Thornbury High School

Senior School Handbook

Guide to Course Selection 2010

Principal
Assistant Principal
Year 11 Coordinator
Year 12 Coordinator
VET Coordinator/Careers Coordinator
MIPS (Managed Individual Pathways) Coordinator
Senior School Manager

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Message from the Principal

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, the school offers a 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
Post Compulsory Pathways.

Subject Selection:
This subject selection handbook has been designed to assist students in their selection of VCE, VCAL and VET subjects for 2010. 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 three.

How are the Senior Years Different?
Students are expected to take more responsibility for their 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 Library and Senior School Study Centre outside class time, where they can choose to complete private study or join a study group. 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) determine the study design, rules and guidelines for the VCE. The Victorian Quality Assurance does the same for VCAL. It is important that students understand and follow these as teachers cannot modify them. Full details are on the VCAA web site. [www.vcaa.vic.gov.au](http://www.vcaa.vic.gov.au)

What will help you to do your best?
As motivation and self-direction are very important, it is crucial that students select studies that interest them, provide them with confidence, and offer a 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 students have a high work ethic but also find time to socialise with family and friends, and continue other interests is important in personal development. Adequate rest, exercise and good nutrition are important in helping students 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 students to always achieve their 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 two 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 students enrol in Unit 3 in a study, they will also be expected to enrol in Unit 4 of that study.
- Completing a Unit 3-4 sequence in Year 11 will allow students to have an extra study score to add to their final total score (ENTER).
- Students normally enrol in six studies (12 units) in Year 11 and five studies (10 units) in Year 12.
- Students who have already completed a unit 1-2 in a study in year 10 may be able to enrol in a 3/4 unit in Year 11. (If recommended by their subject teacher.)

What is required to successfully 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 two years, and should consider the following:
Personal Interests:
- What do you enjoy studying?
- What talents do you have?
- 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 you 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 that best suits them.

Enrolment policy, attendance and workload
It is anticipated that students will be a full time student, unless they have special requirements. In Year 11, they will enrol in six units each semester and remain enrolled in these units for the entire semester. In Year 12, students 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 students are undertaking an approved VCE/VET Program, they 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 a student is absent for an assessment task or for several days, they will require a medical certificate to avoid failing the unit. This medical certificate cannot be post-dated.

If a student has special requirements they may request to undertake fewer units. This can include: English As A Second Language (ESL) student, be experiencing personal difficulties, a chronic illness or have a disability. If a student undertakes a TAFE or Training program which does not carry credit for VCE, they 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 your Year Level Co-ordinator and the Senior School Manager.

Research all possible courses and careers
Students should consider career interests and aspirations. Students should consult the latest edition of the “Job Guide”. Research the job and what exactly is involved. Students should identify University or TAFE courses that will provide the type of training they will need to enter the career areas that interest them.
Each student will have a counselling session at school before their course applications are due to check that they have chosen a suitable course and met all VCAA requirements.

Prerequisites
Students need to identify any specific pre-requisites for the Tertiary and TAFE courses they have identified. These pre-requisites are normally for Year 12 subjects, but directly influence subject choices in Year 11. Tertiary/TAFE pre-requisites for the year 2011 are set out in a lift-out from the Herald/Sun. This has been provided for all students in the Information package. Information may also be found on the VTAC website. (www.vtac.edu.au) Some subjects now attract bonuses from some tertiary courses to indicate the value they place on that subject(s) as a preparation for the course.
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.

Unit 1 & 2
The focus of this study is on reading a range of texts, with comprehension, enjoyment and discrimination. Students will develop 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. Students will experiment with different writing styles, taking into account audience and purpose.

Unit 3 & 4
The focus of this unit is the development of critical responses to literary texts, including media texts, and the use of oral language to interact positively, critically and confidently with audiences in formal and informal settings. Students will study both literary and non literary texts and achieve competence and confidence in writing for different purposes and audiences in a variety of forms.

Further information:
Ms. 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. Literature 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 & 2
This study helps students 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. Students will develop personal responses to literature and develop an understanding of how themes and ideas in texts reflect on personal and social experiences. In unit 2 the focus is on a variety of pre 1950 literature.

Unit 3 & 4
This unit requires students to analyse 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;
- Apply mathematical knowledge to analyse, investigate and 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 current Year 10 Maths teachers will 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. Foundation Maths students must have a scientific calculator.

All other 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 graphic 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 and Measurement and Design.

GENERAL MATHS
Units 1 & 2
General Mathematics provides courses for a diverse group 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
PRE-REQUISITE- Year 10 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.

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
PRE-REQUISITE- Year 11 Math Methods.
Units 3 & 4
Units 3 and 4 involve the study of co-ordinate geometry; circular (trigonometric functions), calculus; algebra; and statistics and probability. 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 & 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.
Specialist Maths must be studied in conjunction with Maths Methods 3 & 4 (or after its completion.)
Further information:
Ms Denyse Strantzen
Ms Snezana Stojanovski
ART
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. Students explore a range of materials and 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 will involve research and essay writing in the area of art, from the past and present. Students will also investigate the role of the artist in society.

Further information:
Ms Lyndal Roper

ACCOUNTING
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 & 2
This unit focuses on the establishment of a small business and the accounting and financial management of the business. Students are introduced to the processes of gathering, recording, reporting and analysing financial data and information used by internal and external users. Recording and reporting is restricted to the cash basis. Students examine the role of accounting in the decision-making process using single entry recording of financial data and information for the owner of a service business. Where appropriate, the accounting procedures developed in each area of study should incorporate the application of accounting principles and the qualitative characteristics of accounting information. Students also study accounting for a single activity sole trader. Using the accrual approach, students use a single entry recording system for the recording and reporting of cash and credit transactions stock. They use financial and non-financial information to evaluate the performance of a business. Using these evaluations, students suggest strategies to the owner on how to improve the performance of the business.

Unit 3 & 4
This unit focuses on financial accounting for a single activity trading business as operated by a sole trader and emphasises the role of accounting as an information system. Students are introduced to the perpetual method of recording using the accrual basis of accounting. The perpetual method of stock recording with the First In, First Out (FIFO) method used. Where appropriate, the accounting procedures developed in each area of study should incorporate the application of accounting principles and the qualitative characteristics of accounting information. Unit 4 provides an extension of the recording and reporting process from Unit 3 and the use of financial and non-financial information in assisting management in the decision-making process. The unit covers the accrual recording and reporting system for a single activity trading business using the perpetual inventory recording system. Students learn about the role and importance of budgeting for the business and undertake the practical completion of budgets for cash, financial performance and financial position. In this unit students evaluate the information prepared and analyse the results in order to suggest strategies to the owner.

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 & 2
Small rather than large businesses make up the vast majority of all businesses in the Australian economy. It is the small business sector that provides a wide variety of goods and services for both consumers and industries, such as manufacturing, construction and retail. This combined with the employment opportunities, makes the small business sector a vital component in the success, growth and stability of Australia. Small businesses are tangible to students as they are visible and often utilised in daily life. This unit provides an opportunity for students to explore the operations of a small business and its likelihood of success. In unit two the focus is on the importance of effective communication in achieving business objectives. It includes communication both internally and externally to business with special attention to the functions of marketing and public relations. Students develop knowledge of fundamental aspects of business communication and are introduced to skills related to its effective use in different texts.

Unit 3 & 4
Students investigate how large scale organisations operate. Students examine the context in which they conduct their business, focus on aspects of their internal environment and then look at the operations management function. Students develop an understanding of the complexity and challenge of managing large organisations and have the opportunity to compare...
The investigation into corporate management continues into unit 4 where students focus on the human resource management function. Students learn about the key aspects of this function and strategies used to most effectively manage human resources. The unit concludes with analysis of the management of change. Students learn about key change management processes and strategies and are provided with the opportunity to apply these to a contemporary issue of significance.

Further information:
Mr James Stoicov, Ms Georgia Stavrakis

BIOLOGY

Unit 1 & 2 Unity, Diversity, Organisms and the Environment. Students examine the activities of cells and the relationship between the specialised structures of cells and the processes that maintain life. Students also study the relationship between features of organisms and how organisms meet the requirements for life. Students examine adaptations 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. Students study the complex and finely balanced relationships that exist between living things and resources in a particular habitat.

Unit 3 & 4 Signatures of Life and Continuity and Change Students examine 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. Students explore the mechanisms of inheritance, genes, DNA, mitosis and miosis; 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

CHEMISTRY

Unit 1 & 2 The two units examine the ‘big ideas’ of chemistry and environmental chemistry. Students investigate the properties and uses of materials. Students will study the models for metallic, ionic and covalent bonding, examine the widespread use of polymers, as well as be introduced to the development and application of ‘smart’ materials. Students will explore the relationship between the historical development of and the relationship between, the Periodic Table and the atomic theory. The course also explores the structure, properties and applications of materials. The 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. In semester two, the focus is on the study of water and the atmosphere. Students will explore the properties of water and investigate a range of chemical reactions that take place in aqueous environment. Students will then explore interaction between living things and gases of the atmosphere through studies of the carbon and nitrogen cycles.

Further information:
Ms Christine Bartsh

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 the industry.

Unit 1 & 2 Students study 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. In semester two 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 Farmakis
HEALTH & HUMAN DEVELOPMENT
Unit 3 & 4
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. Students should be able to compare the health status of Australia’s population with other developed countries, explain variations in health status of population groups in Australia and discuss the role of the National Health Priority Areas in improving Australia’s health status. Students will also examine different models of health and health promotion. They investigate the roles and responsibilities of governments in addressing health needs and promoting health for all. In Unit 4 students take a global perspective on achieving sustainable improvements in health and human development. It is about creating an environment in which people can develop to their full potential and lead productive, creative lives in accordance with their needs and interests. Students should be able to analyse factors contributing to variations in health status between Australia and developing countries and describe the interrelationships between health, human development and sustainability. They will also be able to describe and evaluate programs implemented by international and Australian government and non government organisations in promoting health, human development and sustainability.
Further information:
Ms Christine Barth

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 & 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. 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 choose two of the following periods, England 1640 - 1660, America 1763 - 1788, France 1770 - 1793, and Russia 1905 - 1924. A revolution will be studied in Unit 3 and another in Unit 4. Students will analyse visual representations including, cartoons, posters, paintings and film; written documents and oral accounts to build a picture of the ideas, events and conflicts that have inspired revolutions.

Further information
Mr Grant Wason

LEGAL STUDIES
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 & 2
Students explore the distinction between legal and non-legal rules, the Victorian court hierarchy, and the process of making laws through Parliament. It focuses on the role of police, their powers of investigation, the procedures of a criminal trial and an examination of possible sanctions that are available to the criminal courts. In addition, students explore the concepts of fairness and justice within the criminal justice system. Students also explore the effective resolution of civil disputes. Students look at the processes and procedures involved in civil litigation and the possible defences to civil claims within our legal system available to enforce the civil rights of our citizens. As well as the judicial procedure to resolve civil disputes, the unit also investigates the alternative avenues of dispute resolution and their effectiveness. This unit provides students with the opportunity to explore a specific area of law and to analyse contemporary legal issues.

Unit 3 & 4
Students develop an understanding of the institutions that determine laws and the processes by which laws are made. They consider reasons why laws are necessary and the impact of the Commonwealth Constitution on the operation of the legal system. Students undertake an evaluation of the strengths and weaknesses of the law-making bodies and the processes used to influence change and reform. This unit explores the function and jurisdiction of the courts, tribunals and alternative venues of dispute resolution with a view to comparing and evaluating the operation of the various dispute resolution methods. Students develop an understanding of criminal and civil pre-trial and trial processes and procedures which operate within the Victorian legal system. The current operation of the jury system in criminal and
civil trials will be examined and students will also review the operation of the adversary system, giving consideration to its strengths and weaknesses. Students will compare features of the adversary and inquisitorial systems of dispute resolution. In this unit students evaluate the effective operation of the Victorian legal system and make recommendations for possible improvement and reform.

Further information:
Mr Rick Manning,
Ms Georgia Stavrakis

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 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 the school’s strong links with SYN-FM and student radio, there will also be an emphasis on radio/sound production.

Unit 1 - 4
In this study students 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. In unit two students 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.

Music – V.C.E. 1-4
The primary focus of Unit 1 & 2 is to prepare students for both Unit 3 & 4 Solo and Group Performance. The following skills are developed:
- Performance: both solo and ensemble skills;
- Aural (listening) Chords, intervals, rhythms, scales, melodic recognition;
- Theory e.g. Key signatures, scales, chord structures, intervallic patterns;
- Analysis of music.

Students will develop skills in practical music making, through performing on an instrument, including voice, composing, arranging and/or improvising; Students will make critical and creative responses to music in a range of styles, genres, and media; They will develop knowledge of music language, creative processes and techniques and investigate features of musical works, deciphering patterns of various musical characteristics to illustrate structure, links and concepts that create the musical expression and meaning. Students will develop knowledge of a wide range of music styles from different stylistic eras, geographical locations, genres and media; develop aesthetic understanding of music and use electronic music technologies. In Unit 4 for both Solo Performance and Group Performance, an end of year performance assessment is undertaken and is worth 50% of the mark for the entire year.

Pre-requisites
Students wishing to undertake Unit 1 Music are recommended to have undertaken at least 2 years of Instrumental Music tuition on their primary instrument. Students must have an instrumental teacher and provide details to the Music Coordinator. A form must also be filled out and signed by the instrumental teacher. Students are expected to have purchased their own instrument.

Further Information
Mr. Kyle Schutz

PHYSICAL EDUCATION
This study includes both theory and practical studies. Students must complete all tasks in both areas. Focus is on: developing fitness programs and assessing fitness needs, game analysis, evaluating body image, learning new skills and weekly practical sessions.

Unit 1 & 2.
Students focus on learning and improving skills. They consider the application of biomechanical and skill learning principles in analysing how motor skills are learnt and improved. Students identify and evaluate a range of coaching practices that lead to enhanced sports performance. Students consider the impact of physical activity on the individual and study muscular skeletal, cardio respiratory and energy systems during physical activity.

Unit 3 & 4
This unit introduces students to an understanding of physical activity from a physiological perspective. In particular, the contribution of energy systems to performance in physical activity. The underlying physiological requirements of an activity being used for health or for fitness are the same. Students study and apply various models to identify strategies that will be effective in promoting participation in some form of regular activity.

Further information:
Mr Alan Williams Ms Sharon Bonacci

PHYSICS
THS provides a purpose-built Physics laboratory with its own PC network, data logging 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.

Unit 1 & 2:
Physics covers the areas of: Properties of light, Radioactivity and Nuclear power, Movement, and Electricity. In semester one, students undertake a detailed study in astronomy, medical physics or energy from the nucleus. In semester two, students study astrophysics or aeronautics.
Unit 3 & 4
Students examine the principles of motion through the concepts developed by Isaac Newton. Students also explore gravity: Satellites, space-probes, and the operation of the solar system are investigated and the role of gravity is explained. Area study two explores how light and electricity manipulates information and energy. In area study 3 students will study one of three electives including, Einstein’s relativity, structures and materials or electronics. Students will examine electric power – interaction, and have an introduction to quantum mechanics-interaction of light and matter. Electives in area of study three includes: synchrotron, photonics or sound.

Further information:
Mr Michael Foster

PSYCHOLOGY
Psychology is the study of the development of mind and behaviour in humans and animals. This includes understanding the relationship between biology, cognition and culture in determining behaviour.

Unit 1 & 2
Students are introduced to psychology as a science and ‘a profession. Key theories relating to development of visual perception, emotions, thinking, social and moral aspects of behaviour will be explored. The impact of ‘nature’ and ‘nurture’ on the developing individual will be investigated and the issues of normality and mental well being discussed. In unit 2 students will investigate interpersonal and group behaviour with an emphasis on ‘pro-social’ and ‘antisocial’ behaviour. Students will explore intelligence and personality theories. In both units students will be exposed to research methods with an emphasis on ethics.

Unit 3 & 4
Students study the relationship between the nervous system and the brain and how these affect human behaviour. Key study areas will include 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?

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?
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

STUDIO ART - PHOTOGRAPHY
Students generate, explore and communicate ideas through photography. They develop and use specialised skills in a range of media 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 & 2
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. Students will 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 the satisfactory completion of practical and assigned theory tasks.

Unit 3 & 4
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. In semester two students 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

VISUAL COMMUNICATION AND DESIGN
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. The unit includes the discipline of Graphic Design, Industrial Design and Architecture. Students will complete a practical folio and written component for each unit.

Unit 1 & 2
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. In Unit two students will use:
- Visual communication production process
- Instrumental and freehand drawing
- Practical design projects.

Computer design programs and digital imagery are used extensively alongside traditional illustration methods. Students will complete a folio that demonstrates the modification of presentation to suit a specified audience and provide a written report supported by visual material.

**Unit 3 & 4**

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 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. This is the unit where you ‘strut your stuff’. You may work in whatever area you choose and produce development work and two final pieces to fulfil the needs of a client.

Additional charges apply to this subject

**Further information:**

Ms Anne Herschell

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End of VCE Subjects
VCAL is an alternative option for year 11 and 12.
VCAL is a hands on option for students in the Senior School.
The VCAL program gives students practical work related experiences, as well as literacy and numeracy skills and the opportunity to build personal skills that are important for life and work. Like the Victorian Certificate of Education (VCE) VCAL is an accredited secondary certificate.
VCAL provides a pathway to TAFE, an apprenticeship or traineeship of employment. The structure of the VCAL program allows students to undertake a School Based New Apprenticeship or Traineeship while they continue their studies at Thornbury High School. Students will be recommended for VCAL by teachers and Coordinators. Students will be counselled with their parents, by the VCAL team.

How is VCAL Assessed?
All accredited courses/certificates that make up the VCAL program are assessed by the student’s individual teacher in accordance with current requirements. It is not compulsory for VCAL students to sit the GAT. There are no compulsory exams requirements for VCAL Subjects.

Awarding a VCAL Certificate
To be awarded a VCAL certificate, students must successfully complete a learning program of 100 nominal hours that is designed to comply with the following credit requirements.
The Learning Program must:
- be made up of 10 credits
- include components from each one of the four VCAL curriculum strands
- contain components drawn from accredited curriculum such as:
  - VCAL units (Personal Development and Work Related Skills)
  - VCE units (VCE English and VCE Math.)
  - VET accredited curriculum/ SBNAs

School Based Apprenticeships
This program is open to all students 15 years of age and over and who are permanent residents of Australia. Students enrol in VCAL as well as being in paid employment and completes on and/or off the job training. Some students have managed to secure a SBA in their area of interest.

Subjects Studied
Students will have the choice of selecting units and modules for each of the following four compulsory VCAL strands.

Strand 1 - Literacy and Numeracy Skills
The VCAL program must include literacy and numeracy subjects. At Thornbury High School the subjects offered in Year 11 are:
- VCE English
- Foundation Maths or
- General Maths.

Strand 2 – Industry Specific Skills
The VCAL Intermediate or Senior program must include industry specific units from VET Certificates. The range of VET options is extensive and in previous years students have studied the following vocational areas: automotive, furnishing, business administration, hairdressing and childcare. Please refer to your VET Cluster Booklet for a full list of choices.

Strand 3 – Work Related Skills
In order to develop ‘employability skills,’ VCAL gives students the choice of undertaking a structured workplace learning placement or part time work. At Thornbury High School we combine these options with units and modules that help prepare students for work in the subject – Work Related Skills. This is a compulsory subject.

Strand 4 – Personal Development Skills
As part of the VCAL program students participate in community based projects and structured activities that help develop teamwork skills, self confidence and other skills important for life and work. At Thornbury High students study VCAL Personal Development. This is a compulsory subject.

Optional VCE Subjects
Students at Thornbury High School also have the option of completing some extra VCE units as an addition to their VCAL program. Students will be counselled into suitable subjects.
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 subject 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 11. After two years students gain a Certificate III.

Advantages of a VCE VET subject:

- Students have the opportunity to complete the VCE/VCAL and a fully accredited and industry recognised TAFE Certificate.
- Students acquire competencies, which are required by industry and meet industry standards, as TAFE curriculum is industry driven.
- Students will have an increased awareness of education and training pathways.
- Students who intend seeking employment post Year 12 will have the advantage of having completed a TAFE qualification, valued and recognised by employers.

VCE VET Programs at Thornbury High School

Two Styles of Program Delivery

All VET programs are completed over two years. This may occur in one of two ways.

Within the school
Thornbury High School has facilities and staff expertise to deliver a number of programs. Thus, the College is accredited by a TAFE Institute to deliver their program. It is the TAFE Institute that awards the VET Certificate. Completing the studies at school reduces the enrolment fee.

The College will offer the following programs in 2010:
- Certificate II in Hospitality. Refer to VET Cluster booklet for more details.
- Certificate II in Music. Refer to VET Cluster booklet for more information.
- Certificate III in Multi Media. Refer to page 16 of this booklet for more information.

These units need to be selected by sufficient students to make a class, if they are to run.

At Another Secondary College
Thornbury High School has entered into a cooperative arrangement with surrounding Secondary Colleges (Northern Melbourne VET Cluster) for the delivery of some VCE VET Programs. In this type of program, students study for four days per week at the school, and one day per week at the designated College, completing their VET modules. Students are enrolled at both the school and VET Provider. Some of the courses we are involved with include:
- Certificate II in Automotive Technology
- Certificate II in Engineering Technology
- Certificate II in Building & Construction
- Certificate II in Community Services (Childcare)
- Certificate II in Hairdressing
- Certificate II in Beauty

Please refer to the VET Cluster booklet for more information.

External VET Courses do carry a significantly higher enrolment fees.
VCE VET Interactive Digital Media (formally Multimedia) Units 1 - 4
This subject is primarily Multimedia based. It consists of **Certificate 11 in Creative industries** and **Certificate 111 in Media**. These two certificates are completed simultaneously over 2 years.

Students gain credit for Units 1-4 of VCE in Interactive Digital Design. As with all VCE subjects there is an exam at the end of unit 4. Scores from this exam contribute to students ENTER score.

**The subject is open to all students** in year 10 and 11 including VCAL. Some may elect to complete it as a certificate only and not sit for the exam. Course work is the same.

**Units of Work.**
There are 18 units completed over 2 years; these include: creative thinking, media industry, Photo imaging, animation, drawing, audio, interactive media, design process, interactive authoring, video OHS, write content and copy, web design.

Some programs used are CS3 Photoshop, Flash, Dreamweaver, Illustrator, InDesign, iMovie, garage Band, Audacity, Advanced Word.

The first year is teacher directed and skills based, in the second year students elect to work on a variety of individual projects as part of their Portfolio.

**Employment possibilities.**
Multimedia is one of the fastest growing employment areas, it comprises design work, web design, game design, TV production, animation production and design. It is also a subject which is particularly useful for teaching and many other tertiary courses.

Courses in Multimedia and Digital design are available at all universities and TAFE institutions.

**Further Information**
Karen McCarthy.
Sources of Information

Victorian Curriculum and Assessment Authority (VCAA)
41 St Andrews Place, East Melbourne
Phone: (03 9651 4630)

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 student doing Unit 3 & 4 subjects must sit for the GAT in June of each year.

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


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.