



Lake Joondalup Baptist College

2018

Year 10

**Subject
Handbook**

Contents

Contents	2
Welcome to the 2018 Year 10 Subject Handbook	4
The Curriculum Framework	5
Outcomes of Learning	5
Ten Learning Areas at LJBC	5
Christian Values and Community Focus	6
Overarching Learning Outcomes Curriculum Framework	6
The Australian Curriculum	7
Compulsory Online Literacy and Numeracy Test (OLNA)	8
Electives Selection	9
Year 10 Electives Selection 2018	9
Additional Compulsory Subjects	10
Christian Education	10
Year 10 to 12 Wellbeing Days	10
Year 10 Careers Program.....	10
Curriculum Team	11
The Arts	12
Year 10 Drama	12
Year 10 Media	13
Year 10 Music	14
Year 10 Visual Arts.....	15
Year 10 VET Music.....	16
Careers	18
Year 10 Careers	18
English	19
Year 10 English	19
Extension Program	20
Year 10 Future Problem Solving	20
Health & Physical Education	22
Year 10 Health and Physical Education	22
Year 10 Health Studies.....	23
Year 10 Outdoor Education	24
Year 10 Physical Education Studies	25
Humanities	26
Australian Curriculum – Humanities and Social Sciences	26
Languages	27
Year 10 French.....	27
Year 10 Japanese	28
Mathematics	29
Year 10 Mathematics.....	29
Science	31
Year 10 Science – Australian Curriculum v8.1	31

Technologies..... 33
Year 10 Computing..... 33
Year 10 Design & Technology 34
Year 10 Foods..... 35
Year 10 iSTEM – Technologies 36
Year 10 Textiles and Children, Family, Community 37

Welcome to the 2018 Year 10 Subject Handbook

Year 10 is the start of Senior Secondary school and the time for students to invest wisely in their future. The expectations of staff are that students studying the Year 10 academic program will understand the consequences of efforts in Year 10 in determining course choices in Years 11 and 12. We advise Year 10 students to maximise their options by ensuring that, from the start of Year 10, they are achieving to the best of their ability in order to attain the pre-requisite grades needed to enter specific courses for Years 11 and 12 and, thereby, preparing for the requirements of the WACE.

The purpose of this handbook is to provide students with information about the academic subjects that are provided in the curriculum suite for Year 10 at Lake Joondalup Baptist College. All Learning Areas have contributed to this handbook as has the Curriculum Administrative Team.

Students in Year 10 are currently studying a combination of subjects that are aligned with either the Australian Curriculum (Western Australian Curriculum) or the outgoing Curriculum Framework. Students at the College are transitioning from the Curriculum Framework to the Australian Curriculum and this process will largely be complete by the end of 2018. The Australian Curriculum is a national initiative and will gradually be implemented across all states and territories in Australia. In Western Australia the incoming Australian Curriculum is now referred to as the Western Australian Curriculum and Assessment Outline. At Lake Joondalup Baptist College, Phase 1 and 2 of the three Phase process has been implemented. Phase 3 is due to be implemented by 2018 with the exception of Languages. Teachers at the College continue to trial Phase 3 subjects particularly where that content aligns seamlessly with the current Curriculum Framework.

In 2018, Year 10 students will study the compulsory subjects of English, Mathematics, Science, the combined subject of Humanities & Social Sciences, Career Education and Christian Education. Health and Physical Education (non-elective component) is also a compulsory subject in 2018. Subjects that provide students with electives from which to choose, come from the Learning Areas of The Arts, Technologies, Health & Physical Education and Languages (Languages other than English).

We encourage our students to choose wisely from the electives available and to commit to the compulsory subjects, in order to best prepare their academic foundations for the rigour of Years 11 and 12. Year 10 is the gateway to higher studies and the last stop for the choices that will determine future pathways. It is also important for students to accept their position as senior students and, therefore, as role models to younger students in the College.

We wish our students well as they pursue their academic goals.

The Curriculum Framework

(Finishes in 2018 with the exception of Languages other than English)

The Curriculum Framework is implemented in all schools in Western Australia.

It is a structure which allows students to:

- experiment with new skills
- discover new processes
- explore new technologies
- test new materials
- develop new ideas
- understand new information
- work on tasks alone, in groups or with the whole class.

These experiences are called 'learning opportunities'.

Outcomes of Learning

The learning opportunities are used to help students improve their success in the '**outcomes**' of each course they are studying. Outcomes are the end result of study and show what students '**can do**'.

Some outcomes are **compulsory** and will be present in every subject taken in Year 10. The 13 compulsory outcomes are called **the 'Overarching Learning Outcomes'** and are listed on the next page.

Outcomes, which relate to specific subjects only, are called '**Learning Area Outcomes**' and are shared by all the subjects that belong to the same Learning Area.

Ten Learning Areas at LJBC

- The Arts
- English
- Christian Education
- Health & Physical Education (incorporating protective behaviours)
- Languages other than English (Japanese and French)
- Mathematics
- Science
- Humanities
- Technologies
- Career Education

Learning Enhancement (Additional Support and Gifted and Talented)

Christian Values and Community Focus

All Learning Areas at Lake Joondalup Baptist College have the following aims embedded within teaching and learning programs:

- To provide a community founded on Christian values within which a student's full potential (intellectual, emotional, physical, spiritual, cultural, social) can be developed
- To encourage, enhance and develop numeracy and communication skills necessary for continued learning and personal growth throughout life
- To encourage a valuing of the local, global and universal environment, in order to adopt responsible attitudes towards our stewardship of it
- To provide opportunities for developing respect for others and their points of view, the ability to work cooperatively and collaboratively, and for service to others as an expression of responsible citizenship
- To equip students with an appreciation of their own worth and the value of others
- To develop in students the confidence and ability to make decisions about all aspects of life, including vocational pursuits
- To help students deal creatively with economic and social realities.

Overarching Learning Outcomes Curriculum Framework

The thirteen compulsory overarching outcomes are listed below:

1. Students use language to understand, develop and communicate ideas and information and interact with others.
2. Students select, integrate and apply numerical and spatial concepts and techniques.
3. Students recognise when and what information is needed, locate and obtain it from a range of sources and evaluate, use and share it with others.
4. Students select, use and adapt technologies.
5. Students describe and reason about patterns, structures and relationships in order to understand, interpret, justify and make predictions.
6. Students visualise consequences, think laterally, recognise opportunity and potential and are prepared to test options.
7. Students understand and appreciate the physical, biological and technological world and have the knowledge, skills and values to make decisions in relation to it.
8. Students understand their cultural, geographic and historical contexts and have the knowledge, skills and values necessary for active participation in life in Australia.
9. Students interact with people and cultures other than their own and are equipped to contribute to the global community.
10. Students participate in creative activity of their own and understand and engage with the artistic, cultural and intellectual work of others.
11. Students value and implement practices that promote personal growth and wellbeing.
12. Students are self-motivated and confident in their approach to learning and are able to work individually and collaboratively.
13. Students recognise that everyone has the right to feel valued and be safe and, in this regard, understand their rights and obligations and behave responsibly.

The Australian Curriculum

The College continues to implement the different phases of the Australian Curriculum as the subjects become available. Here in Western Australia the Australian Curriculum is being adjusted to suit the needs of Western Australian students. The term Western Australian Curriculum and Assessment Outline replaces the term Australian Curriculum as the various phases are implemented.

In 2017, the remaining subjects that are still using content from the curriculum Framework will prepare for full implementation of the Western Australian Curriculum in 2018. The exception to this is Languages.

The Phase 1 subjects of English, Mathematics, Science and Humanities & Social Sciences are currently aligned with the Australian Curriculum (Western Australian Curriculum) up to and including Year 10.

In 2017, the Phase 2 subject of Humanities & Social Sciences is fully implemented as is Health and Physical Education. Health and Physical Education also incorporates a Protective Behaviours Syllabus.

In 2018, the Technologies and The Arts syllabi will be fully implemented. Teachers at the College are currently embedding and trialling a substantial portion of the content for the Western Australian Curriculum. This ensures that our students are well prepared for the Year 11 and 12 Courses of Study on offer in senior Secondary.

Languages other than English will continue making use of the content from the Curriculum Framework and will adopt the new syllabi for the various year groups as they become available.

Please note that Languages are available for optional study in Years 9 and 10. Incentives from universities to add a bonus 10% to the score of students studying Languages for their WACE until the end of Year 12 currently exists.

Compulsory Online Literacy and Numeracy Test (OLNA)

To achieve a WACE (Western Australian Certificate of Education) students will need to demonstrate a minimum standard of literacy and numeracy, either through prequalifying by achieving Band 8 or higher in reading, writing and numeracy in their Year 9 NAPLAN or through the Online Literacy and Numeracy Assessment (OLNA).

The minimum literacy and numeracy standard is the skills regarded as essential to meet the demands of everyday life and work. These are described in Level 3 of the Australian Core Skills Framework. There are three online assessment components in the OLNA – reading, writing and numeracy. The reading and numeracy components each comprise 60 multiple-choice questions; the writing component is an extended response of up to 600 words. Students are allowed 60 minutes for each assessment.

Opportunity to sit OLNA: Years 10, 11 and 12

All 2018 Year 10 students at Lake Joondalup Baptist College will sit the OLNA for the first time in March (2018). Students who do not demonstrate the required standard in one or more of the three components will be given further opportunities to do so at stipulated times during the school year until the end of Year 12.

Note: If a student has performed poorly in a particular area in the Year 9 NAPLAN they may be selected to participate in a targeted withdrawal program designed to assist them to prepare for the OLNA in the weeks prior to the first round of testing in 2018. Students will be identified by the Learning Enhancement Team and invited to participate. Remaining students who sit the OLNA will be prepared for the testing within their normal English and Mathematics classes.

Electives Selection

Apart from the compulsory subjects in Years 7-10, students in Year 10 may choose electives within their curriculum. From the choices made by students, it will be determined whether an electives class will run and the number of classes that will run. If an electives class does not run, or is full, the next available electives class in order of a student's preference will be considered for that student. It is recommended that students consider their choices of electives in terms of choosing an overall education package with respect to providing substantial curriculum foundation for the senior years ahead. Students should also consider the courses they choose with regards to what they know they are most interested in.

Please note that the new iStem – Technologies elective has a strong technologies focus and replaces Design and Engineering.

In Year 10, students choose three electives and two reserves.
There may be fees associated with some of these electives.

Year 10 Electives Selection 2018

You will be asked to enrol for these subjects via the web using *WebChoices*. All students will be issued with an information sheet explaining the process and the minimum requirements with regards to access to the site. This information is specific to each student and will give them their individual student access code. It is important that this information sheet be kept safely and students should choose their electives in conjunction with their parents or guardians.

If you do not have the required capacity to enrol at home, then students may do this at school in the Library during lunch time. If you have problems with your access code, please see Mr Downsborough in Student Services, otherwise all other enquiries must be presented to the Curriculum Office. A copy of the printed form must be signed by the student and parent/guardian, and then returned to the electives box in the Curriculum Office. Students should not attempt to enrol in their electives during class time.

Cut-off date:

Sunday 6 August 2017

You must select a total of **three (3)** electives plus **two (2)** reserve options by the above date. At least two of those electives must be selected from two different Learning Areas.

Reserve options

While every effort will be made to accommodate your subject options, it is more than likely that some students will miss out on some of their preferences because there are not sufficient numbers to run a class or the class clashes with a higher ordered preference option. Therefore, some thought should go towards reserve options so that a place can be reserved in that class in the case of a student missing out on their first preferences. The order of choosing the subject is important and you should give consideration to which subjects are highly desirable for you to study.

Additional Compulsory Subjects

Christian Education

At LJBC we meet all students where they are at with their faith and we endeavor to support their progress in their spiritual walk with God from there. We create an environment where students feel comfortable and encouraged to approach their teachers to ask questions, in a non-threatening atmosphere. During the weekly Christian Education lesson, students are informed and educated of the teachings of the Bible and Christianity. Students are given the opportunity to talk about a variety of contemporary and age relevant issues that help to establish their own moral and value systems. In Christian Education we share the vision motto of the College derived from Micah 6:8: 'Seek Wisdom, act Justly and love Mercy'.

Christian Education during upper secondary years focus on the teachings of Jesus and what we can learn from his dealings with people and his reactions to a variety of circumstances. Students have the opportunity to discuss complex ethical and life issues and are introduced to different world religions and how they compare to Christianity. Social justice carries into the upper secondary years where students explore issues like and ethical trading and injustice in the world.

Associated fees/subject levy

\$20.

Year 10 to 12 Wellbeing Days

The Wellbeing Program is run during Connect and in the form of a Wellbeing Day. This is a compulsory aspect for all senior secondary students and aims to provide the knowledge and skills to live a healthy lifestyle and enhance the wellbeing of those around them. Students will analyse decision making processes, learn how to promote positive mental health and explore aspects of healthy relationships.

Associated fees/subject levy

\$25.

Year 10 Careers Program

All students in Year 10 participate in the compulsory subject of Career Education. Students in Year 10 are exposed to information pertaining to possible career choices and pathways, particularly with a view to assisting them with targeted Course selection for Year 11 and the Western Australian Certificate of Education. Year 10 students also participate in a compulsory three day Work Experience in Term 2.

Associated fees/subject levy

\$20.

Curriculum Team

During the time that students and their families are making decisions about their choice of elective subjects, it is important to talk about suitable choices with subject teachers and the relevant Heads of Learning Area.

The following people will be able to help with enquiries regarding curriculum decisions:

Dean of Studies	Penny Houghton
Secondary Curriculum Manager	Kimberly Eyre
Head of Career Education	Mr Lynton Smith
Dean of Administration	Mark Downsborough

Learning Areas/Departments

Head of Learning Areas/Departments and Coordinators

The Arts	Tracy Pender
Careers Department	Lynton Smith
Christian Education	Talita van Tonder
English	Diana Kelly
Health & Physical Education	Casey Ellery
Humanities	Ryan Verge
Languages	Catherine Campbell
Library	Stephen Sampson
Learning Enhancement	Sonja van Aswegen
Mathematics	Leigh-Anne Hopkins
Science	Peter Wong
Technologies	Daniel Theunissen

The Arts

Year 10 Drama

Subject description

Students will gain a solid foundation in drama elements and in production skills to prepare them for either Year 11 General or ATAR courses. This course offers a balance of practical and theory and is suitable for students who are keen performers and communicators and who are interested in theatre, acting and theatre production. Students will be able to unleash creativity through different roles in costume design, stage management, lighting, sound and set design.

Class work includes:

- Performing a script
- Creating and rehearsing scripted performances
- Viewing and responding to theatre productions
- Researching styles of theatre, including Elizabethan theatre and Epic theatre
- Working with lights, sound, costume and set design
- Improvisation skills
- Putting on a class production

Students will complete a unit of work on each of the following areas: Australian Drama and World Drama. The course will enhance the student's study of English and help improve critical and creative thinking and confidence, whether working individually or as a team. Students will gain experience through different roles and responsibilities, which will teach them creative problem solving and group work skills. Students will engage in workshops with professional actors as well as incursions and excursions in a variety of drama styles. The course runs for the full academic year.

Assessment

Responding theory based assessments include short answer and extended answer written responses to Australian Drama text and World Drama texts.

Making practical assessments include production assessments, group scripted performances and class production as well as performing a production role (ie stage design, costume, lighting, sound and publicity).

Recommendation

Minimum 'C' grade in Year 9 Drama.

Associated fees/subject levy

\$75 – includes some excursion, incursion and workshop costs.

Pathways

Leads to General or ATAR Drama in Year 11. Career pathways include: acting, directing, arts and events management, arts administration, production/stage management, writing, marketing and advertising, arts education, law, management and personnel services, production design (sound, lighting, costume, and set), stage management, front of house management, radio presenting, drama therapy, public relations, occupational therapy, writing, journalism, teaching drama, lecturing at university, theatre critique and arts education.

Enquiries

Ms Tracy Pender – Head of Learning Area – The Arts

Year 10 Media

Subject description

Students will gain a solid foundation in media concepts and in production skills to prepare them for either Year 11 or Year 12 General or ATAR Media Production and Analysis courses. This course offers a balance of practical and theory and is suitable for students who are interested in photography, making films and TV programs, analysing and writing about the media and working in teams.

Class work includes:

- DSLR manual photography techniques
- Taking photos on a subject of your choice for a photo shoot
- Portrait photography
- Creating a sitcom opening sequence
- Making a Tropfest short film

Students will complete a unit of work on each of the following areas: photography, film and TV and will develop an understanding of codes and conventions, filming and editing skills and how to deconstruct professional media products to interpret meaning. The course will complement the study of English and help students gain confidence and problem-solving skills. The course runs for the full academic year.

Assessment

Responding theory based assessments include written responses to TV programs and films.

Making practical assessments include portrait photography, film scenes and TV production.

Responding assessments (includes exam) 45%

Making assessments 55%

Recommendation

Minimum 'C' grade in Year 9 English.

Associated fees/subject levy

\$75.

Pathways

Leads to General or ATAR Media Production and Analysis in Year 11. Career pathways include marketing and promotions, multimedia design, photography, music video directing, game design, documentary filmmaking, TV camera operation, sound recording/editing, television production, television presenting, radio production, journalism, public relations, advertising or acting.

Enquiries

Ms Tracy Pender – Head of Learning Area – The Arts

Year 10 Music

Subject description

In the Music course, there will be a range of music styles and genres studied, covering classical and contemporary contexts. Students will expand their practical music skills through rehearsal and performance, explore the various musical styles, develop an understanding of harmony and analysis and extend their aural listening skills. This course will provide students with essential knowledge and skills to further their music education in Years 11 and 12, ultimately providing students with skills for a tertiary/university pathway. The course runs for the full academic year.

Minimum standards for success

Satisfactory skills on own instrument or vocal ability and 'C' grade in Year 9 English.
Weekly individual lessons on own instrument.

Assessment

- Performance skills
- Aural skills
- Creativity
- Theory and notation – An AMEB examination may be completed
- Literature
- Music skills

Making assessments 85%

Responding assessments 15%

Effort and application are essential for success in this course.

Homework and study expectation

A self-motivated study program, including listening to set repertoire, daily practise on voice or instrument and keeping up-to-date with set tasks and homework is expected.

Recommendation

Minimum 'C' grade in Year 9 English.

Associated fees/subject levy

Subject levy – \$82.

AMEB exam fee – \$67.

Pathways

Students showing particular aptitude in Music studies in Year 10 can choose the VET or ATAR Music course in Year 11 and Year 12 if they meet the prerequisites. Professions include professional musician (jazz, rock, alternative, classical), music teacher, specialist instrument tutor, TAFE or university lecturer, specialist recording artist, session musician, composer, jingle writing/company movie sound track composer, music event coordinator, sound engineer, booking agent, artist/band manager. The study of this course promotes creative thinking and improves mathematical reasoning skills.

Time off campus

One full day, plus various opportunities will arise for students to attend concerts/performances and workshops around the metropolitan area.

Enquiries

Ms Tracy Pender – Head of Learning Area – The Arts

Mrs Tammy van der Nest – Director of Music

Year 10 Visual Arts

Subject description

Within contemporary society there is an increasing value placed on visual imagery and critical and creative thinking skills. Students will develop these valuable skills through both practical and theory work. The Year 10 course builds on the basic skills taught in Year 9 Visual Arts, as well as exposing students to many different art forms such as painting, ceramics, printmaking, drawing, graphics, sculpture, mixed media and theoretical concepts. They will participate in workshops with professional artists and visit the Sculptures by the Sea exhibition at Cottesloe Beach. Students will also have the opportunity to exhibit their work in the annual Visual ArtseXhibition. The course work is divided into two content areas: art making (production) and art responding (investigation and analysis).

This subject would be suited to students wishing to pursue practical art projects, as well as those who have an interest in developing their understanding of the arts as a whole. Written assignments and the exam will be based on the theory content covered during the year. The course runs for the full academic year.

Class work includes:

- Drawing
- Constructing a clay sculpture
- Painting onto a canvas
- Printmaking using various techniques
- Developing a mixed media piece
- Viewing and responding to artworks
- Researching a famous artist

Assessment

Making	70%
Responding (includes exam)	30%

Recommendation

Minimum 'C' grade in Year 9 English and Year 9 Visual Arts.

Associated fees/subject levy

\$105 – includes some incursion and excursion costs.

Pathways

Students showing particular aptitude in Visual Arts in Year 10 can choose from either the General or ATAR Visual Arts courses in Years 11 or 12 if they meet the prerequisites. Career pathways include architecture, advertising, animation, illustrating, graphic/web design, interior design, fashion and textile design, curating, arts event coordination, theatrical costume making and design, photography, make-up art and other professions requiring drawing or creative thinking skills.

Time off campus

Students will attend one full-day excursion and participate in workshops with professional artists.

Enquiries

Ms Tracy Pender – Head of Learning Area – The Arts

Year 10 VET Music

CUA20615 Certificate II in Music Industry

Course description

The VET Music course provides programs for the full completion of a Certificate II in Music. Students with no previous instrumental music experience but who love listening to music and would like to try playing an instrument or creating music electronically will have the opportunity to do so. There will be a focus on music performance, composing and recording original songs with students able to work in their chosen style of musical genre, such as rock music or dance music. Students will engage in projects such as creating and marketing their own band and CD and will then launch and market their CDs at a live performance. The class will visit a professional recording studio, compete in Battle of the Bands, My Big Gig competitions and prepare and participate in lunch time rock concerts.

Core units of competency in the program include developing and updating industry knowledge, participating in work, health and safety processes and working effectively with others. The elective units in the program allow students to develop skills in an area of their interest from preparing for performances, developing audio skills and knowledge or repairing and maintaining audio equipment. It is offered as a preparatory program and pathway into the Certificate III in Music Industry course.

The VET Music course is suitable for students considering a TAFE pathway or students who wish to complement their other subjects with vocational studies in Music. There are no external examinations. The course fosters a positive transition from school to work and provides a structure within which students can prepare for further education, training and employment, providing students with the opportunity to achieve national vocational qualifications and to gain course unit credit towards the Western Australian Certificate of Education (WACE).

Assessment

Students must complete a total of eight units of competency in order to achieve the Certificate II. Each certificate comprises a set of core units and elective units.

Prerequisite

None.

Homework and study expectations

A self-motivated study program ensuring that students keep up to date with all their task work is required.

Associated fees/subject levy

\$300 – includes cost of certification.

Pathways

Possible Career Pathways: Professional musician, specialist instrument tutor, TAFE lecturer, specialist recording artist, session musician, composer/jingle writing/movie sound track composer, music event coordinator, sound engineer, booking agent, artist/band manager, music technician, singer, stage P\producer, director, stage manager, session musician, performer, band member, arranger, promoter

*CUA30915 Certificate III in Music Industry

*CUA40915 Certificate IV in Music Industry

*CUA50815 Diploma of Music Industry

*CUA60515 Advanced Diploma of Music Industry

Time off campus

Various opportunities will arise for students to attend performances, workshops and recording opportunities around the metropolitan area (approximately 2–3 full days).

Enquiries

Ms Tracy Pender – Head of Learning Area – The Arts

Mrs Tammy van der Nest – Director of Music

Careers

Year 10 Careers

Subject description

This course is compulsory for all Year 10 students.

The focus is 'exploring my world and its connections' and entry-level work readiness. Students recognise themselves as part of a network of people and organisations and identify who can help with school-to-work transitions. Students will complete the Career Voyage, JIGG-CAL program.

Outcomes	Content
Career and Enterprise concepts	Students understand factors that underpin career development and learning opportunities. Students understand how workplace practices and procedures influence career development.
Career and Enterprise investigations	Students collect and organise information to investigate career development opportunities.
Career development in a changing world	Students understand how aspects of the changing world, including technologies, society, beliefs, values and attitudes, impact and influence career development opportunities.
Being enterprising	Students use self-management, planning and organisational skills. Students will further develop communication, technology and team work skills.

Assessment

Investigation
Response

Prerequisite

None.

Associated fees/subject levy

\$20.

Pathways

Year 11 Career and Enterprise ATAR Course. Year 12 Career and Enterprise ATAR Course
Students entering the CareerLink program in Year 11 will study the Career and Enterprise General Course.

Time off campus

Year 10 students participate in a compulsory three day Work Experience in Term 2.

Enquiries

Mr Lynton Smith – Head of Learning Area – Career Education

English

Year 10 English

Subject description

English is compulsory for all Year 10 students. The study of English helps young people develop the knowledge and skills needed for education, training and the workplace. The outcomes are based on three strands of language, literature, and literacy to focus on developing students' knowledge in reading, viewing, writing, speaking and listening as they develop functional and critical literacy skills. Typical texts include poetry, prose, popular culture texts and film. English provides the opportunity for students to read, view, speak, write, create and reflect upon a variety of texts.

Students are placed in General classes with an Extension class being offered to students with higher ability levels in this subject. Students who have been identified as having difficulties in English may be placed in a Foundation class.

Outcomes	Content
Language	Students learn about language variation and change, language for interaction, text structure and organisation, expressing and developing ideas and developing an understanding of grammatical and word knowledge.
Literature	Students will learn about literature and context, how to respond to literature both in writing and speaking and how to examine literature and create literature.
Literacy	Students will comprehend texts through reading and viewing a variety of texts. Students will create texts through speaking and writing.

Assessment

Students will demonstrate their achievement across the range of language modes in response to texts read and viewed. They will create imaginative and analytical texts along with oral presentations and formal examinations.

Prerequisite

None.

Associated fees/subject levy

\$50.

Pathways

It is necessary that a student wishing to study Literature ATAR in Year 11, achieve a minimum of 70% in Year 10 English. It is necessary that a student wishing to study English ATAR in Year 11, achieve a minimum of 62% in Year 10 English. Career pathways for English are numerous and some guidelines are: law, education/teaching, business, medicine and journalism. Students who have achieved less than 62% would be expected to enrol in the English General Course for Year 11. B grade students who do not wish to follow a University pathway may opt to study the General Course. The General English Course does not allow a student to generate an ATAR score for University entrance.

Enquiries

Mrs Alison Zarrop – Year 10 Course Co-ordinator

Extension Program

Year 10 Future Problem Solving

This course is offered by invitation from the Learning Enhancement Centre

Subject Description

Future Problem Solving is an international educational program that focuses on the development of critical, creative and innovative thinking skills to prepare students for increasingly complex life and work environments in the 21st century. It challenges students to apply their imagination and thinking skills to some of the significant global issues facing both the world of today and the future, equipping them with the skills and vision needed to solve problems associated with these issues and helping them to have a positive impact on the society of the future.

In Term 1, students will engage in metacognitive learning by determining their brain dominance, learning styles, multiple intelligences and mindsets. They will then learn about brain plasticity and how they can develop their brains even further. Students will also develop advanced creative and critical thinking skills through interesting and hands-on activities in a team-based classroom.

In Term 2, students will connect to the world by using the Future Problem Solving model to get to the core of environmental, social and scientific problems of the future. The topics that will be covered will provide students with a greater awareness of important global issues, as well as the opportunity to develop innovative solutions in order to create positive change. They will also use this knowledge to participate in the International Future Problem Solving competition.

In Term 3, they will further develop their Design Thinking skills by building programmable robots and apply problem solving strategies to solve a complex task with the robots they have built and programmed. They will engage in an “Unlock Your Subconscious” project where they will get the opportunity to refine their creative writing skills through a variety of interesting activities.

Finally, in Term 4, students will study “Big Philosophical Ideas” and learn how to argue well using Socratic Dialogues and debating skills.

Outcomes

Students involved in Future Problem Solving are challenged and motivated to:

- Think more creatively by becoming involved in activities to increase flexibility, fluency, originality and elaboration of their thinking
- Develop research skills needed for the collection of data from past and contemporary sources
- Relate effectively with others as members of a small, cohesive team
- Improve oral and written communication skills for the better understanding of their ideas by others
- Become interested in the future since this is where they will spend the rest of their lives
- Solve problems by learning and effectively using a six-step, creative problem solving process
- Think critically and analytically
- Develop thinking strategies

Assessment

In Semester 1, students work in teams to explore two global issues and then engage in a six-step problem solving process to solve a futuristic scenario. The team projects are evaluated by accredited, external evaluators. The second topic is competitive and the top scoring teams receive invitations to participate in the Australian National Finals. Students will also be assessed on research tasks, individual written and verbal responses.

In Semester 2, assessment will be based on the completion of a Design Thinking project, Creative Writing project and debating and Socratic Seminar responses to philosophical and ethical issues.

Pathways

This is a skills-based subject that takes students beyond memorisation and teaches them 21st century skills that are becoming increasingly important in an era of rapid change, especially in the workplace.

Prerequisite

By invitation only.

Associated fees/subject levy

\$60 – includes individual registration for the National Future Problem Solving program and the purchase and maintenance of robotic equipment.

Enquiries

Mrs Sonja van Aswegen – Head of Secondary Learning Enhancement

Health & Physical Education

Year 10 Health and Physical Education

Subject description

Health and Physical Education is compulsory for all Year 10 students and provides the opportunity to participate in recreational activities that will lead to life-long healthy habits. Practical activities and sports will be used as a medium for developing interpersonal and self-management skills.

By understanding the dimensions of health and how they are affected by health determinants, students will be able to make ongoing healthy decisions, assess risk and have respectful relationships. Class work will seek to develop the students' analysis of health messages, understanding of the influences on health and communication skills.

Assessment

Health

Being Healthy, Safe and Active	40%
Communicating and Interacting for Health and Well Being	30%
Contributing to Healthy and Active Communities	30%

Physical Education

Moving Our Body	40%
Understanding Movement	30%
Learning Through Movement	30%

Prerequisite

None.

Associated fees/subject levy

\$115 – includes the purchase and maintenance of specialised equipment.

Pathways

Health and Physical Education enable students to apply the knowledge and skills learnt to their present lifestyle. These subjects also provides prerequisite knowledge for students wanting to work or pursue further study in sporting, fitness, health and medical related fields.

Enquiries

Mr Casey Ellery – Head of Learning Area – Health & Physical Education
Mr Johann Schroeder – Health & Physical Education Teacher

Year 10 Health Studies

Subject description

The focus for Health Studies is personal health. Basic concepts, models and frameworks will be introduced to determine health and characteristics necessary for good health. Influences on personal health, factors that enable and reinforce healthy behaviours and approaches to improving health are explored. Health Studies is a highly theoretical course that provides a good foundation for students pursuing ATAR Health Studies in Years 11 and 12.

Assessment

Production	35%
Inquiry	30%
Response	35%

Prerequisite

None.

Associated fees/subject levy

\$120 – includes the purchase of course equipment, resources and texts.

Pathways

Year 10 Health Studies provides prerequisite knowledge for students wanting to work or pursue further study in health and medical related fields. The course leads to Health Studies ATAR in Year 11.

Enquiries

Mr Casey Ellery – Head of Learning Area – Health & Physical Education

Mr Joel Smith – Health & Physical Education Teacher

Year 10 Outdoor Education

Subject description

The focus for Outdoor Education is experiencing the outdoors. Students are introduced to outdoor activities where they can develop and improve their technical skills and apply appropriate practices to ensure safe participation in surfing and abseiling related activities. Students will have the opportunity to demonstrate these skills on a day trip and an overnight expedition. Practical activities will also be used as a medium for developing interpersonal and self-management skills.

Assessment

Investigation	15%
Skills Performance	30%
Camp Performance	25%
Response	30%

Recommendation

Preference for a 'B' grade in Year 9 Outdoor Education.

Associated fees/subject levy

\$315 – includes the purchase and maintenance of specialised equipment, excursion and camp costs.

Pathways

Outdoor Education enables students to apply the knowledge and skills they have learnt to their present lifestyle. The subject empowers students in the areas of risk management, logistical preparation and interpersonal relationships as well as providing prerequisite knowledge for students wanting to work or pursue further study in outdoor recreation related fields. The course leads to Outdoor Education ATAR in Year 11.

Enquiries

Mr Casey Ellery – Head of Learning Area – Health & Physical Education

Year 10 Physical Education Studies

Subject description

Physical Education Studies aims to provide students with the opportunity to compete and develop in sporting activities. Students will be introduced to the body's anatomical and physiological systems, which enable them to extend their knowledge of the effectiveness and efficiency of their performance as team members/individuals. Practical activities and sports will also be used as a medium for developing interpersonal and self-management skills.

Assessment

Investigation	30%
Practical	50%
Response	20%

Recommendation

Preference for a 'B' grade in Year 9 Physical Education Studies.

Associated fees/subject levy

\$150 – includes the purchase and maintenance of specialised equipment.

Pathways

Physical Education enables students to apply the knowledge and skills learnt to their present lifestyle. The subject also provides prerequisite knowledge for students wanting to work or pursue further study in sporting, fitness and medical related fields. The course leads to Physical Education Studies ATAR in Year 11.

Enquiries

Mr Casey Ellery – Head of Learning Area – Health & Physical Education
Mr Kyle Barker – Health & Physical Education Teacher

Humanities

Australian Curriculum – Humanities and Social Sciences

Subject description

In Year 10, Humanities and Social Sciences consists of Civics and Citizenship, Economics and Business, Geography and History. Each topic will run for one term, and are compulsory for all students.

Civics and Citizenship – Students continue to build on their understanding of the concepts of democracy, democratic values, justice, and rights and responsibilities by exploring Australia's roles and responsibilities at a global level and its international legal obligations. They inquire in to the values and practices that enable a resilient democracy to be sustained.

Economics and Business – Students are introduced to the concept of economic performance and living standards while continuing to further their understanding of the concepts of making choices, interdependence, specialisation, and allocation and markets through examining contemporary issues, events and/or case studies delving into the reasons for variations in the performance of economies. They explore the nature of externalities and investigate the role of governments in managing economic performance to improve living standards. They inquire into the ways businesses can manage their workforces to improve productivity.

Geography – The concepts of place, space, environment, interconnection, sustainability and change continue to be developed as a way of thinking, through an applied focus on the management of environmental resources and the geography of human wellbeing at the full range of scales, from local to global and in a range of locations.

History – Students develop their historical understanding through key concepts, including evidence, continuity and change, cause and effect, perspectives, empathy, significance and contestability. These concepts are investigated within the historical context of the modern world and Australia from 1918 to the present, with an emphasis on Australia in its global context.

Assessment

Students will take part in fieldwork activities, complete test, conduct research and enquiry project, conduct interviews and discuss ideas, concepts, and understanding. Assessments will be on content knowledge and skills. Students will complete two exams for this course.

Prerequisite

None.

Associated fees/subject levy

\$65.

Enquiries

Mr Ryan Verge – Head of Learning Area – Humanities

Languages

Year 10 French

Subject description

Students will develop a deeper understanding of Francophone people and their culture and will continue to build their skills in speaking, listening, reading and writing in French. Students will learn to communicate through a variety of different activities, such as bookwork, web-based learning predominantly using the Education Perfect website and games. Students will watch French films and participate in excursions and incursions. In addition, it is envisaged that a tour to France will take place as students progress through Senior School.

The topics studied are:

- The World of Youth (comprising, talking about yourself, socialising with a French family, youth culture in Francophone countries, communicating in a modern world)
- The Francophone World (comprising, planning a trip to a French-speaking country, regions of France, daily life in a French-speaking family, our French connections)

Assessment

As part of the Western Australian Curriculum Framework, the Languages learning area has a focus on the following outcomes:

- Cultural understanding
- Language learning strategies
- The system of target language

These outcomes are demonstrated through assessing the following skills:

- Oral interaction
- Listening and responding
- Viewing, reading and responding
- Writing

Texts

Allez! 2 Grammar and Skills Workbook (ISBN 9780 198395034)

Collins French Dictionary and Grammar (ISBN 9780 007484355)

Additional materials will be supplied.

Prerequisite

Minimum 'C' grade in Year 9 French, or by permission of the Head of Learning Area.

Associated fees/subject levy

\$100 – includes photocopying of booklets and resources and contributes to the cost of incursions, excursions and prizes.

Pathways

The course leads to French ATAR in Year 11. Career pathways from studying French include business and commerce, tourism and hospitality, engineering, teaching or linguistic studies. Many university courses are designed so that a language can be studied in tandem with the course.

Enquiries

Mrs Catherine Campbell – Head of Learning Area – Languages

Miss Sylvie Bloudeau – French Teacher

This is subject to change as advised by SCSA.

Year 10 Japanese

Subject description

Students will develop a better understanding of Japanese people and their culture and feel encouraged in their attempts to speak, listen to, read and write in Japanese. Students learn to communicate through a variety of different activities, such as bookwork, web-based learning using the Education Perfect website, games and interaction with Japanese assistant teachers. Students will watch Japanese films and have lunch at a Japanese restaurant mid-year. In addition, there is an opportunity to participate in a tour to Japan in Years 10, 11 and 12.

The topics studied are:

- Teenagers (Around me, School life, daily life and family relationships)
- Neighbourhoods (Out and about, exploring Japan and Japanese homes)

The course runs for the full academic year.

Assessment

As part of the Western Australian Curriculum Framework, the Languages learning area has a focus on the following outcomes:

- Cultural understanding
- Language learning strategies
- The system of target language

These outcomes are demonstrated through assessing the following skills:

- Oral interaction
- Listening and responding
- Viewing, reading and responding
- Writing

Texts

Students are given booklets produced by Japanese teachers in Perth. There are no other text books required, however, students will need to purchase a dictionary, which will be used into Year 12.

Prerequisite

Minimum 'C' grade in Year 9 Japanese, or by permission of the Head of Learning Area.

Associated fees/subject levy

\$100 – includes photocopying of booklets and resources and contributes to the cost of incursions, excursions and prizes.

Pathways

The course leads to Japanese ATAR in Year 11. Career pathways from studying Japanese include business and commerce, tourism and hospitality, engineering, teaching or linguistic studies. Many university courses are designed so that a language can be studied in tandem with the course.

Enquiries

Mrs Catherine Campbell – Head of Learning Area – Languages
Mrs Meagan Maassen and Mrs Aimee Webber – Japanese Teachers

This is subject to change as advised by SCSA

Mathematics

Year 10 Mathematics

Subject description

Mathematics is compulsory for all Year 10 students. There are four levels to suit the ability and needs of students: Specialist, Extension, General and Foundations. The course we follow is based on the Australian Curriculum, with some minor adjustments to take into consideration the prior knowledge required for the WACE Courses of Study in Year 11 and 12.

Students are provided with essential mathematical skills and knowledge in Number and Algebra, Measurement and Geometry and Statistics and Probability.

The numeracy capabilities that all students need in their personal, work and civic life are developed and students are provided with the fundamentals on which mathematical specialties and professional applications of Mathematics are built.

Students in the Mathematics Learning Area are encouraged to:

- be confident and creative users and communicators of Mathematics, who are able to investigate, represent and interpret situations in their personal and work lives and as active citizens
- develop an increasingly sophisticated understanding of mathematical concepts and fluency with processes, and are able to pose and solve problems and reason in *Number and Algebra, Measurement and Geometry and Statistics and Probability*
- recognise connections between the areas of Mathematics and other disciplines and appreciate Mathematics as an accessible and enjoyable discipline to study

Students will be placed into levels according to their performance and movement between levels is possible. It is desirable that students work at a level that is both challenging and at which they can succeed and gain confidence in their ability to achieve. If there are any questions relating to the placement of your child, please contact your child's Mathematics teacher or Mrs Leigh-Anne Hopkins, the Head of Learning Area – Mathematics.

Required equipment

Students in the Extension and General levels will require a CAS TI-Nspire calculator, which they will use to develop their CAS calculator skills in preparation for the Year 11 and 12 courses.

Assessment

Students will be assessed through investigative tasks, tests and examinations at the end of each semester.

Prerequisite

None.

Associated fees/subject levy

\$75 – includes photocopying and a subscription to the Mathspace on-line program.

Pathways

Please see table on next page.

Enquiries

Mrs Leigh-Anne Hopkins – Head of Learning Area – Mathematics

Pathways

Year 10	Year 11	Year 12	Career opportunities
<p>Specialist</p> <p>Learning Area Achievement 'A+'</p> <p>Extension</p> <p>Learning Area Achievement 'A+'</p>	<p>Mathematics Specialist Units 1 and 2 and Mathematics Methods Units 1 and 2</p>	<p>Mathematics Specialist Units 3 and 4 and Mathematics Methods Units 3 and 4</p>	<p>Commerce/business, computing, engineering (may be expected to have also studied Mathematics: Specialist), metallurgy, informatics, biophysical science, physics, nanotechnology, geophysics, dentistry, podiatry, medicine and surgery, animal science.</p>
<p>Extension</p> <p>Learning Area Achievement 'A' or 'B' grade</p>	<p>Mathematics Methods Units 1 and 2</p>	<p>Mathematics Methods Units 3 and 4</p>	<p>Commerce/business, computing, mine technology, geology, agriculture, biomedical science, health science, economics, chiropractic science, psychology.</p>
<p>Extension</p> <p>Learning Area Achievement 'C' grade</p>	<p>Mathematics Applications Units 1 and 2</p>	<p>Mathematics Applications Units 3 and 4</p>	<p>Biotechnology, biological science, agricultural science, psychology, computer science, forensic biology, commerce, earth science, business, climate science.</p>
<p>General</p> <p>Learning Area Achievement 'C' with a Semester mark greater than 60%</p>	<p>Mathematics Applications Units 1 and 2</p>	<p>Mathematics Applications Units 3 and 4</p>	<p>Biotechnology, biological science, agricultural science, psychology, computer science, forensic biology, commerce, business, climate science, nursing, primary education, sports science.</p>
<p>General</p> <p>Learning Area Achievement 'C' or 'D'</p>	<p>Mathematics Essential Units 1 and 2</p>	<p>Mathematics Essential Units 3 and 4 (non ATAR examinable)</p>	<p>TAFE entry to most courses including electrical trades.</p>
<p>Foundation</p> <p>Learning Area Achievement 'D'</p>	<p>Mathematics Essential Units 1 and 2</p>	<p>Mathematics Essential Units 3 and 4 (non ATAR examinable)</p>	<p>TAFE entry to most courses, University entry where there is no Mathematics prerequisite.</p>

Science

Year 10 Science – Australian Curriculum v8.1

Year 10 Achievement Standard

In Year 10, students analyse how the periodic table organises elements and use it to make predictions about the properties of elements. They explain how chemical reactions are used to produce particular products and how different factors influence the rate of reactions. They explain the concept of energy conservation and represent energy transfer and transformation within systems. They apply relationships between force, mass and acceleration to predict changes in the motion of objects. Students describe and analyse interactions and cycles within and between Earth's spheres. They evaluate the evidence for scientific theories that explain the origin of the universe and the diversity of life on Earth. They explain the processes that underpin heredity and evolution. Students analyse how the models and theories they use have developed over time and discuss the factors that prompted their review.

Students develop questions and hypotheses and independently design and improve appropriate methods of investigation, including field work and laboratory experimentation. They explain how they have considered reliability, safety, fairness and ethical actions in their methods and identify where digital technologies can be used to enhance the quality of data. When analysing data, selecting evidence and developing and justifying conclusions, they identify alternative explanations for findings and explain any sources of uncertainty. Students evaluate the validity and reliability of claims made in secondary sources with reference to currently held scientific views, the quality of the methodology and the evidence cited. They construct evidence-based arguments and select appropriate representations and text types to communicate science ideas for specific purposes.

Subject description

Science has three inter-related strands: Science understanding, Science as a human endeavour and Science inquiry skills. Together these three strands provide students with understanding, knowledge and skills through which they can develop a scientific world view. Students are challenged to explore science, its concepts, nature and uses through clearly described inquiry processes.

The Year 10 curriculum provides opportunities for students to explore systems at different scales and connect microscopic and macroscopic properties to explain phenomena. Students explore the biological, chemical, geological and physical evidence for different theories. Atomic theory is developed to understand relationships within the periodic table. Understanding forces and motion are related by applying physical laws. Relationships between aspects of the living, physical and chemical world are applied to systems on a local and global scale and this enables students to predict how changes will affect equilibrium within these systems.

Assessment

Science understanding	65%
Science as a human endeavour	10%
Science inquiry skills	25%

Homework and study expectation

Homework is set regularly and students are expected to complete it. Study involves revision, research and assignment work. A balanced study program includes both homework and study. Recommended time for homework/study is 2 hours per week.

Prerequisite

None.

Associated fees/subject levy

\$80 – includes photocopying, chemicals, other consumables, replacement and maintenance of equipment.

Pathways

Success in Year 10 Science provides students with pathways to pursue a more in-depth study in Biology, Chemistry, Human Biology and Physics in Senior Secondary School. These courses may lead to career opportunities in engineering, metallurgy, pharmacy, medical sciences, agriculture, veterinarian science, environmental science and marine science.

Enquiries

Mr Peter Wong – Head of Learning Area – Science

Technologies

Year 10 Computing

Subject description

The aim of this course is to provide students with an understanding of the fundamental principles of the nature of working with Digital Technologies. Students will develop skills required to identify possibilities and create opportunities in the business world, by using Digital Technologies and a variety of software as a tool for designs, reports, and advertisements, web pages using HTML and CSS and database applications. Students will learn the different parts of a computer, how internal components work, networking and the ergonomics involved.

The course runs for the full academic year.

Australian Curriculum

Strands	Content
Knowledge and understanding	Students use knowledge and understanding to explain how text, audio, image and video data are stored in binary with compression in computer systems. Student explain the role of software and hardware components for managing and controlling access, data and communication in networked digital systems.
Processes and production skills	Use appropriate software to analyse and visualise data (including numerical, categorical, text, audio-visual and relational data) to create information and address complex problems. Develop systematic techniques for acquiring, storing and validating quantitative and qualitative data from a range of sources considering privacy and security requirements. Use appropriate software to analyse and visualise data (including numerical, categorical, text, audio-visual and relational data) to create information and address complex problems.

Assessment

Research/Investigation	30 – 40%
Application	40 – 50%
Response/Production	20 – 30%

Recommendation

'C' grade in Year 9 Computing or by permission of the Head of Learning Area.

Associated fees/subject levy

\$70 – includes all study material and relevant software requirements.

Pathways

Skills acquired will be very useful for running a small business using Microsoft Word for document creation, Microsoft Access for database administration and HTML for creating a business website. Students can choose Computing as a base to further study at TAFE or university.

Enquiries

Mr Daniel Theunissen – Head of Learning Area – Technologies
Mr Lukas de Klerk – Technologies teacher

Year 10 Design & Technology

Subject description

This course leads into Year 11 and 12 General Material and Technology, Engineering Studies and Design. Students will develop skills working with various types of materials, such as metals, plastic and wood. Students will also engage in Systems and Control as well as Technical Graphics. Design work will be manual and computer based to give students a developed understanding of design fundamentals. Students will develop skills to design and plan their practical tasks and will have the opportunity to use different production methods to construct their designs. They will also learn how to use woodworking and metalwork machines to help them complete their projects. The course runs for the full academic year.

Australian Curriculum

Strands	Content
Knowledge and understanding	Students apply a technology process to create or modify products, processes, systems, services or environments to meet human needs and realise opportunities. Students investigate and make judgements on how the characteristics and properties of materials, systems, components, tools and equipment can be combined to create designed solutions.
Process and production	Students understand how the nature of materials influences design, development and use. Students apply design thinking, creativity, innovation and enterprise skills to develop, modify and communicate design ideas.

Assessment

Progress will be monitored using Design and Technologies specific strands

Component of theory based assessment	20 – 40%
Component of practical assessment	50 – 70%

Prerequisite

None.

Associated fees/subject levy

\$170 – includes all study material, materials for projects and equipment maintenance.

Pathways

This course will lead to Year 11 and 12 courses in: General Material and Technology, ATAR Design and ATAR Engineering Studies.

Enquiries

Mr Daniel Theunissen – Head of Learning Area – Technologies
Mr Peter Herman – Technologies Teacher

Year 10 Foods

Subject description

Food technology is primarily a practical course incorporating preparation and cooking skills needed to design and prepare meals. In Semester 1, students learn about food groups and their nutritional value. From this, they will create a healthy two-course meal. In Semester 2, students investigate Sustainability in the Food Industry. They complete a Food Waste Design Challenge, developing and preparing a recipe, which utilises potentially wasted ingredients from their home. The final task includes researching and creating novelty cupcakes to demonstrate their food preparation skills. An incursion/excursion learning about bush tucker is in Semester 2. The course runs for the full academic year.

Australian Curriculum

Strands	Content
Knowledge and understanding	Students examine a variety of food groups and understand how to use them in recipes. They research how sustainability and ethical food production affects the food industry. They learn about food preservation methods and how food packaging choices can affect the environment. They will also look at the diets of early settlers in Australia.
Process and production	Students develop practical skills in their cooking lessons. They also use materials to make novelty cupcakes. Students use the technology process to develop a two-course menu and design a recipe to reduce food waste at home.

Assessment

Progress will be monitored using Home Economics Outcome Standards:

Knowledge and understanding	45%
Process and production	55%

Homework and study expectation

Students are required to complete tasks and undertake research both at school and at home on a weekly basis.

Prerequisite

None.

Associated fees/subject levy

\$200 – includes all ingredients and consumables, booklets, area specific equipment maintenance, incursion and excursion costs.

Pathways

Certificate II in Hospitality is studied over Years 11 and 12. Career pathways include: Dietitian, Nutritionist, Technology Teacher, Chef, Baker, Pastry Chef.

Time off campus

May require a half-day off campus

Enquiries

Mr Daniel Theunissen – Head of Learning Area – Technologies
Mrs Michelle McLean – Technologies Teacher

Year 10 iSTEM – Technologies

Subject description

iStem – Technologies is the learning of Science, Technology, Engineering and Mathematics principles in an integrated approach. Students gain and apply knowledge, broaden their understanding and develop creative and critical thinking skills while doing project-based learning. Incorporating design, engineering, electronics and 3D CAD/CAM, iSTEM – Technologies presents engineering, mathematics, science and technology principles to students in ways that challenge their understanding of these key subjects and also their ability to manage projects and work collaboratively.

The projects allow students to demonstrate their skills and understanding of design and engineering concepts and processes, to analyse and solve problems and to devise innovative strategies within a specific design and engineering context.

The course runs for the full academic year.

Australian Curriculum

Strands	Content
Knowledge and understanding	Investigate and make judgements, within a range of technologies specialisations, on how technologies can be combined to create design solutions.
Process and production	Students develop their drawing knowledge and computer based programs.
	Students use project based learning process to design and create using mechanisms and engineering principles.
	Students use project based learning process to complete a portfolio of work that uses a variety of computer programs.
	Students work independently and collaboratively to manage their time and resources using digital technology. Considers time, cost, risk and safety.

Assessment

Progress will be monitored using Design and Technologies specific strands

Design Unit 50%

Engineering Unit 50%

Recommendation

Minimum 'B' grade in Year 9 Mathematics General and Year 9 English General.

Associated fees/subject levy

\$140 – includes all study material, materials for projects and equipment maintenance.

Pathways

This course will give students a grounding for a career in a range of Design and Engineering related fields such as Graphic Design, Architecture, Product Design, Interior Design and Engineering. This course leads to General/ATAR Design and ATAR Engineering Studies.

Enquiries

Mr Daniel Theunissen – Head of Learning Area – Technologies

Mrs Tina Harper-Rigby – Design and Technology Teacher

Mr Limpie van Aswegen – Design and Technology Teacher

Year 10 Textiles and Children, Family, Community

Subject description

This course includes both Textiles and Children, Family and Community (CFC) content and is of benefit to students considering either of these ATAR courses in Year 11 and 12.

In textiles, students undertake a variety of practical projects including the construction of a reversible bag, onesie and child's play cube/book.

In the study of CFC students will research community services available to support families with pre-schoolers and various family types. They investigate the language, physical, sensory, cognitive and social/emotional development of children and explore ways to promote this from birth to 5 years. The course runs for the full academic year.

Australian Curriculum

Strand	Content
Knowledge and understanding	Students explore the development of children from birth to 5 years in all domains and various family types. They will research community services available to support families with pre-schoolers.
Processes and production skills	Students design and construct practical textile projects using a variety of textile materials and techniques.

Assessment

Investigating and defining - development of children, family types and community services

Designing – onesie and play cube/book

Producing and implementing - construct a bag, onesie, play cube/book

Evaluating - written examinations

Collaborating and managing – working with others and independently

Prerequisite

None.

Associated fees/subject levy

\$100 – includes cost of fabric, thread and haberdashery, booklets, area specific machine and equipment maintenance.

Pathways

ATAR MDT Textiles, ATAR Textiles and Children, Family and Community, fashion designer, retail sales, child care industry, teaching, nursing, therapies (speech, occupational etc.).

Enquiries

Mr Daniel Theunissen – Head of Learning Area – Technologies

Mrs Shondra Driesen – Technologies Teacher