete the course. This may involve times outside of normal school hours.

Students and parents must also be aware that the school has the right to withdraw students from lessons on the grounds of unsafe / unhygienic practices or property damage.

## 14. HOSPITALITY (CERT II)



### SIT20213 – Certificate II in Hospitality (Release 1)



<b>Subject Type:</b>	VET (Vocational Education and Training)
<b>QCE Credits and Time:</b>	4 credits over two years (on successful completion of all units of competency in Year 12)
<b>Pre-requisites:</b>	Nil



Pacific Lutheran College is the Registered Training Organisation for this certificate and is solely responsible for delivering the training and assessment. Pacific Lutheran College is responsible for issuing the qualification certificate or statement of attainment for this certificate.

All fees for this certification is included as part of the school-fee arrangement for Pacific Lutheran College's enrolment. VET FEE-HELP is not available as a result.

Simply enrolling in this certification does not ensure:

- That the learner will successfully complete a training product on Pacific Lutheran College's scope of registration.
- That the training product can be completed by just meeting the nominal hours listed in the training package or participating in the selected mode of delivery based on skills, knowledge and experience.
- That the learner will obtain a particular employment outcome.

### 13.1 WHY STUDY HOSPITALITY?

Hospitality 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 and their role as active informed citizens.

#### 13.1.1 Careers

This course can start students on an exciting and rewarding career path. Completion of this program can lead into employment as bar attendant, café attendant, catering assistant, food and beverage attendant, and front office assistant. It also provides the skills for students to engage in quality part-time employment.

#### 13.1.2 Subject Pathway

Students may apply for further certificate courses through TAFE or seek school based apprenticeships and work experience within the Hospitality trade. After achieving SIT20213 Certificate II in Hospitality, individuals could progress to a wide range of other qualifications in the hospitality and broader service industries.

### 13.2 COURSE DESCRIPTION

The purpose of this course is to allow schools to develop integrated work situations in the form of events or functions that involve a natural progression of activities associated with hospitality. An extended learning situation in which teams of students conduct a flow of work from kitchen through food preparation to restaurant service and clean-up is encouraged. The development of efficient and effective work practices and skills is to be emphasised. Venture

activities are incorporated into the course which facilitate the development of teamwork as well as the development of employability individual skills.

This course includes **Vocational Units of Competency**. Students will be enrolled in the following units of competency:

Core	BSBWOR203B	Work effectively with others.
Core	SITHIND201	Source and use information on the hospitality industry.
Core	SITHIND202	Use hospitality skills effectively.
Core	SITXCOM201	Show social and cultural sensitivity.
Core	SITXCCS202	Interact with customers.
Core	SITXWHS101	Participate in safe work practices.
Elective	SITXFSA101	Use hygienic practices for food safety.
Elective	SITXINV201	Receive and store stock.
Elective	SITHFAB203	Prepare and serve non-alcoholic beverages. *
Elective	SITHFAB204	Prepare and serve espresso coffee. *
Elective	SITHFAB206	Serve food and beverage. *
Elective	SITXFIN201	Process financial transactions.

The study area core will allow students to gain a broad picture of the hospitality industry, while the elective areas provide the experiences and opportunities to develop practical skills and knowledge.

### 13.3 ASSESSMENT

Assessment is competency based. Students will be assessed through a variety of tasks such as practical tasks, non-written presentations, response to stimulus tasks, objective and short response tests.

### 13.4 WORKLOAD AND EXPECTATIONS

Students are expected to wear a chef's uniform in the kitchen and will be required at additional college catering activities which may occur out of school hours. These additional activities are compulsory.

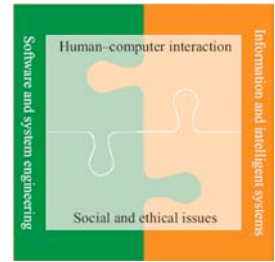
**Parents and students are advised that all students are expected to complete 40 hours of work experience at a hospitality provider to complete the course.**

Students and parents must also be aware that the school has the right to withdraw students from lessons on the grounds of unsafe or unhygienic practices or property damage.

## 15. INFORMATION PROCESSING AND TECHNOLOGY

**Subject Type:** Authority Subject

**Pre-requisites:** Students preferably studied Information Technology in Year 10 and have a real interest in computers including aspects of theory as well as programming.



### 14.1 WHY STUDY INFORMATION PROCESSING AND TECHNOLOGY?

The course provides students with skills, processes and understanding of Information Technology. IPT is an intellectual discipline that involves a study of information and intelligent systems, software and systems engineering, human computer interaction and the social and ethical issues associated with the use of information technology.

In studying Information Processing and Technology, students investigate the nature of, and methods associated with, information processing and related technologies, using a computer as the primary tool. Such a study helps students cope with the rapid rate of change associated with information technology and to appreciate its impact on society and the individual.

WEEK	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19					
S1	Area	Computer Systems / Social and Ethical Issues										Algorithms / Software Programming												
	Topic	Computer Systems					Networks					Learning C-Script					Game design Theory							
	Content	How computers are built Computer hardware History of computers					Networks and components. Design a network Proposal					RoboAnt					Code constructs and standards							
	Assessment	Exam					Case Study					Exam					Minor Project							
S2	Area	Software Programming / Algorithms/ Human Computer Interface															SE/ES							
	Topic	Introduction to Unity										Game Development												
	Content	Work with Blender and Unity investigating interfaces and how they interact										Design and Create a 3D game in Unity									Ethics of software pirating			
	Assessment											Minor project									Written Task			
S3	Area	Structured Query language				Relational Databases				Relational Information Systems/ SQL/ Software Programming														
	Topic	Introduction to SQL				Database Theory				MySQL/PHP/ HTML/JavaScript														
	Content	Development of Query language and use of online Databases.				How databases are constructed				Learning how to use MySQL and Php together effectively.								Information Systems development Students develop a fully functional web based database using MySQL, PHP and JavaScript.						
	Assessment	EXAM				EXAM												Major Project						
S4	Area	Relational Information Systems/ SQL/ Software Programming						Software Programming / Algorithms																
	Topic	Python Programming						Robotics						IT Future Direction										
	Content	Introduction to Python Use of Python to program Nao robot						Project with Robotics Programming						Research new technologies and their implications										
	Assessment							Minor Project						Written Task										

### 13.4 ASSESSMENT

The assessment program includes a variety of assessment techniques that are integrated within the learning experiences. These include written tasks, exams, and minor and major projects.

#### 14.3.1 Examinations:

Exams will involve students working individually and will be conducted under supervised test conditions.

#### 14.3.2 Written Tasks:

Written tasks will be extended responses of more than 1 000 words. The tasks will be undertaken in class as well as in the student's own time.

#### **14.3.3 Minor Projects:**

Minor projects will be undertaken in class as well as in the student's own time.

Parts of the SSE minor project will be conducted as a cooperative activity. The collaborative aspect will be the planning and designing of NS Diagrams and evaluating the scope of the database at this level. The actual construction of the database will be an individual task.

#### **14.3.4 Major Projects:**

Major projects require students to use all elements of the software design cycle to produce a significant system development. There is limited teacher guidance provided. Students are encouraged to work in teams and to a strict timeline. Significant class time will be devoted to this project.

On exit from the course, students are awarded an achievement level based on their latest and fullest information and their achievement of the exit criteria and standards of the course.

### **14.4 WORKLOAD AND EXPECTATIONS**

It is expected that some of students' own time will be needed in the completion of written tasks as well as minor and major project tasks. This may be in the form of lunchtime sessions in the lab, after school on a Wednesday.



## 16. JAPANESE

**Subject Type:** Authority Subject

**Pre-requisites:** Students wishing to study Japanese at a Senior level must have a thorough working knowledge of the Hiragana, Katakana and basic Kanji scripts. A solid 'Sound Achievement' in Year 10 Japanese is required.



### 15.1 WHY STUDY JAPANESE?

Year 11 Japanese continues to build on the core language covered in Year 10. Students will learn challenging vocabulary and grammatical structures to communicate more thoughts, ideas and topics using the four macro-skills of reading, listening, speaking and writing. Japanese opens many opportunities to operate in today's multilingual, multicultural world and will help students to:

- Develop the ability to communicate in another language through the four macro-skills of reading, writing, listening and speaking.
- Gain higher employment opportunities in Australia, Japan and the international arena in fields such as international business, politics, education, engineering and law.
- Improve literacy skills and understanding of English.
- Build on intercultural understanding and broaden cultural awareness.
- Use a second language learning experience in travel opportunities which may lie ahead - go on the Japan Trip!

### 15.2 COURSE DESCRIPTION

The Senior Japanese course is designed to allow students to communicate about complex and engaging topics such as travel, school exchanges, world issues and environmental conservation using a variety of language across the four macro-skills. The ability to demonstrate intercultural understanding becomes a focus in Year 11 Japanese.

### 15.3 ASSESSMENT

There are no assignments in Senior Japanese. Students will be assessed through exams each term across the four macro-skills. Throughout each term, students will be assessed in two of the four macro-skills.

### 15.4 WORKLOAD AND EXPECTATIONS

Students will be expected to revise their language across the four macro-skills on a regular basis at home to continue extending their proficiency. A minimum of 200 kanji characters will be introduced by the end of Year 12.

Students who do not have an adequate understanding of the language, are expected to attend weekly tutorials offered by the Japanese Department.

### 15.4 ADDITIONAL INFORMATION

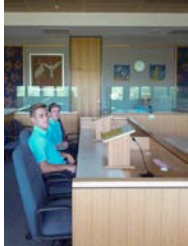
It is also noteworthy that the University of Queensland, Queensland University of Technology and Griffith University give two bonus Rank points for the successful completion (SA or better) of LOTE for the purpose of making offers (this does not alter the students' OP).

## 17. LEGAL STUDIES

**Subject Type:** Authority Subject

**Pre-requisites:** It is essential that students have achieved a sound standard or higher in English and SOSE in Year 10.

### 16.1 WHY STUDY LEGAL STUDIES



Legal Studies is about developing an understanding of the Australian legal system and how it affects citizen's basic rights, obligations and responsibilities. Students will explore how to become an active and informed citizen and learn how to constructively question and contribute to the improvement of laws and legal processes.

By examining factors that have led society to create a legal system, students will develop knowledge and understanding of the frameworks which regulate and shape our society.

Students will develop confidence in approaching and accessing the Australian legal system and will develop a better appreciation of the relationship between social and legal structures.

Through the investigation of legal issues, students will develop high-order thinking skills, including analysing, evaluating and justifying and will learn using case studies and scenarios.

### 16.2 COURSE DESCRIPTION

The Legal Studies course enables students to learn through the investigation of legal issues, exploring four core areas of study:

- The legal system
- Criminal law
- Introduction to civil obligations
- Human rights.

In addition, students will investigate several of the following elective areas of study:

- Technology and the Law
- International Law
- Environment and the Law
- Family and the Law
- Housing and the Law
- Employment and the Law
- Sport and the Law

### 16.3 ASSESSMENT

In Legal Studies, assessment instruments include extended responses (including an independent inquiry) and examinations. An independent inquiry involves undertaking an independent, self-directed, in-depth investigation of a topical legal issue facing Australian society. Extended responses include responses to research or stimulus materials, such as legal case studies, legislation, essays, articles, speeches or presentations.

Students are assessed based on the following dimensions:

#### 16.3.1 Knowing and Understanding the Law

The dimension Knowing and Understanding the Law involves describing, explaining and communicating legal facts, concepts and processes.

**16.3.2 Investigating Legal Issues**

The dimension Investigating Legal Issues involves exploring legal situations through selecting, organising and analysing information to demonstrate legal inquiry processes.

**16.3.3 Responding to the Law**

The dimension Responding to the Law involves examining the attempts of the law to achieve just, fair and equitable outcomes to legal issues.

**16.4 WORKLOAD AND EXPECTATIONS**

A significant amount of research is required in this course and students will be expected to complete much of this at home.

## 18. MATHEMATICS

Mathematics is an integral part of general education. It can enhance our understanding of our world and the quality of our participation in a rapidly changing society. In all its aspects, Mathematics is valuable to people individually and collectively, providing important tools, which can be used at the personal, civic, professional and vocational levels.

Mathematics A, Mathematics B and Mathematics C are the three Authority subjects available for students of Senior Mathematics. Students may choose to study any one of the following combinations of Senior Mathematics subjects:

- Prevocational Mathematics
- Mathematics A
- Mathematics B
- Mathematics B and C

Prevocational Mathematics provides opportunities for students to improve their numeracy to assist them in pursuing a range of vocational and personal goals. Becoming numerate means that a student should be able to manage a situation or solve a problem in real contexts that relate to their personal or professional life.

Students of Mathematics A, B and C will be given the opportunity to recognise the dynamic nature of mathematics and will approach its study through problem solving and applications in life-related contexts. They will work systematically, logically and practise communicating with and about mathematics. Students will also be given the chance to appreciate and experience the power, which has been given to Mathematics by advances in technology.

### 17.1 SEQUENCING

The topics in Mathematics are presented in an integrated sequence allowing students to see the links between topics in the course rather than seeing them as discrete units.

Due to the sequential nature of the subjects, students would have difficulty entering Mathematics B or C at any intermediary point.

### 17.2 ASSESSMENT IN MATHEMATICS

Students will be assessed using the following criteria:

- Knowledge and Procedures
- Modelling and Problem Solving
- Communication and Justification

A system of continuous assessment will be used in determining student performance during the course. A variety of assessment items will be used and may include:

#### Formal Examinations

##### Written Tasks

- projects
- investigations
- modelling
- reports

##### Extended Modelling and Problem Solving Tasks

- constructing models
- use of mathematical instruments including computer software or graphing calculators.

### **17.3 WORKLOAD AND EXPECTATIONS**

Students will be expected to complete a minimum of 2 hours of study / homework on Mathematics per week, in addition to time spent on their assignments and revision for exams. Prior knowledge from earlier year levels is expected to be maintained by students as a basis for developing new knowledge and understandings. Assistance at school tutorials is provided for students requiring support.

## 19. PREVOCATIONAL MATHEMATICS

- Subject Type:** Subject Area Specification  
Does not contribute to OP.
- Prevocational Mathematics will only be offered if there are sufficient numbers to warrant its inclusion in the curriculum.
- Pre-requisites:** Nil. This course is strongly recommended for students who have not reached a “C” standard in Year 10 Mathematics.

### 18.1 WHY STUDY PREVOCATIONAL MATHEMATICS

Prevocational Maths is designed to help students improve their numeracy by building their confidence and success in making meaning of mathematics. This course teaches the effective use of mathematics to meet the general demands of life at home, in paid work and for participation in community and civic life.

### 18.2 COURSE DESCRIPTION

Students study five topics:

- Number
- Data
- Location and time
- Measurement
- Finance

These will be integrated into teaching and learning contexts which have relevance to them.

The Pre Vocational topics to be taught and assessed within these units:

- 18.2.1 Maths and the Environment: Careers, taxation
- 18.2.2 Maths in the Workplace
- 18.2.3 Practical Project:
  - School Environmental Landscaping, Paving and Maintenance Projects
  - School Hobby Farm - Landscape construction and animal care
- 18.2.4 The Sharemarket (ASX)
- 18.2.5 Global Awareness
- 18.2.6 Health and Nutrition
- 18.2.7 Responsible Gambling
- 18.2.8 Moving Out: Accommodation, buying a car, mobile phones, credit cards, travel - interstate and overseas.

### 18.3 ASSESSMENT

- Information is gathered through a process of continuous assessment.
- Exit achievement levels are devised from student achievement in all areas identified in the study area specification as being mandatory.
- Assessment of a student’s achievement is in the significant aspects of the course of study identified in the study area specification and the school’s work program.

## 20. MATHEMATICS A

**Subject Type:** Authority Subject

**Pre-requisites:** It is expected that students will have reached a minimum of a “C” standard in Year 10 Mathematics.

### 19.1 WHY STUDY MATHEMATICS A?

In Mathematics A, students are given the opportunity to study and to enhance those skills which are needed to make decisions which affect their everyday lives.

The daily use of mathematics, at a personal level assists in making informed decisions in areas as diverse as buying and selling, choosing between loan repayment schedules or insurance plans, home maintenance, interpreting media presentations and forward planning. The mathematics involved in these activities includes: financial analysis data description; statistical inference; number quantification; estimation; spatial skills and measurement.

The study of Mathematics A will emphasise the development of positive attitudes towards a student’s involvement in mathematics. An approach involving problem solving and applications, working systematically and logically, and communicating with and about mathematics encourages this development. Most tertiary institutions do not consider Mathematics A as an adequate introduction to tertiary Mathematics courses. Students should check the pre-requisites thoroughly.

### 19.2 COURSE DESCRIPTION

To raise the level of competence in mathematics required for intelligent citizenship, the core of Mathematics A focuses on three strands of mathematics: Financial Mathematics, Applied Geometry and Statistics and Probability.

The core topics are:

#### 19.2.1 Managing Money I and II

Bank Interest, Credit Cards, Loans, Taxation, Budgeting, Investments.

#### 19.2.2 Elements of Applied Geometry

Simple Trigonometry, Area and Volume, Latitude, Longitude and Time Zones

#### 19.2.3 Data Collection and Presentation

Graphical and Tabular Presentations, simple methods for Describing and Summarising Data

#### 19.2.4 Linking Two and Three dimensions

Scale Drawings and Plans, Estimation of Quantities and Costing

#### 19.2.5 Maps and Compasses involving either Navigation or Land Measurement

Practical use of a variety of maps, Compass bearings, Orienteering, Navigation, Site Plans

#### 19.2.6 Exploring and Understanding Data

Summary Statistics, Simple Probability, Interpretation of Reports in the Media.

## 21. MATHEMATICS B

**Subject Type:** Authority Subject

**Pre-requisites:** Students must have attained at least a high “C” in Year 10 Pre Mathematics B.

### 20.1 WHY STUDY MATHEMATICS B?

In Mathematics B, mathematical skills are developed which form the basis for further study in mathematics. These skills are needed not only in the traditional careers of engineering or the physical sciences, but also as tools in fields as diverse as agriculture, food technology, geography, biology, economics and management. The modes of thinking developed in Mathematics B provide ways of modelling and problem solving in situations in order to explore, describe and understand the world’s social, biological and physical environment.

Mathematics B is designed to raise students’ competence in and confidence with the mathematics needed to make informed decisions to ensure scientific literacy and to function effectively in a technologically skilled work force.

Many careers and post secondary courses require Mathematics B as a pre-requisite. It is a pre-requisite for all Mathematics / Science related courses and many business related courses. The pre-requisites vary across tertiary institutions and students should check these carefully.

### 20.2 COURSE DESCRIPTION

The topics to be studied include:

#### 20.2.1 Introduction to Functions

Linear, trigonometric, periodic, power, exponential and logarithmic.

#### 20.2.2 Periodic Functions and Applications

Recognition of periodic functions, sketching, investigating shapes and relationships, general forms of periodic functions.

#### 20.2.3 Rates of Change

Instantaneous and average rates of change.

#### 20.2.4 Exponential and Logarithmic Functions and Applications

Exponential functions, logarithmic functions, the relationships between them, compound interest, annuities.

#### 20.2.5 Introduction to Integration

Applications of integration.

#### 20.2.6 Optimisation using Derivatives

Differentiation as a tool in a range of situations which involve the optimisation of continuous functions.

#### 20.2.7 Applied Statistical Analysis

Types of variables and data, stem-and-leaf and box-and-whisker plots, probability, random sampling, discrete and continuous probability distributions, inference.



## 22. MATHEMATICS C

**Subject Type:** Authority Subject

**Pre-requisites:** It is recommended that students have attained at least a 'B-' in Year 10 Pre Mathematics B.

Students enrolling in Mathematics C must also be studying Mathematics B, as much of the material in Mathematics B is taken as pre-requisite knowledge for Mathematics C.

### 21.1 WHY STUDY MATHEMATICS C?

In Mathematics C, students are given the opportunity to develop their full mathematical potential and extend the knowledge acquired in Mathematics B. They will be encouraged to recognise the dynamic nature of mathematics through problem solving and applications in life-related situations. Opportunities are provided for students to appreciate and experience the power of mathematics and to see the role it plays as a tool in modelling and understanding many aspects of the world's environment.

The additional rigour and structure of the mathematics required in Mathematics C will equip students with valuable skills which will serve them in more general contexts and provide excellent preparation for further study of mathematics and other tertiary courses, for example Engineering, Information Technology, Economics, Finance. Mathematics C is a highly desirable preparatory course for students who intend pursuing a career involving the study of mathematics at a tertiary level.

### 21.2 COURSE DESCRIPTION

The core topics are:

#### 21.2.1 Introduction to Groups

Investigate structures and properties of group, Identify common features found in systems such as real and complex number systems, matrices and vectors.

#### 21.2.2 Real and Complex Number Systems

Investigation of the complex number system and an awareness of its applications.

#### 21.2.3 Matrices and Applications

Algebraic structure of matrices; Application in a variety of situations; Effect of technology in this area.

#### 21.2.4 Vectors and Applications

Links between matrices and vectors; Vectors as entities to describe naturally occurring systems.

#### 21.2.5 Further Calculus

Extended knowledge of analytical and numerical techniques of integration, differential equations and their applications.

#### 21.2.6 Structures and Patterns

Recognition of symmetries and patterns in a variety of situations; Mathematical arguments, generalisations, justification and methods of proof.

## 23. MODERN HISTORY

**Subject Type:** Authority Subject

**Pre-requisites:** A minimum of a 'C' in both Year 10 English and Studies of Society and Environment would be strongly recommended.

An interest in the modern world and the issues we face in bringing about change to human experience is also recommended.

### 22.1 WHY STUDY MODERN HISTORY?

History is about change. It looks at people over times past and present in different societies, noticing and explaining their attitudes, beliefs and behaviours, and interpreting their reaction to the various pressures, conditions and events that induce change.

The ultimate purpose of studying history is to give meaning to our own life - a personal statement of identity. History remembers the past, explains the present, and gives hopes and interpretations for our future. Therefore, studying Modern History can help us live more effectively as global citizens.

### 22.2 COURSE DESCRIPTION

#### 22.2.1 Unit 1

- Studies of Power
- A look at what power is
- Power as authority and control - Nazi Germany
- A non violent / Buddhist approach to power - The Tibetan Government in exile.

#### 22.2.2 Unit 2

- Studies of Hope
- The creation and destruction of hope in modern indigenous Australia
- Philosophical and practical aspects of non-violent passive resistance - Gandhi's influence
- The movement for Civil Rights in the United States

#### 22.2.3 Unit 3

- The history of ideas and beliefs.
- Islam and the Jihadist.
- The end of modernism and the rise of post modernism.
- The influence of the neo conservatives and radical Islamists on history.
- Are fundamentalist approaches to Islam and Christianity likely to keep world peace?

#### 22.2.4 Unit 4

- Studies of Conflict.
- Conflict in the world since the end of the Cold War.
- The War in Iraq 2003 to present.
- One Holy War? September 11 and the War on terror.

### 22.3 ASSESSMENT

Short Answer tests  
 Written Research Assignments  
 Multi Modal Presentations  
 Essays  
 Response to Stimuli

## **22.4 WORK LOAD / EXPECTATIONS**

Students of Modern History will participate in a wide range of learning experiences in order to develop critical thinking skills.

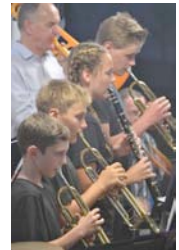
The course places emphasis on the inquiry process and requires students to undertake two extended inquiries per year. For these tasks, students are required to keep a record of their research that incorporates reflection on the sources accessed, as well as on the inquiry process. Research journals allow students to document their thinking, and therefore they assist with the process of formulating and sustaining historical arguments.

## 24. MUSIC

**Subject Type:** Authority Subject

**Pre-requisites:** Students seeking entry into Senior Music from Year 10 Music must have attained a **'C' or higher** as their overall level of achievement.

Students seeking entry into Senior Music who did not choose Music in Year 10 will need to provide evidence of prior learning in Music theory and/or Music Performance.



### 23.1 WHY STUDY MUSIC?

Students live in a world in which music has an important and pervasive presence. Whether actively engaging in music by listening, performing (learning an instrument, playing in a band), composing, or incidentally encountering music, students have an individual experience of music. Music is an integral part of everyday life serving self-expressive, celebratory, social, cultural, political and educational roles. As a powerful educative tool, music contributes to the holistic development of the individual.

The study of Music develops skills such as logical, critical and divergent thinking, decision-making, and concept formation. Studies in music develop specialised skills that impinge on all aspects of development: cognitive, affective and psychomotor. In this way music contributes to the development of human intelligence.

Students studying music are empowered by its vast capacity as a creative medium. They gain insight, discover sensibility and learn the self-discipline that leads to artistic freedom. Music education programs inspire students to be involved with music as a leisure pursuit or as a career.

### 23.2 COURSE DESCRIPTION

The 'experience of music' takes place by the development and use of audiation, through exploring musical elements within a variety of contexts, genres and styles, to achieve the general objectives of *Musicology*, *Repertoire*, *Composing* and *Performing*.

#### 23.2.1 Musicology:

Students deconstruct repertoire and determine the relationships between identified musical elements and compositional devices, and evaluate how these relate to context, genre and style.

#### 23.2.2 Composing:

Students combine the musical elements and compositional devices to create music that is within a context and/or genre, and which expresses style.

#### 23.2.3 Performing:

Students, through playing, singing or conducting, interpret musical elements to communicate the music to audiences (real or virtual), within a context and genre while expressing style.

The general objectives incorporate these key competencies:

- Collecting, analysing and organising information;
- Communicating ideas and information;
- Planning and organising performances;
- Working with others and in teams;
- Solving problems;
- Using technology.

### 23.3 ASSESSMENT

A variety of assessment techniques is used to measure student achievement. The techniques are used in conjunction with formal and informal feedback to students at regular intervals. Such assessment tools may include **formal tests, oral presentations, individual research assignments, composition tasks and assignments and various performance tasks.**

### 23.4 WORK LOAD / EXPECTATIONS

Students are expected to come to each lesson well prepared. This includes materials required for each lesson and an attitude fostering focused, constructive, positive, and meaningful learning. Home / Private study requires the student to spend a minimum of 30 minutes of Senior Music related study time each day.

Students will need to be learning an instrument or willing to take lessons to complete this subject.

## 25. PERSONAL DEVELOPMENT

### 24.1 OVERVIEW

The focus of the Personal and Social Development program is directly related to the context in which the students come from and hence can often be very fluid. The students at Pacific Lutheran College are unique in their needs and their perceptions and, therefore, the program reflects this.

An essential component of the program is promoting the growth and development of the individual, in relationships and as part of the Pacific Lutheran College and wider community.

The Personal and Social Development program includes aspects of life such as self-improvement, self esteem building, recreation skills, vocational skills, life skills and health education. The focus in Semester 2 Year 11 and for much of Year 12 is in readying students for the Queensland Core Skills Test.

### 24.2 COURSE DESCRIPTION

Key units in Year 11 include:

- Student Planning for Success - study skills, homework schedules, balancing school, family, leisure, work and friendships.
- Personal Leadership Training.
- Apply First Aid and CPR Course (formerly Senior First Aid Course) and Certification.
- Substance Abuse - Party Drugs, Responsible Decision Making.
- QCS Preparation.

During Year 12, the preparation for the three types of tests in CST is completed:

- The Writing Task
- Multiple Choice Questions
- Short Response Items

The final unit is about Moving On - Life After School. Discussions and presentations range from Managing Money and Banking to Driver Education.

### 24.3 ASSESSMENT

There is no formal assessment in this subject.

## 26. PHYSICAL EDUCATION

**Subject Type:** Authority Subject

**Pre-requisites:** There are no pre-requisites for the study of Physical Education. Students should have an interest in participating in physical activities. Students will benefit from having studied Year 10 Physical Education.



### 25.1 WHY STUDY PHYSICAL EDUCATION?

Physical Education, in the Senior College context, involves the study of physical activity and engages students as intellectual performers, learning in, about and through physical activity. Physical Education focuses on the complexity of, and interrelationships amongst, psychological, biomechanical, physiological and sociological factors. These factors influence individual and team physical performances, and wider social attitudes towards physical activity. Intelligent performance involves rational and creative thought at a high level of cognitive functioning and engages students, not only as performers but also as analysts, planners and critics in, about and through physical activity.

### 25.2 COURSE DESCRIPTION

Students study four physical activities over the course with equal time and emphasis given to each activity. Fifty percent (50%) of timetabled time involves student engaging in physical activity. At Pacific Lutheran College, the physical activities have been selected to utilise the seasons, facilities and staff expertise, along with consideration for individual student abilities.

The physical activities and theory units will be chosen from the following list depending on student numbers and expertise.

#### 25.2.1 Practical

Basketball, Touch, Soccer, Netball, Sprint Kayaking, Badminton, Athletics, Tennis, Golf and Biathlon.

#### 25.2.2 Theory

Content Area A **Learning physical skills**

- Skill acquisition
- Psychology of learning
- Biomechanical bases of learning physical skills

Content Area B **Processes and effects of training and exercise**

- Energy for physical activity
- Training, exercise and physical performance
- Acquiring and evaluating physical performance capacities.

Contact Area C **Sport, physical activity and exercise in the context of Australian society**

- Patterns of participation
- Figueroa's Framework.

### 25.3 ASSESSMENT

Students will be involved in a variety of written and physical learning experiences that are focused on the study of the four physical activities. These could include such activities as designing a training program for a team, analysing popular beliefs about physical activity and

debating current sporting issues. Learning experiences are designed to link closely with the practical and allow a personal approach.

Four different assessment techniques are developed and used in the subject: Extended Written Response, Training Journal, Written Exam and Research Report.

#### 25.4 WORKLOAD AND EXPECTATIONS

Students will be expected to complete approximately one hour's theory homework and one hour's practical homework per week. Students will be encouraged to participate in lunchtime practices and represent the school in appropriate sport teams according to their field of study.

#### 25.5 FUTURE STUDY

A study of Physical Education could be of interest to students wishing to enter the following fields:

- Physical fitness instructor
- Physical Education teacher
- Physiotherapist
- Recreation / Youth leader
- Sports Administrator
- Sports journalist
- Sports psychologist
- Sports scientist
- Medical Practitioner
- Tertiary Lecturer
- Professional athlete / sportsperson
- Sports coach
- Teacher
- Defence Force

or interested in learning about physical activity whilst participating in it.

Example of Year 11 course 2017:

Term 1	Volleyball	<ul style="list-style-type: none"> <li>• Skill Learning</li> <li>• Multi Modal Report</li> </ul>
Term 2	Badminton or Touch	<ul style="list-style-type: none"> <li>• Research Report</li> <li>• Participation Patterns</li> </ul>
Term 3	Badminton or Netball	<ul style="list-style-type: none"> <li>• Exercise Physiology</li> <li>• Exam</li> </ul>
Term 4	Biathlon or Kayaking	<ul style="list-style-type: none"> <li>• Training Journal</li> </ul>



## 27. PHYSICS

**Subject Type:** Authority Subject

**Pre-requisites:** Students should have an interest in the units of Physics studied in Years 8 to 10. At least a 'C' in Year 10 Science and Mathematics is strongly recommended.

Students studying Physics must also take Mathematics B to complement the mathematical skills necessary for success in Physics. Some topics in Mathematics C overlap with Physics topics and will assist the student in understanding both subjects.

### 26.1 WHY STUDY PHYSICS?

Physics is the study of the nature and properties of matter and energy and how they interact with each other. It is an investigative and experimental science that involves formulating and testing hypotheses through analysing phenomena in order to understand how the universe works. Physics values methods of precise measurement, reproducible experimentation and powerful mathematical relationships. Physics frequently represents theories and phenomena mathematically. The knowledge and understandings of Physics is constantly expanding, contributing to new information, ideas and theories to explain observations and experiences.

### 26.2 COURSE DESCRIPTION

In Physics, subject matter is derived from key concepts and key ideas. The key concepts are organised under the headings of Forces, Energy and Motion.

#### 26.2.1 Forces

- The nature of a force.
- Forces that act on objects influence their state of equilibrium.
- Forces are able to influence the motion and shape of objects.
- The forces that act on objects influence their internal energy.

#### 26.2.2 Energy

- Energy may take different forms originating from forces between, or relative motion of, particles or objects.
- Energy is conserved.
- Energy transfer processes provide us with different ways of using and dealing with energy and radiation and these have different social consequences and applications.

#### 26.2.3 Motion

- Motion can be described in different ways.
- Motion can be analysed in different ways.
- Motion can be described using various models and modern theories. You will progressively explore and develop your understandings of these over the course of study through six to twelve units of work.

There are three general objectives of the course that represent aspects of Physics that will help students develop their scientific literacy. They are *Knowledge and Conceptual Understanding*, *Investigative Processes*, and *Evaluating and Concluding*.

## 26.3 ASSESSMENT

Assessment in Physics gives you opportunities to demonstrate *Knowledge and Conceptual Understanding, Investigative Processes, and Evaluating and Concluding*.

In Physics, assessment instruments include:

### 26.3.1 Extended Experimental Investigations

Within this mandatory category, instruments are developed to investigate a hypothesis or to answer a practical research question.

### 26.3.2 Supervised Assessments

Within this mandatory category, instruments such as written tests are used, and conducted under supervised conditions to ensure authentication of student work.

### 26.3.3 Extended Response Tasks

Within this category, instruments are developed in response to a Physics question, circumstance or issue and while they are essentially non-experimental they may draw on primary experimental data.

In Year 12, you will be expected to complete at least four and a maximum of six assessment instruments, of which one will be an extended experimental investigation and at least one supervised assessment.

## 26.4 WORKLOAD AND EXPECTATIONS

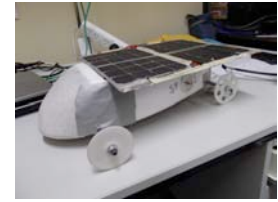
The syllabus presents a framework that will develop students' understanding and appreciation of Physics in real world, relevant contexts. It will encourage students to think creatively and rationally about Physics, will challenge them to understand and act responsibly on physics-related problems and issues and will aid them to communicate scientific ideas and observations effectively in a range of modes.

Students will be expected to complete at least two hours of study on Physics per week, in addition to time spent on their assessment tasks.

## 28. TECHNOLOGY STUDIES

**Subject Type:** Authority Subject

**Pre-requisites:** There are no pre-requisites.



### 27.1 WHY STUDY TECHNOLOGY STUDIES?

Technology Studies empowers students to explore the relationships between technology and society in order to be informed, responsible and responsive users and creators of technology. Technology encompasses the purposeful application of knowledge, resources, materials and processes to develop solutions. Solutions are the ideas and products developed in response to design problems. Technology Studies engages students in responding to real-world problems. These problems are based on identified human needs or become opportunities for improvement or advancement. Technology Studies provides opportunities for students to develop skills in strategic and creative thinking, practical problem solving, information analysis, project management, and challenges them to understand and appreciate technological innovation and its impact on society.

Students build the skills of project management, enabling them to manage resources and risks effectively to develop solutions to design problems. Students critique and evaluate ideas and products against design criteria developed in response to the design problem and they justify decisions and make recommendations.

A course of study in Technology Studies can establish a basis for further education and employment in the fields of industrial design, product design, civil engineering, mechanical engineering, electrical engineering, architecture and project management.

### 27.2 COURSE DESCRIPTION

Technology Studies is designed to enable students to develop an understanding and learning experiences through the dimensions of Analysing Design Problems, Applying Design Factors and Communicating and Synthesising and Evaluating Designs.

The four-semester course of study consists of:

- core subject matter:
  - design process
  - design factors
- six to eight units of work that provide opportunities for students to:
  - investigate a range of design problems
  - apply the design factors
  - apply the design process.

Using a design process, you will investigate design problems from a variety of contexts, while considering the human needs of individuals and communities, or in response to identified opportunities. You will explore and analyse design factors to develop ideas and produce products through the practical application of manufacturing technologies and materials. Products are created because they meet a need and confirm your design decisions.

### 27.3 ASSESSMENT

Assessment in Technology Studies gives you opportunities to demonstrate your knowledge and understanding of how to develop solutions to design problems using a design process. You will analyse design problems and apply design factors, then develop ideas and produce products, evaluating your processes and solutions as you work.

Assessment instruments include:

**27.3.1 Design Folios**

These involve undertaking and documenting a design process where you develop ideas and produce products in response to a design problem.

You will document your process using both visual and written communication, which may include freehand sketches, drawings, computer-generated images, photographs, animations, videos, annotations, paragraphs and extended writing.

**27.3.2 Reports**

These involve analysing the relationship between a product and society, and may include proposing solutions, expressing and justifying a point of view or explaining and evaluating an issue.

In Year 12, you will be expected to complete two to three assessment responses, including at least one design folio and one other assessment.

**27.4 WORKLOAD AND EXPECTATIONS.**

The assessment in Technology Studies is ongoing and self-directed in nature. Students will need to manage their time effectively, both at home and in class, in order to successfully complete a seven to ten week task.

The expected home study will consist of between two to four hours a week.