

Thornbury High School



VCE Course Selection Handbook 2009

At Thornbury High School we believe that a safe and secure learning environment, high academic standards and opportunities for students to pursue individual interests are the essential elements of an outstanding education.

At Thornbury High **our purpose** is to prepare students for a changing, diverse and sustainable world by;

- Building knowledge and skills,
- Encouraging effort and excellence,
- Fostering resilience and integrity,
- Developing a caring and cooperative learning community.

At Thornbury High school there are **three distinct phases in education**;

- Establishment and support (year 7&8).
- Empowerment and Independence (year 9).
- Specialisation and Pathways (year 10,11& 12).

In Year 7&8 students have the choice of mainstream program, the SEAL program or the High Achievers program;

- In the mainstream program all students receive challenging but appropriate work. There is additional support for students with literacy problems and smaller class sizes.
- The SEAL (Select Entry Accelerated Learning) program. The program provides a faster paced curriculum with greater study of abstract, complex and in-depth concepts with emphasis on investigative, problem solving and creative thinking. Students in the SEAL program complete years 7-10 in three years.
- The High Achievers program with more challenging curriculum including some elements of SEAL but students are not accelerated as they complete year 7-10 over 4 years.

In year 9 students are involved in an authentic learning program with an emphasis on team learning, connections to the local community and the extensive use of information and communication technology. A significant part of their studies will occur in the newly renovated Library which is a flexible and multi-purpose learning environment.

In year 10 students will be prepared for their VCE studies but also have a range of curriculum choices. These choices include VCE studies, advanced Mathematics, Vocational and Education studies (VET) and a range of electives.

At year 11 and 12 students are able to complete a traditional academic program or an alternative 'hands-on' program called the Victorian Certificate of Applied Learning (VCAL). The academic program includes the sciences & mathematics, arts, commerce, humanities and technology. VCAL provides a more hands on approach with an emphasis on practical studies with a component of community & work experience.

Welcome to Thornbury High School,

Peter Egeberg, Principal

V.C.E. - YOUR CHOICE

The V.C.E. years are distinguished by the choices students have to make. School is no longer compulsory, so the first choice is to do V.C.E.

V.C.E. Subject Selection:

This subject selection handbook has been designed to assist students in their selection of VCE subjects for 2009. It should be used in conjunction with the Parent Information Evening, level assemblies, class and individual careers counselling that is provided for students and parents during Term 3.

How is the VCE different?

You are expected to take more responsibility for your own learning, with the teacher acting more as a facilitator to the learning rather than a director. It is not just a matter of gaining skills and knowledge, but of being able to apply them in an increasing range of situations. There will be more unsupervised study time outside normal lessons, requiring increased self-discipline and motivation to complete tasks and revise efficiently. Year 11/12 students will have access to the Senior School Study Centre outside class time, where they can choose to work with other students or in the Library. During years 7 to 10 the school designs content, assessment, rules and guidelines within a framework provided by the government. The Victorian Curriculum and Assessment Authority (VCAA) decides the study design, rules and guidelines for the VCE, which must be followed. It is therefore very important that you understand and follow these as teachers cannot modify them for you. Full details are on the VCAA web site. (www.vcaa.vic.edu.au)

What will help me to do my best?

As motivation and self-direction are very important, it is crucial that you select studies that interest you, give you confidence, and offer positive challenge. Those who have excellent organisation and time management skills will work more efficiently and find it easier to work independently. A balanced lifestyle, where you have a high work ethic but also find time to socialise with family and friends, and continue other interests is important in your personal development. Adequate rest, exercise and good nutrition also play a part in helping you to maintain good health and cope with the additional study required. Having a positive outlook, support from and for peers or family, taking up opportunities offered, will assist you to always do your personal best.

How does the VCE work?

- A VCE study (or subject) is generally designed to last for one year and is made up of units.
- Units 1 and 2 (usually studied in year 11) can be taken as single units.
- Units 3 and 4 (usually studied in year 12) must be taken as a sequence of two units. That is, if you enrol in Unit 3 in a study, you will also be expected to enrol in Unit 4 of that study.
- To obtain your VCE, you must satisfactorily complete at least 16 units
- Completing a Unit 3-4 sequence in Year 11 will allow you to have an extra study score to add to your final total score (ENTER).
- You normally do 6 studies (12 units) in Year 11 and 5 studies (10 units) in Year 12.
- Some students have already completed units 1-2 in a study in year 10 and may be able to do a unit 3/4 in Year 11.

What is required to complete the VCE?

To be awarded the VCE, students must satisfactorily complete at least 16 units. These units must include:

- An approved combination of at least 3 units from the group of English studies.
- At least 3 sequences of Unit 3/4 studies other than English.

DESIGNING A PROGRAM OF STUDY FOR THE VCE

Students should discuss selections with parents and teachers. Students need to design a program over 2 years, and should consider the following:

Personal Interests.

- What do you enjoy studying?
- What talents do you have?
- What skills need improving?
- What careers do you find interesting?
- Do you need to balance your program?
- Should you challenge yourself?

External Requirements

- What pre-requisites do certain tertiary/TAFE courses expect?
- What units of study are preferred by employers?
- Can specific VCE units gain you credit transfers for some TAFE course?
- Have teachers/parents advised you against attempting some subjects?
- Are you choosing for you, or following friends?
- Should I consider a VET (Vocational Education and Training)

All students with their parents will be counselled and assisted by Co-ordinators from both the Middle and Senior school in selecting a program which best suits them.

Enrolment policy, attendance and workload

It is anticipated that you will be a full time student, unless you have special requirements. In Year 11, you will enrol in six units each semester and remain enrolled in these units for the entire semester. In Year 12, you will enrol in five or six pairs of units for the year and remain enrolled in the pairs of units for the entire year. If you are undertaking an approved VCE/VET Program, you will substitute this for a pair of Units each year. Ninety percent attendance is required to meet the VCAA requirements of course work completed in class. **If you are absent for an assessment task or for several days, you will require a medical certificate to avoid failing the unit. This certificate cannot be post-dated.**

If you have special requirements you may wish to request to undertake fewer units. You may be an English Second Language (ESL) student, be experiencing personal difficulties, a chronic illness or have a disability. If you are undertaking a TAFE or Training program which does not carry credit for VCE, you may need to undertake fewer subjects or take an extra year to complete the VCE. The number of studies undertaken and attendance requirements will be arranged with the relevant Year Level Co-ordinator and the VCE Co-ordinator.

Research all possible courses and careers

Consider your career interests and aspirations. You may wish to consult the latest edition of the “Job Guide”. Do some research on these jobs and what they involve. Try to identify University or TAFE courses that will provide the type of training you will need to enter the career areas that interest you.

You will be attending counselling sessions at school before your course applications are due to check that you have chosen a suitable course and met all VCAA requirements.

Prerequisites

Identify any specific pre-requisites for the Tertiary and TAFE courses you have identified. These pre-requisites are normally for Year 12 subjects, but this directly influences your subject choices in Year 11. Tertiary/TAFE pre-requisites for the year 2010 are set out in a lift-out from the Herald/Sun. This has been provided for you in the Information package..

Information may also be found on the VTAC website. (www.vtac.edu.au).

You will notice that some subjects now attract bonuses from some tertiary courses to indicate to you the value they place on that subject(s) as a preparation for the course.

WHAT IS VCAL: Victorian Certificate of Applied Learning

VCAL is an alternative option for year 11 and 12.

VCAL is also a certificate that recognises the successful completion of secondary education. The VCAL provides a pathway to TAFE, apprenticeships and employment. It gives you practical work-related experience, as well as literacy and numeracy skills and the opportunity to build personal skills that are important for life and work. It is also possible to undertake a School Based New Apprenticeship or traineeship with the VCAL.

Students will be recommended for VCAL by teachers and Co-ordinators. Students will be counselled with their parents, by the VCAL team.

SOURCES OF INFORMATION

Victorian Curriculum and Assessment Authority (VCAA)

41 St Andrews Place, East Melbourne Phone: (03 9651 4300)

The VCAA is responsible for the development of the VCE and overseas all assessment.

Information about individual studies, satisfactory completion requirements, assessment procedures and certification arrangements may be obtained from VCAA. (www.vcaa.vic.edu.au)

Victorian Tertiary Admissions Centre (VTAC)

40 Park St., South Melbourne, Victoria 3205

Phone: 1300 364 133

Web site: www.vtac.edu.au

E-mail: enquiry@vtac.edu.au

VTAC administers the joint selection system on behalf of the Universities, TAFE institutes and some Private Providers. Applications for courses are done via VTAC website or by phone, in September.

The **VTAC Guides** can be accessed via www.vtac.edu.au, as all VTAC publications, or it can be bought from the VCE Centre or at Newsagencies.

WHERE TO NOW?– published by the VCAA and aimed at current Year 10 students as a guide to the VCE, VCAL and Apprenticeships and Traineeships for 2008.

ABC of applying – published by VTAC and available at school or at www.vtac.edu.au

CHOICE! – VCE studies and the ENTER. Published by VTAC www.vtac.edu.au

Glossary of Terms

Assessment Tasks (Units 1 and 2)

School based and marked tasks. These indicate level of performance and/or achievement.

CSL: Chinese as a Second Language.

ENTER Equivalent National Tertiary Entrance Rank
This is used as the basis for tertiary entrance Australia wide and is calculated by VTAC as a score out of 100 by using the student’s SAC results from

- English/Literature 3-4,
- The next 3 best 3-4 sequences and
- 10% of a fifth or sixth sequence (or alternative)

GAT: General Achievement Test – All students doing Unit 3 & 4 subjects must sit for the GAT in June of each year.

Increment level. Additional points given for the fifth and/or sixth studies taken at Unit 3 and 4

These incremental studies will attract 10 per cent each of the scaled VCE study score achieved.

LOTE: Language(s) Other Than English

Outcomes Tasks students must be able to exhibit completed as a result of a unit of study

Prerequisites Subjects/Units which must be studied and passed for entry into tertiary courses

“Primary four” Studies that will be counted first when creating an ENTER, namely an English study plus those with the next three highest scaled study scores.

SAC – School-Assessed Coursework

Internally prescribed activities completed in class, to time and marked according to a set of external criteria.

SAT – School-Assessed Task

Internally set tasks resulting in a production which is internally assessed against a set of external criteria.

Semester Half a school year (approx 18 weeks)

Sequence 2 units at level 3 and 4 in the same study (eg. English 3-4)

Unit A self contained study (subject) of one semester’s length.

VCAA The Victorian Curriculum and Assessment Authority

This Authority is responsible for the curriculum taught and assessed in Victorian Schools at the VCE as well as all other levels of the curriculum.

- VCE** Victorian Certificate of Education. The qualification awarded after the satisfactory conclusion of two years of study at Years 11 & 12.
- VCAL** Victorian Certificate of Applied Learning: A hands on option for students in year 11 and 12.
- VET** Vocational and Educational Training
Combination of TAFE and VCE subjects with the granting of a certificate as well as the VCE.
- VTAC** Victorian Tertiary Admissions Centre
The centre that processes student applications to most courses in tertiary schools and universities.
- VTAC Guide:** VTAC Guide to University and TAFE courses.



ENGLISH/E.S.L.

English is concerned with enhancing a student's communication skills through the modes of reading, writing and oral communication.

It is a compulsory study in VCE unless Literature is used as an alternative. To attain VCE a student must successfully complete three out of the four units of English or Literature with units 3 and 4 completed sequentially and successfully in the same year.

Structure

Unit 1

The focus of this unit is the reading of a range of texts, with comprehension, enjoyment and discrimination, development of competence in writing based on the strategies and concerns of particular writers, and the use of oral language to interact positively, critically and confidently with audiences in formal and informal settings.

Unit 2

The focus of this unit is on a variety of forms of response to texts, experimentation with different written forms, and the use of and response to oral language in different contexts.

Unit 3

The focus of this unit is on reading and responding both orally and in writing to a range of texts. Students analyse how the authors of texts create meaning and the different ways in which texts can be interpreted. They develop competence in creating written texts by exploring ideas suggested by the reading within the chosen Context, and the ability to explain choices they have made as authors.

Unit 4

The focus of this unit is on reading and responding in writing to a range of texts in order to analyse their construction and provide an interpretation. Students create written or multimodal texts suggested by their reading within the chosen Context and explain creative choices they have made as authors in relation to form, purpose, language, audience and context.

Examination 50% of marks

Further information:

Mrs Helen Walsh

LITERATURE

This study includes reading novels, short stories, poetry and plays, and viewing films and/or dramatic performances. It is designed to develop an enjoyment of literature and the ability to critically respond to texts.

The study is a means of exploring and making sense of human experience and exploring the strategies, views and values of the writer.

Contemporary and historical literature is studied.

It can be used as the English requirement in the VCE certificate.

The valuable critical and analytical skills learnt can lead to careers in law, public service, publishing, editing, directing, writing and acting.

Unit 1

This unit helps students to develop effective reading strategies, examine ideas of life presented in literature, relate it to their own lives and social context, develop an understanding of and critical response to contemporary (post 1950) literature and analyse and interpret texts.

Unit 2

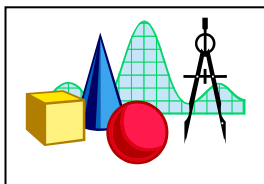
This unit enables students to develop reading strategies and personal responses to literature and an understanding of how themes and ideas in text comment on personal and social experiences. The focus is on a variety of pre 1950 literature.

Unit 3 & 4

This unit involves students in analysing a range of texts, developing skills in reading closely and critically, and discussing ways of interpreting and evaluating text.

Further information:

Mrs Helen Walsh



MATHEMATICS

Aims of the Study of Maths

These programs are designed to enable students to:

- develop mathematical knowledge and skills; and
- apply mathematical knowledge to analyse, and investigate
- solve problems in a variety of situations.

There are a variety of Maths options for students depending on their ability and career aspirations. Students must pass Year 10 Maths with reasonable results to continue with General Maths and/ or Maths Methods.

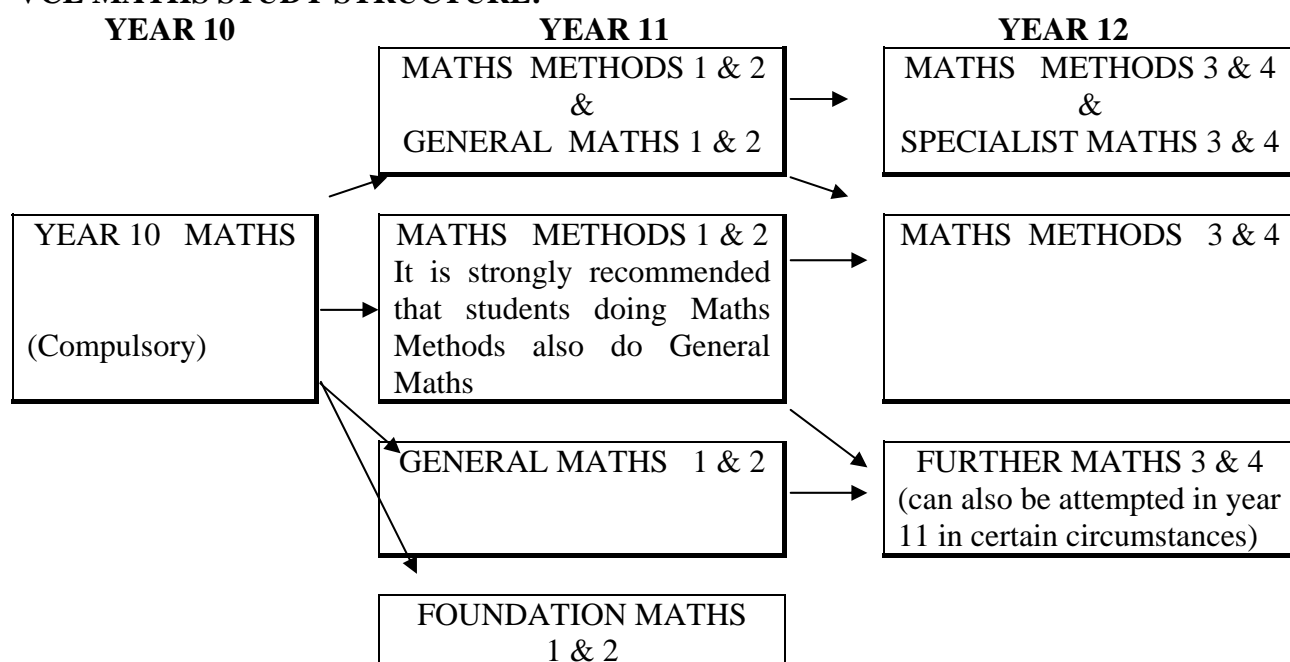
The Maths staff make recommendations on the level of Maths that a student should study.

Calculators

Each VCE Mathematics course requires students to be able to use appropriate technology and this means that Foundation Maths students must have a scientific calculator.

All others students (General and Methods in Year 11 and Further and Methods in Year 12) must have a graphics calculator. Students should consult their Maths teachers as to which type of calculator to buy. Please note that VCAA examinations at Year 12 are set assuming students have access to graphing calculators.

VCE MATHS STUDY STRUCTURE:



FOUNDATION MATHS

• Foundation Maths does not lead on to any Maths Units 3 and 4

Foundation mathematics provides for the continuing mathematical development of students entering VCE needing mathematical skills to support their other VCE subjects including VET studies and who do not intend to undertake Units 3 and 4.

In Foundation Mathematics there is a strong emphasis on using mathematics in practical contexts relating to everyday life, personal work and study. Students are encouraged to use appropriate technology in all areas of their study, and require a scientific calculator

The areas of study for these units are Space and Shape, Patterns in Number, Handling Data, Measurement and Design.

GENERAL MATHS 1 & 2

General Mathematics provides courses for diverse groups of students and may be implemented in a number of ways. The areas of study are Statistics and Probability, Arithmetic, Functions and Graphs, Algebra, Geometry, and Trigonometry.

General Maths provides a strong basis for Further Maths Units 3 and 4.

MATH METHODS

Units 1 & 2

Topics covered include:- Polynomials, Quadratic Equations, Functions and their Graphs, Introductory Probability and its applications, Differentiation and its applications, Circular Functions and Anti differentiation. It involves learning algebraic skills, practicing them and then applying them to relevant situations. These skills are then used in problem solving and project activities.

Students studying this subject are highly encouraged to undertake General Mathematics 1 and 2.

Students studying both Maths Methods and General Maths can proceed to Maths Methods 3 & 4 and Specialist Maths 3 and 4. (see flow chart)

Notes:

To do Maths Methods 3 and 4 a student must satisfied the Work Requirements for Maths Methods 1 & 2. Specialist Maths must be studied in conjunction with Maths Methods 3 & 4 (or after its completion.)

FURTHER MATHEMATICS

Units 3 and 4 consist of a compulsory core and a selection of three from six optional modules. Unit 3 involves the study of the core material in data analysis, and one of the optional modules. In Unit 4, two optional modules will be covered. The optional modules are: Number Patterns, Geometry and Trigonometry; Graphs and Relations; Business Related Mathematics; and Networks and Decision mathematics and matrices. In Unit 3 and 4 students are required to apply mathematical knowledge and skills creatively to solve problems including real-life situations and learn and practise mathematical routines and techniques, and use them to find solutions to standard problems. Students are encouraged to use graphics calculators and/or computer software packages. They have a wide application in this study.

MATHEMATICAL METHODS

Units 3 and 4

Units 3 and 4 involve the study of Co-ordinate Geometry; Circular (trigonometric functions), Calculus; Algebra; and Statistics and Probability. In Units 3 and 4 students are required to apply mathematical knowledge and skills creatively to solve problems including real-life situations, learn and practise mathematical routines and techniques, and use them to find solutions to standard problems.

- This is a prerequisite for tertiary courses including science, economics and medicine.

SPECIALIST MATHS

Units 3 and 4:

Specialist Mathematics consists of the following areas of study: Coordinate Geometry, Circular (trigonometric) Functions, Algebra, Calculus, Vectors in two and three dimensions and Mechanics

Unit 3 extends skills covered in Maths Methods and Unit 4 concentrates on solving application tasks.

This maths provides an important background for students wishing to study engineering, maths or physics at tertiary level.

Further information:

Ms Denyse Strantzen / Ms Snezana Stojanovski / Ms Rosalie Ceglia



VCE SCIENCES provide the widest range of career opportunities and pathways to University, TAFE and further study.

BIOLOGY

Biology Unit 1

Unity and Diversity

This unit examines the activities of cells and the relationships between the specialised structures of cells and the processes that maintain life. Another focus studies the relationship between features of organisms and how organisms meet the requirements for life.

Biology Unit 2

Organisms and the Environment

Students examine adaption of organisms, focusing on the kinds of environmental factors that are common to all habitats and how organisms use resources and adapt to a particular ecological niche. The unit studies the complex and finely balanced relationships that exist between living things and resources in a particular habitat.

Biology Unit 3

Signatures of Life

This unit examines the activities of cells at a molecular level, the synthesis of biomolecules that form components of cells and the role of enzymes in catalysing biochemical processes. Another focus studies how biomolecules respond depending on whether molecules are “self” or “non-self” and the role of signalling molecules in coordination and regulation.

Biology Unit 4

Continuity and Change

This unit explores the mechanisms of inheritance, genes, DNA, mitosis and meiosis; leading to an understanding of the origins and diversity of living organisms and how they evolved. Recent advances in biotechnology are also investigated.

Further information:

Mr. Ian Westwood

PHYSICS

THS provides a purpose-built Physics laboratory with its own PC network, datalogging and online coursework.

VCE Physics is based on knowledge of how the material world behaves. Theories and applications in areas such as acoustics, atomic and molecular engineering, aerospace, astronomy, mechanics, optics, radiation, and thermodynamics are investigated.

Physics Unit 1

Area of study 1 Nuclear Physics and Radioactivity

The particle model of matter and ideas about energy transfers and transformations are investigated in the study of nuclear physics.

Area of study 2 Electricity

Students develop circuit models to analyse electrical phenomena and undertake practical investigations. Mathematical models are applied and critically assessed during experimental investigation of DC circuits.

Area of study 3

A choice of any one elective from the following:

Astronomy

Students make observations to explain the motions of stars and planets, and describe models of planetary motion.

Astrophysics

Students describe and explain methods used to gather information about stars and astronomical objects, apply information to models of the nature and origin of the Universe.

Energy from the nucleus

Students describe and explain fission and fusion physical reactions, energy transfer and transformation, phenomena of importance in stars and in the production of nuclear energy.

Investigations: Flight

Students design, perform and report on an experimental investigation related to an aspect of flight and to explain results and conclusions by applying Newton's laws and Bernoulli's principle.

Investigations: Sustainable Energy Sources

Students use concepts to energy transfer and transformations into an aspect of renewable energy supply system.

Medical Physics – students will use waves and radioactivity in the context of applications in medical diagnosis and treatment.

Unit 2

Area of study 1 Motion

Students investigate, analyse and mathematically model motion of particles and bodies in terms of Aristotelian, Galilean and Newtonian theories

Area of study 2 Wavelike properties of light

Students describe and explain the wave model of light, compare it with the particle model of light and apply it to observed light phenomena in practical investigations

Area of Study 3.

A choice of any one elective from the following: **Astronomy, Astrophysics, Energy from the Nucleus, Investigations of Flight, Investigations of Sustainable Energy Sources and Medical Physics**

Unit 3

Area of study 1

Motion in one and two dimensions

Students investigate motion and related energy transformations experimentally and use the Newtonian model in one and two dimensions. Newton's law of Gravitation is investigated and also the motion of planets and satellites

Area of study 2

Electronics and photonics

Students investigate, describe, compare and explain the operation of electronic and photonic devices, and analyse their use in domestic and industrial systems.

Area of study 3

Area of Study 3.

A choice of any one elective from the following

Einstein's special relativity

Students use Einstein's theory of relativity to describe and explain relativistic motion and effects.

Materials and their use in structures

Students analyse and explain the properties of construction materials and evaluate the effects of forces and loads on structures and materials.

Further electronics

Students design and investigate an AC to DC voltage regulated power system and describe and explain the operation of the system and its components and the effects of test equipment on the system.

Unit 4

Area of study 1 Electric power

Students investigate and explain the operation of generators, motors and alternators and the generation, transmission and distribution and use of electric power.

Area of study 2 Interactions of light and matter

Students use a wave and photon model to analyse, interpret and explain interactions of light and matter and quantised energy levels of atoms.

Area of study 3

A choice of any one elective from the following

Synchrotron and its applications

Students describe the basic operation and design of The Australia Synchrotron.

Photonics

Students apply the photon and wave model of light to describe and explain the operation of different light sources

Sound

Students apply a wave model of sound and a field model of electromagnetism to describe, analyse and evaluate the recording and reproducing of sound

Further information:

Mr Michael Foster

CHEMISTRY

Unit 1: The big ideas of chemistry

This unit involves an investigation into the properties and uses of materials. Students will study the models for metallic, ionic and covalent bonding. Students will examine the widespread use of polymers, as well as be introduced to the development and application of 'smart' materials.

Areas of Study:

i. The Periodic Table

This topic focuses on the historical development of, and the relationship between, the Periodic Table and atomic theory.

ii. Materials

This topic focuses on the structure, properties and applications of materials.

Unit 2: Environmental chemistry

In this unit students will investigate how chemistry is used to respond to the effects of human activities on our environment. Students will be introduced to the quantitative chemical calculations used every day by analytical chemists, as well as chemical processes that have been designed using green chemistry principles.

Areas of Study

i. Water

This topic focuses on the study of water. Students will explore the properties of water and investigate a range of chemical reactions that take place in aqueous environment.

ii. The atmosphere

This topic focuses on the interaction between living things and gases of the atmosphere through studies of the carbon and nitrogen cycles.

Unit 3: Chemical Pathways

Area of Study 1: Chemical analysis

In this study the students investigate the scope of techniques available to the analytical chemist. They conduct volumetric analyses using acid-base and redox titrations, and carry out gravimetric analyses. The students are also introduced to instrumental techniques of spectroscopy and chromatography.

Area of Study 2: Organic chemical pathways

This study focuses on organic reaction pathways and the chemistry of particular organic molecules. Students use molecular models and simple laboratory investigations to observe the properties and reactions of different homologous series and functional groups.

Unit 4: Chemistry at work

Area of Study 1: Industrial chemistry

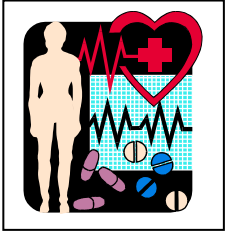
This study focuses on the factors that affect the rate and extent of a chemical reaction. Students study energy profiles and how equilibrium law is applied to homogeneous equilibria. Students explore how reaction rate and equilibrium are applied to achieve the optimum reaction conditions in the industrial production of chemicals.

Area of Study 2: Supplying and using energy

This study focuses on the use of different energy resources. Students investigate how energy is produced from available resources and consider the efficiencies, advantages and disadvantages of each energy resource. Students also study the operating principles of galvanic and electrolytic cells, both in the laboratory and in important commercial applications.

Further information:

Ms Christine Farmakis



PSYCHOLOGY

Psychology is the study of the development of mind and behaviour in humans and animals. This includes understanding the relationship between biology and behaviour.

Unit 1:

Students are introduced to psychology as a science. Key study areas:

- What is psychology and how do we study it?
- How do we form social relationships?
- How does being with others influence us?
- How does our understanding of the world develop?

Unit 2

Students are introduced to different ways of describing and explaining human behaviour. Key study areas are:

- How does the nervous system transmit information?
- How do we know what's 'normal' and how do we measure it?
- How do we form our attitudes and how do they change?
- What are 'intelligence' and 'personality' and how do we measure these?
- How important are ethics in psychology?

Assessment: Students will complete specific tasks to satisfy the outcomes. Some tasks will be used as assessment tasks to be graded. There will be an examination at the end of each unit.

Unit 3

Students study the relationship between the nervous system and the brain and how these affect human behaviour.

Key study areas are:

- What is the role of the nervous system and the brain in determining behaviour?
- What is visual perception? How do we see? What structures and processes are involved in seeing?
- What is consciousness? How do we measure it? How does it affect thoughts, feelings and behaviour?

Unit 4

Students are introduced to memory and learning as psychological processes. Key study areas are:

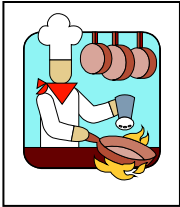
- What are memories? How do they form? How do we access them and what happens when we forget?
- What is involved in 'learning'? What behaviours are learned?
- How do we conduct proper research?

Assessment:

Students will complete set course work to satisfy the outcomes. Specific tasks will be set as formal school assessed course-work (SACs). There will be an examination set by the state board at the end of each unit.

Further information:

Ms Caroline McLachlan



FOOD & TECHNOLOGY

Food & Technology is designed to give students a greater understanding of food as a commodity and knowledge of food preparation and production from small-scale to mass production in industry.

Unit 1 – Food and its preparation. Students are provided with an understanding of the work practices involved in ensuring the optimal quality of food is maintained to prevent food spoilage and food poisoning and therefore safe for consumption.

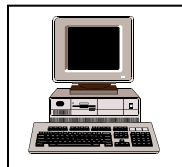
Unit 2 – Planning and development. Students work both independently and as a member of a team to research the best methods and tools to use and what to prepare for a range of situations.

**This is a practical based unit.*

Additional charges apply to this subject.

Further information:

Ms Christine Bartsh



ACCOUNTING

What is Accounting about?

VCE Accounting provides an introduction to the financial aspects of a business. You learn about the needs of business in relation to financial planning and control, financial record keeping, management skills and evaluation of performance.

You will develop real-life skills relating to your own financial literacy. Accounting provides an excellent background for employment in a range of business and management positions. In many occupations students may find themselves in the position of operating as small businesses with a necessity for understanding business records.

Unit 1 This unit covers going into business: looking at business success, sources of finance and how pre-operational decisions are made; the recording and reporting of financial data and information using a single entry recording system; the application of accounting skills in order to evaluate the financial and non-financial information of a service business.

Unit 2 This unit covers recording and reporting of the financial data and information of a single activity sole trader using the single entry system of recording; using ICT in accounting; an evaluation of a particular area/s of the business such as stock or debtors, in order to provide strategies that will improve business performance.

Unit 3 introduces double- entry recording for a trading business using special and general journals in posting to the general ledger. The five balance day adjustments are specified in the study design. A six-column worksheet is used to record balance day adjustments and correcting entries. The Decision Making area of study considers the issues of noncurrent asset revaluation, revenue recognition and depreciation alternatives.

Unit 4 introduces subsidiary ledgers for debtors and creditors, reconciled to the control accounts via appropriate schedules. Management and control of debtors, creditors and stock is also considered. Recording and reporting of valuation of stock, product and period costs are also included. The manual recording of GST is also part of the course. (see above). Budgets are prepared for statements of cash flow, financial performance and financial position. Students will also prepare a statement of cash variance. The Decision Making area of the study considers the areas of analysis and interpretation.

Further information:

Mr James Stoicov,
Mr David Hysen

BUSINESS MANAGEMENT

Business management examines the ways in which managers can manage an organisation's resources to achieve the objectives of the organisation.

The study recognises the range of management theories and exposes students to real business scenarios.

Unit 1

This unit studies generic business concepts, which apply to the management of organisations of varying size, complexity or industry setting. It also involves a consideration of the range of activities related to planning and operation of a small business.

Unit 2

This unit studies how change affects management and investigates how management responds. It also involves consideration of the relationship of management with the operating environment and the planning and marketing processes.

This unit focuses on several aspects of management in a time of change, management as a communication process, management as a planning process to position its products in the marketplace.

Unit 3

The areas of study covered in this unit are based upon the role and importance of large scale organisations to the Australian economy.

Students will study the objectives, structures and cultures of large scale organisations along with the roles played by management. This unit will also investigate management styles and the role played by management when dealing with change in large scale organisations.

Unit 4

The areas of study covered in this unit include human resource management in large scale organisations based upon factors including planning, motivation, recruitment and selection, the employment cycle etc. Students will also study the operations of a large scale organisation with emphasis on producing competitiveness and systems.

Further information:

Mr James Stoicov
Ms Georgia Stavrakis

LEGAL STUDIES

What is Legal Studies About?

Students will gain a general understanding of how the law operates and how it affects us and the community. Students will get to see the law in operation through visits to the courts and prisons, keeping up to date with changes to the law via the media, and from guest speakers. Students will also get to appreciate how the law affects them directly.

Unit 1 Criminal Law and Justice

This unit explores how laws are made, the court hierarchy and parliamentary process. It focuses on the role of police, their power to investigate, the procedures of a criminal trial and the possible sanctions that are available to courts.

Unit 2 Civil Law in focus

This unit focuses on the effective resolution of disputes. It looks at the processes and procedures involved in civil litigation and the possible defences to civil claims within our legal system. This unit also looks at alternative avenues of dispute resolution and their effectiveness.

Unit 3

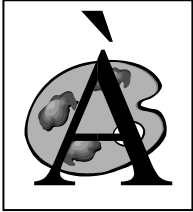
The purpose of this unit is to enable students to develop an understanding of the institutions that determine our laws and the processes by which laws are made. Students look at the impact of the Commonwealth Constitution and evaluate the strengths and weaknesses of the law making bodies.

Unit 4

This unit explores the function and jurisdiction of the courts, tribunals and alternative avenues of dispute resolution. Students evaluate our criminal and civil trial processes and compare them to alternate systems. Students also investigate the effectiveness of the legal system.

Further information:

Ms Georgia Stavrakis,
Mr James Stoicov



VCE ART

What is VCE Art about?

Art is designed to enable students to learn and experiment with processes, techniques and methods associated with a wide range of artistic media. The study endeavours to develop students' awareness of the essential relationships between artists, artworks and society.

Units 1 and 2

These units combine both the production of art works and the study of art from past and present.

Art Practice

Students explore a range of materials, techniques to come up with solutions to set tasks. Students work in Unit 1 and 2 towards the development of a folio of work.

Art Theory

This will involve research, essay writing in the area of art from the past and present. Students also investigate the role of the artist in society.

Unit 3

Art Practices

Unit 3 focuses on making personal art responses through a broad practical investigation. Students will develop and refine a folio of work which continues into Unit 4.

Art Theory

Students interpret and critically respond to art works produced before and after 1970 using art interpretive framework. Written component includes essay writing and verbal and visual analysis.

Unit 4

Art Practices

Focus is on the preparation of a final artwork from the development work of Unit 3. Art forms are further explored and accompanied by documentation of thinking and working practices.

Art Theory

Study focuses on exploring meanings and messages of art through debating, interpretation and discussion of art texts.

Further information:

Ms Lyndal Roper

STUDIO ART - PHOTOGRAPHY

What is VCE Studio Art about?

Students generate, explore and communicate ideas through photography. They develop and use specialised skills in a range of media and techniques. The theory component explores how photography has developed, and examines artists' working methods. It also investigates professional practices and art industry issues.

Unit 1

The focus of this unit is the investigation of personal ideas and thoughts and the exploration and application of a wide range of materials and techniques.

Unit 2

The focus of this unit is to establish an effective design methodology for the production of art works and develop skills in the analysis of art works.

Assessment will be based on a satisfactory completion of a practical and on assigned theory tasks.

Unit 3

The focus of this unit is the implementation of the design process leading to the production of a range of solutions. Students also examine traditional and contemporary practices of artists together with the ways in which artists develop distinctive styles and approaches to subject matter.

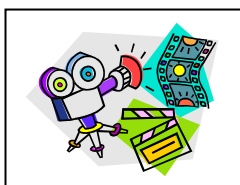
Unit 4

The focus of this unit is to produce a folio of finished art which works towards the students intentions. Students also examine different components of the arts industry and issues relating to the public display, promotion and critique of art works.

Additional charges apply to this subject.

Further Information:

Mr Greg Parker



MEDIA

What is Media?

Media is an integrated mix of production and theory that enables students to explore the media production process as well as how meaning is produced in the media. Although the course offers a lot of flexibility, the focus will be on utilizing our digital video production equipment to plan, shoot and edit media products. For this reason, Year 10 media would be helpful, though certainly not necessary.

As well, given our strong links with SYN-FM and student radio, there will also be an emphasis on radio/sound production.

Unit 1

The main purpose of this unit is to enable students to develop an understanding of the relationship between the media, technology and the representations present in media forms. Students also develop practical and analytical skills in a study of the production of media products.

Unit 2

The main purpose of this unit is to enable students to develop an awareness of the specialist production stages and roles within the collaborative organisation of media production. Students develop practical skills and analyse issues concerning the media production process.

VISUAL COMMUNICATION AND DESIGN

What is Visual Communication and Design about?

This study is intended to assist students in the understanding, use and interpretation of a range of visual communications. elements, and principles and function of design in communication. Including the discipline of Graphic Design, Industrial design and Architecture.

Unit 1

The main purpose of this unit is to enable students to prepare instrumental drawings of objects and explore freehand drawing from direct observation. Students will also be introduced to the visual communication production process.

Unit 2

The main purpose of this unit

- use visual communication production process
- instrumental and freehand drawing

- computer illustration and layout both creation and analysis of existing graphics. Computers design programs and digital imagery used extensively alongside traditional illustration methods.

A folio that demonstrates the modification of presentation to suit a specified audience.

Written report supported by visual material.

Unit 3

This study looks at how visual communications are created by professionals and how they are put together. Students are required to write an essay on this. Students also learn to analyse existing visual communications and write an essay on this.

Practical work involves instrumental and freehand, drawing, illustrating and computer design. This unit is very specific, in what it requires in the development work and final pieces.

Unit 4

This is the unit that you 'strut your stuff'. You may work in whatever area you choose and produce development work and 2 final pieces to fulfil the needs of a client.

Additional charges apply to this subject.

Further information:

Ms Anne Herschell



PHYSICAL EDUCATION

This study includes both theory and practical studies. Students must complete all tasks in both areas. Focus is on:-

- Developing Fitness programs
- Assessing fitness needs
- Game analysis
- Evaluating body image
- Learning new skills
- Weekly practical sessions.

Unit 1 – Learning and Improving Skill

Area of Study 1 – Movement Analysis

Outcome 1. The application of biomechanical and skill learning principles in analysing how motor skills are learnt and improve.

Area of Study 2. – Coaching for enhanced performance.

Outcome 2. Identify and evaluate a range of coaching practices that lead to enhanced sports performance.

Unit 2: The Active Body

Area of Study 1. Body systems and Performance.

Outcome 1. Muscular skeletal, cardio respiratory and energy systems function during physical activity, including how the energy systems work together to enable activity to occur.

Area of Study 2: The impact of physical activity on the individual.

Outcome 2. The impact of participation in physical activity on the health of selected population(s) and analyse factors affecting participation in physical activity.

Unit 3: Physiological and participatory perspectives of physical activity.

Area of Study 1. Monitoring and promotion of physical activity.

Outcome 1. Analyse individual and population levels of participation in physical activity, and evaluate strategies that promote adherence to the National Physical Activity Guidelines.

Area of Study 2. Physiological requirements of physical activity.

Outcome 2. Analyse the role and relative contributions of the energy systems during physical activity.

Further information:

Ms Sharon Bonnici

HEALTH & HUMAN DEVELOPMENT

Unit 3: Nutrition, Health and Development

Australians are amongst the healthiest people in the world. However, a range of factors affect this outcome including inherited lifestyle, behaviour, attitudes and beliefs. Students investigate how nutrition plays a role in health.

Outcomes

Students should be able to describe the health and nutrition status of Australians, analyse the factors that impact on both and explain the role of nutrition in public health. They will be able to analyse the roles and responsibilities of government and non-government organisations in promoting health.

Unit 4: Global health and development

Students examine the developmental changes that occur as individuals move through the lifespans

Outcomes

Students should be able to describe the interrelationships between health and development, predict the characteristics of development common to all individuals as they move through the lifespans. They will be able to analyse the factors contributing to similarities and differences between the health status of developing countries and that of Australia.

Further information:

Ms Christine Bartsh



VCE HISTORY

What is VCE History?

Students analyse the way history is represented in film, cartoons, posters, paintings and written documents. Students improve their writing, debating, research and reporting skills. History tries to make meaning of the past and answer questions like.... Why is the world like it is? How did Hitler seize power? How did women get the vote?

Units 1 and 2

This is a study of how war, technology, economic organisation and political or social movements shaped the modern world. Key events like World Wars 1 and 2, Hitler's Germany, the Great Depression, the Cold War, the Civil Rights movement and the Vietnam War are studied.

Students interview people who experienced historical events, compare and evaluate historical films, complete research reports, write essays and analyse written and visual evidence.

Outcomes

Students will be able to analyse, evaluate, explain and discuss the impact of political crises, social change, cultural expression, international, regional and domestic events and political movements.

Units 3 & 4 Revolutions

Students will be introduced to some key western thinkers and their ideas. They will develop an understanding of social and political changes that have taken place in the western world and how people have reacted to those changes, before undertaking an in depth study of two revolutions. The study of Revolutions allows students to study the following periods, America 1763 – 1788 and Russia 1905 - 1924. A revolution will be studied in Unit 3 and another in Unit 4. Students will analyse visual representations (cartoons, posters, paintings, film etc), written documents and oral accounts to build a picture of the ideas, events and conflicts that inspire revolution.

Further information

Mr Grant Wason

VET in VCE (Vocational Education and Training)

Many students have started a VET study in Year 10. If this has been successfully completed, students obtain Units 1 and 2 of that VET Study.

If students choose to continue with their VET study in Year 11, it will generally be at a Year 12 level: Units 3 and 4 of that study, some VET studies have exams at 3/4. If students sit for the end of year exam they will receive an ENTER score contribution as in line with any Unit 3 and 4 study.

Student can decide to start a new VET in Year 11 and complete it in Year 12.

Students who complete a VET program will gain a Certificate II in their chosen study at the end of Year 1 (Units 1 and 2)

After 2 years (Units 3 and 4) students gain a Certificate III.

VET programs are fee based subjects.

VET subjects offered and delivered at Thornbury High School are as follows:

Certificate II and III in Multi Media

Certificate II (Partial Completion) in Cabinet Making / Furnishings

Thornbury High School belongs to the Northern Melbourne VET Cluster which can provide an extensive selection of VET programs.

The following VET courses are delivered at Thornbury High School on a Wednesday afternoon:

Certificate II in Beauty

Certificate II in Community Services (Childcare)

Certificate III in Children's Services (Traineeship)

There are many other VET courses delivered at other schools within the Cluster. For further information regarding these VET courses, please refer to the Northern Melbourne **VET Cluster 2009 – VET Handbook** available at the school.



Certificate II in Multi Media

Units 1 and 2.

Students do this subject for the full year.

The following units are covered in the course:

- Creating, manipulating and incorporating 2D graphics into a Multi media product (Photoshop, paint, and using scanned images)
- Identifying components of Multi media
- Using text in Multi media presentations
- Using video in Multi media presentations
- Digital imaging. Photoshop
- Web page development. Dreamweaver
- Authoring tools in Multi media (Flash)

Students planning to do Certificate III must complete - Advanced features of computer applications.

Students receive credit for Units 1 & 2 VCE Multimedia as well as the Certificate.

Certificate III in Multi Media

[Must have completed Certificate II. or shown an approved level of prior competency]

The following units are covered.

- Apply principles of visual design and communication to the development of a media product.
- Create 2D digital animation
- Develop a Multi media script.
- Create webpages with Multimedia
- Write content and/or copy

Students receive credit for Units 3 & 4 of VCE Multimedia as well as the certificate.

Assessment: Complete 3 major products: interactive animation, scripting product, portfolio

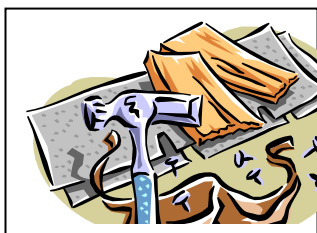
Assessment Task: Exam 2 hours in November

Students score contributes to their enter.

Additional charges apply to this subject. [\$120]

Further Information:

Mr Peter Lee



Certificate II in Cabinet Making (Partial Completion).

Course content:

This is a two year course that runs over years 10 and 11 or years 11 and 12. Students will undertake various competency standards such as:

Units 1 and 2

- * Follow safe working policies and practices with O.H. & S.
- * Construct a basic timber furnishing product.
- * Hand make timber joints.
- * Join Solid timber
- * Prepare surfaces for finishing

Units 3 and 4

- * Carry out measurements and calculations
- * Assemble furnishing components
- * Use furniture making sector hand and power tools.
- * Construct furniture using Leg and Rail method
- * Prepare cutting list from plans and job specification.
- * Follow plans to assemble production furniture
- * Read and interpret documents.

Additional charges apply to this subject.

Further information:

Mr John Coles