

Warners Bay High School



Stage 5 Handbook

Program of Study

Year 9 & 10

2020 - 2021



STAGE 5



CURRICULUM

2020

Stage 5 includes Years 9 and 10. At the end of Year 10 students will receive a Record of School Achievement (ROSA) from the NSW Education Standards Authority (NESA).

Core Subjects: Students are required to complete a course of study in English, Mathematics, Science, Human Society and its Environment (Geography and History) and Personal Development, Health and Physical Education (PDHPE). These subjects are mandatory and make up the core to meet the requirements for the award of a Record of School Achievement (ROSA).

Electives: For the remainder of the curriculum students are able to select electives to study. At Warners Bay High School, students are provided with the opportunity to study three electives, each for four periods per week. During Year 8, several mini electives were completed and this enabled students to experience a range of subjects which will assist in making choices for Stage 5. There are no pre-requisites for the study of electives in Stage 5 and therefore students may select different electives than the ones studied in Year 8. However, it is recommended that, for success in French or Japanese in Stage 5, students need to have studied that language in Year 8.

During this decision making time, students are advised to seek additional information from Head Teachers, other students studying the course, family and friends. Students should choose subjects by considering possible career choices and, most importantly, their interests and abilities. Teachers are available at lunchtime and parents are welcome to phone the school (49549488) for more information or clarification or to make an appointment.

Process

Students are required to make their elective choices ONLINE. Monday, 26 August at 7.00am until Wednesday, 28 August at 7:00pm.

Steps to follow for the online elective choice

1. Log onto Warners Bay High School Website (www.warnersbay-h.schools.nsw.gov.au)
2. Click on 'Learning at our School' link
3. Scroll down to 'Subject Selection' and click on the link
4. Enter your **personal web choice code** (on the front cover of your booklet)
5. Make your choices **in order of preference** (3 preferred and 3 reserves)
6. Press '**submit**' button

From this selection, every attempt is made to maximise student choices. Some courses being offered will not run if there is insufficient demand.

The choices students made will be final. In special cases changes will be permitted if there are vacancies until Friday, 6 December 2019. The best advice is choose carefully now.

Ms Libby Guider

Principal (relieving)

STAGE 5 CURRICULUM

REQUIREMENTS

The curriculum pattern at Warners Bay High School ensures that syllabus requirements are met. To complete a course of study students must have:

- a. followed the course developed or endorsed by NESA; and
- b. applied themselves with diligence and sustained effort to the set tasks and experiences provided in the course by the school; and
- c. achieved some or all of the course outcomes.

Satisfactory completion of courses is judged, among other things, by attendance and level of involvement in class, the assignments/assessment tasks, homework completed and level of achievement.

PATTERN OF STUDY AT WARNERS BAY HIGH SCHOOL

	Number of Periods Year 9	Number of Periods Year 10
English	6	5
Mathematics	5	6
Science	6	5
History/Geography	5	6
PD/H/PE	3	3
Elective X	4	4
Elective Y	4	4
Elective Z	4	4
Sport	2	2

Head Teachers to contact for further information about courses:

Mrs Fraser	English, Drama
Mr Furner	Mathematics
Mrs Curran	Science
Mrs Noonan	Geography, Commerce, International Studies, Marine & Aquaculture Technology, Geography Elective
Ms Corliss	History, History Elective
Ms Blaszczyk	PDHPE, Physical Activity & Sports Studies, Child Studies
Mrs Pfister	Ceramics, Music, Photographic & Digital Media, Visual Arts, Visual Design, Entertainment
Ms Tamas	French, Japanese
Ms Whitton	Design & Technology, Food Technology, Industrial Technology-Engineering Industrial Technology-Metals, Industrial Technology-Timber, Information Integrated Computing, Textiles Technology,
Mr Thompson/Mr Husband	iStem

**CORE
SUBJECTS**

English

Science

Mathematics

Geography

History

PDHPE

ENGLISH

Cost: \$11.00 per year

(Includes: booklet preparation and consumable items used during lessons)

English develops students' ability to use, understand, appreciate, reflect on and enjoy the English language in a variety of texts and to shape meaning in ways that are imaginative, interpretive, critical and powerful.

Students will be assessed in individual, collaborative and across the form tasks.

These tasks will include oral presentations as well as creative and analytical written responses.

Learning tasks include: responding to and composing a wide range of texts in context. These include fiction, poetry, film, non-fiction, drama, media and multimedia texts.



SCIENCE

In Science, students will be challenged to enjoy learning in a problem solving environment. Students will study The Physical World, The Living World, The Chemical World and Earth & Space.



Year 9 – Ecosystems, Atoms & the Periodic Table, Plate Tectonics, Waves & Energy, Co-ordination, Disease, the Universe, and Acids, Bases & Metals.

Year 10 – Motion, Genetics, Chemical Reactions, Evolution, Electricity and Global Environment. In Year 10, students must also complete a mandatory Student Independent Project (SIP).

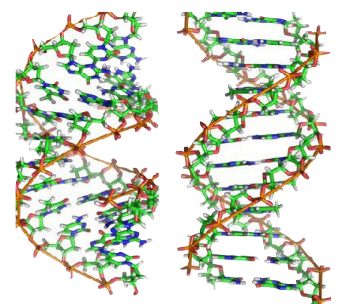
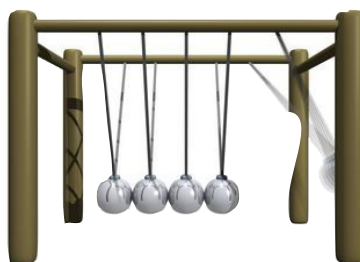
Students will also complete the Validation of Assessment for Learning and Individual Development (VALID) in Term 3 of Year 10. This is an interactive, multimedia test, completed on a computer which is based around the Stage 5 Science Syllabus. The results are available towards the end of Term 4 and will be sent home to parents/carers.

During the year, students achievement of outcomes will be assessed using a variety of tasks that all Year 9 and 10 students will attempt, as well as classroom activities. Outcomes assessed will include skill development as well as the ability to recall knowledge.

Students also have the opportunity to participate in the ICAS Science competition in Term 2 each year and the Science and Engineering Challenge in Term 3 of Year 10.



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4	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	35	Br
5	Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	53	I
6	Cs	Ba	La	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	84	Po	84
7	Fr	Ra	Ac	Rf	Db	Sg	Lr	Hf	Mt	110	111	112	113	114	115	116	117	118	118
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MATHEMATICS

Year 9 Mathematics is the first phase of the Stage 5 course. The essential content is structured using one process strand and five content strands. They are:

- Working Mathematically
- Number Patterns
- Algebra
- Data
- Measurement
- Space & Geometry

The course is designed with three specific pathways and endpoints.

- Mathematics Stage 5.1
- Mathematics Stage 5.2
- Mathematics Stage 5.3

Mathematics Stage 5.1: This course is designed for the students who find mathematics difficult. Students demonstrating success in this course should be able to attempt the Mathematics Standard in Stage 6 but would have to undertake at least some of the Stage 5.2 content.

Mathematics Stage 5.2: This course is designed for the students who can achieve all of the Stage 5.1 outcomes and are able to achieve success intermediate level work. Students demonstrating success in this course should be able to undertake the Mathematics Standard in Stage 6. Students demonstrating excellence in this course should be able to undertake the Mathematics Advanced in Stage 6 but would have to undertake at least some of the Stage 5.3 content.

Mathematics Stage 5.3: This course is designed for advanced mathematics students who can achieve all of the Stage 5.1 and 5.2 outcomes and are successful in even more difficult work. Students demonstrating success in this course should be able to undertake the Mathematics Advanced in Stage 6.

Assessments will be held throughout the course on each of the component areas mentioned above. The timing of these assessments will be listed on the course outline issued to each student at the beginning of the year.

In year 9, the top 3 classes on each line will study common content for semester one. They will sit 2 assessments during this time and the top students on each line will be identified and placed into the 5.3 (advanced) classes. Students in the 5.2 course who are wanting to attempt Mathematics Advanced or Extension course in Years 11 & 12 will need to discuss this with their teacher and seek out extension work to ensure they meet prerequisite knowledge.

Calculators are compulsory and must be brought to every lesson.

Students will be supplied with a textbook and are expected to keep it in a text protector when not using it. Students without a textbook protector will not be permitted to take the textbook home.

Homework will be given regularly and Year 9 are expected to spend a minimum of 1 ½ -2 hours per week on mathematics homework for the Stage 5.1 and 5.2 courses. Students undertaking the Stage 5.3 course are expected to spend a minimum of 2 ½ -3 hours on homework.

Students who like to be challenged with more difficult problems are invited to participate in the Australian Mathematics Competition. Entries for this competition are taken during March each year with the competition being held in July or August.

HISTORY

Aim

The aim of the Stage 5 History course is to stimulate students' interest in and enjoyment of exploring the past, to develop a critical understanding of the past and its impact on the present, to develop the critical skills of historical inquiry on the present, to develop the critical skills of historical inquiry and to enable students to participate as active, informed, responsible citizens.

Objectives: Students:

- develop knowledge and understanding of the nature of history and significant changes and developments from the modern world and Australia.
- develop knowledge and understanding of ideas, movements, people and events that shaped the modern world and Australia.
- develop skills to undertake the process of historical inquiry
- develop skills to communicate their understanding of history

Students will value and appreciate:

- history as a study of human experience
- the opportunity to develop a lifelong interest in and enthusiasm for history
- the nature of history as reflecting differing perspectives and viewpoints
- the opportunity to contribute to a democratic and socially just society through informed citizenship
- the contribution of past and present peoples to our shared heritage

Content:

Year 9 - The making of the Modern World and/or the Industrial Revolution

1. Making a Better World - Movement of People
2. Australian at War - World War 1, World War 2

Year 10 - The modern World and Australia

1. The Holocaust - A source based study
2. Rights and Freedoms - Post World War II era, UN, Australian and US Civil Rights

Students may also study:

1. Australia in the Vietnam War Era and/or
2. Popular Culture



PD/HEALTH/PE

Cost: \$6.00 (4 x Workbooks)

PD/H/PE is studied for 3 periods per week. The learning experiences in the course focus on relevant adolescent health issues, such as mental health, drug education and sexual health, as well as examining risk taking and personal safety.

The course covers three major strands:

- Health, Wellbeing and Relationships
- Healthy, Safe and Active Lifestyle
- Movement Skill and Performance

Individual skills relevant to enhanced learning in PD/H/PE, participation in regular physical activity and long term improvement in the quality of life are developed throughout each unit of work.

PD/H/PE provides the opportunity for young people to explore issues that are likely to impact on their well-being, now and in the future.



Elective Courses

Choose 6 of the following subjects in order of your choice

Note: Your first three selections are your main choices. Your other choices are considered spares and will only be used if there are timetabling or class size restrictions preventing you from doing one of your first three choices.

Ceramics

Child Studies

Commerce

Design & Technology

Drama

Entertainment

Food Technology

French

Japanese

Geography Elective

History Elective

Industrial Technology- Engineering

Industrial Technology- Metal

Industrial Technology- Timber

Information Software & Technology

International Studies

iStem

Marine & Aquaculture Technology

Music

Photographic & Digital Media

Physical Activity & Sports Studies

Textiles Technology

Visual Arts

Visual Design

CERAMICS

Cost: \$60 per year

This course is designed for students who enjoy creating 3D forms out of clay.

Students are provided with the opportunity to explore 3D processes that extend beyond the limited involvement in the Visual Arts Course.

As well as developmental work in a Visual Process Diary, students will be involved in: handbuilding, sculpture, functional ceramics, Bisque and Glaze firing, glazing techniques, moulding.

Students will:

- explore all avenues of 3D ceramics;
- develop a working knowledge of the mechanics of ceramics;
- develop a knowledge and appreciation of the history of 3D forms.

Opportunities to exhibit will be provided to all students through school based exhibitions and competitions.

Students will visit regional and state galleries for appropriate exhibitions.

Assessment is achieved through progressive evaluation within the process diary, experimental works, research, body of works and related works. Assessment procedures will include peer, self and teacher based assessment.



CHILD STUDIES

Cost: \$30.00 per year

Child Studies is for students interested in learning about young children and their growth and development.

The aim of this course focuses on developing the knowledge, understanding and to positively influence the wellbeing and development of children in the critical early years of their lives.

Child Studies includes study of preconception and family preparation, newborn care and the influence and impact of nutrition, play, technology and the media. This course also allows students to experience care for a newborn through the Infant Simulator.



COMMERCE

Cost: \$30.00 per year

Every day we face consumer, financial, legal, business, political and employment choices. Studying Commerce helps students learn to make informed and responsible decisions in regard to these important aspects of life. Through the study of Commerce, students develop consumer and financial literacy which enables them to participate in the financial system in an informed way.

Students studying Commerce will learn how to make decisions related to solving problems and issues that confront the consumer. They will learn to understand the importance of consumer protection from scams and ripoffs and the methods of consumer redress.

Students studying Commerce learn about personal finance, earning an income, their rights and responsibilities in the workplace, shares and other investments. They learn about the importance of budgeting, saving and planning for the future. Students have the opportunity to participate in the state-wide **Share Market Game, as well as the ESSI Money Competition.**

Commerce also focuses on **Business**. Students undertake a number of **investigations and excursions** designed to give them a better understanding of the products, management and production methods and marketing techniques used by successful businesses. They will be involved in planning for their own small business and developing and marketing a product at school for **BIZFAIR day**. Industry experts will provide workshops to help students develop an entrepreneurial mindset.

Students will look at issues related to the law, our legal and political systems. They will develop an understanding of how to participate in the democratic process, hear from interesting guest speakers and have the opportunity to witness an actual court case.

Much of the Commerce course at Warners Bay High School is based around providing students with real world context for their learning, so the integration of site studies and current issues is the focus.

Commerce is a subject designed to prepare students for life beyond school. A solid understanding of the commercial environment will help them make educated and intelligent choices as they navigate their way through life.

Students **interested in studying Economics, Business Studies or Legal Studies in the senior years** should consider Commerce as an elective in Years 9 and 10.



DESIGN & TECHNOLOGY

MIXED MATERIAL

Cost: \$40.00 per year

Design & Technology is a subject ideal for students who are seeking a career as a Designer, Innovator or Entrepreneur. It encourages students to look at the world around them, to investigate products, systems and environments, and to design a successful solution to a specified need. Students will undertake these activities using a variety of materials, tools and machines.

There will be the opportunity to participate in excursion/s throughout the course.

In the course student's select and use a range of technologies in the development and management of quality design solutions. During the course, the students will be assessed on their practical projects and documentation.

Students will gain knowledge through the development of practical 'hands on' design projects. In these, students will design, develop, produce and evaluate between three and six design projects.

These project based learning experiences could include but not be limited to:

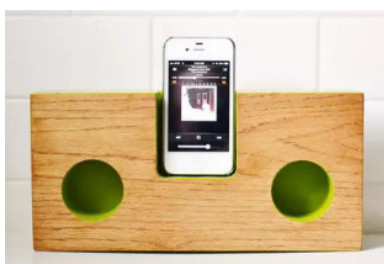
- Architecture – Built Environment
- Animation
- Computer Modelling (CAD) (2D and 3D)
- Digital Technologies – web and application design
- Graphical Design
- Game Design
- Product design sketches - 2D and 3D drawing
- Jewellery design
- Plastics
- Robotics
- Video editing (Adobe Premiere Pro and After Effects)
- Wood
- 3D Virtual Reality
- Student-negotiated focus area of design



Each design project will encourage students to develop their:

- Creativity
- Problem solving
- Planning
- Production and management skills
- Teamwork
- Evaluation
- Communication

Future study opportunities include University, TAFE & private college and subjects such as - Architecture & Interior Design, Computer programmer, Construction management, Computer Science, Creative Industries, Engineering, Game design & animation, Graphic Design & Illustrator, Industrial design, Information Technology, Multimedia design, Software design, Teaching – Art, TAS, Primary school, Visual Communication and Web design.



DRAMA

Cost: \$20.00 per year

This course is designed to develop communication skills through improvisation, characterisation and performance.



Throughout this two year course, students will be involved in a variety of situations that will provide opportunities to work with professional actors, to write scripts and perform at school functions and MADD nights, attend workshops, visit live theatre performances and produce and direct script adaptations.

Students are assessed upon the following learning tasks:

- Improvisation - mime, movement, dance
- Characterisation - building characters, assuming different roles beyond students' normal world
- Playbuilding and Performance - script writing, adaptations, etc.
- Drama and Theatre History - study of the stages and evolution of modern drama.

Assessment progressive and will be through peer, self and teacher evaluation.

Methods used to measure achievement of outcomes include workshops, group and individual presentations, log book and research assignments.



FOOD TECHNOLOGY

Cost: \$100 per year

Do you like working with good? Then read further...

Food Technology (Stage 5) actively engages students in learning about food in a variety of settings, enabling them to evaluate the relationships between food, technology, nutritional status and the quality of life.

Students learn practical skills in preparing and presenting food that allow them to select and use a variety of ingredients, methods and equipment in our new updated Food Technology labs.

The 8 focus areas covered over the (200 hour course) 2 years are:

- Food in Australia.
- Food Equity.
- Food Production Development.
- Food Selection and Health.
- Food Service and Catering.
- Food for Special Needs.
- Food for Special Occasions.
- Food Trends.

200-hour course delivery

* Students will undertake a range of practical experiences that occupy the majority of the course time.

* Focus areas may be taught individually, concurrently or integrated.

Note: WH&S require all students to wear enclosed leather shoes during practical lessons.

Other requirements: Display folder, apron, hair cover, tea towel and container.



ENTERTAINMENT

Cost \$80.00 per year

The cultural industries are wide-ranging, covering many activities, organisations and businesses in fields associated with the arts, libraries, media, museums and entertainment. These industries are essential to a vibrant and creative society, contributing to the quality of life in Australia and to an understanding of our cultural identity. They also contribute significantly to the national economy as there tends to be a high proportion of contract and casual work.

The Entertainment Industry itself is diverse and covers all aspects of the production of any type of live performance or event. Occupational areas include audio, costume, front of house, lighting, make-up, props, scenic art, sets, staging and vision systems.

In entertainment students learn to complete a range of activities that contribute to the delivery of high Entertainment events. Topics studied in Entertainment include:

- Work Health and Safety (Including the white card)
- Working in the Industry
- Customer Service
- Audio
- Lighting
- Vision
- Staging

The entertainment Course is an “early commencement” course based on the Stage 6 VET Entertainment course. Students who complete the Stage 5 course achieve a certificate of attainment towards Certificate III in Live Productions, and the subject counts as a ROSA subject. Students who continue into Year 11 will complete the HSC and get a mark towards an ATAR at the end of Year 11 meaning they will have 1 less subject to study in Year 12. Students will also achieve a Certificate III in Live Productions from TAFE. Students will also complete work placement organised by the school.



FRENCH

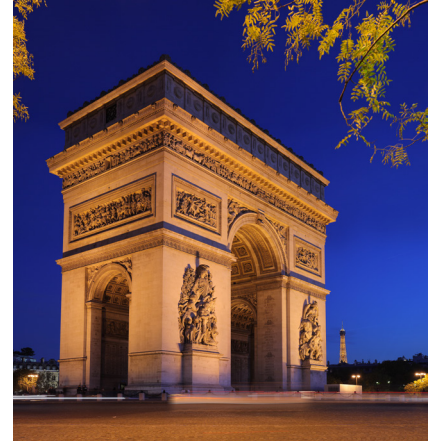
Cost: \$40.00 Textbook: Allons - Y1 (Year 9)

\$40.00 Textbook: Allons - Y2 (Year 10)

In French students will learn the language, taste the foods, become familiar with the culture and flavours of France and deepen or create a French connection.

With the Allons-Y characters, through language activities and games, learn to use and understand the spoken and written language. Students will learn how to communicate about themselves and their students everyday life, home, school, restaurant, shopping and other activities. Compete in an online vocabulary competition called Language Perfect.

Possibilities to use French in a French speaking environment are as close as New Caledonia, Tahiti and Vanuatu. There will also be opportunities to travel to France from the end of Year 9 or 10, as well as host a student from France.



JAPANESE

Cost: \$40.00 Textbook: JBLOG1 (Year 9)

\$40.00 Textbook: JBLOG 2 + 3 (Year 10)

A HIGHLY PRACTICAL AND POPULAR CHOICE

Japanese is the language of Australia's largest trading partner, one of the major industrial nations in the world, and is spoken by a population of approximately 123 million people.

Government and business alike in both Japan and Australia are supporting the teaching of Japanese on all levels. We are currently inundated with speech and essay competitions, student trips to Japan, the hosting of Japanese students, excursions, exchange student competitions etc. – the opportunities are always there. We expect to have a native Japanese assistant teacher on staff for most of the year, every year, to help students.

Students choosing Japanese will be:

- having a close look at how the Japanese language works
- working on everyday words and expressions
- adding katakana and some kanji to their writing skills
- playing games, cooking and going on excursions
- doing role-plays, entering film competitions, using computers and the Internet
- covering topics such as daily activities, travel, leisure, time, adding greatly to their skills in Japanese



GEOGRAPHY ELECTIVE

Cost: \$20.00 per year

The aim of Geography Elective is to stimulate students' interest in and engagement with the world. Through geographical inquiry they develop an understanding of the interactions between people, places and environments across a range of scales and contemporary geographical issues in order to become informed, responsible and active citizens. It gives a broader understanding of the discipline of Geography and the processes of geographical inquiry. It provides students with an opportunity to learn about their favourite parts of Geography in depth and through case studies.

The focus areas for this course include:

- **“Touring around the Asia-Pacific” - Who are Australia’s neighbours?** The nature of the environments, population characteristics, settlement patterns, economy, international relations and future directions.
- **“Road trip across New Zealand” - How does the country change as we travel from the north to the south of New Zealand?** Studying the environment, and the way humans use this environment.
- **“Getting Physical” - How does the world work and how does it affect humans?** Investigating the key physical through interpreting a range of stimulus and looking at the world’s big natural disasters including volcanoes, earthquakes, climate and weather. We also look at how people have managed to live through these disasters and start their lives from scratch again.
- **“Travelling the world” - How does tourism transform our world?** What impacts does it have on the people and environments we visit? How does it contribute to the education of individuals? Tourism and its positive and negative impact.
- **“Making a difference” Being an active global citizen** - Understanding the role of NGO’s and the importance of being a global citizen in addressing environmental, economic and social global challenges.
- **“Sustainability a WBHS and beyond”** - planning, designing and implementing a number of sustainability initiatives across the school such as a recycling program.



Throughout the course students will be involved in many discovery fieldwork activities, which will culminate in the opportunity to participate in a **FIELDTRIP TO NEW ZEALAND IN 2021**.

Reasons why you would choose this course:

Students who have an active and inquiring mind will love this course! It has numerous opportunities for fieldwork, independent research, student direction and international travel. If you are wondering about the world around you and what your future might look like, then this course will start to answer those questions. It will introduce students to the opportunities of future studies or career paths such as engineering, architecture, urban planning, disaster recovery, tourism, travel and hospitality, wildlife management and surveying. Most importantly you will develop practical skills for future independent travel, interpretation of world news, political argument and international relations.



HISTORY ELECTIVE

This course provides students with an opportunity to investigate experiences of the past not covered in the Mandatory Course. This is a chance to delve into exciting aspects of History and do field research at museums and archaeological digs.

History will help you to develop and enjoy an understanding of the actions, motives and feelings of people who have lived in the past. This inquiry will help you understand the present and to make informed choices about the future world. Students will appreciate this hands on style to History with site surveys, visits to museums, model making and film reviews.

Students will be able to appreciate:

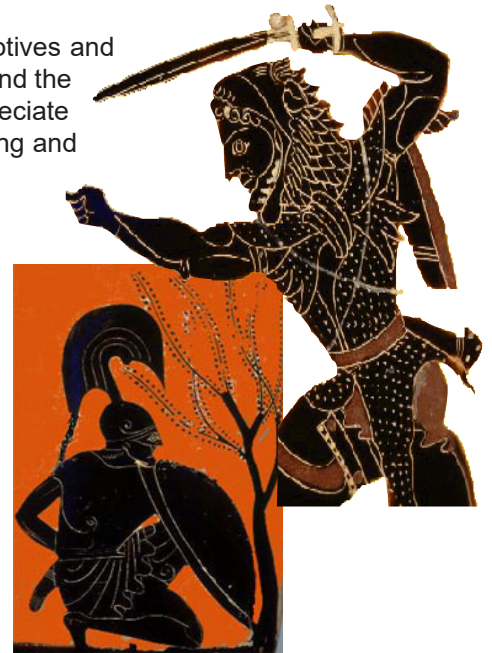
- a study of human experience
- developing a life long interest and enthusiasm for history
- differing perspectives and viewpoints
- the contributions of past and present peoples

Students will develop skills of:

- comprehension: chronology, terms and concepts
- analysis and use of sources
- perspectives and interpretations
- empathetic understanding
- research
- explanation and communication

Topic Areas:

1. History, Heritage and Archaeology including one of the following: Heroes and Villains
 - Archaeological sites
 - biography
 - family history
 - heritage and conservation
 - historical fiction
 - oral history
 - historical reconstructions
 - history and the media
 - history websites/online environments
 - local history
 - museum and/or archive studies
2. Ancient, Medieval and Modern Societies including two of the following:
 - Africa, Europe, The Americas, The Middle East, Asia, Australia and The Pacific.
3. Thematic Studies including two of the following:
 - Heroes and Villains
 - Crime and Punishment
 - Gender in the past
 - War and peace
 - Children in history



INDUSTRIAL TECHNOLOGY – ENGINEERING

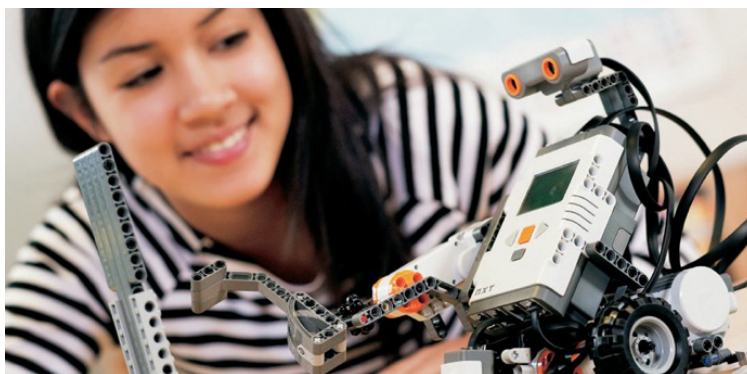
Cost: \$60.00 per year

Students will be actively involved in the planning, development and construction of practical projects applying engineering principles. Students will apply engineering theory through a range of practical experiences that occupy the majority of course time. This course has a significant practical focus covered through the construction of projects using a range of materials, tools and engineering processes. These projects are completed individually or in groups and are designed to challenge the enquiring mind.

Students will learn about engineering materials and their application, and will study a range of engineering equipment, tool and machines used in domestic and industrial applications. Students will also learn about principles & processes used in disciplines of Engineering such as: civil, mechanical, electronic, control and, alternative and sustainable energy generation. They will also learn about design and communication and the impact of engineering on society and the environment.

Topics studied in this course include:

- Materials, tools, and engineering principles and processes
- Design and communication
- Engineering computer assisted drawing, and 3D modelling and animation
- The engineering industry
- Structures
- Mechanisms
- Control systems and robotics
- Alternative energy and electronics



Projects using a variety of materials may include:

- Small mini projects in timber, metal, plastics and electronics
- Engineering structures - design, build, test and analyse a small building structure
- Medieval siege machine – Trebuchet
- Solar car challenge
- RoboJunior Challenge
- Rocket design using recycled materials
- Robotics - mars rovers and the NASA exploration program

This course also provides an excellent pathway to Engineering Studies in the Higher School Certificate

The major emphasis of Industrial Technology – Engineering is on planning and constructing quality projects, learning to select and use materials in their correct application with regard to their properties. They will learn to competently & safely use equipment, tools and machinery to construct projects. Students will learn to communicate design concepts and ideas.

Course Requirements

Requisites: Apron & sturdy footwear.

Nominal contribution towards materials & consumables used in the production of practical projects. Further costs may be incurred according to individual student's project choice.



INDUSTRIAL TECHNOLOGY – METAL

Cost: \$60.00 per year

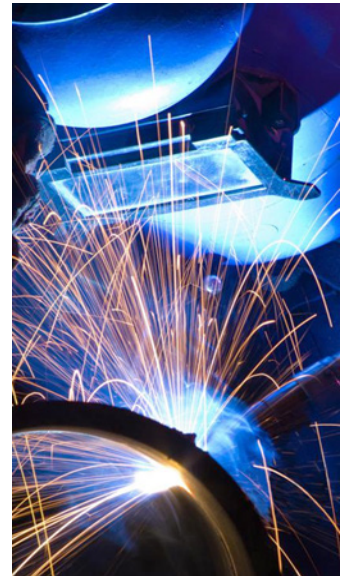
The study of Industrial Technology Metals and Engineering provides students with opportunities to engage in a diverse range of creative and practical experiences using a variety of technologies widely available in industrial and domestic settings. It is an exciting, hands on practical course with variety including machining, welding and fabrication that can be applied to hot rods, motor bikes and engines.

Do you like the sound of Machining, Welding, Fabrication, Hot Rods, Motor bikes and Engines?

This course is a great opportunity for students to learn how to fabricate a range of interesting articles in sequence to build and extend on safe practical skills relating to the Metalworking and engineering trade. Students will also basic vehicle restoration, maintenance and associated knowledge.

Students will produce some of these fantastic, fun projects including:

- Folding camping BBQ
- Hand tools – Tack hammer / hacksaw
- Folding shovel
- Tool Box
- Mini motorbike frame
- Pull down and rebuild class set of 4 stroke lawn mower engines
- Weather vane
- Vehicle restoration techniques
- Bottle BBQ
- Blacksmithing basics



Students will learn how to safely use:

- Metal Lathe
- Cold cut off saw
- Drill press
- Electric Arc Mig Welding
- Angle grinding and cutting
- Milling Machine
- Specific engine building tools
- Common shop class hand tools



Course Requirements

The course includes WHS and safe operating procedures reflective of the trade environment. This course also includes relevant theory based work relating to practical content which ensures an excellent understanding of this unique trade and processes.

Note: WH&S require all students to wear enclosed leather shoes during practical lessons.

INDUSTRIAL TECHNOLOGY - TIMBER

Cost: \$60.00 per year

The major emphasis of Industrial Technology Timber is on students being actively involved in the planning, development and construction of quality practical projects. Students will undertake a range of practical experiences that occupy the majority of course time. Practical experiences will be used to develop knowledge and understanding of designing, producing and evaluating. Students develop responsibility for learning through a range of **student-centred, project based learning experiences**.

Industrial Technology Timber provides opportunities for students to develop knowledge, understanding and skills in relation to the timber design industry. Core modules develop knowledge and skills in the use of materials, tools and techniques related to timber which are further developed through the study of specialist modules in:

Cabinetwork or Wood Machining

Projects may include:

- Furniture items such as coffee tables, tables, and chairs
- Decorative timber products such as jewellery boxes
- Storage and transportation products such as carry boxes and hanging shelf
- Small step ladders and stools
- Storage and display cabinets
- Turned bowls and lamps
- Entertainment system cabinet

During the course **students may elect to produce a design project** of their own choice.



They will develop efficient workshop techniques and experience the application and safe use of a comprehensive range of timber equipment.

All students will learn about the properties and applications of materials associated with their chosen area of study. They will study the range of tools, machines and processes available in both industrial and domestic settings for working with selected materials. Students will learn about safe practices for practical work environments, including risk identification and minimisation strategies.

Students will also learn about design and designing including the communication of ideas and processes.

The major emphasis of the Industrial Technology syllabus is on students actively planning and constructing quality practical projects. Students will learn to select and use a range of materials for individual projects.

They will learn to competently and safely use a range of hand tools, power tools and machines to assist in the construction of projects. They will also learn to produce drawings and written reports to develop and communicate ideas and information relating to projects.

Course Requirements

There is a contribution to the materials and consumables used in practical work. Further costs may be incurred according to individual students project choices.

Note: WH&S require all students to wear enclosed leather shoes during practical lessons.



INFORMATION SOFTWARE AND TECHNOLOGY

Cost: \$10.00 per year

Integrated Computing is integrated into all aspects of life, be it internet enabled refrigerators, networked game consoles or next generation mobile phones.

This is a course designed to develop twenty-first learning skills through practical project based learning with an emphasis on creating 'hands-on' computer projects.

Students will have the opportunity to participate in an excursion/s throughout the course.

Assessment: Individual and collaborative group tasks, performed over a range of projects – practical based.

Content includes focus areas such as: **INFORMATION TECHNOLOGIES** - Modelling with Data, Designing for User Experience, Connecting People with Computers. Also, **PROGRAMMING TECHNOLOGIES** – Developing Software Solutions, Creating Intelligent Systems, Building Mechatronic and Automated Systems.

Examples of projects students could complete include:

- App designs for smartphones and tablets.
- 2-D and 3-D Computer Drawing & 3D Printing.
- 2-D Adobe Animated Animations/Movies (Coded using ActionScript).
- Computer network design.
- Database design.
- Developing Software Solutions e.g. Pseudocode, storyboards, wireframes, data dictionaries, algorithms.
- Game design and programming tools e.g. Visual Basic, Scratch and Python software.
- Graphic design & image manipulation (Adobe Photoshop, Paint 3D)
- Video editing and manipulation tools (capture, editing and special effects – 'blue screens') (Adobe Premier Pro).
- Dynamic website development using HTML editors and Adobe CS tools.
- Robotics and automated systems. e.g. Lego Mindstorms.
- Simulations – e.g. Minecraft.
- Virtual Reality.



INTERNATIONAL STUDIES

Cost: \$20.00 per year

Studying International Studies provides students with new windows to explore values and to engage with the world in which they live. Students will be given the opportunity to explore the significance of culture in their own lives and appreciate the culturally diverse yet interconnected world in which they live and to develop skills and values to view their own and other's cultures from different perspectives.

Through the study of the International Studies, students will engage ideas, beliefs and practices across a wide range of cultures, with an emphasis on Asia due to Australia's geographical proximity to Asia and the Pacific, the increasing percentage of Australians with Asian-Pacific backgrounds, the economic growth of China and India, Australia's growing trade and exchanges with the countries of Asia and Australia's emerging security and humanitarian interests in the Pacific.

Students will have the opportunity to help celebrate and organise the festivities of **Harmony Day**. This is an important day in the school calendar as it promotes cultural diversity at Warners Bay High School.

Students also get to experience a cultural **overnight excursion** visiting Sydney's largest Hindu Temple and staying at the Nan Tien Temple (the largest buddhist temple in the southern hemisphere) and participating in an educational tour of the Lakemba Mosque. Students engage in tai chi, tea chan, origami and special ceremonies, experiencing monastic life as a buddhist monk.

Some of the topics covered in this course include:

- Understanding culture and diversity in today's world
- Religion and Culture
- Gender differences
- The media: religion, politics and human rights
- Cultural tourism
- Culture and sport
- Culture and family life in China and India
- Culture and food
- Culture and science, technology and change.

Much of this course will involve investigating current social and cultural issues through web-based research and media analysis. Students interested in studying Legal Studies, Society and Culture, Geography, Business Studies and Economics in the senior years should consider International Studies as an elective for Years 9 and 10.



iSTEM

Cost: \$30.00 per year

Science, Technology, Engineering and Mathematics are becoming increasingly important in a modernised world and especially in Newcastle. With the shift away from traditional manufacturing in Newcastle, the focus of all levels of government is for the Hunter Region to diversity into to high-tech manufacturing, research and innovation. This course has a strong focus on these areas through the content covered and through the students having access to an industry partner.

This course presents in a practical, hands on approach that provides students the opportunity to extend their knowledge in the areas of S.T.E and Maths. The students will complete a selection of the following modules throughout the 200 hour (Years 9 and 10 course).

- STEM fundamentals - this module develops students understanding of engineering fundamentals and the design process. It also focuses on students' team work skills, by them completing a range of engineering challenges.
- Aerodynamics - students will learn about the science and mathematics behind aerodynamics by completing varied projects including model plane dogfights, advanced bottle rocketry and CO₂ dragsters.
- Motion - students learn about the mathematics and science of projectile motion through practical experiments.
- Mechatronics - students will learn basic coding to program various robots.
- CAD/CAM - students will learn how to use a CAD program to design components to be used in different projects and competitions. These parts will then be manufactured by CAM operated machinery to allow the students to understand the design process.
- STEM project - students will undertake a personal interest project that could vary from a scientific research task to manufacturing components or a mathematical/statistical task.
- Surveying - students develop understanding of civil structures and geometry principles through a project based learning approach.
- Design for Space - students will learn how to undertake basic programming, which will be loaded on a circuit board that is being sent to the International Space Station to run their experiments.
- Statistics in Action - students will solve real world problems using statistics to understand its potential to unlock solutions.

The iStem course will provide students the opportunity to learn both theoretical and practical skills that will be showcased in various science and engineering challenges that they we will compete in during the two-year course. The course will complement other technology, or manufacturing courses the students wish to study in Years 9 and 10. Provides students with the best preparation for future studies of Science, Technology, Engineering and Mathematics in Years 11 and 12.

School contact - Mr Thompson, Mr Husband and Mr Bruce.



MARINE AND AQUACULTURE TECHNOLOGY

Cost: \$20.00 per year

The Marine Studies course has been developed for those students who have an interest in the marine environment. The course will allow the students to develop an appreciation and understanding of the local marine environment (i.e. the ocean, coastline and Lake Macquarie).

This course provides students with the opportunity to improve or learn skills related to the marine environment including:

- fishing in Lake Macquarie, Newcastle Foreshore
- snorkelling at Fly Point, Port Stephens
- water safety accreditation involving water skills testing at the local heated pool
- whale and dolphin watching cruises from Port Stephens
- investigating aquaculture at a Barramundi Farm and Shark & Ray Centre
- canoeing and water testing at the Hunter Wetlands

Other options in this course also allow students to research and study various marine ecosystems (i.e. the oceans and rock platforms) natural industries disasters and marine creatures (fish, sharks and rays, whales and other marine mammals, crustaceans and marine mammals).

Various universities offer degrees in marine related areas, for example Newcastle University offers a science degree specialising in Marine Science. TAFE also offers a number of courses in marine related areas.



MUSIC

Cost: \$30.00 per year

This course is designed for students who enjoy to perform and study music. A wide variety of music will be studied, ranging from modern rock styles to classical, jazz and film music. Students will study the compulsory topic, Australian Music, as well as 3 elective topics. Learning tasks will include activities relevant to Performance, Composing and Listening skills.

Students will be given opportunities to perform and work in groups and solos within the classroom and through more public performances at MADD nights and school functions.

Opportunities will be given to:

- play any type of band instrument
- work with keyboard equipment and computer equipment
- experiment, improvise, organise, compose and arrange musical sounds
- listen to and discuss music in the context of pitch, duration, tone colour, structure, dynamics and expressive techniques and texture
- listen to a wide range of musical styles

Assessment - This will be through peer, self and teacher based assessment through progressive evaluation.

Methods used to measure achievement of outcomes:

- performance tests – group and/or solo
- topic tests (aural, composition and listening tests)
- homework and classroom exercises
- assignment task
- Viva Voce tests



PHYSICAL ACTIVITY AND SPORTS STUDIES

Cost: \$6.00 (4 x Workbooks) per year plus venue hire and excursion costs for activities.

If you have a genuine interest in physical activity and a healthy lifestyle, then this course is for you.

It is a course that caters for people with a wide range of needs and interests and not just elite sports persons.

By participating in this course you will gain experiences which will assist your participation in team/individual sports as either a player, coach, umpire or sports administrator.

Learning activities are divided into two major areas:

Concepts of Physical Activity

Topics include:

- Maximising Performance
- Managing Sport, Outdoor Challenges
- Improving Physical Fitness, Sport in Australian Culture.

Applied Sport Studies

Topics Include:

- Archery
- Orienteering (inc. a 1 day excursion)
- Table Tennis
- Tennis
- Golf (inc. a 1 day excursion)
- Indoor Cricket/Soccer/Netball
- Lightweight Camping/Canoeing
- Lacrosse

Including excursions:

- Year 9 – 2 day bushwalking/camping)
- Year 10 – 2 day canoeing).



TEXTILES TECHNOLOGY

Cost: \$30 per year

Textiles Technology is an elective course. It builds on the knowledge, skills and experiences developed in the Technology Mandatory Years 7 – 8 Syllabus and the Textiles Technology Syllabus (Elective).

Textiles Technology has an emphasis on project work. If you enjoy hands on learning and the choice over the direction of your learning. If you are a creative and a self-directed learner, who is passionate about design, fashion, original and custom concepts you will enjoy this course.

Textiles Technology is a study of different focus areas. Students will complete FIVE projects over the two years from the following focus areas: apparel, furnishing, costume, textile art and non –apparel.

Project Work will give students the opportunity to be creative and independent learners.



Students learn to participate in project-based learning, which revolves around designing and manufacturing textiles items, design folios and applying essential textile knowledge. The course will cover:

- Designing and producing a range of apparel items e.g. fashion items - top, skirt, dress pants etc
- Costume design
- Fashion Illustrating
- Using digital technologies to design and make textile products – computerised machinery and virtual reality, green screen app.
- Home decor items e.g. macrame, wall hanging, bedroom accessories
- Discovering the concepts of inspiration, mood boards and the work of designers. Fashion and costume.
- Learn about how elements of design are used to design to create visually pleasing and flattering designs.
- Fabric decoration e.g. tie dye, printing, patch work, computerised embroidery etc.

Textiles Technology develops critical skills for post school, future employers are seeking workers with:

- the ability to think creatively and to be innovative,
- critical thinking and problem solving skills, communication skills
- skills to manage a project, management of time and resources skills
- self-direction and personal management

Learning in the Textiles Technology classroom is supported by real life exposure to the fashion world through excursions. This includes fashion parades, musical productions, fashion university, retails shopping and fashion workshops.

Students have access to digital technologies through virtual reality, green screen productions, digitising programs, computerised machinery, iPads, smart board and direct digital printing technology.

Textiles Technology is suitable for students who wish to continue with Textiles and Design or Design and Technology in senior years or for students who have an interest in design, fashion, printing, costume design and textile construction.

VISUAL ARTS

Cost: \$50.00 per year

Visual Arts is designed for students with a keen interest in the creative process of making artworks and interpretation of artworks and images.

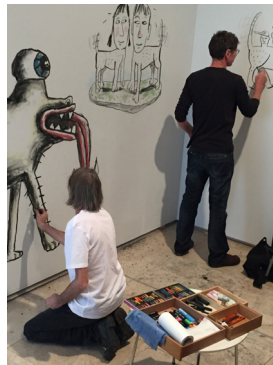
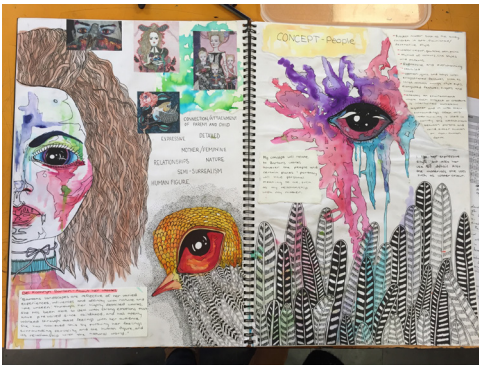
In Year 9, students will be involved in a wide range of expressive activities including, painting, drawing, mixed media, graphics, photography, sculpture, video, computer generated forms, ceramics and printmaking.

Students will also be exposed to art criticism, history and appreciation through its relationship to artmaking through visits to both regional and N.S.W. Galleries.

Assessment is based upon progressive evaluation with an emphasis on practical skills and the interpretation of concepts.

Each unit of work will be assessed as completed through a wide range of procedures such as peer assessment, group assessment, exhibition assessment etc.

Students are assessed on their Visual Process Diary and Bodies of Work, including Critical and Historical studies.



During the Year 10 course there is a greater emphasis upon student specialisation allowing the individual to develop particular skills of interest or reflection of talent. Individual investigation of media and concept development are based on excursion work and subsequent experiences.

Themes relevant to the student are investigated through exploration of a variety of media. Students involve themselves in the process of development and discovery through a Visual Process Diary and a Body of Work. Two units of work are completed by the student in Year 10, allowing for greater emphasis and individual expression in the final Body of Work. Students also engage in Art Criticism and Art History relative to their own artmaking.

Assessment is through evaluation of the processes within the Visual Arts Process Diary, and Body of Work. Knowledge of artmaking skills, conceptual use of media and Critical and Historical analysis form the criteria for assessment. Critical and Historical analysis will be a part of the V.A.P.D. Students will visit regional and N.S.W. galleries where appropriate.

All work is marked by a panel of art teachers.



VISUAL DESIGN

Cost: \$40.00 per year

Visual Design is a dynamic course that is designed for artistic individuals who are interested in becoming graphic designers.

In today's world full of splashy visual and subliminal elements, graphic design is a growing industry and good graphic designers are highly sought after.

Graphic design is the process of visual communication, and problem solving through the use of type, space, image and colour. Graphic designers use various methods to create and combine words, symbols and images to create a visual representation of ideas and messages.

Some graphic designers might work as **logo designers, advertisement designers, web designers, photograph editors, book layout artists, magazine layout artists, illustrators, or art directors.**



Students learn the hands-on skills and theoretical understanding required to work across the diverse elements that constitute contemporary design practice.

The course aims to support and foster a creative and explorative attitude toward the design process where research and practice are consolidated in design outcomes. It cultivates a collaborative and global vision of design. Through a variety of interdisciplinary subjects, industry projects and international studios, students develop the flexibility and confidence to work in the divergent and novel environments of contemporary visual communication practice.

During this course students will investigate how visual design artworks come into being artistically, conceptually and technologically, the role of the artist as designer, the value of meaning of visual design artworks in society and the role of consumer in these contexts.

Students will be assessed through Visual Diary work and Bodies of Work, where they will work across a variety of media and forms. Students will explore visual design through print, object and space-time. Through experimentation with print, students will look at multi-media, conventions of illustration, cartooning, typography, advertising etc. Through object students will look at jewellery and wearable art, ceramic wear, object design, theatrical applications of visual design etc. Through space-time students will explore conventions of interactive artworks, virtual worlds, video/animation, sound and light, architectural considerations of interior and exterior spaces, environment as a stimulus for visual design etc.

This exciting course appeals to a wide variety of interests and abilities and allows students to understand an oversaturated and visual world of today!