

The King David School
Magid Campus

Senior School: Years 10-12 Information



THE KING DAVID SCHOOL



Modern | Thinking | Judaism

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General Information

Welcome from the Principal

Dear Students and Parents,

VCE provides students, and parents alike, with a daunting set of acronyms, jargon, rules, clauses and sub-clauses that can be confusing and intimidating. Often lost in the discussion of ATARs, SACs, SATs, GATs and Study Scores is the realisation that the VCE can present a wonderful opportunity for learning for those in the final years of Secondary School. While helping to negotiate the system is a crucial way that The King David School can help, students are encouraged to keep sight of what the system is designed for – their education.

While we encourage all our students to strive to achieve their personal best in their studies, the VCE can present significant challenges in terms of increased workloads, challenging deadlines and high stakes test situations.

As such, students need to maintain a clear focus, dedication and a cool head. During this period, considered application of sensible work habits proves to be beneficial. When this is coupled with regular exercise, family life and other social pursuits, students are most likely to reap the rewards they seek from the VCE.

In this challenging period, it is crucial that students maintain a sense of balance. Students need to ensure that their work-life balance is managed as it shifts progressively throughout the year. The emphasis should be on a carefully developed and regularly re-evaluated routine. Students should assess whether they are achieving the targets they have set and if not, implement new strategies to meet the goals.

A dedicated study space, a study timetable that is shared and discussed with parents, and a willingness to give it one's best shot are all essential. Most importantly, students need to know that it will be tough, but that the demands can be met with commitment and sincere application.

The teaching team at The King David School is comprised of educators whose extensive professional experience and passion enables students to receive meaningful and well-targeted instruction that can be implemented. The teachers work as a team to support and challenge students and to encourage them to make this period the most educationally exciting and rewarding they have yet experienced.

Students, I wish you the very best for the journey ahead. I implore you to take the time to enjoy the many school highlights and milestones you will celebrate on the way. I hope that you feel supported and challenged to achieve your personal best and know that we are proud of all you achieve and who you are becoming as the finest of young people.

Marc Light
Principal

Welcome from the Head of Senior School

Dear Students and Parents,

The Senior School at King David is an exciting place to be. It's a place for enthusiastic students and passionate educators. We strive to strike a meaningful balance between the rigours of senior academic assessment and a focus on the holistic development of each student. The King David Senior School is a place where diligent students achieve extraordinary results, but we proudly reject the idea of becoming any kind of 'VCE factory'. We focus on so much more than a student's ATAR at the end of Year 12. For us, the final years of secondary school are about students acquiring a nuanced understanding of themselves and the world around them.

In terms of academic development, we maintain a rigorous focus on study and set high standards. We encourage students to move beyond simply understanding course material to developing mastery of skills and knowledge. We offer an environment that positions students to effectively transition from the closely-supported learning experiences of the Middle School toward intellectual autonomy. The centerpiece of this effort is our caring and dedicated staff who offer students support in and out of the classroom in a way that encourages them to take ownership of their learning journeys. We want our students to feel confident tackling the educational and employment opportunities they choose to take up when they leave school.

In terms of personal development, we recognise that the move to independence in the senior years also involves developing social and emotional autonomy. To this end, we foster meaningful student-teacher relationships, offer varied co-curricular opportunities, and combine classroom instruction with comprehensive pastoral, wellbeing and Jewish life programs.

Our ultimate goal in the senior years is to work in partnership with parents to see our students graduate as independent, principled, resilient and insightful young adults.

David Robinson
Head of Senior School

Jewish Life

As students move through the Senior School, Jewish life continues to permeate every week of the school calendar. Kabbalat Shabbat and the Jewish calendar are observed and celebrated, with opportunities for *tikkun olam* (social justice) offered regularly. Students in Year 10 participate in the Derech (Hebrew for 'path') program. During this class, students focus on Hadracha (leadership training) and taking responsibility for their community and broader world. Students attend a Hadracha Shabbaton (weekend camp) to develop their leadership skills. They also explore their connection with Israel and prepare for their Yesh Israel trip at the end of the year.

Yesh, The King David School's Israel program for Year 10 students, offers a unique opportunity for students to immerse themselves in Israel - its places, culture, society, politics and people - for four weeks. Through deep engagement and rich experiences, students are able to explore their Jewish identity and their connection with the land and state of Israel, while also developing personal, emotional and social skills, such as independence, resilience and flexibility, associated with group-living away from home.

While Years 11 & 12 bring a focus on subject choices and academic pursuits that will create choices for post-school pathways, here at The King David School we place immense value on continuing the holistic education on offer. Students in Year 11 participate in Mifgash and Year 12 students in Ofek. These sessions offer choices to delve into particular areas of Jewish life, culture, Israel education and hands-on practical activities. Kabbalat Shabbat and the full Jewish calendar are observed and celebrated, and opportunities for *tikkun olam* (social justice) are offered regularly. Leadership capacity and opportunities are fostered at various levels (see below). Year 12 students participate in a weekend Shabbaton in which questions of post-school direction, Jewish life and identity are explored in an informal setting.

Wellbeing

The Senior School Wellbeing program furthers students' social, emotional development and teaches specific skills on a range of topics including health (alcohol, drugs, sexual education, nutrition, sleep, exercise), relationships (positive friendships, intimate relationships), cybersafety, values and personal safety. The Positive Education movement continues to influence the curriculum through the teaching of skills such as mindfulness and gratitude. Students are encouraged to explore a range of practical strategies to maintain their own sense of wellbeing through workshops on Tai Chi, and yoga, sport and music.

The Homeroom program in the Senior School is called Keshet (Hebrew for connection). Students start each day with a 15 minute Keshet time to focus on their sense of wellbeing, mindfulness and social connection.

The aim of Keshet is to support the social and academic development of the cohort (class and year level), in order to build community.

The Keshet program focuses on activities with the following goals:

- Positive Emotion – fun, energisers, *ruach* (spirit)
- Opportunities – student voice, initiative, leadership
- Relationships – peer to peer, student to teacher
- Environment – physical and atmospheric
- Support – academic and personal

The Keshet teachers are the first port of call for student wellbeing. This important pastoral care role ensures that all students feel supported at school.

Student Leadership

Hadracha program for Year 10 students

Student leadership, activism and voice are promoted. All Year 10 students participate in Derech, in which leadership capacity is developed through explicit training and opportunities to facilitate sessions with younger students and their community. This includes issues such as climate change, reconciliation with First Nations Peoples, and creating an inclusive society for all regardless of disability.

Year 11 Amit Program

Encouraging students to be 'upstanders' who now and in the future will assume leadership roles within the School, the Jewish community and beyond is of central importance in the School. Student leadership, activism and voice are promoted through a number of avenues.

Year 11 students have the opportunity to mentor Year 7 students in Amit, our peer leadership program. Students in Year 11 opt-in to this opportunity and participate in a series of training programs alongside facilitating programs for all Year 7 students. The program is aimed at establishing positive and respectful relationships between Years 7 and 11 students as well as guiding Year 7 students through the opportunities and challenges of Year 7.

Hanhagah Program for Years 11 & 12 Students

As Year 11 students approach their final year in the School, they are offered the opportunity to stand for a position in the *Hanhagah* leadership program, the School's peak student leadership body consisting of representatives (*Manhigim*). During this journey, *Manhigim* develop a variety of leadership skills in all stages of project management, from ideation to actualisation and reflection. They also learn about what it takes to represent a community and make responsible decisions. Additionally, the team consistently considers the needs of their community and discusses ways to address these needs. The *Hanhagah* are role models for engagement in all aspects of the school community. *Manhigim* develop skills in ideation, facilitation, planning, delegation, teamwork and communication.

The *Hanhagah* will be divided into four *Va'adot* (sub-committees). Each *Va'ad* focuses on a different aspect of school life: *Yahadut* (Jewish Life) *Ruach* (School Spirit & House Culture); *Tarbut* (The Arts) and *Tikkun Olam* (Repairing the World/Social Justice).

Each *Va'ad* will have 1-2 *Roshei Va'ad* (heads of committee). These *Rashim* (heads) will be responsible for the facilitation of *Va'ad* meetings, serve as points of contact and will oversee the initiatives of the *Va'ad*. *Rashim* will receive additional support in order to fulfil these responsibilities.

The *Hanhagah* meets weekly with Tzev Lev (Jewish Experiential Education team) and Senior School leaders to plan initiatives and events. It plays a central role in driving student engagement in Jewish life activities and building school spirit and culture. Members are offered leadership training and mentoring.

Co-Curricular Programs

There are many opportunities for students to be involved in activities outside their regular timetabled classes. Participation is encouraged and recorded through the Kinor David program. Activities on offer include Instrumental Music, before school gym training, Robotics (MERIT) and a large variety of lunch time clubs. For a comprehensive guide, please refer to the Co-Curricular information book. Further details about the schedule are available on myKDS at the start of each Term. Below are some highlights of the Co-Curricular Program offered at the School.

Debating

Students have the opportunity to participate in the Debaters Association of Victoria's (DAV) Schools Competition, which is the largest English-language debating competition in the world. In this competition, students participate in 3-on-3 style debates against students from other schools in their region, e.g. Caulfield. Students in Years 10 to 12 have the opportunity to debate both prepared and secret topics, while students in Year 9 are introduced to the competition through a series of prepared topics. Each evening that the students debate, they receive individual and team-directed feedback from trained DAV adjudicators, which they can consider before the next round. The debates are held off-campus, e.g. at Caulfield Grammar School, and families are welcome to listen to the debates. Participation by students is a wonderful opportunity for the students to develop logical and critical thinking, intellectual and emotional resilience, courage, and to improve their public speaking skills.

Similarly, the DAV runs a Junior Secondary Program (JSP). The JSP is an introduction to debating for students in Years 7 and 8. The program is designed to provide training in the basic skills and structure of debating, whilst also giving students an opportunity to participate in three 'friendly' inter-school debates.

Outdoor Education

The King David School operates Outdoor Educational activities from Years 3-11. Outdoor education is experiential learning in the outdoors that also encompasses skills from the formal studies of Mathematics, Science, Humanities and Jewish Studies. Students are given the opportunity to participate in a range of activities located in the outdoor environment. During their schooling, students will participate in activities from ropes courses, hiking, climbing, water-based activities, use of tents and cooking in a bush setting. An important aspect of the School's outdoor education philosophy is to encompass the Indigenous Australians' view of the land and animals.

As well as specific skills, the Outdoor Education activities are designed to challenge students on a personal and a group level. Students look at how to negotiate to achieve the best result, what is a safe level of risk, how to work best as an individual and as a team, how to lead others in challenging situations, and develop skills that they will be able to utilise throughout their lifetime.

Performing Arts

Ensemble Program

All students are invited to be part of Ensemble and Choir programs. Each year, students participate in a broad range of concerts and events. All Years 6 -12 students who take individual instrumental lessons are required to take part in an ensemble after their first year of lessons. This provides them with regular opportunities to play with other musicians and to refine the skills that playing within a group provides. Full details are to be found in the Co-Curricular Handbook.

Instrumental Music Lessons

Private Instrumental music lessons for a variety of instruments are available. For further information please refer to the Co-Curricular Handbook.

Senior Musical

Any student may participate in the Senior Musical. Lead roles are auditioned (please refer to audition conditions in the Co-Curricular Handbook). Chorus roles are non-auditioned.

MERIT (Making, Engineering, Robotics and Innovative Technologies).

The MERIT program (Making, Engineering, Robotics and Innovative Technologies) offers students a range of STEM opportunities. These include: lunchtime clubs such as Game of Drones (Drone Club), coding challenges and making competitions and university / industry gateway programs. Additionally, students have the opportunity to use Technology Centre tools such as 3D printers and laser cutters for both personal and curriculum learning projects.

Sport

Inter-School Sports

Sport is a very important part of all adolescent development. It provides students with increased fitness, a focus on health, team skills and sportsmanship. Year 10 compete in the Eastern Independent Schools Melbourne (EISM) competition. Our students compete with students from Bialik College, Billanook College, Nunawading Christian College, Kilvington Grammar School, Kingswood, Knox College, Oakleigh Grammar School and Rudolph Steiner School. There is a wide range of sports offered each week as well as through various one day competitions. Beyond these regular competitions the School also competes in the Victorian Jewish Schools Sports Association. There is also a series of other competitions which are advertised from time to time to give students even further opportunities in this area.

Before School and Lunchtime Sports

A qualified gym and Pilates coach is available for Senior School students before school (7.30am to 8.30am) and lunchtime every day.

Snow Sports

The King David School provides a range of opportunities for students to compete and participate socially in Snow Sports.

Each year the School participates in the ABL Jewish Inter-School Snow Sports Competition at Mt Buller, which is supported by our voluntary Ski Camp.

Building Bridges Program

The 'Building Bridges: Interfaith Dialogue in Schools' Program promotes mutual understanding, respect and ethical behaviour across our cultural and religious diversities, to develop competent global leaders for the 21st century. Students from participating schools, including Catholic, Anglican, Muslim and Jewish, visit each others' campuses, where they are provided with an insight into that faith tradition and engage in facilitated dialogue. There are typically five sessions held after school over Terms 2 & 3, culminating in a community day and graduation.

Youth in Philanthropy Program

The Lord Mayor's Charitable Foundation's Youth in Philanthropy program was established in 2002. The aim of the program is to inspire young people to use their enthusiasm, creativity and energy to begin a life-long engagement in philanthropy and social change, and to develop the necessary skills and abilities to work with a diverse range of people from all cultures and social groups. The King David School has been participating in this program for more than a decade and this specific program is open to Year 11 students who receive training in philanthropy, social entrepreneurship and bringing about change to better society.

Library Resources

The Michele Bernshaw Resource Centre is a gateway to a wide variety of physical and virtual resources, available to all members of the KDS community.

Resources available include:

- A vibrant and diverse fiction collection boasting a broad range of recreational reading options. From graphic novels, young adult and general fiction to poetry and modern classics, this collection offers compelling reading
- The non-fiction collection gives library users the resources necessary to extend their research across a wide variety of subjects. An extensive Jewish collection, Biography and Holocaust Literature collection are the strengths of the non-fiction area
- Languages Other Than English (LOTE) are supported with Hebrew and French collections
- The Teacher's Reference collection supports staff with a range of current and past text books and manuals. Students may borrow from this collection with the permission of their teacher
- Students and staff are invited to approach library staff with research questions. A short informal reference interview assists staff to retrieve the relevant information from a variety of print and online sources. Delivering quality, peer-reviewed information is our goal
- Online editions of *The Age* are available through the library portal. The Australian Jewish News is delivered each Thursday. Full text databases of Australian and New Zealand newspaper articles are available on request
- Library staff offer referencing and citation assistance as well as time management and organisational advice
- Support with printing, computing and simple IT troubleshooting is available on request

Student Services

Psychological Support & Learning Support is available throughout VCE at The King David School to students experiencing issues in areas of behaviour, learning, and social and emotional development. In consultation with the Homeroom teacher, VCE Coordinator, Head of School, and/or parents and student, a referral may be made to the Student Services Team and the appropriate course of action will be determined. This may be an educational assessment, psychological assessment, counselling and/or ongoing learning support.

- Students may also choose to self refer to seek the assistance of the School Psychologists
- The School Psychologists are available to assist students with various difficulties such as study skills, stress management, social media, anxiety and relationship problems
- Learning Support provides extra assistance via a help desk and via some individual tutorial support

Technology

Students are required to bring their own device (BYOD) to school. Students are reminded that access to the network is according to School Policy guidelines that forbid access to inappropriate sites. Students are also to abide by the Mobile phone policy. These policies can be found here: <https://my.kds.vic.edu.au/homepage/1822>

Mobile phones should be kept in lockers.

Timetable

While every effort is made to arrange a timetable that allows students their full range of first choices, it is not always possible to achieve that outcome. There may be some cases in which students will have to make choices between subjects, both of which they would like to undertake. The School works extremely hard to ensure that no student is denied the ability to take a subject that is a prerequisite for a tertiary course. Options are available if a clash in timetabling occurs.

Uniform

Senior School students are the leaders of the school community. Accordingly, they are expected to wear their school uniform with pride, at school and on their way to and from school. Uniforms must be clean and in good repair. Students should meet appearance standards set out in the uniform policy. For example, being cleanly shaven or wearing a maximum of two piercings in each ear. For Senior School students, blazers must be worn to and from school everyday unless it is over 30 degrees when they are arriving or leaving.

Positive Behaviours Policy

Respect for oneself and others is a fundamental tenet of The King David School.

In practical terms this means that students of The King David School are expected to behave courteously and considerately at school, on all school occasions, in public streets and on public transport. The School operates on the premise that students can direct their behaviour constructively when reasonable limits are set. It is the responsibility of the teachers to set these limits consistently and to expect students to operate within them.

The School's Positive Behaviours policy details its approach to maintaining an appropriate standard of behaviour within the classroom and the School as a whole. This policy is available on myKDS and it is expected that students and parents familiarise themselves with it. The School believes strongly in working in partnership with parents to address issues of student misbehaviour, and asks for their support in providing consistent messaging around expectations and consequences for students.

The School's policy combines restorative conversations with clear and consistent consequences for misbehaviour. Teachers are required to discuss misbehaviour with students to invite reflection, and offer opportunities for the reparation of relationships where appropriate. In addition, teachers are required to issue Cautions for repeated or serious incidents of misbehaviour, and Reminders for transgressions of the school's Uniform and Mobile Phone policies. Obtaining three Cautions or three Reminders in a timetabled two-week cycle results in the Year Level Coordinator meeting with a student and issuing them a detention. If a student misses a detention, they are required to meet with the Head of Senior School to explain why. Egregious incidents of misbehaviour are addressed directly by the Head of Senior School and may result in suspension. The School has mandated a three-day suspension for any student found vaping at school, and a two-day suspension for any student found with a student who is vaping at school.

Promotions Policy

Promotions Policy - Year 10 to 11

Students who wish to undertake Year 11 must have satisfied the following criteria:

- Satisfied the School's attendance requirement throughout Year 10
- Timely submission of all Year 10 assessment tasks
- Students will need to satisfy the specific prerequisites for entry into VCE Units 1&2 Studies. These are documented in this handbook

Promotions Policy - Year 11 to 12

Students who wish to undertake Year 12 must have satisfied the following criteria:

- Satisfied the School's attendance requirement throughout Year 11
- Timely submission of all Year 11 assessment tasks
- Satisfactory completion of at least eight VCE Unit 1&2 level units (including at least one in English or Literature), that will lead into four Unit 3&4 sequences in Year 12 (including English or Literature)
- Students will need to satisfy the specific prerequisites for entry into VCE Units 3&4 Studies. These are documented in this handbook

No student will be allowed to commence more than one new Unit 3&4 study in which they have not already completed Units 1&2 in that study.

Careers

The King David School provides a carefully developed program of career advice in Years 10 to 12. The School's Pathways Advisor, who is also a member of the teaching team, oversees the students' Career Development program over the four years.

In Year 10 the Career program begins with the Year 10 Pathways Day at the end of Term 1. Students attend a panel discussion of recently graduated King David alumni which focuses on their VCE and post-school journeys. This provides the Year 10 students with a range of perspectives and advice for their VCE subject and tertiary course selections. As part of this day, the students also choose to attend workshops with representatives from a number of universities, allowing students to develop a sense of their different course offerings, facilities and application processes. For the final part of the program, the Year 10 students complete a diagnostic test, the Morrisby Report. This report provides a profile of the abilities of each student and helps students identify the types of work which match their interests, aptitudes and preferences. The outcomes of this report are discussed individually with the student and their parents, forming the basis for VCE subject selection. Students are individually counselled in designing a VCE program that is suited to their individual requirements in terms of abilities and tertiary entrance requirements for courses of interest to them.

In Years 11 & 12, the Pathways Advisor is closely involved in the process of subject selection for students entering VCE. With the support of the Pathways Advisor, students ensure that prerequisite subjects which are necessary for entry to their preferred tertiary courses are chosen. Throughout VCE the students receive updates regarding Open Days, closing dates for interviews and folio submission as well as gap year options. Year 12 students attend a workshop on how to research tertiary course options within Victoria and interstate. A Victorian Tertiary Admissions Centre (VTAC) information evening is held annually for parents and students in Year 12 to familiarise them fully with the process of the selection of tertiary courses through VTAC. Even after graduation, the KDS Pathways Advisor is available to assist and counsel students who wish to change their original preferences.

Students across Years 10, 11 and 12 receive weekly KDS Pathways newsletters covering updates to tertiary course offerings, profiles on different careers and tertiary courses as well as information sessions for gap years, Open Days, scholarship opportunities and other relevant events. In Term 2, these senior year levels also attend a school-based Careers Morning. The students select which Alumni from a range of industry areas they would be most interested in attending a speaker session with, giving students the opportunity to hear about different career journeys and to ask questions about particular vocations.

The Victorian Certificate of Education (VCE)

Welcome from the VCE Coordinator

Dear Students and Parents,

The VCE at The King David School affords you the opportunity to 'choose your own adventure'. You have an impressive and vast array of VCE subjects you can select, and I implore you to choose the one that interest you. Choose the subjects that will help steer you in the direction you would like to go. Choose subjects that make you think. Choose subjects that will give you the skills and knowledge to become valuable contributors to the world around you. Consider your passions, strengths, necessary prerequisites and then create the path you wish to follow. Make the VCE your own.

As you may have heard from those who have come before you, the VCE is not without its challenges. The workload significantly increases, and there may be times where you feel overwhelmed. Be comforted in knowing the staff are here for you and are experienced in all things VCE. They have done this before and are striving to create a supportive environment where you can gain the skills you need to succeed. Set yourself goals and put the necessary work in to achieve them. Throughout your VCE journey aim to maintain consistency, put in the extra effort and be proactive in your learning.

Academic studies are only part of your VCE journey. Be sure to engage in the co-curricular activities on offer, enjoy building your relationships with family and friends, and maintain balance in your lives to optimise your health and wellbeing.

I am excited to be here with you on your VCE journey. It is a unique period of your schooling where you have greater independence, but also greater responsibility, in your learning. It is my aim to ensure fairness and transparency in the coordination of the VCE, and I look forward to supporting you as needed. I hope your final year will be a healthy balance of enjoyment, challenge and fulfilment.

Belinda Wester
VCE Coordinator

VCE Structure & Requirements

The VCE is central to students' academic program in the Senior School. The VCE is primarily undertaken by students when they are in Years 11 & 12. The King David School prepares students for the demands of the VCE by developing their study and research skills, essay and report writing and examination skills in each of their core and elective subjects in Year 10.

In their VCE, students will complete between 16 and 24 units of study. Each unit of study is one semester in length. Most studies, or subjects, are made up of four units. Typically students complete Units 1&2 in Year 11 and Units 3&4 in Year 12. It is not necessary for students to take all four units in a particular study however some studies require the completion of Units 1&2 before moving into Units 3&4. Students are able to complete Units 1&2 as single units, however, Units 3&4 must be completed together as a sequence.

It is possible for students to complete a VCE Unit 1&2 level study in Year 10 and follow this with a VCE Unit 3&4 level study in Year 11, if they meet certain prerequisites. This is referred to as an Early Commencement Study and will be explained later.

To achieve a Satisfactory result for a unit, students must demonstrate they have met all outcomes listed within the subject's study design. The study design for each subject is produced by the Victorian Curriculum and Assessment Authority (VCAA) and is publicly available online. In most cases, students will be required to complete an assessment task to demonstrate that they have met an outcome. In Unit 1&2 studies, we refer to these assessment tasks as Outcome Tasks; in Unit 3&4 studies we refer to these assessment tasks as School Assessed Coursework (SACs) or School Assessed Tasks (SATs). A student is awarded an S (Satisfactory) or N (Not satisfactory) for each outcome based on their performance on the associated assessment tasks. In Unit 3&4 level studies, they are also awarded a numerical score which contributes to their study score for the subject, and ultimately their Australian Tertiary Admissions Rank (ATAR).

Outcomes Tasks, SACs and SATs can take a variety of forms such as:

- Multimedia presentations
- Essays
- Research assignments
- Practical work
- Examinations

To achieve their VCE, students must satisfactorily complete a minimum of 16 units.

- This group of units must include:
- At least three units of English and/or Literature
- A Unit 3&4 sequence of English or Literature
- At least three other Unit 3&4 sequences

VCE at King David

The King David School offers a comprehensive range of VCE studies based on the interests of our students and our ability to deliver a program of excellence.

In Year 11, we require that students complete six units in Semester One and six units in Semester Two. In Year 12, we require that students complete four or five units in Semester One and four or five units in Semester Two. This will position students to graduate with 20-22 units, provided they have satisfactorily met all outcomes.

Any variations to this subject loading should only be considered after consultation with the VCE Coordinator and/or the Pathways Advisor.

In each study, students will be provided with a list of assessment tasks with due dates for their completion at the commencement of each semester. Students' results will be available to parents via on myKDS as they become available throughout each semester.

Attendance

Students are required to attend all classes in each VCE study they are enrolled in, unless they are ill or there are other extenuating circumstances. If a student's attendance in a VCE study falls below 80%, they may be asked to meet with the VCE Coordinator and/or provide documentation of their absences to maintain their enrollment or before they can progress to the subject at a higher level. Students who are absent on the day of a SAC task in a Unit 3&4 study must submit a medical certificate to their subject teacher to qualify for a replacement task.

Planning a VCE Course

When designing a course, students are advised to select subjects that:

- Interest them
- They are confident in
- They have achieved strong results in
- Are prerequisites for promotion to a higher level of study (Eg: Units 1&2 are required to study Unit 3&4)
- Relate to their tertiary study and career aspirations
- Are prerequisites for their tertiary study aspirations

Students are advised not to select based on:

- What their friends are selecting
- Who they predict the teacher might be
- Which subjects' scores have historically been inflated by scaling

Commencing VCE in Year 10

If they meet certain prerequisites, students may commence their VCE in Year 10 by enrolling in a Unit 1&2 study (Year 11 subject) as one of their electives. This is called an Early Commencement Study. This can then position them to go on to complete a Unit 3&4 study (Year 12 subject) in Year 11. The advantage of completing an Early Commencement Study is that it can position a student to complete an additional Unit 3&4 sequence by the time they graduate, which will contribute to their ATAR. It also affords students insight into the rigors of VCE curriculum and assessment a year early, so they can begin to prepare.

However, the decision to complete an Early Commencement Study should be given careful consideration as it is not beneficial for every student. This is an extremely demanding option and may impact negatively on a student's total performance in VCE. Students may also be put under undue stress and under-perform in their Year 10 subjects if they complete an Early Commencement Study that they are not ready for.

In order to qualify for an Early Commencement Study in Year 10, students must satisfy the following criteria in their Year 9 studies:

- Achieve a minimum of a B average in all subjects and in all examinations
- Submit all work by the due date and to a high standard
- Perform consistently in examinations and continuous assessment
- Have maintained at least 90% attendance in all subjects

In addition they must meet the specific subject prerequisites listed in the Curriculum Overviews section of this handbook.

The Unit 1 & 2 studies open to Year 10 students to complete as Early Commencement Studies are:

- Applied Computing
- Business Management
- Geography
- Politics
- Health & Human Development
- Hebrew
- Mathematical Methods (by invitation only)
- Physical Education
- Psychology
- Religion & Society

Students may only complete one Unit 1 & 2 study in Year 10. The school may provide special permission for a student to complete two Unit 1&2 studies in Year 10 if they have been invited to enrol in Unit 1&2 Mathematical Methods and wish to complete another Unit 1&2 study in addition to this.

Vocational Education and Training (VET)

VET in Schools programs are practical, vocation-based subjects traditionally offered in TAFE settings that students can elect to complete as part of their VCE. They are designed to give students an awareness of the world of work, a broader range of skills, and practical workplace experience. Through enrolling in a VET subject, students can make more informed choices about jobs and career pathways. Students will also build up valuable networks with TAFE providers and industry. VET subjects can add qualifications and experience to a student's resume, giving the competitive edge for entrance into the workforce or tertiary study.

A VET subject is two years in length and is credited as part of a student's VCE. Usually students complete the first year of their VET study in place of Units 1&2 of a VCE study, followed by the second year of a VET study in place of Units 3&4 of a VCE study. If students elect to complete a VET subject, they almost always complete it in Years 10 & 11. However, students may choose to complete a VET subject in Years 11 & 12 if they wish. Students are permitted to enroll in a VET subject in Years 10 & 11 in addition to a Early Commencement Study in their VCE.

The school offers a Certificate in Applied Language in Hebrew as a VET subject on-site, which students will complete as part of their timetable. Students may also elect to enroll in a VET subject at a registered training organisation outside of the school. These external VET subjects are typically completed on Wednesday afternoons in the Senior School, in place of participation in the school's Sport program. Examples of VET subjects offered by external organisations include certificates in: Fashion Design, Tourism, Events, Small Business, Hospitality, Beauty Services, Building and Construction, Animal Care and Acting. These external VET subjects require an additional fee payable by a student's parents.

Any student considering enrolment in a VET subject should book an appointment with the school's Pathways Advisor to discuss this option.

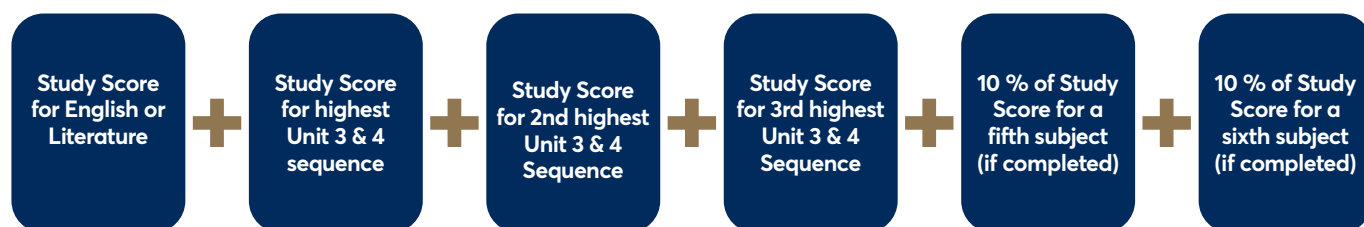
General Achievement Test (GAT)

All students enrolled in one or more Unit 3&4 studies must sit the General Achievement Test (GAT). The GAT is a two-part examination set by the Victorian Curriculum and Assessment Authority (VCAA) that consists of written tasks and multiple-choice questions. It is used as a checking procedure to make sure exam scores and other assessment methods are accurate. GAT results are reported separately and do not form part of the student's ATAR score. The GAT can be used as one of a suite of measures to derive an exam score in the event that a student is ill or unable to complete an end-of-year Unit 3&4 examination. The VCE Coordinator will ensure all students are prepared for the GAT.

Australian Tertiary Admissions Rank (ATAR)

The Victorian Tertiary Admissions Centre (VTAC) is responsible for the handling of tertiary admissions at the completion of Year 12. VTAC is also responsible for calculating a student's ATAR at the completion of Year 12 based on the study scores calculated by the Victorian Curriculum and Assessment Authority (VCAA). To be eligible for an ATAR, and to submit course preferences for tertiary study, students will have to set up an online VTAC account when they are in Year 12. The Pathways Advisor will guide them through this process.

The ATAR is a number between 0 and 99.95 awarded to a student when they graduate their VCE. It is derived only from their performance in Units 3&4 studies, not in Units 1&2 studies. The ATAR is not a numerical score; it is a ranking. It is a measure of the percentage of students in Victoria that a student has outperformed. For example, an ATAR of 70 indicates a student was in the top 30% of students who completed their VCE that year. A student's ATAR rank is derived from their VCE aggregate score. VCAA determines a student's VCE aggregate score in the following way:



It is essential that students become familiar with the requirements of any tertiary course they are interested in undertaking, as many courses have special requirements for entry beyond the ATAR. These requirements include: prerequisite studies, interviews, folios, exams, etc.

Curriculum Overviews

Year 10 Curriculum Overview

The Year 10 Program is designed to allow students to build on the skills developed during Year 9 and to prepare for entering VCE. The King David School Curriculum for Year 10 is divided into two sections – core and elective. Students will complete the core units listed below as well as choosing units from an exciting array of elective offerings. Electives are organised as semester-long units.

Students complete four Year 10 electives per semester. If they have been permitted to complete an Early Commencement VCE subject in Year 10, this replaces two Year 10 electives per semester. A student in this case will complete one VCE subject and four electives over the course of a year.

Core Subjects	
English	
History	
Jewish Studies	
Mathematics	
Science	
Sport	
Elective Subjects	
Applied Computing - VCE Unit 1	Semester 1
Applied Computing - VCE Unit 2	Semester 2
Art	Semester 1 or 2 or both
Business Management – VCE Unit 1	Semester 1
Business Management – VCE Unit 2	Semester 2
Classroom Music	Semester 1 or 2 or both
Drama	Semester 1 or 2 or both
French	Continuous subject
Geography – VCE Unit 1	Semester 1
Geography – VCE Unit 2	Semester 2
Geopolitics - 10 Maps that Explain the World	Semester 1 or 2 or both
Globetrotters	Semester 1 or 2 or both
Politics - VCE Unit 1	Semester 1
Politics - VCE Unit 2	Semester 2
Health & Human Development – VCE Unit 1	Semester 1
Health & Human Development – VCE Unit 2	Semester 2
Hebrew – VCE Unit 1	Semester 1
Hebrew – VCE Unit 2	Semester 2
Hebrew VET (Certificate II in Applied Languages) – Unit 1	Semester 1
Hebrew VET (Certificate II in Applied Languages) – Unit 2	Semester 2
History of Crime	Semester 1 or 2 or both
It's all About Food	Semester 1 or 2 or both
Learning Essentials (Intervention - by invitation only)	Semester 1 or 2 or both
Literature	Semester 1 or 2 or both
Mathematical Methods – VCE Unit 1 (by invitation only)	Semester 1
Mathematical Methods – VCE Unit 2 (by invitation only)	Semester 2

Media	Semester 1 or 2 or both
Mindhack	Semester 1 or 2 or both
Philosophy	Semester 1 or 2 or both
Physical Education – VCE Unit 1	Semester 1
Physical Education – VCE Unit 2	Semester 2
Psychology – VCE Unit 1	Semester 1
Psychology – VCE Unit 2	Semester 2
Religion and Society– VCE Unit 1	Semester 1
Religion and Society– VCE Unit 2	Semester 2
Shoah and Film	Semester 1 or 2 or both
Start Me Up	Semester 1 or 2 or both
The Science of Elite Performance	Semester 1 or 2 or both
Technology	Semester 1 or 2 or both
Visual Communication Design	Semester 1 or 2 or both

- **Continuous subject:** satisfactory completing Semester One is a prerequisite to study Semester Two
- **Offered in one Semester only:** this subject will be on offer in the specified semester only
- **Repeated: Semester 1 or 2:** an independent semester long unit that can be elected in **either** Semester One **or** Two
- **Semester 1 or 2 both:** each semester has a different focus and can be taken as a stand alone subject or as a sequence

The choice of electives at Year 10 is an important decision and should be decided by consulting the subject advice in this Handbook and by consideration of whether a sequence of semester units is required as a prerequisite in order to continue the subject in VCE. It is important to understand that not all students will be able to achieve their desired course structures as the constraints of blocking subjects against each other may limit some possibilities. In cases where the subjects are prerequisites for further courses of study, the School will make every effort to provide access.

Prerequisites for Units 1&2 studies in Year 10

Considering commencing VCE in Year 10 is not a decision to be taken lightly. It is an extremely demanding path that will impact students' total performance in VCE.

In order to commence an early commencement VCE subject students will require the approval of the relevant LAL/ Curriculum Coordinator and VPTL. Further, in order to qualify, students must satisfy the following criteria in their Year 9 studies:

- Submit all work by the due date and to a high standard
- Perform consistently in examinations and continuous assessment
- Have maintained at least 90% attendance in all subjects

Below are subject specific prerequisites for entry into the Unit 1&2 VCE studies on offer for Year 10 students.

Applied Computing	B in Year 9 IT or an overall average of B in Year 9
Business Management	B in Year 9 English
Geography	B in English / C+ in Science
Politics	B+ in English / Jewish Studies / History
Hebrew (VCE)	A in Year 9 Hebrew
VET Hebrew Certificate II	Successful completion of all Units of Competency Assessed in Year 9
Health & Human Development	B+ in English or B in PE/Health Elective
Mathematical Methods	Invitation Only
Physical Education	B+ in English / B+Science / B+ Science of Elite Performance
Psychology	B+ in English/ B+Science
Religion & Society	B +in English / Jewish Studies / History

Year 11 Curriculum Overview

In Year 11 students select six VCE studies (twelve units), including English and/or Literature. The VCE studies offered to Year 11 students, subject to demand, are as follows:

Subjects	Unit	Subjects	Unit
THE ARTS		MATHEMATICS	
Art Making and Exhibiting	1 – 2	General Mathematics	1 – 2
Media	1 – 2	Mathematical Methods	1 – 4
Music Performance	1 – 2	Specialist Mathematics	1 – 2
Theatre Studies	1 – 2		
Visual Communication Design	1 – 2		
LANGUAGES		SCIENCE	
French	1 – 2	Biology	1 – 2
Hebrew	1 – 4	Chemistry	1 – 2
ENGLISH		Physics	1 – 2
English	1 – 2	Psychology	1 – 4
Literature	1 – 2	INFORMATION TECHNOLOGY	
		Applied Computing	1 – 4
		HUMANITIES	
HEALTH & PHYSICAL EDUCATION		Accounting	1 – 2
Physical Education	1 – 4	Business Management	1 – 4
Health and Human Development	1 – 4	Geography	1 – 4
		History (Modern)	1 – 2
JEWISH STUDIES		Legal Studies	1 – 2
Religion and Society	1 – 4	Philosophy	1 – 2
		Politics	1 – 4

VCE Recommendations for Year 11

These are the current prerequisites for entry to Unit 1&2 or 3&4 VCE subjects as Early Commencement Studies in Year 11. Students should be well informed about the minimum standard required for entry to their desired VCE subjects.

STUDY	RECOMMENDED GRADE IN YEAR 10 (based on overall unit grade and/or exam score)
Accounting 1&2	C in Mathematics
Applied Computing 1&2	B in Year 9 Information Technology
Art Making and Exhibiting 1&2	B in Art or Visual Communication Design
Biology 1&2	C in Science and B in Biology component
Business Management 1&2	B in English
Business Management 3&4	B in English and B in Business Management 1 or 2
Chemistry 1&2	C in Science & B in Chemistry component
English	D+ in English
French 1&2	C+ in Year 10 French
Geography 1&2	C in Geography or C in English or History
General Mathematics 1&2	C in Mathematics or B+ in Foundation Maths
General Mathematics 3&4	B+ in Mathematics Extension or B in Math Methods
Health & Human Development 1&2	B in English
Health & Human Development 3&4	B in English
Hebrew 1&2	B in Year 10 Hebrew
Hebrew 3&4	B in Units 1 & 2
VET Hebrew (Certificate III)	Successful completion of Certificate II
History 1&2	C+ in History or B in English
Legal Studies 1&2	C in English
Literature 1&2	B in English
Mathematical Methods 1&2	C+ in Mathematic Extension or B+ in Mathematics
Mathematical Methods 3&4	B+ in Mathematics Methods 1 & 2
Media 1&2	B in Year 10 Media
Music 1&2	C in Theory Components
Philosophy 1&2	B in English or History or Philosophy
Physical Education 1&2	B in Health & PE
Physical Education 3&4	B+ in Health & PE or B+/A in English
Physics 1&2	C in Science & B in Physics component
Politics 1&2	C+ in Jewish Studies or English
Psychology 1&2	C+ in Biology component in Science & C+ in English
Psychology 3&4	B in Biology component and B+ in English

Religion and Society 1&2	C+ in Jewish Studies or English
Religion and Society 3&4	B in Jewish Studies or English
Software Development 3&4	B in Units 1 & 2 Applied Computing
Specialist Mathematics 1&2	A in mainstream Mathematics, B in Maths Extension or B in Maths Methods 1 & 2
Theatre Studies 1&2	B in Year 10 Drama or English
Visual Communication Design 1&2	B in Visual Communication Design or B in Art

Year 12 Curriculum Overview

In Year 12 students select four or five VCE studies (eight or ten units), including English and/or Literature. The VCE studies offered to Year 12 students, subject to demand, are as follows:

Subjects	Unit	Subjects	Unit
THE ARTS		MATHEMATICS	
Art Making and Exhibiting	3 – 4	General Mathematics	3 – 4
Media	3 – 4	Mathematical Methods	3 – 4
Music Performance	3 – 4	Specialist Mathematics	3 – 4
Theatre Studies	3 – 4		
Visual Communication Design	3 – 4		
LANGUAGES		SCIENCE	
French	3 – 4	Biology	3 – 4
Hebrew	3 – 4	Chemistry	3 – 4
ENGLISH		Physics	3 – 4
English	3 – 4	Psychology	3 – 4
Literature	3 – 4	INFORMATION TECHNOLOGY	
HEALTH & PHYSICAL EDUCATION		Software Development	3 – 4
Physical Education	3 – 4	HUMANITIES	
Health and Human Development	3 – 4	Accounting	3 – 4
JEWISH STUDIES		Business Management	3 – 4
Religion and Society	3 – 4	Geography	3 – 4
		History (Revolutions)	3 – 4
		Legal Studies	3 – 4
		Philosophy	3 – 4
		Politics	3 – 4

VCE Recommendations for Year 12

The grades listed are the minimum requirement for both examination and overall Unit grade in both Unit 1 and Unit 2 (unless otherwise stated).

STUDY	RECOMMENDED GRADE
Accounting	C in Accounting
Art Making and Exhibiting	C ⁺ in Art
Biology	C ⁺ in Unit 1 Biology or Chemistry
Business Management	C in English or C in Business Management, if it was studied in Year 11
Chemistry	C ⁺ in Chemistry
English	D ⁺ in English
French	C ⁺ in French Units 1 & 2
Geography	C in Geography 1 & 2 or C in English or History
General Mathematics	C in General Mathematics
Health & Human Development	C in Unit 1 HHD or B in English
Hebrew	B in Hebrew Units 1 & 2
History	B in English or C in History, if it was studied in Year 11
Legal Studies	B in English or C in Legal Studies, if it was studied in Year 11
Literature	B in English
Mathematical Methods	C in Maths Methods in Year 11
Media	C ⁺ in Media
Music	Teacher approval of student's skills
Philosophy	B in English or History or Philosophy
Physical Education	C in Unit 2 Physical Education or C English
Physics	C in Physics in Unit 2
Politics	B in Politics or B English
Psychology	C in Psychology or any other Science or C English
Religion and Society	B in Religion and Society or English
Software Development	B in Applied Computing Units 1 & 2
Specialist Mathematics	B in Specialist Mathematics Unit 2
Theatre Studies	C ⁺ in Theatre Studies or English
Visual Communication Design	C ⁺ in Visual Communication Design

Senior School Subject Guide

Year 10 Core Subjects

Year 10 English

Introduction

In English, texts, language and literacy constitute the essential concepts and areas of study. Building upon skills and abilities developed in the previous year, students undertake an advanced examination of the ways in which language communicates on a number of levels: to persuade, entertain, inform and examine. Students engage with the close analysis of quality literature and film while developing their ability to analyse persuasive texts to interpret rhetorical meaning. A special focus is also given to spoken English and its employment as a persuasive and didactic tool.

Content

English is organised into three key areas:

Literature

Students engage in close studies of literary texts by a range of authors and in a range of styles. They respond to novels, short stories, plays and poetry in analytical and other modes of writing.

Language

Students study the structures and function of language, including grammatical convention and nuance. They examine a range of ways to communicate as well as interpret information, including multi-modal forms.

Literacy

Students demonstrate their ability to interpret and respond to a range of written stimuli across a range of media. They develop active-listening strategies, interpreting and reflecting upon what they hear and see.

Assessment

Students in Year 10 must demonstrate key performance indicators as outlined by the Victorian Curriculum in the following ways:

- Response to comprehension and interpretation questions
- Oral presentation in various forms, including contribution to class discussion
- Composition of sustained written texts, including reflections, narratives and persuasive pieces
- Formal analytical essay writing
- Grammar and other tests
- End of semester examinations

Year 10 History

Introduction

The Year 10 curriculum provides a study of history of the modern world and Australia from 1918 to the present, with an emphasis on Australia in its global context. The twentieth century became a critical period in Australia's social, cultural, economic and political development. The transformation of the modern world during a time of political turmoil, global conflict and international cooperation provides a necessary context for understanding Australia's development, its place within the Asia-Pacific region and its global standing, in particular with reference to World War II.

The content provides opportunities to develop historical understanding through key concepts, including evidence, continuity and change, cause and effect, perspectives, empathy, significance and contestability.

Content

Year 10 History is organised into an overview and three in-depth studies:

Overview

- The inter-war years, between World War I and World War II, including the Treaty of Versailles, the Roaring Twenties and the Great Depression
- Continuing efforts post World War II to achieve lasting peace and security in the world, including Australia's involvement in UN peacekeeping
- The major movements for rights and freedoms in the world and the achievement of independence by former colonies
- The nature of the Cold War and Australia's involvement in it and in post-Cold War conflicts (Korea, Vietnam, the Gulf Wars, Afghanistan), including the rising influence of Asian nations since the end of the Cold War
- Developments in technology, public health, longevity and standards of living during the twentieth century and concern for the environment and sustainability

In-depth study 1: World War II (1939-45)

Students will study about : the causes and course of World War II; the scale and significance of the Holocaust; significant events of World War II, including developments in technology and the involvement of and effects in Australia; the experiences of Australians during World War II (such as prisoners of war, the Hay internment camp and the Dunera boys); the impact of World War II, with a particular emphasis on the Australian home front, including the changing roles of women, the use of wartime governmental controls and the significance of its impact on Australia's international relationships.

In-depth study 2: Migration experiences (1945-present)

Students will study about: post war organisations; the waves of post war migration to Australia; the impact of changing government policies on Australia's migration patterns, including those which opened the door to European migration; the impact of a world event or development and its significance for Australia; the contribution of migration to Australia's changing identity as a nation and to its international relationships.

In-depth study 3: Rights and freedoms (1945-present)

Students will study about the origins and significance of the Universal Declaration of Human Rights, including Australia's role in its development; background to the struggle of Aboriginal and Torres Strait Islander peoples for rights and freedoms before 1965, including the 1938 Day of Mourning and the Stolen Generations; the US civil rights movement and its influence on Australia; the significance of the civil rights movement of Aboriginal and Torres Strait Islander peoples, including the advocacy of Ron Castan and the Mabo decision and the methods used by civil rights activists to achieve change; and the continuing nature of efforts to secure civil rights and freedoms in Australia and throughout the world.

Assessment

Key performance indicators as outlined by the Australian Curriculum will be assessed in the following ways:

- Research assignments
- Analytical essays
- Document work
- Oral presentation / Role play
- Short answer tests
- Examination

Year 10 Jewish Studies

The Jewish Studies curriculum comprises four major areas: Jewish History, Jewish Texts, Jewish Ethics/Living and Israel (Land, Nation and People), while always acknowledging the *Chagim* (Jewish Holy days). Each term, the students focus on one primary area, while ensuring that all aspects are explored.

Description

The students will study the following courses: Building the State; World that was; Shoah (Holocaust); Israel in the aftermath of the Shoah.

Objectives

Students will:

- Develop an understanding of the causes of the Shoah, its stages and legacy in Jewish and world history, through broad study of the history, combined with a focus on personal and communal stories
- Examine the critical stages in the development of the State of Israel, including the impact of the Shoah, and the successes and challenges it faces in implementing its vision
- Appreciate the complexities of peace and strategic relations in the Middle East, including being the only democracy and Jewish state in the region
- Explore and develop identity in relation to themselves, the school community, Australian society and the Jewish world, with a specific focus on Israel

Content

- Examination of Jewish worlds that existed in Eastern and Western Europe between the two World Wars
- Historical forces that contributed to the Shoah, including the intentionalist v functionalist debates
- Stories of communities, victims and survivors, including the 'choiceless choices' they faced. Students study 'The Happiest Man on Earth' by Eddie Jaku
- Resistance, rescue and the righteous
- Timeline of the emergence of the state of Israel, with examination of critical dates in a geographical and political context
- Explore the geo-political landscape of the Middle East, and how that influences Israeli-Arab relations
- The transitioning from pre-modern, to modern to post-modern modes of identification

Assessment

- Workbook activities
- Research tasks
- Document analysis tasks
- Examinations

Year 10 Mathematics

Objectives

Students are encouraged to develop confidence in the use of definitions of key mathematical concepts. A variety of modelling and problem solving approaches are explored and the ability to determine the validity of a solution is emphasised.

- Ability to apply basic numeracy skills including directed numbers
- Understanding of different forms of measurement in one, two and three dimensions and application to real life situations
- Efficient use of algebra in real life problem solving activities
- Introduction of further algebraic skills
- Collection and analysis of data
- Understanding of the properties related to geometric shapes
- Use of estimation to check feasibility and reasonableness of solutions
- Efficient use of calculators as an aid to solving problems. At Year 10 the TI-nspire CAS calculator is used in preparation for VCE mathematics
- Ability to communicate and report on the mathematical process used in problem solving, in both written and mathematical form

Content

As outlined by the Australian Curriculum, the program will be selected from the following topics:

- Algebra
- Linear equations and Graphs
- Quadratic Equations
- Trigonometry
- Measurement
- Surds
- Quadratic Equations and Graphs
- Simultaneous equations
- Exponentials
- Geometry
- Probability
- Variation

Assessment

- Assignments
- Topic Tests
- Examination

Year 10 Science

Objectives

The Year 10 Science curriculum aims to ensure that students develop:

- An interest in science as a means of expanding their curiosity and willingness to explore, ask questions about and speculate on the changing world in which they live
- An understanding of the nature of scientific inquiry and the ability to use a range of scientific inquiry methods
- An ability to communicate scientific understanding and findings to a range of audiences, to justify ideas on the basis of evidence, and to evaluate and debate scientific arguments and claims
- An ability to solve problems and make informed, evidence-based decisions about current and future applications of science while taking into account ethical and social implications of decisions
- An understanding of historical and cultural contributions to science as well as contemporary science issues and activities and an understanding of the diversity of careers related to science

Content

Students examine the role of DNA and genes in cell division and genetic inheritance and are introduced to the concepts of natural selection and evolution. They will evaluate evidence for scientific theories that explain the origin of the universe and the diversity of life on Earth. Students learn about electrical energy from fossil fuels and renewable energy sources through the national grid to our homes. They create and test circuits including mathematical relationships between Voltage, Current and Resistance. Students will compare the properties of a range of chemical elements and explore the concepts of conservation of matter and energy. They will gain an understanding of the importance of metals including how we obtain metals from their ores and will investigate how different factors influence the rate of reactions.

Assessment

- Research assignments
- Topic tests
- Oral presentations
- Class work and homework exercises
- Laboratory skills
- Practical reports
- Examination

Year 10 Elective Subjects

Year 10 Art

Semester 1 or 2 or both

Objectives

The subject is divided into two subject areas:

A — Art making

Students make and present artwork which explore themes, issues and ideas.

Students will investigate two and three dimensional art forms and will be expected to show competence in their technical understanding and manipulation of a variety of media and tools.

B — Art responding

Students are introduced to the process of analysing and interpreting art works of the Twentieth Century.

Students will learn to use appropriate terminology when making, discussing and writing about art. They will research and discuss how art works have communicated ideas that reinforce and challenge social, cultural and artistic values.

Students will develop an awareness of the functions of art by exploring and analyzing the works of artists of the past and the present.

Content

A — Art making

- Drawing
- Painting
- Printmaking
- Sculpture
- Mixed media

B — Art responding

- Introduction to the elements & theory of art
- Modern and contemporary art history
- Selected study of art styles and artists relevant to the student's art practice

Assessment

- Folio of set tasks in the practical area
- Visual diary to record the processes undertaken for each work of art
- Art Analysis Worksheets
- Essay
- Examination
- Two major artworks

It is highly recommended that students intending to continue Art in Year 11 undertake a year of study of Art in Year 10.

Year 10 Classroom Music

Semester 1 or 2 or both

Objectives

In Year 10 Classroom Music students will continue to develop their aural and musicianship skills through systematic training in rhythm and pitch solfa. They will analyse different scores and performances aurally and visually maintaining a listening diary. They evaluate the use of elements in music and defining characteristics from different musical styles. They use their understanding of music making in different cultures, times and places to inform and shape their interpretations, performances and compositions. Students interpret, rehearse and perform solo and ensemble repertoire in a range of forms and styles. They interpret and perform music with technical control, expression and stylistic understanding. They use aural skills to recognise elements of music and memorise aspects of music such as pitch and rhythm sequences. They use knowledge of the elements of music, style and notation to compose, document and share their music through improvisation and composition. Students in 10 Music are introduced to the key skills required for VCE Music. Students enrolled in Classroom Music are encouraged to participate in school ensembles.

Content

Unit 1: Listening

- Analysing a range of music from contemporary and past times to explore differing viewpoints and enrich music making, starting with Australian music, including music of Aboriginal and Torres Strait Islander Peoples, and consider music in international contexts
- Rhythmic and melodic dictation of unknown repertoire

Unit 2 - Performance

- Practise and rehearse a variety of performance repertoire with increasing technical and interpretative skills as a soloist and in an ensemble
- Improvise music, using aural recognition of texture, dynamics and expression to explore personal style in performance

Unit 2 - Composition

- Evaluate a range of music and compositions to refine own compositions and performances
- Plan and organise compositions with an understanding of various genres and cultures
- Arrange music, using aural recognition of texture, dynamics and expression to manipulate the elements of music in a range of styles, using technology and notation

Assessment

- Listening tasks
- Performance both solo and ensemble
- Solfa skills
- Aural/theory/analysis
- Composition and improvisation exercises
- Examination

Students intending to continue VCE Music in Year 11 should undertake 2 units of Music in Year 10.

Year 10 Drama

Semester 1 or 2 or both

Semester 1

Objectives

Students will:

- Develop an understanding of the evolution of Australian Drama and Theatre
- Explore a variety of theatrical styles
- Interpret Australian playscripts from the mid-1800s to present
- Analyse the context, themes and characters of an iconic Australian playscript
- Research a current local and/or global issue to inform the development of a self-devised monologue for performance
- Develop a range of three-dimensional character(s) after a series of rehearsal and refinement processes
- Critically evaluate a performance presented by an outside group
- Present a dramatic monologue, applying stagecraft to enhance the performance

Content

- Origins of Australian Drama and Theatre
- Theatrical styles of Melodrama, Aboriginal Theatre and Realism
- Australian playscripts
- Monologue and character development techniques
- The rehearsal process
- Analysis and evaluation of performance(s)
- Performance skills

Assessment

- Expressive skills and character development
- Collaboration to interpret playscripts for performance
- Performance skills and stagecraft
- Written Performance Analysis/Evaluation
- Monologue
- Workbook and essay
- Examination

Semester 2

Objectives

Students will:

- Develop and understanding of the evolution of World Drama and Theatre
- Explore a range of theatrical styles from the modern era
- Interpret playscripts from the modern era
- Develop the skills of collaboration and commitment, working with peers to devise dramatic works for performance
- Apply conventions of Absurdism, Theatre of Cruelty, Epic Theatre, Poor Theatre and Physical Theatre throughout the rehearsal process in the formation of a performance
- Develop movement, voice work and improvisation skills
- Create a physical theatre dramatic work for performance to a outside group
- Critically evaluate a performance presented by an outside group

Content

- Origins of World Drama and Theatre
- Theatrical styles of Absurdism, Theatre of Cruelty, Epic Theatre, Poor Theatre and Physical Theatre
- Playscripts from the modern era
- Voice, Movement and Mime techniques
- The rehearsal process
- Analysis and evaluation of performance(s)
- Performance skills

Assessment

- Expressive skills and character development
- Collaboration to interpret playscripts for performance
- Performance skills and stagecraft
- Written Performance Analysis/Evaluation
- Monologue
- Workbook and essay
- Examination

Year 10 French

Continuous subject: Semester 1 and Semester 2

Objectives

Students learn about the rich and varied culture of France and Francophone communities around the world.

Students understand and use French within the world of teenage experience. Students demonstrate comprehension of factual information from topics of interest. They provide factual information in order to plan an event or make arrangements with others. Students describe and comment on themes, characters and events in factual texts. They write letters, messages, scripts, reports or stories, making choices, explaining, summarising and drawing conclusions.

Content

- Descriptions of young people and their spare time
- Talking about yourself
- Language exchange programs
- Teenagers and their families
- A day out in Paris

Assessment

- Reading comprehension
- Writing tasks
- Listening comprehension
- Cultural knowledge and understanding tasks
- Oral Presentations
- Examination

Students intending to continue French in Year 11 must undertake two units of French in Year 10.

Year 10 Geopolitics - 10 Maps that Explain the World

Semester 1 or 2 or both

Objectives

This is a course that uses maps and the geographical features of the world to explain the complex political strategies that shape the globe. Why is Putin so obsessed with Crimea? Why was the US destined to become a global superpower? Why does China's power base continue to expand? Why is Tibet destined to lose its autonomy? Why will Europe never be united? The answers are clearer when we look at the maps and history of each region. The answers are geopolitical.

Content

- Students explore 10 maps over the course of a semester
- Each map is a starting point for an exploration of the history, culture and politics of the region and how the physical characteristics of these countries affect their strengths and vulnerabilities and the decisions made by their leaders
- They will examine Russia, China, the US, Latin America, the Middle East, Africa, Europe, Japan, Korea, and Greenland and the Arctic-their weather, seas, mountains, rivers, deserts, and borders-to provide a context to the politics of the region

Assessment

- Production of a documentary film/podcast
- Written briefing to ambassador
- Annotate a map
- Essay
- Examination

Year 10 Globetrotters

Semester 1 OR 2 or both

Why Globetrotters?

Global knowledge matters today more than ever because all of us are living in a globalised world. Nearly all business is international. In the future, you probably will never work in isolation. You may need to know that the other people that you work with, whether in a cubicle down the hall or on a screen halfway around the world, all have ideas and value. Global knowledge matters because we are all connected. It matters because this is our world.

Objectives

In Globetrotters you will be undertaking a journey, where you will investigate our world; from global crises such as population explosions, sustainable cities, urbanisation, and migration to climate change to pandemics and many more aspects of our world.

This subject serves as a precursor for skills and concepts in VCE Geography, Global Studies.

Content

- Urbanisation
- Megacities
- Impact of climate change
- Sustainable Cities - includes field trip
- Population, poverty and wellbeing
- Introduction to the history of hazards and disasters (Pre VCE Geography)

Assessment

- Megacities group presentation
- Live TV news report
- Field trip analysis
- Demographics Research project- Looking at data
- Unit quiz

Year 10: History of Crime

Semester 1 or 2 or both

Objectives

Our contemporary society is fascinated with crime, from true crime podcasts, to endless *Law & Order*-style TV shows, to reinventions of Sherlock Holmes; however, this fascination with criminals and those who deviate from the norm is hardly new.

Students will trace the idea of the 'Other' through the lens of deviance and crime, beginning with witches and heretics, through to contemporary infamous murderers. Through an interdisciplinary examination of deviance and crime, students will examine both the legal responses (including public punishments and executions; the development of jails etc.) to crimes, alongside the burgeoning psychological fields (including the rise of asylums, Phrenology etc.) of criminals and deviants. This subject serves as a precursor for skills and concepts in VCE History, Psychology, and Legal Studies.

Content

- Learn about the concept of the 'Other' and 'Othering' through various historical contexts
- Examine the shifting view of the ideas around deviance, crime, and punishment throughout history (Medieval – modern)
- Introduction to Historical critical theory (e.g Michel Foucault's *Discipline and Punishment*)
- Development of critical thinking skills, especially in interdisciplinary focuses
- Introduction to the basic skills of VCE History, Legal Studies, and Psychology

Assessment

- Historical Document Analysis
- Research Essay
- Student-led Research Project and Expo

Year 10: It's All About Food

Semester 1 or 2 or both

Objectives

The purpose of this unit is to study food through a variety of cuisines. The students will examine a range of influences that affect food selection and identify foods linked to specific cultures. Students will engage in practical classes, where they will make a variety of recipes. Theory classes are then used to support the practical classes and build on students' knowledge and understanding of food. In practical classes there is an emphasis on interpersonal learning where co-operative group work is required.

Content

It's All About Food is both a theoretical and practical subject that focuses on:

- nutrition
- menu design
- cooking skills
- reflective and evaluating practices
- the science of food
- recipe design
- following instructions
- food safety and hygiene

Assessment

There will be practical assessments, oral presentations, research tasks and reflections.

Year 10 Literature

Semester 1 or 2 or both

Semester 1: Literary Classics

Objectives

Students develop an awareness of the notion of a 'classic', and consider the reasons that some works of literature endure over time. They examine two classic texts in detail, augmenting analytical skills they have developed in their English studies. They focus on how authors use characters, setting, events and language to create meaning and shape reader response. Students also explore how the views and values of the past can be communicated through text, and how this, in turn, can impact social attitudes in the present. They investigate the meanings that become legible in a text when they adopt a specific reading or perspective. Students are introduced to examples of literary movements and how their trends can be observed in specific works.

Content

- A study of Oscar Wilde's play, *The Importance of Being Earnest*
- A study of a selection of Wilfred Owen's World War One poetry

Assessment

- An investigation of the historical views and values expressed in a text
- A close analysis of characters, settings, events and language used in a poetry text

Semester 2: African Voices

Objectives

Students develop an awareness of the rich tradition of African literature. They examine two texts by Nigerian authors in detail, augmenting analytical skills they have developed in their English studies.

They focus on how authors use characters, setting, events and language to create meaning and shape reader response. Students also explore how a text can reflect the ideas and concerns of people living in another place and culture. They develop an awareness of what influences them as Western readers when they engage with African literature.

Content

- A study of Chigozie Obioma's novel, *The Fishermen*
- A study of a Chimamanda Ngozi Adichie's short-story collection, *The Thing Around Your Neck*

Assessment

- An investigation of the cultural ideas and concerns expressed in a text
- A close analysis of characters, settings, events and language used in a prose text

Year 10 Media

Semester 1 or 2 or both

Semester 1: The Advertising and filmmaking industry - production and analysis

Objectives

Students develop an awareness of the business of media production, focussing on the financial and institutional structure of Hollywood cinema, online streaming services for film and television such as Netflix, and independent media organisations. Students also explore advertising, focussing on the development of professional advertisements using standard production software. Key production stages will be utilised and students are exposed to deadline constraints and creative processes involved in developing advertisements. Students become aware of the social and psychological implications of advertising to audiences and how social media advertising works to engage audiences.

Students continue to develop key production skills and analysis in film and video – including an exploration of storytelling practices and structure in video and film, key production roles, technical expertise, visual storytelling and collaborative skills. They also develop their understanding of the specialist production stages and roles within the collaborative organisation of media production. Students participate in specific stages of a film production, developing practical skills in their designated role.

Content

- Discussion and exploration of the business of media production
- Exploration and analysis of the relationship between the media and its audiences
- Analysis and production of media products such as advertisements and video and film

Assessment

- Folio of theory and practical work (advertising and video production). Students will undertake an equal amount of theory and practical work in this subject
- Analysis of a narrative film - how it constructs its story and utilises genre
- Examination

It is recommended that students intending to continue Media Studies in Year 11 undertake two units of Media in Year 10 or one semester of Media and one semester of Visual Communication Design with a B grade average.

Semester 2: An introduction to VCE Media - skills and analysis

Objectives

This study enables students to analyse media products and concepts in an informed and critical way and establishes confidence in students when undertaking these tasks. Students consider media products, technologies and processes from various perspectives, including an analysis of structure and features.

This unit will equip students with the theoretical and practical skills and knowledge required when students progress to the VCE Media level. Work undertaken in this unit is through a theoretical and practical study, which places the student in the role of a media creator and analyst. Students will study signs and meaning in media products at an advanced level, to understand how media products create point of view and are designed for specific and intended audiences. Understanding genre and film styles through the analysis of a major Hollywood narrative will enable the students to create their own media product in their desired style.

Students will develop further skills in digital photography, video and /or journalism through an exploration of media representations as well as developing advanced skills in production processes and techniques, including an exploration of all manual functions of cameras.

Content

- Film deconstruction and analysis
- Media Production – photography, video or journalism
- Media representation deconstruction and analysis

Assessment

- Media production folio across the semester
- Written film analysis paper
- Examination

It is recommended that students intending to continue Media Studies in Year 11 undertake two units of Media in Year 10 or one semester of Media and 1 semester of Visual Communication Design. A mark of a B average in Media is essential.

Mindhack

Semester 1 or 2 or both

This elective allows students to explore the wonderful phenomena involving our minds. From synesthesia - seeing music in shapes and colours, through to how nutrition primes our mind to testing concepts such as brain breaks and chunking.

The subject gives students opportunities to develop critical thinking skills that relate to their interests.

Assessments

Skill based assessments such as:

- Developing ideas
- Testing hypothesis
- Using tools to analyse results
- Communicating ideas
- Presenting

Year 10 Philosophy

Semester 1 or 2 or both

Aims

- Understand the nature of philosophy and its methods
- Identify and articulate philosophical questions
- Understand and analyse significant philosophical ideas, viewpoints and arguments, in their historical contexts
- Explore ideas, responding to central philosophical questions, viewpoints and arguments with clarity, precision and logic
- Understand relationships between responses to philosophical questions and contemporary issues
- Cultivate open-mindedness, reflecting critically on their own thinking and that of others, and exploring alternative approaches to philosophical questions.

Structure

The study is made up of two units:

Semester 1: Epistemology

On completion of this unit the student should be able to analyse epistemological problems, evaluate viewpoints and arguments arising from these, and analyse philosophical problems in relevant contemporary debates.

Semester 2: Metaphysics

On completion of this unit the student should be able to analyse metaphysical problems, evaluate viewpoints and arguments arising from these, and identify philosophical problems in relevant contemporary debates.

Assessment

- Document Analysis
- Research Project
- Personal Reflection
- Writing Tasks

Year 10: Shoah through Film

Semester 1 or 2 or both

Objectives

Students view and critically analyse a carefully selected line up of Shoah films, clips and documentaries, enabling a deep investigation into the world of the Shoah. As this course would be immersive, intense and hopefully inspiring, there would be a strong educational stance on "safely in and safely out". With a sensitive and appropriate approach, we can delve deeper and more meaningfully into this important chapter of our history, utilising the medium of film, movies and documentaries. Through critical analysis, debate and diverse perspectives, students will explore ideas and questions, such as "Has the movie respected and honoured the memory of the survivors? What is the legacy of this film and how has this enhanced your understanding of the Shoah?"

Content

- Film analysis- techniques
- Screening the Shoah-History
- The world that was
- Nazification
- Ghetto
- Concentration Camps and Killing Centres
- Children
- Resistance and Righteous among the Nations
- Liberation, post Shoah reflections/Remembrance

Assessment

- Research report
- Oral presentation
- Collaborative analysis
- Journal
- Tests

Year 10 Start Me Up

Semester 1 or 2 or both

Objectives:

In this class, you will learn the essential skills and knowledge necessary to become a successful entrepreneur. We will explore the mindset and qualities of a successful entrepreneur, including creativity, perseverance, and adaptability. You will learn how to identify and evaluate business opportunities, develop a business plan, and attract investors.

Throughout the course, you will also learn practical skills such as market research, financial planning, and marketing strategies. By the end of the class, you will have a solid understanding of how to launch and manage a successful business.

This class is not just for those interested in starting their own businesses; it is also an excellent opportunity to develop critical thinking, problem-solving, and leadership skills that will be valuable in any career path. Join us on this exciting journey of entrepreneurship and unlock your full potential!

Content:

- What is entrepreneurship and why is it important?
- Mindset and qualities of a successful entrepreneur
- Identifying and evaluating business opportunities
- Developing a business plan
- Market research and analysis
- Financial planning and management
- Marketing and branding strategies
- Ethical considerations in entrepreneurship
- Failure and resilience in entrepreneurship
- Opportunities for hands-on learning, such as starting a small business or participating in a business plan competition

Potential Assessments:

- Business plan: Develop a comprehensive business plan for a new venture, including a description of the business, market research, financial projections, marketing strategy, and operational plan
- 'Shark Tank' Elevator pitch: Craft a compelling two minute pitch to sell your business idea to potential investors or customers
- Marketing campaign: Design a marketing campaign to promote a new product or service, including social media ads, email marketing, and other promotional tactics
- Case study analysis: Analyze case studies of successful entrepreneurs and businesses to identify key factors that contributed to their success
- Team project: Work in teams to start and run a small business, using the skills and knowledge acquired throughout the course

Year 10 The Science of Elite Performance

Semester 1 or 2 or both

Objectives

This is a study of elite athletic performance and allows learners to explore the science behind the top athletes.

Outline

Semester 1: Three units

1. Sport and exercise physiology: This unit gives the learners an opportunity to develop an understanding of the physiology of each of the different body systems including the skeletal, muscular, cardiovascular, respiratory, neural, endocrine and energy systems. As an integral aspect of studying sport and exercise sciences, this unit will allow learners to not only support people in the sport and exercise science sector, but also give them transferable skills for many vocational jobs. This unit involves a variety of concepts that will build on subjects that have been studied at in earlier years in Science and PE. Learners will cover the following areas:

a. Responses to exercise; b. Fatigue and recovery; c. Adaptations; d. Environmental factors and performance

2. Applied sport and exercise psychology: This unit is designed to introduce learners to sport and exercise psychology, presenting the key concepts and theories that are central to sport and exercise psychology. Learners will be encouraged to find out information for themselves and consider how the concepts and theories help them to understand their own experiences and performances in sport. The applied focus of the module enables learners to consider the experiences of top sports people, their coaches and their own experiences. Learners will cover the following areas:

a. Motivation; b. Competitive pressure; c. Effects of self-confidence, self-efficacy and self-esteem; d. Mindset; e. Group dynamics; f. Psychological interventions

3. PBL exploring an area of personal interest*

Semester 2: Three units

1. Biomechanics: This unit is designed to introduce learners to the biomechanics of sport and exercise and it presents key concepts central to the understanding of biomechanics. Learners will be encouraged to find out information for themselves, and to consider how the concepts and theories help them to understand their own performance in sport and exercise. The practical focus of the unit enables learners to see biomechanics in action and develop a greater appreciation of the following concepts:

a. Linear motion; b. Speed/velocity/acceleration/deceleration/inertia and momentum; c. Forces; d. Newton/reaction forces/friction/air resistance/lift and Bernoulli's principle; e. Angular motion; f. Centre of mass and stability/levels/axes of rotation

2. Nutrition: This unit gives the learners an opportunity to explore how nutrition can affect a sports participant's performance positively or negatively, the importance of hydration and how to apply the nutritional principles. This unit also allows learners to focus on the concepts of nutrition and digestion, and the components of a balanced diet. Learners will cover the following areas:

a. Principles of nutrition and hydration; b. Digestion and absorption of nutrients; c. Nutritional intake; d. Nutritional strategies

3. PBL exploring an area of personal interest*

*PBL topic ideas:

Fitness testing, Coaching, Activity for groups and individual, Sociocultural issues, Technology and ergogenic aids, Sports injury and assessment.

Assessment

- Major research assignment and short answer test
- Oral presentations
- Field trip
- Extended text response
- Examination

Year 10 Technology

Semester 1 or 2 or both

Semester 1 (Drones and Automation)

Objectives

In this subject, students will learn how to follow an engineering design process to build and test robotic prototypes that have the capacity for radio communication. Students will design and build a micro-controller based drone using 3D printers, power tools, laser cutters and soldered components. The drone will go through several prototype stages to optimise its weight distribution and load capacity.

Students communicate and document projects, including marketing for a range of audiences. They independently and collaboratively apply sequenced production and management plans when producing designed solutions, making adjustments to plans when necessary.

Content

- Investigate and make judgements on how the characteristics and properties of materials are combined with force, motion and energy to create engineered solutions
- Investigate and make judgements on how the characteristics and properties of materials, systems, components, tools and equipment can be combined to create designed solutions

Assessment

- Discussion
- Collaborative Project - 3D Drone Design

Semester 2 (Robots and Smart Cities)

Objectives

Students will learn how 5G wireless and big data can be used to improve the quality of life in the world's major cities. This includes reducing pollution, generating energy, growing food and increasing efficiency in a variety of systems like healthcare, utilities, waste management and transportation.

This knowledge will be implemented in students' own models of smart cities that use drones, robots and 3D printed building. Students will capture data and write programs that make smart decisions with that data. Finally students will learn how to protect smart cities from hackers and attempt use encryption to make their systems tamper proof.

Content

- Investigate and make judgements on how the characteristics and properties of materials are combined with force, motion and energy to create engineered solutions
- Investigate and make judgements on how the characteristics and properties of materials, systems, components, tools and equipment can be combined to create designed solutions

Assessment

- Essay: Smart City Chernobyl
- Collaborative Project: Smart City Design

Year 10 Visual Communication Design

Semester 1 or 2 or both

Semester 1

Objectives

- To enable students to make and present visual communications that demonstrate understanding of aesthetic and functional considerations and produce visual communications using appropriate design elements, principles and concepts, as well as demonstrating a range of skills with a particular emphasis on the use of digital technology in the visual communication production process
- To encourage a variety of practical skills, by generating images and designs and developing them through different drawing methods
- To apply design elements and principles through freehand drawing, using the visual communication production process
- To enable students to explore and develop ideas using a range of materials, methods and media, applying design elements and principles as well as developing digital technology skills, to problem solve and achieve design solutions

Content

- Use of the visual communication production process to design and present for, example, symbols, packaging, product design
- Two and three dimensional freehand, instrumental and computer generated drawings
- Application and analysis of design elements and the design principles
- Range of media and materials with an emphasis on ICT skills
- Identification, description and analysis of existing visual communications such as advertisements, swing tags, house designs, every day products
- Influences, histories and traditions surrounding designers and their work
- Differing roles of practitioners in visual communication and related fields
- Creative thinking and concept development

Assessment

- Assignment Folio
- Visual Diary
- Examination

It is recommended that students intending to study Visual Communication Design at Year 11 undertake two semesters of Visual Communication Design at Year 10 or one semester of Art and one semester of Visual Communication Design.

Semester 2

Objectives

- To extend students' basic understanding of the visual communication design process
- To provide students with a range of practical visual communication experiences representative of a different fields of practice such as information, environmental and product design
- To provide students with the opportunity to use a brief to establish the client's needs, the purpose and audience
- To enable students to develop and apply creative techniques as well as the accepted conventions of drawing and technology to solve specific design briefs

Content

In this unit students will:

- Use design elements and design principles to develop and refine concepts to enhance the effectiveness of visual communications to a specific audience
- Learn to work using the design process
- Discuss design and production techniques using appropriate terminology
- Use appropriate design language to analyse and evaluate the effectiveness of ways visual messages are delivered to specific audiences
- Research, collect and evaluate information for ideas and inspiration
- Produce visual projects which analyse, explore and manipulate appropriate visual techniques
- Learn to work with two and three dimensional drawing methods
- Explore a range of media and digital formatted information
- Research/analyse visual communication produced by Australian/overseas designers

Assessment

- Assignment Folio
- Visual Diary
- Examination

It is recommended that students intending to study Visual Communication Design at Year 11 undertake two semesters of Visual Communication Design at Year 10 or one semester of Art and one semester of Visual Communication Design.

VCE Subjects

Accounting

Aims

This study enables students to:

- acquire knowledge and skills to record financial data and report accounting information in a manner that is appropriate for the needs of the user
- develop an understanding of the role of accounting in the management and operation of a business
- develop skills in the use of ICT in an accounting system
- develop an understanding of ethical considerations in relation to business decision-making
- develop the capacity to identify, analyse and interpret financial data and accounting information
- develop and apply critical thinking skills to a range of business situations
- use financial and other information to improve the accounting decision-making within a business

Unit 1: Role of accounting in business

This unit explores the establishment of a business and the role of accounting in the determination of business success or failure. In this, it considers the importance of accounting information to stakeholders. Students analyse, interpret and evaluate the performance of the business using financial and non-financial information. They use these evaluations to make recommendations regarding the suitability of a business as an investment.

Students record financial data and prepare reports for service businesses owned by sole proprietors.

Where appropriate, the accounting procedures developed in each area of study should incorporate the application of the Conceptual Framework and financial indicators to measure business performance, and take into account the range of ethical considerations faced by business owners when making decisions, including financial, social and environmental.

Area of study 1

The role of accounting

On completion of this unit the student should be able to describe the resources required to establish and operate a business, and select and use accounting reports and other information to discuss the success or otherwise of the business.

Area of study 2

Recording financial data and reporting accounting information for a service business.

On completion of this unit the student should be able to identify and record financial data, report and explain accounting information for a service business, and suggest and apply appropriate financial and non-financial indicators to measure business performance.

Unit 2: Accounting and decision-making for a trading business

In this unit students develop their knowledge of the accounting process for sole proprietors operating a trading business, with a focus on inventory, accounts receivable, accounts payable and non-current assets. Students use manual processes and ICT, including spreadsheets, to prepare historical and budgeted accounting reports. Students analyse and evaluate the performance of the business relating to inventory, accounts receivable, accounts payable and non-current assets. They use relevant financial and other information to predict, budget and compare the potential effects of alternative strategies on the performance of the business. Using these evaluations, students develop and suggest to the owner strategies to improve business performance. Where appropriate, the accounting procedures developed in each area of study should incorporate the application of the Conceptual Framework and financial indicators to measure business performance, and take into account the range of ethical considerations faced by business owners when making decisions, including financial, social and environmental.

Area of study 1

Accounting for inventory

On completion of this unit the student should be able to record and report for inventory and discuss the effect of relevant financial and non-financial factors, and ethical considerations, on the outcome of business decisions.

Area of study 2

Accounting for and managing accounts receivable and accounts payable

On completion of this unit the student should be able to record and report for accounts receivable and accounts payable, and analyse and discuss the effect of relevant decisions on the performance of the business including the influence of ethical considerations.

Area of study 3

Accounting for and managing non-current assets

On completion of this unit the student should be able to record and report for non-current assets and depreciation.

Unit 3: Financial accounting for a trading business

This unit focuses on financial accounting for a trading business owned by a sole proprietor, and highlights the role of accounting as an information system. Students use the double entry system of recording financial data and prepare reports using the accrual basis of accounting and the perpetual method of inventory recording. Students develop their understanding of the accounting processes for recording and reporting and consider the effect of decisions made on the performance of the business. They interpret reports and information presented in a variety of formats and suggest strategies to the owner to improve the performance of the business. Where appropriate, the accounting procedures developed in each area of study should incorporate the application of the Conceptual Framework and financial indicators to measure business performance, and take into account the range of ethical considerations faced by business owners when making decisions, including financial, social and environmental.

Area of study 1

Recording and analysing financial data

On completion of this unit the student should be able to record financial data using a double entry system; explain the role of the General Journal, General Ledger and inventory cards in the recording process; and describe, discuss and analyse various aspects of the accounting system, including ethical considerations.

Area of study 2

Preparing and interpreting accounting reports

On completion of this unit the student should be able to record transactions and prepare, interpret and analyse accounting reports for a trading business.

Unit 4: Recording, reporting, budgeting and decision-making

In this unit students further develop their understanding of accounting for a trading business owned by a sole proprietor and the role of accounting as an information system. Students use the double entry system of recording financial data, and prepare reports using the accrual basis of accounting and the perpetual method of inventory recording. Both manual methods and ICT are used to record and report. Students extend their understanding of the recording and reporting process with the inclusion of balance day adjustments and alternative depreciation methods. They investigate both the role and importance of budgeting in decision-making for a business. They analyse and interpret accounting reports and graphical representations to evaluate the performance of a business. From this evaluation, students suggest strategies to business owners to improve business performance. Where appropriate, the accounting procedures developed in each area of study should incorporate the application of the Conceptual Framework and financial indicators to measure business performance, and take into account the range of ethical considerations faced by business owners when making decisions, including financial, social and environmental.

Area of study 1: Extension of recording and reporting

On completion of this unit the student should be able to record financial data and balance day adjustments using a double entry system, report accounting information using an accrual-based system and evaluate the effect of balance day adjustments and alternative methods of depreciation on accounting reports.

Area of study 2

Budgeting and decision-making

On completion of this unit the student should be able to prepare budgeted accounting reports and variance reports for a trading business using financial and other relevant information, and model, analyse and discuss the effect of alternative strategies on the performance of a business.

Assessment and reporting

All assessments of Units 1&2 are school-based. Procedures for assessment of levels of achievement in Units 1&2 are a matter for school decision.

The student's level of achievement in Units 3&4 will be determined by School-assessed Coursework and is also assessed by an end-of-year examination.

Percentage contributions to the final assessment are as follows:

- Unit 3 school assessed coursework: 25%
- Unit 4 school assessed coursework: 25%
- Unit 3 and 4 examination: 50%

Applied Computing

Aims:

This study enables students to:

- understand how digital systems and solutions can be used by individuals and organisations
- develop an understanding of the roles and applications of cybersecurity, data analytics and programming
- apply the problem-solving methodology to analyse needs and opportunities, design and develop solutions to problems and evaluate how effectively solutions meet needs and opportunities
- apply project management techniques to assist with the development of digital solutions
- develop an informed perspective on current and emerging digital technologies and disseminate findings
- identify and evaluate innovative and emerging opportunities for digital solutions and technologies
- develop critical and creative thinking, communication and collaboration, and personal, social and ICT skills

Unit 1: Applied computing

In this unit, students are introduced to the stages of the problem-solving methodology. Students focus on how data can be used within software tools such as databases and spreadsheets to create data visualisations, and the use of programming languages to develop working software solutions.

Area of study 1: Data analysis

Students use software tools to create data visualisations in response to teacher-provided requirements and designs. The software tools are used for the collection, interpretation and manipulation of data to draw conclusions and create data visualisations that represent their findings. Students examine the features of different design tools to represent the functionality and appearance of software solutions.

Area of study 2: Programming

Students select and use a programming language to create a working software solution. Students prepare, document and monitor project plans and engage in all stages of the problem-solving methodology. Students apply methods and techniques for creating a working software solution using a range of processing features and data structures. They apply testing and debugging techniques to ensure the software solution works as intended.

Unit 2: Applied computing

In this unit, students focus on developing innovative solutions to needs or opportunities that they have identified and propose strategies for reducing security risks to data and information in a networked environment.

Area of study 1: Innovative solutions

Students work collaboratively to develop an innovative solution to an identified need or opportunity. Students choose one of the following topics to explore in greater detail:

- artificial intelligence, machine learning or neural networks
- assistive and wearable technologies or Internet of Things (IoT)
- creating with digital systems such as drones, microcontrollers, nanosatellites and robotic devices
- games development, multimedia programming or web authoring
- mixed realities such as augmented and virtual reality
- investigation/research project on innovative uses for emerging technologies such as blockchain

Area of study 2: Network security

Students investigate how networks enable data and information to be exchanged locally and globally. Students examine the hardware and software components and procedures required to connect and maintain wired, wireless and mobile communications technology. They apply this knowledge to design a Local Area Network (LAN), describe its components and explain the transmission of data and information in this network.

Students develop an understanding of cybersecurity issues when they investigate the threats, vulnerabilities and risks to data and information stored within and transmitted across networks, and propose strategies for reducing security risks.

Unit 3: Software development

In this unit, students apply the problem-solving methodology to develop working software modules using a programming language. Students develop an understanding of the analysis, design and development stages of the problem-solving methodology.

Area of study 1: Software development - programming

Students interpret teacher-provided solution requirements and designs, and apply a range of functions and techniques using a programming language to develop and test working software modules.

Area of study 2: Software development - analysis and design

Students construct the framework for the development of a software solution that meets a student-identified need or opportunity. This is the first part of the School assessed Task (SAT), involving analysis and design, with the second part undertaken in Unit 4, Area of Study 1.

Unit 4: Software development

In this unit, students focus on how the information needs of individuals and organisations are met through the creation of software solutions. They consider the risks to software and data during the software development process, as well as throughout the use of the software solution by an organisation.

Area of study 1: Software development - development and evaluation

Students develop the design they prepared in Unit 3, Area of Study 2, into a software solution that meets an identified need or opportunity by applying the problem-solving stages of development and evaluation.

Area of study 2: Cybersecurity - software security

Students focus on the security risks to software and data during the software development process and throughout the use of the software solution by an organisation.

Assessment and reporting

Unit 1 and 2 will be assessed by School-Assessed coursework and end-of-semester examinations.

Unit 3 and 4: School - Assessed coursework, school assessed tasks and examination will determine the students level of achievement.

- Unit 3: Outcome 1 SAC: 10%
- Unit 3: Outcome 2 SAT: 15%
- Unit 4: Outcome 1 SAT: 15%
- Unit 4: Outcome 2 SAC: 10%
- Unit 3 and 4 examination: 50%

Art Making and Exhibiting

VCE Art Making and Exhibiting introduces students to the methods used to make artworks and how artworks are presented and exhibited.

Students use inquiry learning to explore, develop and refine the use of materials, techniques and processes and to develop their knowledge and understanding of the ways artworks are made. They learn how art elements and art principles are used to create aesthetic qualities in artworks and how ideas are communicated through the use of visual language. Their knowledge and skills evolve through the experience of making and presenting their own artworks and through the viewing and analysis of artworks by other artists.

Visiting and viewing exhibitions and displays of artwork is a necessary part of this study. It helps students understand how artworks are displayed and exhibitions are curated. It also has an influence on the students' own practice, and encourages them to broaden and develop their own ideas and thinking around their own art making.

A strong focus on the way we respond to artworks in galleries, museums, other exhibition spaces and site-specific spaces is integral to study and research in VCE Art Making and Exhibiting. The way institutions design exhibitions and present artworks, and also how they conserve and promote exhibitions, are key aspects of the study.

This study enables students to:

- explore the characteristics and properties of materials, techniques and processes
- understand the use and application of materials in relation to the historical development of art forms, across different periods of time and cultures
- develop an understanding of aesthetic qualities in artworks and how they are used in art making
- learn how to work independently and collaboratively
- develop an understanding of the sources that inform and influence art making
- investigate the practices of artists from different periods of time and cultures, including Aboriginal and Torres Strait Islander artists, and their use of materials, techniques and processes, and how these contribute to the making of their artworks
- understand how artists use visual language to communicate ideas and meaning in artworks
- understand how exhibitions are planned and produced by galleries, museums, other exhibition spaces and site-specific spaces and how artworks are curated and displayed for audiences
- understand the methods used and considerations involved in the preparation, presentation and conservation of artworks.

Structure

The study is made up of four units.

- Unit 1: Explore, expand and investigate
- Unit 2: Understand, develop and resolve
- Unit 3: Collect, extend and connect
- Unit 4: Consolidate, present and conserve

Unit 1: Explore, expand and investigate

In this unit students explore materials, techniques and processes in a range of art forms. They expand their knowledge and understanding of the characteristics, properties and application of materials used in art making. They explore selected materials to understand how they relate to specific art forms and how they can be used in the making of artworks. Students also explore the historical development of specific art forms and investigate how the characteristics, properties and use of materials and techniques have changed over time. Throughout their investigation students become aware of and understand the safe handling of materials they use.

Students explore the different ways artists use materials, techniques and processes. The students' exploration and experimentation with materials and techniques stimulates ideas, inspires different ways of working and enables a broad understanding of the specific art forms. Their exploration and experimentation is documented in both visual and written form in a Visual Arts journal.

Outcome 1

On completion of this unit the student should be able to explore the characteristics and properties of materials and demonstrate how they can be manipulated to develop subject matter and represent ideas in art making.

Outcome 2

On completion of this unit the student should be able to make and present at least one finished artwork and document their art making in a Visual Arts journal.

Outcome 3

On completion of this unit the student should be able to research Australian artists and present information about them in a format appropriate for a proposed exhibition.

Unit 2: Understand, develop and resolve

In Unit 2 students continue to research how artworks are made by investigating how artists use aesthetic qualities to represent ideas in artworks. They broaden their investigation to understand how artworks are displayed to audiences, and how ideas are represented to communicate meaning.

Students respond to a set theme and progressively develop their own ideas. Students learn how to develop their ideas using materials, techniques and processes, and art elements and art principles. They consolidate these ideas to plan and make finished artworks, reflecting on their knowledge and understanding of the aesthetic qualities of artworks. The planning and development of at least one finished artwork are documented in their Visual Arts journal.

Students investigate how artists use art elements and art principles to develop aesthetic qualities and style in an artwork. Working in their Visual Arts journal they begin to discover and understand how each of the art elements and art principles can be combined to convey different emotions and expression in their own and others' artworks. They also explore how art elements and art principles create visual language in artworks.

Students begin to understand how exhibitions are planned and designed and how spaces are organised for exhibitions. They also investigate the roles associated with the planning of exhibitions and how artworks are selected and displayed in specific spaces. This offers students the opportunity to engage with exhibitions, whether they are in galleries, museums, other exhibition spaces or site-specific spaces.

Outcome 1

On completion of this unit the student should be able to select a range of artworks from an exhibition and other sources to design their own thematic exhibition.

Outcome 2

On completion of this unit the student should be able to explore and progressively document the use of art elements, art principles and aesthetic qualities to make experimental artworks in response to a selected theme.

Outcome 3

On completion of this unit the student should be able to progressively document art making to develop and resolve subject matter and ideas in at least one finished artwork.

Assessment

Units 1&2

Individual school decision on levels of achievement. Assessment may be based around the production and demonstration of knowledge of the following: creation of a thematic exhibition, experimental artworks and documentation, presentation of finished artworks, mid semester exams.

Unit 3: Collect, extend and connect

In this unit students are actively engaged in art making using materials, techniques and processes. They explore contexts, subject matter and ideas to develop artworks in imaginative and creative ways. They also investigate how artists use visual language to represent ideas and meaning in artworks. The materials, techniques and processes of the art form the students work with are fundamental to the artworks they make.

Students use their Visual Arts journal to record their art making. They record their research of artists, artworks and collected ideas and also document the iterative and interrelated aspects of art making to connect the inspirations and influences they have researched. The Visual Arts journal demonstrates the students' exploration of contexts, ideas and subject matter and their understanding of visual language. They also document their exploration of and experimentation with materials, techniques and processes. From the ideas documented in their Visual Arts journal, students plan and develop artworks. These artworks may be made at any stage during this unit, reflecting the students' own ideas and their developing style.

In order to receive constructive feedback on the progress of their art making, and to develop and extend their ideas, students present a critique of their artworks to their peer group. Students show a selection of their developmental work and artworks from their Visual Arts journal in their presentation. After the critique, students evaluate their work and revise, refine and resolve their artworks. Students will visit an exhibition in either a gallery, museum, other exhibition space or site-specific space. Students research the exhibition of artworks in these exhibition spaces and the role a curator has in planning and writing information about an exhibition.

Outcome 1

On completion of this unit the student should be able to collect information from artists and artworks in specific art forms to develop subject matter and ideas in their own art making.

Outcome 2

On completion of this unit the student should be able to make artworks in specific art forms, prepare and present a critique, and reflect on feedback.

Outcome 3

On completion of this unit the student should be able to research and plan an exhibition of the artworks of three artists.

Unit 4: Consolidate, present and conserve

In Unit 4 students make connections to the artworks they have made in Unit 3, consolidating and extending their ideas and art making to further refine and resolve artworks in specific art forms. The progressive resolution of these artworks is documented in the student's Visual Arts journal, demonstrating their developing technical skills in a specific art form as well as their refinement and resolution of subject matter, ideas, visual language, aesthetic qualities and style. Students also reflect on their selected finished artworks and evaluate the materials, techniques and processes used to make them.

Outcome 1

On completion of this unit the student should be able to refine and resolve at least one finished artwork in a specific art form and document the materials, techniques and processes used in art making.

Outcome 2

On completion of this unit the student should be able to plan and display at least one finished artwork in a specific art form, and present a critique.

Outcome 3

On completion of this unit the student should understand the presentation, conservation and care of artworks, including the conservation and care of their own artworks.

Units 3&4

Percentage contributions to the study score in VCE Art Making and Exhibiting are as follows:

- Unit 3&4 School assessed Coursework: 10%
- Unit 3 and 4 School assessed Task: 60%
- End-of-year examination: 30%

Biology

Aims

This study is designed to enable students to:

- Develop knowledge and understanding of key biological models, theories and concepts, from the cell to the whole organism;
- Examine the interconnectedness of organisms, their relationship to their environmental context, and the consequences of biological change over time;
- Understand the nature of science as a human endeavour, including its possibilities, limitations and political and sociocultural influences;
- Develop a range of individual and collaborative science investigation skills through experimental and inquiry tasks in the field and the laboratory;
- Apply their scientific understanding to familiar and unfamiliar situations, including personal, social, environmental and technological contexts;
- Develop attitudes that include curiosity, open-mindedness, creativity, flexibility, integrity, attention to detail and respect for evidence-based conclusions;
- Communicate clearly and accurately an understanding of the discipline using appropriate terminology, conventions and formats.

Units 1&2 should be viewed as prerequisites for students interested in continuing with VCE Biology Units 3&4.

Units 1-4: Key skills

In this study a set of key skills is considered essential to Biology. These skills apply across Units 1 to 4. These skills include the ability to:

- Investigate and inquire scientifically
- Apply biological understandings
- Communicate biological information and understandings

Unit 1: How do organisms regulate their functions?

In this unit students examine the cell as the structural and functional unit of life, from the single celled to the multicellular organism, including the requirements for sustaining cellular processes. Students focus on cell growth, replacement and death and the role of stem cells in differentiation, specialisation and renewal of cells. They explore how systems function through cell specialisation in vascular plants and animals, and consider the role homeostatic mechanisms play in maintaining an animal's internal environment.

Areas of study

How do cells function?

This area of study focuses the structure and functioning of cells and how the plasma membrane contributes to survival by controlling the movement of substances into and out of the cell.

How do plant and animal systems function?

In this area of study students explore how systems function through cell specialisation in vascular plants and in digestive, endocrine and excretory systems in animals, focusing on regulation of water balance in plants, and temperature, blood glucose and water balance in animals

How do scientific investigations develop understanding of how organisms regulate their functions?

In this area of study students design and conduct a practical investigation into the survival of an individual or a species.

Unit 2: How does inheritance impact on diversity?

In this unit students explore reproduction and the transmission of biological information from generation to generation and the impact this has on species diversity. They apply their understanding of chromosomes to explain the process of meiosis. Students consider how the relationship between genes, and the environment and epigenetic factors influence phenotypic expression. They explain the inheritance of characteristics, analyse patterns of inheritance, interpret pedigree charts and predict outcomes of genetic crosses.

Areas of study

How is inheritance explained?

In this area of study students describe the production of gametes in sexual reproduction through the key events in meiosis. They explore the nature of chromosomes and the use of genetic language to read and interpret patterns of inheritance and predict outcomes of genetic crosses.

How do inherited adaptations impact on diversity?

In this area of study students analyse the advantages and disadvantages of asexual and sexual reproduction and investigate the use and application of reproductive cloning technologies. Students explore the biological importance of genetic diversity and the structural, physiological and behavioural adaptations that enable species to survive in an ecosystem.

How do humans use science to explore and communicate contemporary bioethical issues?

In this area of study students explore a contemporary bioethical issue relating to the application of genetic knowledge, reproductive science, inheritance or adaptations and interdependencies beneficial for survival.

Unit 3: How do cells maintain life?

This unit students examine the workings of the cell from several perspectives. They explore the importance of the plasma membrane in the control of the movement of molecules and ions in and out of the cell. Students explore the chemistry of cells by examining the nature of biochemical pathways and energy transformations. Students consider the structure of DNA, the specificity of enzymes, the response of receptors to signaling molecules as well as the immune response.

Areas of study

What is the role of nucleic acids and proteins in maintaining life?

This area of study focuses on the activities of cells at molecular level, the synthesis of biomolecules that form components of cells and the role of enzymes in catalysing biochemical processes.

How are biochemical pathways regulated?

This area of study focuses on how cells receive specific signals that elicit a particular response. Students examine how cells respond depending on whether molecules are 'self' or 'non-self' and the role of signaling molecules in coordination and regulation.

Unit 4: How does life change and respond to challenges?

In this unit students consider the continual change and challenges to which life on Earth has been, and continues to be, subjected to. They study the human immune system and the interactions between its components to provide immunity to a specific pathogen. Students consider how the application of biological knowledge can be used to respond to bioethical issues and challenges related to disease.

Areas of study

How do organisms respond to pathogens?

In this area of study students focus on the immune response of organisms to specific pathogens. Students examine unique molecules called antigens and how they illicit an immune response, the nature of immunity and the role of vaccinations in providing immunity. They explain how technological advances assist in managing immune system disorders and how immunotherapies can be applied to the treatment of other diseases.

How are species related over time?

In this area of study students focus on changes to genetic material over time and the evidence for biological evolution. They consider how the field of evolutionary biology is based upon the accumulation of evidence over time and develop an understanding of how interpretations of evidence can change in the light of new evidence as a result of technological advances, particularly in molecular biology. Students consider the biological consequences of changes in allele frequencies and how isolation and divergence are required elements for speciation. They consider the evidence for determining the relatedness between species and examine the evidence for major trends in hominin evolution, including the migration of modern human populations around the world.

How is scientific inquiry used to investigate cellular processes and/or biological change?

In this area of study students apply and extend the knowledge and skills developed in Unit 3 and/or 4 to design or adapt an investigation related to cellular processes and/or biological change and continuity over time.

Assessment and reporting

Units 1&2 will be assessed internally on course work and end-of-semester exams.

Units 3&4: In Biology, school-assessed course work and an end-of-year examination will determine the student's level of achievement. Percentage contributions to the final assessment are as follows:

Unit 3 school assessed course work: 20%

Unit 4 school-assessed course work: 30%

Units 3&4 examination: 50%

Business Management

Aims

This study enables students to:

- understand and apply business concepts, principles and terminology
- understand the complex and changing environments within which businesses operate
- understand the relationships that exist between a business and its stakeholders
- recognise the contribution and significance of business within local, national and global markets
- analyse and evaluate the effectiveness of management strategies in different contexts
- propose strategies to solve business problems and take advantage of business opportunities.

Unit 1

Areas of study

Area of study 1: The business idea

In this area of study students investigate how business ideas are created and how conditions can be fostered for new business ideas to emerge. Students explore some of the issues that need to be considered before a business can be established.

Area of Study 2: Internal environment and planning

The internal environment affects the approach to and success of business planning. The owner will generally have more control over the activities, functions and pressures that occur within a business. Students explore the factors within the internal environment and consider how planning decisions may have an effect on the ultimate success of a business.

Area of study 3: External environment

The external environment consists of all elements outside a business that may act as pressures or forces on the operations of a business. Students consider factors from the external environment and the effects these may have on the decisions made when planning a business.

Unit 2: Establishing a business

Areas of study

Area of study 1: Legal requirements and financial considerations

It is essential to deal with legal and financial matters when establishing a business. In this area of study students are introduced to the legal requirements and financial considerations that are vital to establishing a business.

Area of study 2: Marketing a business

Establishing a strong customer base for a business is an important component of success. They also consider effective public relations strategies and the benefits and costs these can bring to a business.

Area of study 3: Staffing a business

Staff are one of the business's greatest assets and are an important consideration when establishing a business. They research the processes undertaken by the business with relation to the recruitment, selection and induction of staff. Students consider the opportunities that the skills and capabilities of staff can contribute to the business, the legal obligations that must be addressed and the relationship between employers and employees within a business

Unit 3: Human Resources Management

Areas of study

Area of study 1: Business foundations

This area of study introduces students to the key characteristics of businesses and their stakeholders. They examine a range of management styles and management skills that may be used when managing a business and apply these to contemporary business case studies.

Area of study 2: Human Resources Management

In this area of study students investigate essential factors such as motivation and training involved in effectively managing employees during their time at a business to ensure the business objectives are achieved. Students gain an overview of workplace relations, including the main participants and their roles in the dispute resolution process.

Area of study 3: Operations management

The production of goods and services is the core objective of businesses. Effective management of the process of transforming inputs into outputs is vital to the success of a business. In this area of study students examine operations management and consider the best and most responsible use of available resources for the production of a quality final good or service in a competitive, global environment.

Unit 4: Transforming a business

Areas of study

Area of Study 1: Reviewing performance – the need for change

In this area of study students develop their understanding of the need for change. Students investigate the ways a business can search for new business opportunities as a source of future business growth and consider current forces for change on a business.

Area of study 2: Implementing change

In this area of study students explore how businesses respond to evaluation data. It is important for managers to know where they want a business to be positioned for the future before implementing a variety of strategies to bring about the desired change.

Assessment and Reporting

Units 1&2 will be assessed internally on course work and end of semester exams.

Units 3&4 both school based assessed work and the end of year examination will determine the student's level of achievement.

Percentage contributions to the final assessment are as follows:

- Unit 3 school assessed course work: 25%
- Unit 4 school assessed course work: 25%
- Unit 3&4 examination: 50%

Chemistry

Aims

This study is designed to enable students to:

- Develop their understanding of the language, processes and major ideas of chemistry
- Understand the role of experimental evidence in developing and generating new ideas and knowledge in chemistry
- Understand the ways chemical knowledge is organised, challenged, revised and extended
- Assess the quality of assumptions and the limitations of models, data and conclusions
- Develop skills in the design and safe conduct of practical investigations including risk assessment hazard identification and waste management
- Develop the skills and knowledge required to complete experimental processes and procedures and undertake research investigations
- Conduct practical investigations to collect, interpret, and analyse data and evidence, and present conclusions
- Develop skills in the effective communication of chemical ideas to a range of audiences
- Be aware of the ethics of scientific research that apply to investigations in chemistry
- Understand how chemistry relates to other areas of science and technology
- Be aware of the social, economic and environmental impacts of current and emerging areas of chemistry and associated technologies.

Both Units 1&2 should be viewed as prerequisites for students interested in continuing with VCE Chemistry Units 3&4.

Unit 1: How can the diversity of materials be explained?

In this unit students investigate the chemical properties of a range of materials from metals and salts to polymers and nanomaterials. Using their knowledge of elements and atomic structure students explore and explain the relationships between properties, structure and bonding forces within and between particles. Students are introduced to quantitative concepts in chemistry including the mole concept. They apply their knowledge to determine the relative masses of elements and the composition of substances.

Areas of study

How do the chemical structures of materials explain their properties and reactions?

In this area of study students focus on elements as the building blocks of useful materials. They investigate the structures, properties and reactions of carbon compounds, metals and ionic compounds, and use chromatography to separate the components of mixtures. They use metal recycling as a context to explore the transition in manufacturing processes from a linear economy to a circular economy.

How are materials quantified and classified?

In this area of study students focus on the measurement of quantities in chemistry and the structures and properties of organic compounds, including polymers.

In this area of study students undertake an investigation involving the selection and evaluation of a recent discovery, innovation, advance, case study, issue or challenge linked to the knowledge and skills developed in Unit 1 Area of Study 1 and/or Area of Study 2, including consideration of sustainability concepts (green chemistry principles, sustainable development and the transition towards a circular economy). Examples of investigation topics and possible research questions are provided below.

Unit 2: How do chemical reactions shape the natural world?

Society is dependent on the work of chemists to analyse the materials and products in everyday use. In this unit students analyse and compare different substances dissolved in water and the gases that may be produced in chemical reactions. They explore applications of acid-base and redox reactions in society.

Areas of study

How do chemicals interact with water?

In this area of study students focus on understanding the properties of water and investigating acid-base and redox reactions. They explore water's properties, including its density, specific heat capacity and latent heat of vaporisation. They write equations for acid-base and redox reactions, and apply concepts including pH as a measure of acidity. They explore applications of acid-base reactions and redox reactions in society.

How are substances in water measured and analysed

In this area of study students focus on the analysis and quantification of chemical reactions involving acids, bases, salts and gases. They measure the solubility of substances in water, explore the relationship between solubility and temperature using solubility curves, and learn to predict when a solute will dissolve or crystallise out of solution. They quantify amounts in chemistry using volumetric analysis, application of the ideal gas equation, stoichiometry and calibration curves.

How do quantitative scientific investigations develop our understanding of chemical reactions?

This investigation relates to knowledge and skills developed in Area of Study 1 and/or Area of Study 2 and is conducted by the student through laboratory work and/or fieldwork.

Unit 3: How can design and innovation help to optimise chemical processes?

The global demand for energy and materials is increasing with world population growth. In this unit students investigate the chemical production of energy and materials. They explore how innovation, design and sustainability principles and concepts can be applied to produce energy and materials while minimising possible harmful effects of production on human health and the environment.

Areas of study

What are the current and future options for supplying energy?

In this area of study students focus on analysing and comparing a range of fossil fuels and biofuels as energy sources for society, and carbohydrates, proteins and lipids as fuel sources for the body. They write balanced thermochemical equations for the combustion of various fuels. The amounts of energy and gases produced in combustion reactions are quantified using stoichiometry. They explore how energy can be sustainably produced from chemicals to meet the needs of society while minimising negative impacts on the environment.

How can the rate and yield of chemical reactions be optimised?

In this area of study, students explore the factors that affect the rate and yield of equilibrium and electrolytic reactions involved in producing important materials for society. Reactants and products in chemical reactions are treated qualitatively through the application of Le Chatelier's principle and quantified using equilibrium expressions, reaction quotients and Faraday's Laws. Students explore the sustainability of different options for producing useful materials for society.

Unit 4: How are carbon-based compounds designed for purpose?

Carbon is the basis not only of the structure of living tissues but is also found in fuels, foods, medicines, polymers and many other materials that we use in everyday life. In this unit students investigate the structures and reactions of carbon-based organic compounds, including considering how green chemistry principles are applied in the production of synthetic organic compounds. They study the metabolism of food and the action of medicines in the body. They explore how laboratory analysis and various instrumentation techniques can be applied to analyse organic compounds in order to identify them and to ensure product purity.

Areas of study

How are organic compounds categorised and synthesised?

In this area of study students focus on the structure, naming, properties and reactions of organic compounds, including the chemical reactions associated with the metabolism of food. They explore how synthetic organic compounds can be produced more sustainably for use in society.

How are organic compounds analysed and used?

In this area of study students focus on laboratory and instrumental analyses of organic compounds, and the function of some organic compounds as medicines. They use distillation to separate mixtures, use volumetric analysis to calculate redox quantities, and explore how instrumental analysis is used to ensure the quality of consumer products. Students explain how some medicines that bind to the active sites of enzymes function by inhibiting the enzymes' mode of action.

How is scientific inquiry used to investigate the sustainable production of energy and/or materials?

Students undertake a student-designed scientific investigation in either Unit 3 or Unit 4, or across both Units 3&4. The investigation involves the generation of primary data related to the production of energy and/or chemicals and/or the analysis or synthesis of organic compounds, and should be inspired by a contemporary chemical challenge or issue. The investigation draws on knowledge and related key science skills developed across Units 3&4 and is undertaken by students in the laboratory and/or in the field.

Assessment and reporting

Units 1&2 will be assessed internally on course work and end-of-semester exams.

Units 3&4:

Unit 3 school assessed course work: 20%

Unit 4 school assessed course work: 30%

Units 3&4 examination: 50%

English

Aims

This study is designed to enable students to:

- Extend their English language skills through thinking, listening, speaking, reading, viewing and writing
- Enhance their understanding, enjoyment and appreciation of the English language in its written, spoken and multimodal forms
- Analyse and discuss a range of texts from different periods, styles, genres and contexts
- Understand how culture, values and context underpin the construction of texts and how this can affect meaning and interpretation
- Understand how ideas are presented by analysing form, purpose, context, structure and language
- Analyse their own and others' texts, and make relevant connections to themselves, their community and the world
- Convey ideas, feelings, observations and information effectively in written, spoken and multimodal forms to a range of audiences
- Recognise the role of language in thinking and expression of ideas
- Demonstrate in the creation of their own written, spoken and multimodal texts an ability to make informed choices about the construction of texts in relation to purpose, audience and context
- Think critically about the ideas and arguments of others and the use of language to persuade and influence audiences
- Extend their use of the conventions of Standard Australian English with assurance, precision, vitality and confidence in a variety of contexts, including for further study, the work place and their own needs and interests
- Extend their competence in planning, creating, reviewing and editing their texts for precision and clarity, tone and stylistic effect

Year 11 (Unit 1 and 2) is organised into two areas of study:

Unit 1

Area of study 1

Reading and responding

In this area of study, students develop their reading and viewing skills and expand their response to text beyond the Victorian Curriculum F-10: English and Pathway C3 of the Victorian Curriculum F-10: EAL. They explain and explore the ideas and issues presented by authors through character, setting and plot, and engage with textual structures and features.

Students' exploration of text involves understanding and appreciating the possibilities of storytelling, and examining the role of language, features and structures in creating story and meaning. Students adopt and apply language to explain key aspects of the text. They participate in discussions about the texts and engage with the ideas of others to extend their own response to the text. They draw on personal experience and understanding in developing responses, and work to shape those responses into formal essay structures.

For this outcome, students will read and explore one set text, or extracts from the set text. This text must be of a different text type from that selected for study in Unit 2. The text selected should reflect the interests of the students and be worthy of close study.

Students should be encouraged to share their experience and understanding of the world and make connections with key ideas presented in the text. They explore the cultural, social and historical values embedded in the text.

Students are provided with opportunities to practise and extend their written response to text. They are given time and support to extend their responses through reflection, editing and feedback.

Area of study 2

Crafting texts

In this area of study, students build on and work to consolidate the writing skills developed through the Victorian Curriculum F-10: English and Pathway C3 of the Victorian Curriculum F-10: EAL. Using texts, including extracts, to stimulate, instruct and inform their understanding of structure, language, ideas and features, students produce writing with an awareness of audience, purpose and context.

Students participate in collaborative classwork about writing and explore the ways language, textual structures and features can engage, enlighten, entertain and persuade readers and audiences. Students explore examples of text as stimulus, for structure(s) and ideas, to develop individual written work. They demonstrate, through written, oral and/or multimodal works, an understanding of the diverse ways language choice is influenced by audience, purpose and context.

Students are given explicit opportunities to explore and expand their understanding and application of language, including vocabulary, syntax and spelling. Students explore the implications of formal and informal registers in their own work, including in light of audience, purpose and context.

Unit 2

Area of study 1

Reading responding

This area of study will expand students' reading and viewing skills, broaden their capacity to make meaning from text, and extend their responses to text. Students will continue to develop their work from Unit 1 through an exploration of a different text type from that studied in Unit 1.

Students read or view and discuss texts, and participate in teaching and learning activities to develop their capacity to explore and to begin to analyse text. They examine the ways readers understand text considering its historical context, and social and cultural values, and are provided with opportunities to understand these concepts. They also explore the text through the prism of their own cultural knowledge and experiences.

Students prepare and construct responses to a text, using appropriate language to facilitate their discussion, and evidence from the text to support their response.

For this outcome, students will read and explore one set text, or extensive extracts from a set text. The set text for this area of study must be of a different text type from that studied in Unit 1. Students' understandings and experiences of the world, as well as supplementary texts, can enrich discussions about key ideas presented in the text. For this reason, the text selected should reflect the interest of the students and be worthy of close study.

Area of study 2

Exploring argument

This area of study should enable students to consider arguments in texts in an informed manner. Students read, view and listen to a range of texts that attempt to position an intended audience in a particular context, and explore the structure of these texts, including contention, sequence of arguments and persuasive strategies. They look closely at the language used by the author in the quest to convince their audience.

Suitable texts for study should reflect a variety of persuasive texts. Appropriate texts could be drawn from print, digital, aural, visual and multimodal sources. These may include speeches, digitally presented texts, opinion and comment pieces, and other texts designed to position audiences about issues. In selecting these texts, consideration should be given to the texts that young people read and view. Consideration and time should be given to the explicit teaching of contextual information and cultural knowledge required to support an understanding of the set texts.

Students practise analysing persuasive texts using note taking, summaries, and short answer questions, and formal, analytical responses. If working with aural or multimodal texts, they should explore elements of spoken language including intonation, volume and stress. Students craft their responses using evidence from the text to support their analysis. They draft and revise their responses and invite feedback from the teacher and other students to refine their ideas and expression. They aim for coherence, logic and accuracy in their writing.

Unit 3&4 is organised into two areas of study:

Unit 3

Area of study 1

Reading and responding to texts

In this area of study, students apply reading and viewing strategies to critically engage with a text, considering its dynamics and complexities and reflecting on the motivations of its characters. They analyse the ways authors construct meaning through vocabulary, text structures, language features and conventions, and the presentation of ideas. They are provided with opportunities to understand and explore the historical context, and the social and cultural values of a text, and recognise how these elements influence the way a text is read or viewed, is understood by different audiences, and positions its readers in different ways.

Sustained analytical writing about a text provides students with opportunities to further develop skills to engage with and challenge ideas, to refine their application of appropriate metalanguage, to integrate evidence from a text to support key points, and to improve their use of organisational structures such as formal essays. Through participation in discussion, students test their thinking, clarify ideas and form views about a text that can be further developed in their writing.

All students are provided with opportunities to practise and extend their writing about texts, and EAL students are provided with a contextual framing of the text through a listening task that explores historical, cultural and/or social values relevant to the text (such as an interview, episode of a podcast, lecture or presentation). Prior to summative assessment, they are given time and support to extend their writing through reflection, editing and feedback.

Area of study 2

Creating texts

In this area of study, students build on the knowledge and skills developed through Unit 1. They read and engage imaginatively and critically with mentor texts, and effective and cohesive writing within identified contexts. Through close reading, students expand their understanding of the diverse ways that vocabulary, text structures, language features, conventions and ideas can interweave to create compelling texts. They further consider mentor texts through their understanding of the ways that purpose, context (including mode), and specific and situated audiences influence and shape writing.

Students work with mentor texts to inspire their own creative processes, to generate ideas for their writing, and as models for effective writing. They experiment with adaptation and individual creation, and demonstrate insight into ideas and effective writing strategies in their texts. They reflect on the deliberate choices they have made through their writing processes in their commentaries.

Students participate in collaborative class work and discuss the ways that vocabulary, text structures and language features can enliven ideas. They read, explore and revisit examples of text, including extracts, to stimulate structural innovation and to inspire ideas when developing individual writing. They also make connections with experiences and events in their own lives, observing and recording to enrich their writing, and to extend their ideas.

Students use and experiment with vocabulary, text structures, language features, and standard and non-standard conventions of language, including the use of colloquial and idiomatic language such as slang or dialect where appropriate. Through this engagement they deepen their understanding of how writing can move, provoke and/or inspire when constructed in consideration of a specific and situated audience, purpose and context (including mode). They play with language as they explore ideas and aim for aesthetic appeal, to expand their writing into the possibilities of emotion, imagination, explanation and perspective.

Unit 4

Area of study 1

Reading and responding to texts

In this area of study, students further sharpen their skills of reading and viewing texts, developed in the corresponding area of study in Unit 3. Students consolidate their capacity to critically analyse texts and deepen their understanding of the ideas and values a text can convey.

Students apply reading and viewing strategies to engage with a text, and discuss and analyse the ways authors construct meaning in a text through the presentation of ideas, concerns and conflicts, and the use of vocabulary, text structures and language features. They engage with the dynamics of a text and explore the explicit and implicit ideas and values presented in a text. They recognise and explain the ways the historical context, and social and cultural values can affect a reader, and analyse how these social and cultural values are presented. They establish how these values can influence the way a text is read or viewed, can be understood by different audiences, and can position readers in different ways.

Sustained analytical writing about a text provides students with opportunities to refine skills to engage with and challenge ideas, to confidently apply appropriate metalanguage, to deftly integrate evidence from a text to support key points, and to enhance their use of organisational structures such as formal essays. Through participation in discussion, students test their thinking, clarify ideas and form views about a text that are clearly developed in their writing.

Students are provided with opportunities to practise and extend their writing about texts. Prior to summative assessment, they are given time and support to extend their writing through reflection, editing and feedback.

Area of study 2

Analysing argument

In this area of study, students analyse the use of argument and language, and visuals in texts that debate a contemporary and significant national or international issue. Students consider the purpose, audience and context of each text, the arguments, and the ways written and spoken language, and visuals are employed for effect. They analyse the ways all these elements work together to influence and/or convince an intended audience. Consideration and time should be given to explicit teaching of the contextual and cultural background of the selected issue and the texts explored.

Students must explore and analyse the structures and features of argument presented in audio and/or audio visual texts, and consider the unique structures and features that enhance argument in these contexts. They plan and develop written analyses in response to their explorations. Students practise the skills of revision and editing for clarity and coherence.

Students apply their understanding of the use of argument and language to create a point of view text for oral presentation. Through active listening, reading and viewing, students monitor and evaluate arguments on a topic of their choice, and then plan and develop their own point of view text on that topic. They present their points of view as a discussion, dialogue or debate, or in a presentation mode that best suits their context, purpose and audience.

Assessment and reporting

Units 1&2 will be assessed internally on course work and end-of-semester exams. Units 3&4:

- Unit 3 school assessed course work: 25%
- Unit 4 school assessed course work: 25%
- Examination: 50%

French

Aims

The VCE French course is designed to enable students to use the language to understand and appreciate the cultural context in which French is used; to communicate with others; to understand their own culture through the study of other cultures; to make connection between French and English and/or other languages and to apply French to work, further study, training or pleasure.

Areas of study (Units 1 – 4)

The Areas of Study for French comprise different themes and topics, grammar, text types, vocabulary and kinds of writing. They are common to all four units of the study, and they are designed to be drawn upon in an integrated way, as appropriate to the linguistic needs of the student, and the outcomes for the unit.

The themes and topics are the vehicle through which the student will demonstrate achievement of the outcomes, in the sense that they form the subject of the activities and tasks the student undertakes.

The grammar, vocabulary, text types and kinds of writing are linked, both to each other, and to the themes and topics. Together, as common Areas of Study, they add a further layer of definition to the knowledge and skills required for successful achievement of the outcomes.

The common Areas of Study have been selected to provide the opportunity for the student to build upon what is familiar, as well as develop knowledge and skills in new and more challenging areas.

Themes

The three prescribed themes are:

1. The Individual
2. The French Speaking Communities
3. The Changing World

Students are expected to be familiar with and be able to produce the following five kinds of writing: personal, informative, persuasive, evaluative and imaginative.

Assessment and reporting

Units 1&2 will be assessed internally on course work and end-of-semester exams

Units 3&4: In French the student's level of achievement will be determined by school assessed course work and two end-of-year examinations. Percentage contributions to the final assessment are as follows:

- Unit 3 school assessed course work: 25%
- Unit 4 school assessed course work: 25%
- Units 3&4 examinations (oral & written): 50%

Geography

Aims

This study enables students to:

- develop a sense of wonder and curiosity about people, culture and environments throughout the world
- develop knowledge and understanding of geographic phenomena at a range of temporal and spatial scales
- understand and apply geographic concepts to develop their ability to think and communicate geographically, including change, distance, distribution, environment, interconnection, movement, place, process, region, scale, spatial association and sustainability
- develop an understanding of the complexity of natural and human induced geographic phenomena across the Earth's surface
- develop a range of skills, including the use of geospatial technologies, to assist in analysing information and making informed judgments and decisions about geographic challenges
- understand the importance of VCE Geography in analysing issues and challenges to human welfare and the environment, at a range of scales
- develop an understanding of the role and application of VCE Geography in the planning and management of human welfare and the environment

Unit 1: Hazards and disasters

This unit investigates how people have responded to specific types of hazards and disasters. Hazards represent the potential to cause harm to people and or the environment, whereas disasters are defined as serious disruptions of the functionality of a community at any scale, involving human, material, economic or environmental losses and impacts. Hazards include a wide range of situations including those within local areas, such as fast-moving traffic or the likelihood of coastal erosion, to regional and global hazards such as drought and infectious disease.

Unit 2: Tourism: issues and challenges

In this unit students investigate the characteristics of tourism: where it has developed, its various forms, how it has changed and continues to change and its impact on people, places and environments, issues and challenges of ethical tourism. Students select contrasting examples of tourism from within Australia and elsewhere in the world to support their investigations. Tourism involves the movement of people travelling away from and staying outside of their usual environment for more than 24 hours but not more than one consecutive year (United Nations World Tourism Organization definition). The scale of tourist movements since the 1950s and its predicted growth has had and continues to have a significant impact on local, regional and national environments, economies and cultures. The travel and tourism industry is directly responsible for a significant number of jobs globally and generates a considerable portion of global GDP.

Unit 3: Changing the land

This unit focuses on two investigations of geographical change: change to land cover and change to land use. Land cover includes biomes such as forest, grassland, tundra, bare lands and wetlands, as well as land covered by ice and water. Natural land cover is altered by many processes such as geomorphological events, plant succession and climate change. People have modified land cover to produce a range of land uses to satisfy needs such as housing, resource provision, communication and recreation. Students will investigate two major processes that are changing land cover in many regions of the world: melting glaciers and ice sheets, and deforestation. They select one location for each of the processes to develop a greater understanding of the changes to land cover produced by these processes, the impacts of these changes and responses to these changes at different scales.

Unit 4: Human population: trends and issues

The growth of the world's population from 2.5 billion in 1950 to over 7 billion since 2010 has been on a scale without parallel in human history. Much of the current growth is occurring within developing countries while the populations in many developed countries are either growing slowly or are declining. Population movements such as voluntary and forced movements over long or short terms add further complexity to population structures and to environmental, economic, social, and cultural conditions. Many factors influence population change, including the impact of government policies, economic conditions, wars and revolution, political boundary changes and hazard events. Students investigate the geography of human populations. They explore the patterns of population change, movement and distribution, and how governments, organisations and individuals have responded to those changes in different parts of the world. Students study population dynamics before undertaking an investigation into two significant population trends arising in different parts of the world. Possible case studies include Japan, Malawi, China and Finland. They examine the dynamics of populations and their environmental, economic, social, and cultural impacts on people and places.

Assessment

For each unit students are required to demonstrate two outcomes. As a set these outcomes encompass the areas of study in the unit.

The core assessment task for each unit is a fieldwork report of approximately 1500–2000 words. Additionally, at least one task for the assessment of each of Outcomes 1 and 2 is to be selected from the following:

- structured questions
- a case study
- a research report
- analysis of geographic data
- a multimedia presentation.

Unit 3 also incorporates a fieldwork report of approximately 1500–2000 words following a class field trip. The level of achievement for Units 3&4 is also assessed by an end-of-year examination.

General Mathematics

Units 1&2

General Mathematics is for students who wish to continue to study Mathematics. It can be used to satisfy the prerequisite conditions for some tertiary studies which require "VCE Mathematics" but not "VCE Mathematical Methods". It leads to General Mathematics 3 & 4 in Year 12.

Data analysis, probability and statistics

In this area of study students cover types of data, display and description of the distribution of data, summary statistics for centre and spread, and the comparison of sets of data.

In this area of study students cover association between two numerical variables, scatterplots, and lines of good fit by eye and their interpretation.

Algebra, number and structure

In this area of study students cover the concept of a sequence and its representation by rule, table and graph, arithmetic or geometric sequences as examples of sequences generated by first-order linear recurrence relations, and simple financial and other applications of these sequences.

Functions, relations and graphs

In this area of study students cover linear function and relations, their graphs, modelling with linear functions, solving linear equations and simultaneous linear equations, line segment and step graphs and their applications.

In this area of study students cover direct and inverse variation, transformations to linearity and modelling of some non-linear data.

Discrete mathematics

In this area of study students cover the concept of matrices and matrix operations to model and solve a range of practical problems, including population growth and decay.

In this area of study students cover the use of graphs and networks to model and solve a range of practical problems, including connectedness, shortest path and minimum spanning trees.

Sequences, Recurrence relations and Financial Mathematics

This topic includes arithmetic and geometric sequences; first-order recurrence relations and their application to financial mathematical calculations for percentage changes, inflation, financial comparisons and purchase options.

Mathematical Investigation

This comprises one to two weeks of investigation into one or two practical or theoretical contexts or scenarios.

Units 3&4

This course is designed for those students who wish to complete a Units 3&4 Mathematics subject, but do not necessarily need Mathematical Methods as a prerequisite for their tertiary study.

General Mathematics Units 3&4 focus on real-life application of mathematics and consist of the areas of study 'Data analysis, probability and statistics' and 'Discrete mathematics'.

Unit 3 comprises Data analysis, probability and statistics and Discrete mathematics and Unit 4 comprises Functions, relations and graphs and Space and measurement.

Assumed knowledge and skills for General Mathematics Units 3&4 are contained in General Mathematics Units 1&2, and will be drawn on, as applicable, in the development of related content from the areas of study, and key knowledge and key skills for the outcomes of General Mathematics Units 3&4.

End of year examinations

Examination 1

Multiple choice questions covering all areas of study.

Examination 2

Written response questions covering all areas of study.

Health and Human Development

Aims

This study is designed to enable students to:

- understand the complex nature of health and wellbeing, and human development
- develop a broad view of health and wellbeing, incorporating physical, social, emotional, mental and spiritual dimensions, and biological, sociocultural and environmental factors
- examine how health and wellbeing may be influenced across the lifespan by the conditions into which people are born, grow, live, work and age
- develop health literacy to evaluate health information and take appropriate and positive action to support health and wellbeing and manage risks
- develop understanding of the Australian healthcare system and the political and social values that underpin it
- apply social justice principles to identify health and wellbeing inequities and analyse health and wellbeing interventions
- apply the objectives of the United Nations' Sustainable Development Goals (SDGs) to evaluate the effectiveness of health and wellbeing initiatives and programs
- propose and implement action to positively influence health and wellbeing, and human development, outcomes at individual, local, national and/or global levels.

Structure

The study is made up of four units:

- Unit 1: Understanding health and wellbeing
- Unit 2: Managing health and development
- Unit 3: Australia's health in a globalised world
- Unit 4: Health and human development in a global context

Unit 1: The health and development of Australia's youth

Outcome 1

On completion of this unit the student should be able to explain multiple dimensions of health and wellbeing, explain indicators used to measure health status and analyse factors that contribute to variations in health status of youth.

Outcome 2

On completion of this unit the student should be able to apply nutrition knowledge and tools to the selection of food and the evaluation of nutrition information.

Outcome 3

On completion of this unit the student should be able to interpret data to identify key areas for improving youth health and wellbeing, and plan for action by analysing one particular area in detail.

Unit 2: Managing health and development

Outcome 1

On completion of this unit the student should be able to explain developmental changes in the transition from youth to adulthood, analyse factors that contribute to healthy development during prenatal and early childhood stages of the lifespan and explain health and wellbeing as an intergenerational concept.

Outcome 2

On completion of this unit the student should be able to describe how to access Australia's health system, explain how it promotes health and wellbeing in their local community, and analyse a range of issues associated with the use of new and emerging health procedures and technologies.

Unit 3: Australia's health in a globalised world

Outcome 1

On completion of this unit the student should be able to explain the complex, dynamic and global nature of health and wellbeing, interpret and apply Australia's health status data and analyse variations in health status.

Outcome 2

On completion of this unit the student should be able to explain changes to public health approaches, analyse improvements in population health over time and evaluate health promotion strategies

Unit 4: Health and human development in a global context

Outcome 1

On completion of this unit the student should be able to analyse similarities and differences in health status and burden of disease globally and the factors that contribute to differences in health and wellbeing.

Outcome 2

On completion of this unit the student should be able to analyse relationships between the SDGs and their role in the promotion of health and human development, and evaluate the effectiveness of global aid programs.

Assessment

Satisfactory completion

Demonstrated achievement of the set of outcomes specified for the unit.

Levels of achievement

Units 1&2

The individual school will determine the level of achievement.

Units 3&4

School assessed Coursework and examination:

- Unit 3 School assessed Coursework: 25%
- Unit 4 School assessed Coursework: 25%
- Examination: 50%

Hebrew (VCE)

Objectives

The VCE Hebrew course is designed to enable students to use the language to understand and appreciate the cultural context in which Hebrew is used; to communicate with others; to understand their own culture through the study of other cultures; to make connection between Hebrew and English and/or other languages and to apply Hebrew to work, further study, training or pleasure.

Areas of study (Units 1 – 4)

The Areas of Study for Hebrew comprise of different themes and topics, grammatical knowledge, various text types, vocabulary and different kinds of writing. They are common to all four units of the study, and they are designed to be drawn upon in an integrated way, as appropriate to the linguistic needs of the student, and the outcomes of the unit.

The themes and topics are the vehicle through which the student will demonstrate achievement of the outcomes, in the sense that they form the subject of the activities and tasks the student undertakes. The grammar, vocabulary, text types and kinds of writing are linked, both to each other, and to the themes and topics.

The common Areas of Study have been selected to provide the opportunity for the student to build upon what is familiar, as well as develop knowledge and skills in new and more challenging areas.

Themes

There are three prescribed themes:

1. The individual
2. The Hebrew-speaking communities
3. The changing world

Students are expected to be familiar with and be able to produce the following kinds of writing: informative, imaginative, persuasive, personal, evaluative, reflective, narrative or descriptive either individually or in combination.

Assessment and reporting

Units 1&2

Students will be assessed internally on course work and end-of-semester exams.

Units 3&4

Student's level of achievement will be determined by school-assessed course work and two end-of-year examinations. Percentage contributions to the final assessment are as follows:

- Unit 3 school assessed course work: 25%
- Unit 4 school assessed course work: 25%
- Units 3&4 examinations (oral & written): 50%

Areas of Study

This subject focuses on advanced modern literary texts, including study of contemporary Hebrew writers in prose and poetry, modern conversational idiom and newspaper and academic articles. At the completion of this subject students should have read, and possess an understanding of, selected advanced scientific and academic articles and essays.

Prerequisites

Completion of Hebrew 3/4 in Year 11 or equivalent. Applicants who have not completed Hebrew 3/4 will be required to attend an interview and/or sit a test to determine whether their proficiency is equivalent to 3/4 level. A high level of achievement in all Year 11 subjects is required.

Assessment

- Written essays, totalling 2000 words (to be completed throughout semester) - 40%
- A ten-minute oral exam 10% (due in examination period)
- A 2-hour written examination 50% (during the examination period)
- A minimum of 75% of class attendance is required
- Assessment submitted late without an approved extension will be penalised

Hebrew (VET) – Certificate II & III in Applied Languages

Objectives

The VET Hebrew course is designed for the acquisition of the four major language skills: Speaking, Listening, Writing and Reading. This course is designed to provide students with language skills and cultural knowledge to enable them to communicate in social and workplace situations in Hebrew both in Australia and overseas. The course consists of four compulsory units that aim to provide learning opportunities to students with genuine interest in the vocation to develop skills that will equip them for the workplace in an adult learning environment. Students learn to communicate in the target language for the above purposes and in many contexts, using a wide range of competencies in conversational activities, writing, and role playing. They are encouraged to use relevant ICT tools and to reflect on their thinking process and personal learning of the Hebrew language.

Content

The content in VET Hebrew is drawn from two themes: communication for social purposes; communication for workforce purposes. Each unit is based around a list of new words, which are the key building blocks of the study. Different text types are studied including: conversations and role plays from the daily life, workplace oral communication, and variety of informative texts related to social and workplace situations, general world knowledge, Israeli phrases and songs.

This vast variety of texts, both oral and written, is designed to challenge and advance students' language abilities. Texts vary in length, structure and new vocabulary, the organisation and familiarity of content.

Units of Competency

UOC – Certificate II (unit 1-2)* The qualification code is 10949NAT

UOC – Certificate III (unit 3-4)** The qualification code is 11074NAT

These qualifications are delivered in partnership with Ripponlea Institute (21230)

ATAR

This subject does not have a study score, but can contribute towards the ATAR as block credit. For clarification, speak to VCE Co-ordinator or Careers Counsellor. A minimum of 75% of class attendance is required.

*Each UOC is a prerequisite for the following unit.

**Certificate III can only be studied on the completion of Certificate II.

On successful completion of Certificate III in Applied Languages (Hebrew), a certificate is received.

History

Units 1&2 (Modern History)

Aims

This study enables students to:

- develop an understanding of the nature of history as a discipline and to engage in historical inquiry
- ask questions about the past, analyse primary and secondary sources, and construct historical arguments based on evidence
- use historical thinking concepts such as significance, evidence, continuity and change, and causation
- explore a range of people, places, ideas and periods to develop a broad understanding of the past
- engage with debates between historians in an informed, critical and effective manner
- recognise that the way in which we understand the past informs decision-making in the present
- appreciate that the world in which we live has not always been as it is now, and that it will continue to change in the future

Unit 1: Change and Conflict

In this unit students investigate the nature of social, political, economic and cultural change in the later part of the 19th century and the first half of the 20th century. Modern History provides students with an opportunity to explore the significant events, ideas, individuals and movements that shaped the social, political, economic and technological conditions and developments that have defined the modern world.

Area of study 1: Ideology and conflict

In this area of study students focus on the events, ideologies, individuals and movements of the period that led to the end of empires and the emergence of new nation states before and after World War One; the consequences of World War One; the emergence of conflict; and the causes of World War Two. They investigate the impact of the treaties which ended the Great War and which redrew the maps of Europe and its colonies, breaking up the former empires of the defeated nations, such as the partitioning of the German, Austro-Hungarian and Ottoman Empires. They consider the aims, achievements and limitations of the League of Nations.

Area of study 2: Social and cultural change

In this area of study students focus on the social life and cultural expression in the 1920s and 1930s and their relation to the technological, political and economic changes of the period. Students explore particular forms of cultural expression from the period in one or more of the following contexts: Italy, Germany, Japan, USSR and/ or USA.

Unit 2: Causes, course and consequences of the Cold War

In Unit 2 students explore the nature and impact of the Cold War and challenges and changes to existing political, economic and social arrangements in the second half of the twentieth century.

Area of study 1: Causes, course and consequences of the Cold War

In this area of study students focus on causes and consequences of the Cold War; the competing ideologies that underpinned events, the effects on people, groups and nations, and the reasons for the end of this sustained period of ideological conflict.

Area of study 2 : Challenge and change

In this area of study students focus on the ways in which traditional ideas, values and political systems were challenged and changed by individuals and groups in a range of contexts during the second half of the twentieth century and first decade of the twenty-first century. Students explore the causes of significant political and social events and movements, and their consequences for nations and people.

Assessment and reporting:

Units 1&2 will be assessed internally on course work and end-of-semester exams.

For each unit students will be required to demonstrate two outcomes.

Assessment tasks over Units 1&2 should include the following:

- a historical inquiry
- an essay
- evaluation of historical sources
- short-answer questions
- extended responses
- a multimedia presentation

Units 3&4 (Revolutions)

Aims:

This study enables students to:

- develop an understanding of the nature of history as a discipline and to engage in historical inquiry
- ask questions about the past, analyse primary and secondary sources, and construct historical arguments based on evidence
- use historical thinking concepts such as significance, evidence, continuity and change, and causation
- explore a range of people, places, ideas and periods to develop a broad understanding of the past
- engage with debates between historians in an informed, critical and effective manner
- recognise that the way in which we understand the past informs decision-making in the present
- appreciate that the world in which we live has not always been as it is now, and that it will continue to change in the future

Area of study 1: Unit 3 and Unit 4: Causes of revolution

- What were the significant causes of revolution?
- How did the actions of popular movements and particular individuals contribute to triggering a revolution?
- To what extent did social tensions and ideological conflicts contribute to the outbreak of revolution?

In this area of study students focus on the long-term causes and short-term triggers of revolution. They evaluate how revolutionary outbreaks were caused by the interplay of significant events, ideologies, individuals and popular movements, and how these were directly or indirectly influenced by the political, social, economic, cultural and environmental conditions of the time.

Students analyse significant events and evaluate how particular conditions profoundly influenced and contributed to the outbreak of revolution. They consider triggers such as, in America, colonial responses to the Boston Tea Party.

Area of study 2: Unit 3 and Unit 4: Consequences of revolution

- What were the consequences of revolution?
- How did the new regime consolidate its power?
- What were the experiences of those who lived through the revolution?
- To what extent was society changed and revolutionary ideas achieved or compromised

In this area of study students focus on the consequences of the revolution and evaluate the extent to which the consequences of the revolution maintained continuity and/or brought about change to society. The success of the revolution was not guaranteed or inevitable. Students analyse the significant challenges that confronted the new regime after the initial outbreak of revolution. They evaluate the success and outcomes of the new regime's responses to these challenges, and the extent to which the revolution resulted in dramatic and wide-reaching political, social, cultural and economic change, progress or decline.

As new political regimes attempted to consolidate power, post-revolutionary regimes were often challenged by those who opposed change. They may have unleashed civil war and counter-revolutions, making the survival and consolidation of the revolution the principle concern of the revolutionary state. Challenges such as the creation of a new political system in America and the Civil War in Russia had profound consequences for the revolutionaries trying to establish a new order. Revolutionary ideologies were sometimes modified and compromised as the leaders became more authoritarian and responded to opposition with violence. In some cases there were policies of terror and repression, and the initiation of policies of social control as a strategy to maintain power.

Assessment and reporting:

Each of the following four assessment tasks must be completed over Units 3&4:

- a historical inquiry essay
- extended responses essay
- an evaluation of historical sources essay

School assessed Coursework for Unit 3 will contribute 25 per cent to the study score.

School assessed Coursework for Unit 4 will contribute 25 per cent to the study score.

The level of achievement for Units 3&4 is also assessed by an end-of-year examination.

The examination will contribute 50 per cent to the study score.

Legal Studies

Aims

This study enables students to:

- understand and apply legal terminology, principles and concepts
- apply legal principles to actual and/or hypothetical scenarios, explore solutions to legal problems, and form reasoned conclusions
- understand legal rights and responsibilities, and the effectiveness of the protection of rights in Australia
- analyse the methods and institutions that determine criminal cases and resolve civil disputes
- propose and analyse reforms to the legal system to enable the principles of justice to be achieved

Unit 1: The Presumption of Innocence

Areas of study

Area of study 1: Legal foundations

This area of study provides students with foundational knowledge of laws and the Australian legal system. Students examine the relationship between parliament and the courts, and the reasons for a court hierarchy in Victoria, and develop an appreciation of the principles of justice.

Area of study 2: Sanctions

The criminal justice system determines the guilt or otherwise of an accused, and imposes sanctions on a guilty person. In this area of study students investigate key concepts in the determination of a criminal case, including the institutions that enforce criminal law, and the purposes and types of sanctions and approaches to sentencing.

Area of study 3: Proving Guilt

The presumption of innocence is the fundamental principle of criminal law and provides a guarantee that an accused is presumed innocent until proven guilty beyond reasonable doubt. In this area of study students develop an understanding of key concepts in criminal law and types of crime, and investigate two criminal offences in detail.

Unit 2: Wrongs and Rights

Areas of study

Area of study 1: Civil liability

Civil law aims to protect the rights of individuals, groups and organisations, and provides opportunities for a wronged party to seek redress for a breach of civil law. In this area of study students develop an understanding of key concepts in civil law and investigate two areas of civil law in detail.

Area of study 2: Remedies

Remedies may be available to a wronged party where there has been a breach of civil law. In this area of study students develop an appreciation of key concepts in the resolution of a civil case, including the methods used and institutions available to resolve disputes, and the purposes and types of remedies.

Area of study 3: Human Rights

The protection of rights is fundamental to a democratic society. In this area of study students examine the ways in which rights are protected in Australia and compare this approach with that of another country.

Unit 3: Rights and justice

Areas of study

Area of study 1: The Victorian criminal justice system

The Victorian criminal justice system is used to determine whether an accused person is guilty beyond reasonable doubt of an offence for which they are charged, and to impose sanctions where guilt has been found or pleaded. Students consider factors that affect the ability of the criminal justice system to achieve the principles of justice.

Area of study 2: The Victorian civil justice system

The Victorian civil justice system aims to restore a wronged party to the position they were originally in before the breach of civil law occurred. In this area of study students consider the factors relevant to commencing a civil claim, examine the institutions and methods used to resolve a civil dispute and explore the purposes and types of remedies. Students consider factors that affect the ability of the civil justice system to achieve the principles of justice.

Unit 4: The people, the law and reform

Areas of study

Area of study 1: The people and reform

Parliament is the supreme law-making body, and courts have a complementary role to parliament in making laws. In this area of study students investigate factors that affect the ability of parliament and courts to make law. They examine the relationship between parliament and courts in law-making and consider the capacity of both institutions to respond to the need for law reform.

Area of study 2: The people and the law makers

Laws should reflect the needs of society, but they can become outdated. In this area of study, students investigate the need for law reform and the means by which individuals and groups can influence change in the law. Students draw on examples of individuals, groups and the media influencing law reform, as well as examples from the past four years of inquiries of law reform bodies.

Assessment and reporting

Units 1 and 3 will be assessed internally on course work and end of semester exams.

Units 3&4 both school based assessed work and the end of year examination will determine the student's level of achievement.

Percentage contributions to the final assessment are as follows:

- Unit 3 school assessed course work: 25%
- Unit 4 school assessed course work: 25%
- Unit 3&4 examination: 50%

Literature

Aims

Units 1 to 4 are designed to enable students to:

- enjoy reading a range of challenging literary texts
- approach unfamiliar texts and negotiate diverse literary territories with confidence
- explore the ways in which authors craft their writing
- recognise there are many possible ways of interpreting literary texts
- develop their own responses to texts, recognising the impact of form, features and language in the creation of meaning
- write creatively and critically, and develop their individual voice
- consider the views of others, including when developing interpretations
- express their ideas, through all language modes, with insight and flair..

Unit 1: Approaches to literature

Areas of study 1

Reading practices

In this area of study students consider how language, structure and stylistic choices are used in different literary forms and types of text. They consider both print and non-print texts, reflecting on the contribution of form and style to meaning. Students reflect on the degree to which points of view, experiences and contexts shape their own and others' interpretations of text.

Students closely examine the literary forms, features and language of texts. They begin to identify and explore textual details, including language and features, to develop a close analysis response to a text.

Area of study 2

Exploration of literary movements and genres

In this area of study students explore the concerns, ideas, style and conventions common to a distinctive type of literature seen in literary movements or genres. Examples of these groupings include literary movements and/or genres such as modernism, epic, tragedy and magic realism, as well as more popular, or mainstream, genres and subgenres such as crime, romance and science fiction. Students explore texts from the selected movement or genre, identifying and examining attributes, patterns and similarities that locate each text within that grouping. Students engage with the ideas and concerns shared by the texts through language, settings, narrative structures and characterisation, and they experiment with the assumptions and representations embedded in the texts.

Unit 2

Area of study 1

Voices of Country

In this area of study students focus on the interrelationships between the text, readers and their social and cultural contexts.

In this area of study students explore the voices, perspectives and knowledge of Aboriginal and Torres Strait Islander authors and creators. They consider the interconnectedness of place, culture and identity through the experiences, texts and voices of Aboriginal and Torres Strait Islander peoples, including connections to Country, the impact of colonisation and its ongoing consequences, and issues of reconciliation and reclamation.

Students examine representations of culture and identity in Aboriginal and Torres Strait Islander peoples' texts and the ways in which these texts present voices and perspectives that explore and challenge assumptions and stereotypes arising from colonisation.

Students acknowledge and reflect on a range of Australian views and values (including their own) through a text(s). Within that exploration, students consider stories about the Australian landscape and culture.

Area of study 2

The text in its context

In this area of study students focus on the text and its historical, social and cultural context. Students reflect on representations of a specific time period and/or culture within a text.

Students explore the text to understand its point of view and what it reflects or comments on. They identify the language and the representations in the text that reflect the specific time period and/or culture, its ideas and concepts. Students develop an understanding that contextual meaning is already implicitly or explicitly inscribed in a text and that textual details and structures can be scrutinised to illustrate its significance.

Students develop the ability to analyse language closely, recognising that words have historical and cultural import.

Unit 3: Form and transformation

Area of study 1

Adaptations and transformations

In this area of study students focus on how the form of text contributes to the meaning of the text. Students develop an understanding of the typical features of a particular form of text and how the conventions associated with it are used, such as the use of imagery and rhythm in a poem or the use of setting, plot and narrative voice in a novel. Students use this understanding to reflect upon the extent to which changing the form of the text affects its meaning. By exploring adaptations, students also consider how creators of adaptations may emphasise or understate perspectives, assumptions and ideas in their presentation of a text.

Area of study 2

Developing interpretations

In this area of study students explore the different ways we can read and understand a text by developing, considering and comparing interpretations of a set text.

Students first develop their own interpretations of a set text, analysing how ideas, views and values are presented in a text, and the ways these are endorsed, challenged and/or marginalised through literary forms, features and language. These student interpretations should consider the historical, social and cultural context in which a text is written and set. Students also consider their own views and values as readers.

Students then explore a supplementary reading that can enrich, challenge and/or contest the ideas and the views, values and assumptions of the set text to further enhance the students' understanding. Examples of a supplementary reading can include writing by a teacher, a scholarly article or an explication of a literary theory. A supplementary reading that provides only opinion or evaluation of the relative merits of the text is not considered appropriate for this task.

Informed by the supplementary reading, students develop a second interpretation of the same text, reflecting an enhanced appreciation and understanding of the text. They then apply this understanding to key moments from the text, supporting their work with considered textual evidence.

Unit 4: Interpreting texts

Area of study 1

Creative responses to texts

In this area of study students focus on the imaginative techniques used for creating and recreating a literary work. Students use their knowledge of how the meaning of texts can change as context and form change to construct their own creative transformations of texts. They learn how authors develop representations of people and places, and they develop an understanding of language, voice, form and structure. Students draw inferences from the original text in order to create their own writing. In their adaptation of the tone and the style of the original text, students develop an understanding of the views and values explored.

Students develop an understanding of the various ways in which authors craft texts. They reflect critically on the literary form, features and language of a text, and discuss their own responses as they relate to the text, including the purpose and context of their creations.

Area of study 2

Close analysis

In this area of study students focus on a detailed scrutiny of the language, style, concerns and construction of texts. Students attend closely to textual details to examine the ways specific passages in a text contribute to their overall understanding of the whole text. Students consider literary forms, features and language, and the views and values of the text. They write expressively to develop a close analysis, using detailed references to the text.

Assessment and reporting

- Unit 3 school assessed course work: 25%
- Unit 4 school assessed course work: 25%
- End of year examination: 50%

Mathematical Methods

Units 1&2

Mathematical Methods is recommended for anyone interested in further study in the sciences, commerce or any tertiary courses that require Mathematics as a prerequisite.

Mathematical Methods Units 1&2 provide an introductory study of simple elementary functions of a single real variable, algebra, calculus, probability and statistics and their applications in a variety of practical and theoretical contexts. The units are designed as preparation for Mathematical Methods Units 3&4 and contain assumed knowledge and skills for these units.

Functions, relations and graphs

Unit 1 students cover the graphical representation of simple algebraic functions (polynomial and power functions) of a single real variable and the key features of functions and their graphs such as axis intercepts, domain (including the concept of maximal, natural or implied domain), co-domain and range, stationary points, asymptotic behaviour and symmetry. The behaviour of functions and their graphs is to be explored in a variety of modelling contexts and theoretical investigations.

In Unit 2 students cover graphical representation of circular, exponential and logarithmic functions of a single real variable and the key features of graphs of functions such as axis intercepts, domain (including maximal, natural or implied domain), co-domain and range, asymptotic behaviour, periodicity and symmetry. The behaviour of functions and their graphs is to be explored in a variety of modelling contexts and theoretical investigations.

Algebra, number and structure

This area of study supports students' work in the 'Functions, relations and graphs', 'Calculus' and 'Data analysis, probability and statistics' areas of study, and content is to be distributed between Units 1&2.

In Unit 1 the focus is on the algebra of polynomial functions of low degree and transformations of the plane.

In Unit 2 the focus is on the algebra of some simple transcendental functions and transformations of the plane.

Calculus

In Unit 1 students cover constant and average rates of change and an introduction to instantaneous rate of change of a function in familiar contexts, including graphical and numerical approaches to estimating and approximating these rates of change.

In Unit 2 students cover differentiation and anti-differentiation of polynomial functions by rule, different notations, and related applications including the analysis of graphs.

Data analysis, probability and statistics

In Unit 1 students cover the concepts of experiment (trial), outcome, event, frequency, probability and representation of finite sample spaces and events using various forms such as lists, grids, Venn diagrams and tables. They also cover introductory counting principles and techniques and their application to probability.

In Unit 2 students cover the use of lists, tables and diagrams to calculate probabilities, including consideration of complementary, mutually exclusive, conditional and independent events involving one, two or three events (as applicable), including rules for computation of probabilities for compound events.

Mathematical Investigation

This comprises one to two weeks of investigation into one or two practical or theoretical contexts or scenarios.

Assessment and reporting

Units 1&2 will be assessed internally on course work and end-of semester exams.

Units 3&4

Mathematical Methods Units 3&4 extend the introductory study of simple elementary functions of a single real variable, to include combinations of these functions, algebra, calculus, probability and statistics, and their applications in a variety of practical and theoretical contexts. Assumed knowledge and skills for Mathematical Methods Units 3&4 are contained in Mathematical Methods Units 1&2, and will be drawn on, as applicable, in the development of related content from the areas of study, and key knowledge and key skills for the outcomes of Mathematical Methods Units 3&4.

Functions, relations & graphs

In this area of study students cover transformations of the plane and the behaviour of some elementary functions of a single real variable, including key features of their graphs such as axis intercepts, stationary points, points of inflection, domain (including maximal, implied or natural domain), co-domain and range, asymptotic behaviour and symmetry. The behaviour of functions and their graphs is to be explored in a variety of modelling contexts and theoretical investigations.

Algebra, number and structure

In this area of study students cover the algebra of functions, including composition of functions, inverse functions and the solution of equations. They also study the identification of appropriate solution processes for solving equations, and systems of simultaneous equations, presented in various forms. Students also cover recognition of equations and systems of equations that are solvable using inverse operations or factorisation, and the use of graphical and numerical approaches for problems involving equations where exact value solutions are not required, or which are not solvable by other methods. This content is to be incorporated as applicable to the other areas of study.

Calculus

In this area of study students cover graphical treatment of limits, continuity and differentiability of functions of a single real variable, and differentiation, anti-differentiation and integration of these functions. This material is to be linked to applications in practical situations.

Data analysis, probability and statistics

In this area of study students cover discrete and continuous random variables, their representation using tables, probability functions (specified by rule and defining parameters as appropriate); the calculation and interpretation of central measures and measures of spread; and statistical inference for sample proportions. The focus is on understanding the notion of a random variable, related parameters, properties and application and interpretation in context for a given probability distribution.

Mathematical Investigation

This comprises one to two weeks of investigation into one or two practical or theoretical contexts or scenarios.

End of year examinations

Examination 1

Respond to a collection of short answer and some extended answer questions covering all areas of study. One hour in length, no calculators or notes.

Examination 2

Respond to a collection of 20 multiple-choice questions plus a number of extended response analysis problems. Two hours in length; a bound reference and CAS calculator are permitted.

Media

Rationale:

This study provides students with the opportunity to examine the media in both historical and contemporary contexts while developing skills in media design and production in a range of media forms. VCE Media provides students with the opportunity to analyse media concepts, forms and products in an informed and critical way. Students consider narratives, technologies and processes from various perspectives including an analysis of structure and features. They examine debates about the media's role in contributing to and influencing society. Students integrate these aspects of the study through the individual design and production of their media representations, narratives and products. VCE Media supports students to develop and refine their planning and analytical skills, critical and creative thinking and expression, and to strengthen their communication skills and technical knowledge. This study leads to pathways for further theoretical and/or practical study at tertiary level or in vocational education and training settings; including screen and media, marketing and advertising, games and interactive media, communication and writing, graphic and communication design, photography and animation.

Structure:

The study is made up of four units:

- Unit 1: Media forms, representations and Australian stories
- Unit 2: Narrative across media forms
- Unit 3: Media narratives and pre-production
- Unit 4: Media production and issues in the media

Areas of study:

Unit 1

Media representation:

On completion of this unit the student should be able to explain how media representations in film, television and photography, and from different periods of time, are constructed, distributed, engaged with, consumed and read by audiences.

Media forms in production:

On completion of this unit the student should be able to use the media production process to design, produce and evaluate media representations for specific audiences in a range of media forms (film, photography, print, sound).

Australian stories:

On completion of this unit the student should be able to analyse how the structural features of Australian fictional and non-fictional narratives in film and photography, and are consumed and read by, audiences.

Unit 2

Narrative, style and genre:

On completion of this unit the student should be able to analyse the intentions of media creators and producers and the influences of narratives on the audience in different media forms.

Narratives in production:

On completion of this unit the student should be able to apply the media production process to create, develop and construct a film, photo series, or digital media.

Media and change:

On completion of this unit the student should be able to discuss the influence of new media technologies on society, audiences, the individual, media industries and institutions.

Unit 3

Narrative and ideology:

On completion of this unit the student should be able to analyse how films and television series are constructed and distributed, and how they engage, are consumed and are read by the intended audience and present day audiences.

Media production development:

On completion of this unit the student should be able to research aspects of a media form and experiment with media technologies and media production processes to inform and document the design of a media production.

Media production design:

On completion of this unit the student should be able to develop and document a media production design in a selected media form for a specified audience.

Unit 4

Media production:

On completion of this unit the student should be able to produce, refine and resolve a media product designed in Unit 3.

Agency and control in and of the media:

On completion of this unit the student should be able to discuss issues of agency and control in the relationship between the media and its audience.

Assessment and reporting

Units 1&2 will be assessed internally on course, production tasks, and end-of-semester exams. School-assessed course work for Unit 3 and 4 will contribute 20% to the study score.

The level of achievement for Units 3&4 is also assessed by a school-assessed task, which will contribute 40% to the study score and an end-of-year examination, which will contribute 40% to the study score.

Music Performance

Aims

This study is designed to enable students to:

- Develop skills in practical music making and performance
- Develop performance skills in solo and group contexts
- Develop skills in giving prepared and unprepared performances
- Develop skills in aural comprehension
- Develop skills in musical composition
- Perform a program of selected works
- Develop an understanding of key musical elements used by interpreters
- Develop an understanding of personal interpretation in music performance
- Develop the capacity to discuss interpretations in recording according to established conventions

Units 1&2

Music Performance develops intellectual, aesthetic and cultural understanding of music in solo and group settings.

Unit 1 focuses on achieving flexibility in music performance. Unit 2 continues the development of performance skills and focuses on analysis of music being prepared for performance.

Units 3&4

As soloists and members of groups, students develop skills in preparing programs of music works. They learn about and apply musicianship and theoretical knowledge to interpret and analyse solo and ensemble works in a range of styles.

Units 3&4 Music Performance focuses on the preparation and presentation of performances in solo or ensemble contexts, demonstrating through performance an understanding of interpretation and authenticity. Aural comprehension and understanding of characteristics of works relevant to performance are also developed.

N.B. Depending on individual students' interest and ability, the Unit 3/4 sequence may include Music Investigation and/or Music Style and Composition.

Assessment and reporting

Units 1&2 will be assessed internally on course work and end-of-semester exams.

Units 3&4: In Music Performance, school-assessed coursework and two examinations will determine the student's level of achievement. Percentage contributions to the final assessment are as follows:

- School assessed coursework: 25%
- Performance and written external examinations: 75%
- The examination will contribute 50 per cent

Philosophy

Unit 1

Area of study 1: Metaphysics

Metaphysics is the study of the basic structures and categories of what exists, or of reality. It is the attempt to work out a logical account of everything that we know or believe about existence, including all our scientific knowledge. This area of study introduces students to metaphysical problems through a study of questions associated with selected themes.

Area of study 2: Epistemology

This area of study introduces students to basic epistemological problems through a study of questions associated with selected themes. Students also consider philosophical problems in contemporary debates, including the implications of accepting particular views about knowledge; for example, what are the implications for the authority of science from a position that knowledge, belief and truth are relative to different cultures? Does considering this implication lead to a revision of the initial position?

Area of study 3: Introduction to philosophical inquiry

Philosophy is an activity as much as it is a body of thought, and students of philosophy benefit not just from attaining new knowledge, but also through developing their reasoning faculties. Philosophy is the activity of considering central, contestable problems, and attempting to develop good reasons for holding one position rather than another. In analysing concepts and clarifying positions, philosophers also discover how ideas are logically and conceptually connected with each other. Precise use of language is essential to these processes as a means of supporting coherence and the rigorous testing of ideas. This area of study introduces students to the distinctive nature of philosophical thinking and a variety of approaches to philosophical inquiry. They practise some basics of informal logic and other techniques of philosophical reasoning, such as analogical reasoning, that are essential to the study of problems in metaphysics and epistemology. They explore cognitive biases and consider any implications for approaching problems in epistemology and metaphysics, for example the relation between confirmation bias, science and pseudo-science, and attribution bias and questions of causality.

Unit 2

Area of study 1: Ethics and moral philosophy

What should I do? What is right? On what basis can we choose between different courses of action? These are ongoing fundamental questions. In this area of study students are introduced to key debates in moral philosophy that stretch back thousands of years. The laws of our society reflect a position that murder and theft are wrong, but a philosopher is interested in the justifications for these convictions. Is morality a matter of personal prejudice or can we give good reasons for holding particular moral beliefs? Are there fundamental moral beliefs that should be universally binding, or are they preferences that develop in response to particular cultural contexts? In this area of study students are concerned with discovering if there are basic principles and underlying ideas of morality and assessing ethical viewpoints and arguments according to standards of logic and consistency. Philosophical methods may be used to address everyday dilemmas, as well as issues debated in the media and important moral challenges of our times.

Area of study 2: Further problems in value theory

In addition to discussing ethical and moral value, philosophers consider a range of other types of values, including social, political and aesthetic value. Often philosophers concern themselves with questions regarding the foundations of particular forms of value. They consider whether these various forms of value are grounded in the nature of things or whether they are human creations. If they are human creations, students consider whether these forms of value might yet appeal to commonly held or universal standards. How these questions are approached may depend upon the type of value considered. At other times, philosophers set aside these foundational questions and consider particular questions relating to social, political or aesthetic value. Is democracy the only justifiable form of government? What are the obstacles to freedom? How are conflicts between rights to be resolved? What is the point of art? This area of study provides students with an introduction to some of these questions and the ways in which philosophers have addressed them. Students explore how philosophical methods can be brought to bear on a range of questions regarding value.

Area of study 3: Techniques of philosophical inquiry

In this area of study students develop their abilities to analyse and evaluate philosophical viewpoints and arguments. They examine and apply a range of reasoning techniques and consider the role of other factors involved in philosophical thinking such as emotion. Students develop their capacity for metacognition through consideration of reflective equilibrium.

Assessment tasks for units 1 & 2 may include:

- Essay
- short-answer responses
- written reflections
- presentations (oral, multimedia)
- an examination

Unit 3: Minds, bodies and persons

This unit considers basic questions regarding the mind and the self through two key questions: Are human beings more than their bodies? Is there a basis for the belief that an individual remains the same person over time? Students critically compare the viewpoints and arguments put forward in philosophical sources to their own views on these questions and to contemporary debates. For the purposes of this study, arguments make a claim supported by propositions and reasoning, whereas a viewpoint makes a claim without necessarily supporting it with reasons or reasoning. Philosophical debates encompass philosophical questions and associated viewpoints and arguments within other spheres of discourse such as religion, psychology, sociology and politics.

Area of Study 1: Minds and bodies

The central concern of the philosophy of mind is to explain the relationship between the body and the mind. The difficulty in advancing such an explanation stems from the fact that bodies and minds appear to be very different types of entities. To illustrate, consider that the experience of reading doesn't obviously feel like neurons firing in a brain. Some philosophers argue that such apparent differences indicate that the two are in reality fundamentally independent entities. Others typically argue that the mind is just the physical body but then must reconcile the apparent differences. Students examine the views of those who argue that the mind is nothing more than the body, as well as those that think there is more to the human mind than just the body, and consider whether the two can exist independently of each other.

Area of Study 2: Personal identity

Modern philosophers have explored the question of the continuity of the self over time. They have attempted to identify the basis on which we say, for example, that an individual is the same person at 80 as they were at eight years old. Self, in this sense, is a contested term that refers to what is most essential about ourselves as a particular entity distinguished from others, if anything. In this area of study students explore selected positions on personal identity and the arguments for and against them. In doing so, students consider the implications of views on personal identity for personal responsibility of past actions and personal concern for future happiness. Students consider how thought experiments can be used to explore and challenge theories of personal identity. A range of relevant thought experiments is to be sourced from within the set texts where possible and beyond the set texts as appropriate. Students apply their understanding of philosophical concepts and problems related to personal identity to analyses of contemporary debates such as organ transplants and cloning.

Unit 4: The good life

This unit considers the crucial question of what it is for a human to live well. What does an understanding of human nature tell us about what it is to live well? What is the role of happiness in a life well lived? Is morality central to a good life? How does our social context impact on our conception of a good life? In this unit, students explore philosophical texts that have had a significant impact on western ideas about the good life. Students critically compare the viewpoints and arguments in set texts to their views on how we should live, and use their understandings to inform a reasoned response to contemporary debates. For the purposes of this study, arguments make a claim supported by propositions and reasoning, whereas a viewpoint makes a claim without necessarily supporting it with reasons or reasoning. Philosophical debates encompass philosophical questions and associated viewpoints and arguments within other spheres of discourse such as psychology, sociology, science, engineering and politics.

Area of Study 1: Conceptions of the good life

In this area of study students are exposed to philosophical concepts, debates and perspectives on the nature of the good life through a study of philosophical texts. As they reflect on the implications of accepting the views and arguments presented by these thinkers, students develop their own critical responses to the authors' viewpoints and arguments.

Area of Study 2: Living the good life in the twenty-first century

An important aspect of the study of philosophical texts is the light that they can shed on contemporary questions and debates. In this area of study students develop and justify responses to debates on technological development in relation to the good life. They outline arguments made in a variety of sources and critically respond to them. They explore the interplay between the changing conditions of contemporary life and our ability to live a good life, considering how the strength of the interplay is dependent not only on the nature of developments in contemporary life but on the conception of the good life.

Assessment:

The student's performance on each outcome is assessed by at least two of the following tasks:

- an essay
- a written analysis
- short-answer responses
- a written reflection
- presentations (oral, multimedia)
- a dialogue (oral, written)
- at least one essay task is required for Unit 3

Physical Education

The study of VCE Physical Education enables students to integrate a contemporary understanding of the theoretical underpinnings of performance and participation in physical activity with practical application. Through engagement in physical activities, VCE Physical Education enables students to develop the knowledge and skills required to critically evaluate influences that affect their own and others' performance and participation in physical activity. This study equips students with the appropriate knowledge and skills to plan, develop and maintain their involvement in physical activity, sport and exercise across their lifespan and to understand the physical, social, emotional and cognitive health benefits associated with being active. The study also prepares students for employment and/or further study at the tertiary level or in vocational education and training settings in fields such as exercise and sport science, health science, education, recreation, sport development and coaching, health promotion and related careers.

Aims

This study enables students to:

- use practical activities to underpin contemporary theoretical understanding of the influences on participation and performance in physical activity, sport and exercise
- develop an understanding of the anatomical, biomechanical, physiological and skill acquisition principles, and of behavioural, psychological, environmental and sociocultural influences on performance and participation in physical activity across the lifespan
- engage in physical activity and movement experiences to determine and analyse how the body systems work together to produce and refine movement
- critically evaluate changes in participation from a social-ecological perspective and performance in physical activity, sport and exercise through monitoring, testing and measuring of key parameters.

Structure

The study is made up of four units:

- Unit 1: The human body in motion
- Unit 2: Physical activity, sport and society
- Unit 3: Movement skills and energy for physical activity
- Unit 4: Training to improve performance

Units 1&2

In this unit students explore how the musculoskeletal and cardiorespiratory systems work together to produce movement. Through practical activities students explore the relationships between the body systems and physical activity, sport and exercise, and how the systems adapt and adjust to the demands of the activity. Students investigate the role and function of the main structures in each system and how they respond to physical activity, sport and exercise. They explore how the capacity and functioning of each system acts as an enabler or barrier to movement and participation in physical activity.

Using a contemporary approach, students evaluate the social, cultural and environmental influences on movement. They consider the implications of the use of legal and illegal practices to improve the performance of the musculoskeletal and cardiorespiratory systems, evaluating perceived benefits and describing potential harms.

They also recommend and implement strategies to minimise the risk of illness or injury to each system.

Unit 1

Outcome 1

On completion of this unit students should be able to collect and analyse information from, and participate in, a variety of practical activities to explain how the musculoskeletal system functions and its limiting conditions, and evaluate the ethical and performance implications of the use of practices and substances that enhance human movement.

Outcome 2

On completion of this unit students should be able to collect and analyse information from, and participate in, a variety of practical activities to explain how the cardiovascular and respiratory systems function and the limiting conditions of each system, and discuss the ethical and performance implications of the use of practices and substances to enhance the performance of these two systems.

Unit 2

Outcome 1

On completion of this unit the student should be able to collect and analyse data related to individual and population levels of participation in physical activity and sedentary behaviour to create, undertake and evaluate an activity plan that meets the physical activity and sedentary behaviour guidelines for an individual or a specific group.

Outcome 2

On completion of this unit the student should be able to apply a social-ecological framework to research, analyse and evaluate a contemporary issue associated with participation in physical activity and/or sport in a local, national or global setting.

Unit 3 Movement skills and energy for physical activity

This unit introduces students to the biomechanical and skill acquisition principles used to analyse human movement skills and energy production from a physiological perspective. Students use a variety of tools and techniques to analyse movement skills and apply biomechanical and skill acquisition principles to improve and refine movement in physical activity, sport and exercise. They use practical activities to demonstrate how correct application of these principles can lead to improved performance in physical activity and sport.

Students investigate the relative contribution and interplay of the three energy systems to performance in physical activity, sport and exercise. In particular, they investigate the characteristics of each system and the interplay of the systems during physical activity. Students explore the causes of fatigue and consider different strategies used to postpone fatigue and promote recovery.

Area of Study 1

Outcome 1

On completion of this unit the student should be able to collect and analyse information from, and participate in, a variety of physical activities to develop and refine movement skills from a coaching perspective, through the application of biomechanical and skill acquisition principles.

Area of study 2

Outcome 2

On completion of this unit the student should be able to use data collected in practical activities to analyse how the major body and energy systems work together to enable movements to occur, and explain the factors causing fatigue and suitable recovery strategies.

Unit 4: Training to improve performance

In this unit students analyse movement skills from a physiological, psychological and sociocultural perspective, and apply relevant training principles and methods to improve performance within physical activity at an individual, club and elite level. Improvements in performance, in particular fitness, depend on the ability of the individual and/or coach to gain, apply and evaluate knowledge and understanding of training. Students analyse skill frequencies, movement patterns, heart rates and work to rest ratios to determine the requirements of an activity. Students consider the physiological, psychological and sociological requirements of training to design and evaluate an effective training program.

Students participate in a variety of training sessions designed to improve or maintain fitness and evaluate the effectiveness of different training methods. Students critique the effectiveness of the implementation of training principles and methods to meet the needs of the individual, and evaluate the chronic adaptations to training from a theoretical perspective.

Area of study 1

Outcome 1

On completion of this unit the student should be able to analyse data from an activity analysis and fitness tests to determine and assess the fitness components and energy system requirements of the activity.

Area of study 2

Outcome 2

On completion of this unit the student should be able to participate in a variety of training methods, and design and evaluate training programs to enhance specific fitness components.

Assessment and reporting

Units 3&4 will be assessed internally on course work and by one end of year examination based on both units:

- Unit 3 School Assessed course work: 25%
- Unit 4 School Assessed course work: 25%
- Unit 3&4 Examination: 50%

Physics

Aims

This study is designed to enable students to:

- Become familiar with the language, methods and major ideas of physics
- Use the established ideas of physics to interpret the world, developing both a rigorous qualitative and quantitative understanding
- Become familiar with the ways in which knowledge is developed within physics
- Become aware of physics as a particular way of knowing about the world which interacts with the setting, both social and personal, within which it is pursued
- Understand some of the practical applications of physics in present and past technologies as well as any problems associated with them
- Acquire the practical skills necessary to investigate physical phenomena both inside and outside the laboratory
- Develop the capacity and confidence to communicate their knowledge of physics effectively
- Develop curiosity about the physical world
- Prepare for careers in physics and physics-based technological areas

Both Units 1&2 should be viewed as prerequisites for students interested in continuing with VCE Physics Units3&4.

Unit 1: How is energy useful to society

In this unit students examine some of the fundamental ideas and models used by physicists in an attempt to understand and explain energy. Models used to understand light, thermal energy, radioactivity, nuclear processes and electricity are explored. Students apply these physics ideas to contemporary societal issues: communication, climate change and global warming, medical treatment, electrical home safety and Australian energy needs.

Areas of Study

How are light and heat explained?

In this area of study, students study light using the wave model and thermal energy using a particle model forming an understanding of the fundamental physics ideas of reflection, refraction and dispersion. They use these to understand observations made of the world such as mirages and rainbows. They investigate energy transfers and explore how light and thermal energy relate to one another. They apply light ideas to explain how light is used through optical fibres in communication, and how physics is used to inform global warming and climate change.

How is energy from the nucleus utilised?

In this area of study, students build on their understanding of energy to explore energy that derives from the nuclei of atoms. They learn about the properties of the radiation from the nucleus and the effects of this radiation on human cells and tissues and apply this understanding to the use of radioisotopes in medical therapy.

How can electricity be used to transfer energy?

Modelling is a useful tool in developing concepts that explain physical phenomena that cannot be directly observed. In this area of study, students develop conceptual models to analyse electrical phenomena and undertake practical investigations of circuit components. Concepts of electrical safety are developed through the study of safety mechanisms and the effect of current on humans. Students apply and critically assess mathematical models during experimental investigations of DC circuits. They explore electrical safety and the use of transducers to transfer energy in common devices.

Unit 2: How does physics help us to understand the world?

In this unit students explore the power of experiments in developing models and theories. They investigate a variety of phenomena by making their own observations and generating questions, which in turn lead to experiments.

Areas of Study

How is motion understood?

In this area of study, students describe and analyse graphically, numerically and algebraically the energy and motion of an object, using specific physics terminology and conventions. They consider the effects of balanced and unbalanced forces on motion and investigate the translational and rotational forces on static structures. Students apply mathematical models during experimental investigations of motion, and apply their understanding of motion and force through a case study.

Options

How does physics inform contemporary issues and applications in society?

In this area of study, students develop a deeper understanding of an area of interest within diverse areas of physics. They select from eighteen options, explore the related physics and use this physics to form a stance, opinion or solution to a contemporary societal issue or application. In their explorations, a range of investigation methodologies may be used by students.

Options

- How does physics explain climate change?
- How do fusion and fission compare as viable nuclear energy power sources?
- How do heavy things fly?
- How do forces act on structures and materials?
- How do forces act on the human body?
- How is radiation used to maintain human health?
- How does the human body use electricity?
- How can human vision be enhanced?
- How is physics used in photography?
- How do instruments make music?
- How can performance in ball sports be improved?
- How can AC electricity charge a DC device?
- How do astrophysicists investigate stars and black holes?
- How can we detect possible life beyond Earth's Solar System?
- How can physics explain traditional artefacts, knowledge and techniques?
- How do particle accelerators work?
- How does physics explain the origins of matter?
- How is contemporary physics research being conducted in our region?

How do physicists investigate questions?

Systematic experimentation is an important aspect of physics inquiry. In this area of study students design and conduct a practical investigation related to knowledge and skills developed in Area of Study 1 and/or Area of Study 2.

Unit 3: How do fields explain motion and electricity?

In this unit students use Newton's laws to investigate motion in one and two dimensions. They explore the concept of the field as a model used by physicists to explain observations of motion of objects not in apparent contact. Students compare and contrast three fundamental fields – gravitational, magnetic and electric – and how they relate to one another. They consider the importance of the field to the motion of particles within the field. Students examine the production of electricity and its delivery to homes. They explore fields in relation to the transmission of electricity over large distances and in the design and operation of particle accelerators.

Areas of Study

How do physicists explain motion in two dimensions?

In this area of study, students use Newton's laws of motion to analyse linear motion, circular motion and projectile motion. Newton's laws of motion give important insights into a range of motion both on Earth and beyond through the investigations of objects on land and in orbit. They explore the motion of objects under the influence of a gravitational field on the surface of Earth, close to Earth and above Earth. They explore the relationships between force, energy and mass.

How do things move without contact?

Field models are used to explain the behaviour of objects when there is no apparent contact. In this area of study, students examine the similarities and differences between three fields: gravitational, electric and magnetic. Students explore how positions in fields determine the potential energy of, and the force on, an object. They investigate how concepts related to field models can be applied to construct motors, maintain satellite orbits and to accelerate particles including in a synchrotron.

How are fields used in electricity generation?

The production, distribution and use of electricity has had a major impact on the way that humans live. In this area of study, students use empirical evidence and models of electric, magnetic and electromagnetic effects to explain how electricity is produced and delivered to homes. They explore the transformer as critical to the performance of electrical distribution systems in minimising power loss.

Unit 4: How have creative ideas and investigation revolutionised thinking in physics?

A complex interplay exists between theory and experiment in generating models to explain natural phenomena. Ideas that attempt to explain how the Universe works have changed over time, with some experiments and ways of thinking having had significant impact on the understanding of the nature of light, matter and energy. Wave theory, classically used to explain light, has proved limited as quantum physics is utilised to explain particle-like properties of light revealed by experiments. Light and matter, which initially seem to be quite different, on very small scales have been observed as having similar properties. At speeds approaching the speed of light, matter is observed differently from different frames of reference. Matter and energy, once quite distinct, become almost synonymous.

Areas of Study

How has understanding about the physical world changed?

In this area of study, students learn how understanding of light, matter and motion have changed over time. They explore how major experiments led to the development of theories to describe these fundamental aspects of the physical world.

When light and matter are probed, they appear to have remarkable similarities. Light, previously described as an electromagnetic wave, appears to exhibit both wave-like and particle-like properties. Findings that electrons behave in a wave-like manner challenged thinking about the relationship between light and matter.

How is scientific inquiry used to investigate fields, motion or light?

Students undertake a student-designed scientific investigation in either Unit 3 or Unit 4, or across both Units 3&4. The investigation involves the generation of primary data relating to fields, motion or light. The investigation draws on knowledge and related key science skills developed across Units 3&4 and is undertaken by students in the laboratory and/or in the field.

Assessment and reporting

Units 1&2 will be assessed internally on course work and end-of semester exams.

In Units 3&4, school-assessed course work and examinations will determine the student's level of achievement. Percentage contributions to the final assessment are as follows:

- Unit 3 school assessed course work: 30%
- Unit 4 school assessed course work: 20%
- End-of-year examination: 50%

Politics

Rationale

VCE Politics offers students the opportunity to engage with key political, social and economic issues, and to become informed citizens, voters and participants in their local, national and international communities.

Areas of study

Unit 1: Politics, power and political actors

In this unit, students learn that politics is about how political actors use power to resolve issues and conflicts over how society should operate. Each area of study focuses on concepts that form essential disciplinary knowledge, and which allow students to gradually build on their understanding of what it is to think politically.

Outcome 1:

On completion of this unit the student should be able to explain the sources of power and legitimacy of national political actors and analyse the political significance of Australian political actors' use of power in a contested domestic political issue.

Outcome 2

On completion of this unit the student should be able to analyse the power, interests and perspectives of global political actors and evaluate their political significance in at least one global issue.

Unit 2: Democracy: stability and change

In this unit, students investigate the key principles of democracy and assess the degree to which these principles are expressed, experienced and challenged, in Australia and internationally. They consider democratic principles in the Australian context and complete an in-depth study of a political issue or crisis that inherently challenges basic democratic ideas or practice. Students also investigate the degree to which global political actors and trends can challenge, inhibit or undermine democracy, and evaluate the political significance of these challenges. Each area of study focuses on concepts that form essential disciplinary knowledge, and which allow students to gradually build on their understanding of what it is to think politically.

Outcome 1

On completion of this unit the student should be able to analyse at least one Australian political issue and evaluate the extent to which Australian democracy and democratic principles are upheld.

Outcome 2

On completion of this unit the student should be able to analyse at least one global challenge to the legitimacy and spread of democracy and evaluate the political significance of this challenge to democratic principles.

Assessment

The award of satisfactory completion for a unit is based on a decision that the student has demonstrated achievement of the set of outcomes specified above. This decision will be based on the teacher's assessment of the student's overall performance on assessment tasks designated for the unit. Students will also sit an examination at the end of each semester.

Unit 3: Global actors

In this unit students investigate the key global actors of contemporary global politics. They use evidence to analyse the key global actors and their aims, roles and power. They develop an understanding of the key actors through an in-depth examination of the concepts of national interests and power as they relate to the state, and the way in which ONE Asia-Pacific state uses power to achieve its objectives.

VCE Global Politics is a contemporary study and focus must be on examples and case studies from within the last 10 years. However, contemporary issues and events may need to be contextualised for students and this may require some investigation prior to this timeframe.

Area of Study 1

Global actors

Who are the key actors in contemporary global politics? From where does their power stem? What impact do these actors have on global politics? What challenges do these global actors face in achieving their aims? To what degree can these global actors challenge state sovereignty?

In this area of study students examine the key actors in contemporary global politics: states, Intergovernmental Organisations (IGOs), non-state actors, and ONE Transnational Corporation (TNC).

Outcome 1

On completion of this unit the student should be able to evaluate the power of key global actors and assess the extent to which they achieve their aims and are able to challenge state sovereignty.

Area of Study 2

Power in the Asia-Pacific

What is power? Why do different ideas about national interests exist? How is power exercised by an Asia-Pacific state? What is the most effective type of power for a state to use to pursue its national interests? How effective is the state in achieving its national interests?

In this area of study students examine the way in which a specific Asia-Pacific state uses its power to pursue its national interests, and explore the factors that have shaped that state's national interests in the last 10 years.

For this area of study, students study ONE of the following states in the Asia-Pacific: Australia, China, Indonesia, Japan, United States of America.

Outcome 2

On completion of this unit the student should be able to analyse and evaluate the effectiveness of the use of various types of power by a specific Asia-Pacific state in pursuit of its national interests.

Unit 4: Global challenges

In this unit students investigate key global challenges facing the international community in the 21st century. They examine and analyse the debates surrounding TWO ethical issues that are underpinned by international law. They then evaluate the effectiveness of responses to these issues. Students also explore the context and causes of global crises and consider the varying effectiveness of responses and challenges to resolving them.

VCE Global Politics is a contemporary study and focus must be on examples and case studies from within the last 10 years. However, contemporary issues and events may need to be contextualised for students and this may require some investigation prior to this timeframe.

Area of Study 1

Ethical issues and debates

Do we have a responsibility to uphold human rights everywhere? What is the best way to address people movement? In what ways should development occur? Can the world be rid of weapons and, if so, will it be safer?

In this area of study students examine debates about TWO global ethical issues. They use the concepts of realism and cosmopolitanism as a framework for analysing these issues and debates. These debates are considered in the context of case studies that transcend specific states, regions and continents. International law encompasses a wide range of rules that might be seen to govern the actions of states in international relations such as treaties, declarations, bilateral and multilateral agreements and even decisions made by bodies such as the UN Security Council. Students consider the international law that relates to these issues. They examine and analyse the effectiveness of the responses by global actors and the extent to which these responses reflect the obligations outlined in the relevant international law. Students develop the understanding that global actors' responses may be guided by the particular ethical perspective they bring to these issues. Similarly, a global actor's perspective may determine its view of how justice can be achieved in relation to these ethical issues. Students come to understand that the cosmopolitan perspective is not accepted universally.

Outcome 1

On completion of this unit the student should be able to analyse the debates relating to TWO global ethical issues, and evaluate the effectiveness of global actors' responses to these issues.

Area of Study 2

Global crises

What crises does the world face today? What are the causes of particular global crises? How have global actors responded to these crises and how effective are their responses? What challenges do global actors face in achieving resolutions to these crises?

In this area of study students investigate the causes of TWO global crises. They also investigate the effectiveness of the responses from relevant global actors and the main challenges to effective resolution. Students discover that the causes of these crises may be cyclical and the responses can at times exacerbate the original crisis. Students also engage with the key aspects of each crisis or ideas that relate to each crisis.

TWO global crises are selected from the following: climate change, armed conflict, terrorism, and economic instability.

Outcome 2

On completion of this unit the student should be able to analyse TWO contemporary global crises and evaluate the effectiveness of global actors' responses to these.

Assessment:

- Unit 3 school Assessed course work: 25%
- Unit 4 school Assessed course work: 25%
- Units 3&4 examinations: 50%

Psychology

Aims

This study enables students to:

- Apply psychological models, theories and concepts to describe, explain and analyse observations and ideas related to human thoughts, emotions and behaviour
- Examine the ways that a biopsychosocial approach can be applied to organise, analyse and extend knowledge in psychology and more broadly to: understand the cooperative, cumulative, evolutionary and interdisciplinary nature of science as a human endeavour, including its possibilities, limitations and political and sociocultural influences
- Develop a range of individual and collaborative science investigation skills through experimental and inquiry tasks in the field and in the laboratory
- Develop an informed perspective on contemporary science-based issues of local and global significance
- Apply their scientific understanding to familiar and to unfamiliar situations, including personal, social, environmental and technological contexts
- Develop attitudes that include curiosity, open-mindedness, creativity, flexibility, integrity, attention to detail and respect for evidence-based conclusions
- Understand and apply the research, ethical and safety principles that govern the study and practice of the discipline in the collection, analysis, critical evaluation and reporting of data
- Communicate clearly and accurately an understanding of the discipline using appropriate terminology, conventions and formats.

With the introduction of a new study design for VCE Psychology, entry into Units 3&4 will require the completion of Units 1&2 Psychology.

Unit 1: How are behaviour and mental processes shaped?

In this unit students investigate the structure and functioning of the human brain and the role it plays in the overall functioning of the nervous system. Students consider the complex nature of psychological development, including situations where psychological development may not occur as expected. Students examine the contribution that classical and contemporary studies have made to this discipline.

Areas of Study

What influences psychological development?

In this area of study students explore how these factors influence different aspects of a person's psychological development. They consider the interactive nature of hereditary and environmental factors and investigate specific factors that may lead to development of typical or atypical psychological development in individuals, including a person's emotional, cognitive and social development and the development of psychological disorders.

How are mental processes and behaviour influenced by the brain?

In this area of study students explore how the understanding of brain structure and function has changed over time, considering the influence of different approaches and contributions to understanding the role of the brain. They develop their understanding of how the brain enables humans to interact with the external world around them and analyse the interactions between different areas of the brain that enable the processing of complex sensory information, the initiation of voluntary movements, language, decision-making, and the regulation of emotions.

How does contemporary psychology conduct and validate psychological research?

Researchers in psychology work to continually expand and refine the ability to understand and describe human thoughts, feelings and behaviours and to review the validity of research already conducted in a particular area of research. Historically, psychological research has been conducted using samples selected from Western, educated, industrialised, rich and democratic (WEIRD) societies – samples that under-represent a large proportion of the overall population. Reproducing previous research with different population groups has led to the accuracy of published findings and the external validity of the original research being questioned.

Unit 2: How do external factors influence behaviour and mental processes?

In this unit students evaluate the role social cognition plays in a person's attitudes, perception of themselves and relationships with others. Students explore a variety of factors and contexts that can influence the behaviour of individuals and groups, recognising that different cultural groups have different experiences and values. Students are encouraged to consider Aboriginal and Torres Strait Islander people's experiences within Australian society and how these experiences may affect psychological functioning.

Areas of Study

How are people influenced to behave in particular ways?

In this area of study students explore the interplay of psychological and social factors that shape the identity and behaviour of individuals and groups. Students consider how factors such as person perception, attributions, attitudes and stereotypes can be used to explain the cause and dynamics of individual and group behaviours. Students explore how cognitive biases may assist with the avoidance of cognitive dissonance. They also consider the important role that heuristics have in problem-solving and decision-making.

What influences a person's perception of the world?

Human perception of internal and external stimuli is influenced by a variety of biological, psychological and social factors. In this area of study students explore the role of attention in making sense of the world around them and they consider two aspects of human perception – vision and taste – and consider how perception is influenced by cultural norms and historical experiences.

How do scientific investigations develop understanding of influences on perception and behaviour?

Individuals are influenced by a variety of biological, psychological and social and cultural factors. These determinants can be classified as either internal or external factors and they lead to a diverse range of perceptions and behaviour. In this area of study students adapt or design and then conduct a scientific investigation into the internal or external influences on perception and/or behaviour. They generate appropriate qualitative and/or quantitative data, organise and interpret the data, and research a conclusion in response to the research question.

Unit 3: How does experience affect behaviour and mental processes?

In this unit students investigate the contribution that classical and contemporary research has made to the understanding of the functioning of the nervous system and to the understanding of biological, psychological and social factors that influence learning and memory.

Areas of Study

How does the nervous system enable psychological functioning?

In this area of study students explore the role of different branches of the nervous system in enabling a person to integrate, coordinate and respond to internal and external sensory stimuli. Students apply their understanding of neurotransmitters in the transmission of neural information across a neural synapse to produce excitatory and inhibitory effects and explore the effect that neuromodulators have on brain activity. The interaction of gut microbiota with stress and the nervous system in the control of processes and behaviour is also explored.

How do people learn and remember?

Learning and memory are interdependent processes that demonstrate the acquisition of skills and knowledge through experience across the life span. In this area of study students evaluate models to explain learning and apply their knowledge of learning to a range of everyday experiences and contemporary social issues.

Unit 4: How is wellbeing developed and maintained?

In this unit students examine the nature of consciousness and how changes in levels of consciousness can affect mental processes and behaviour. They consider the role of sleep and the impact that sleep disturbances may have on a person's functioning. Students explore the concept of a mental health continuum and apply a biopsychological approach to analyse mental health and disorder. Students examine the contribution of classical and contemporary research has made to these areas.

Areas of Study

How does sleep affect mental processes and behaviour?

In this area of study students focus on sleep as an example of an altered state of consciousness and the different demands humans have for sleep across the life span. They compare REM and NREM sleep as examples of naturally occurring altered states of consciousness and investigate the biological mechanisms of the sleep-wake cycle in terms of the timing of sleep, what causes individuals to be sleepy at night and why individuals wake when required.

What influences mental wellbeing?

In this area of study, students examine what it means to be mentally healthy. They explore the concept of a mental health continuum and factors that explain how location on the continuum for an individual may vary over time.

Students apply a biopsychological approach to the analysis of mental health, phobias and mental disorders.

How is scientific inquiry used to investigate mental processes and psychological functioning?

In this area of study, students design or adapt a practical investigation related to mental processes and psychological functioning drawing on and contributing to their knowledge and skills developed in Units 3 and/or 4.

Assessment and reporting

Units 1&2 will be assessed internally on course work and end-of-semester exams.

Units 3&4 the student's level of achievement will be determined by school assessed course work and examinations.

Percentage contributions to the final assessment areas follows:

Unit 3 school assessed course work: 20%

Unit 4 school assessed course work: 30%

End-of-year examination: 50%

Religion & Society

Scope of study

The beliefs, practices, principles and codes of religions provide ways in which individuals can answer questions about the meaning and purpose of life. Adherence to particular beliefs, practices, principles and codes can form an important part of individual identity. They can determine membership of the religion and the transmission of meaning, both individual and collective, from generation to generation.

Religious traditions develop and evolve over time through the participation and contribution of members and through interactions with society. Throughout history, religion and society have interacted with each other in broad ways in response to a range of important issues. Some religious traditions continue to thrive while others have declined, disappeared or parts of them have been assimilated into other religions, which allow their ideas to live on in some form. New religious movements can develop into religious traditions.

In VCE Religion and Society, students undertake a general study of religion and its interaction with society in the past and the present. They study Judaism and its denominations in societies where multiple worldviews coexist and consider individual experiences of members as they engage with their religion.

Structure

The study is made up of four units:

Unit 1: The Nature and Purpose of Religion

Unit 2: Religion and ethics

Unit 3: The search for meaning

Unit 4: Religion, challenge and change

PLEASE NOTE: Students can access Units 3&4 directly in Year 11 or Year 12. Completion of Units 1&2 is not necessary for the 3&4 sequence.

Unit 1: The Nature and Purpose of Religion

In this area of study students are introduced to the nature and purpose of religion in general, exploring the role of religion in shaping and giving meaning to individuals and communities. Religion has often been drawn on to provide explanations for all phenomena, offering a means for finding answers to the big questions of life and answering such questions. Students examine the aspects of religion in general, and then apply the aspects of religion as a framework to further examine spiritualities, religious traditions and religious denominations. They also study the interrelation of these aspects generally, and apply the aspects to spiritualities, religious traditions and religious denominations studied. They investigate how the aspects may vary between spiritualities, religious traditions and religious denominations.

Unit 2: Religion and Ethics

Ethics is concerned with discovering the perspectives that guide practical moral judgment. Studying ethics involves identifying the arguments and analysing the reasoning, and any other influences, behind these perspectives and moral judgments. An important influence on ethical perspective is the method of ethical decision-making, made up of concepts, principles and theories. In this unit students study in detail various methods of ethical decision-making in at least two religious traditions and their related philosophical traditions. They explore ethical issues in societies where multiple worldviews coexist, in the light of these investigations.

Unit 3: The Search for Meaning

In this unit students study the purposes of religion generally and then consider the religious beliefs developed by a religious tradition or religious denomination in response to the big questions of life. Students study how particular beliefs within a religious tradition or religious denomination may be expressed through the other aspects of religion, and explore how this is intended to foster meaning for adherents. Students then consider the interaction between significant life experiences and religion.

Unit 4: Religion, challenge and change

In this unit students explore challenges for religious traditions or religious denominations generally over time and then undertake a study of challenge and change for a religious tradition or religious denomination. Religious traditions and religious denominations are in a constant state of development as members apply their talents and faith to extend the intellectual and aesthetic nature of a tradition's or denomination's beliefs, of the expression of these beliefs and of the application of these beliefs to their lives. Opportunities for development also come from significant challenges in the interaction of religious traditions and religious denominations and society, including the needs and insights of their members and other people and groups within wider society.

Assessment

Satisfactory completion

The award of satisfactory completion for a unit is based on a decision that the student has demonstrated achievement of the set of outcomes specified for the unit. This decision will be based on the teacher's assessment of the student's performance on assessment tasks designated for the unit.

Levels of achievement

Units 1&2

Procedures for the assessment of levels of achievement in Units 1&2 are a matter for school decision.

Units 3&4

The Victorian Curriculum and Assessment Authority will supervise the assessment of all students undertaking Units 3&4. In the study of VCE Religion and Society, students' level of achievement will be determined by school assessed coursework.

Percentage contributions to the study score in VCE Religion and Society are as follows:

- Unit 3 school assessed coursework: 25 per cent
- Unit 4 school assessed coursework: 25 per cent
- End-of-year examination: 50 per cent

Specialist Mathematics

Units One&Two

Specialist Mathematics Units 1&2 can be taken by three categories of student.

1. Students who have completed Mathematical Methods 1&2 in Year 10 with a grade of B or better have the option of doing Specialist Mathematics 1&2 in Year 11 before pursuing Mathematical Methods 3&4 in Year 12. This has the advantage that a student will be better prepared to perform at their best in Mathematical Methods 3&4 as well as having met the prerequisites for Specialist Mathematics 3&4 should they wish to study this subject.
2. It can be taken concurrently with Mathematical Methods 1&2 and can be used to gain a more solid foundation for Mathematical Methods 3&4 and/or as a prerequisite for Specialist Mathematics 3&4 for those students who are very interested in Mathematics and wish to study it further at tertiary level.
3. It can be taken concurrently with Mathematical Methods 3 & 4 for those students who are studying Mathematical Methods 3&4 while in Year 11 and who wish to study Specialist Mathematics 3&4 when in Year 12.

This course is designed to strengthen a student's preparation for Mathematical Methods 3&4 and to introduce topics which will be studied in depth in Specialist Mathematics.

The areas of study for Units 1&2 of Specialist Mathematics are 'Arithmetic Number and structure', 'Geometry, measurement and trigonometry', 'Graphs of linear and non-linear relations' and two other selected areas.

Algebra, number and structure

In this area of study students cover the development of formal mathematical notation, definition, reasoning and proof applied to number systems, graph theory, sets, logic, and Boolean algebra, and the development of algorithms to solve problems.

Discrete mathematics

In this area of study students cover the study of sequences, series, and first-order linear difference equations, combinatorics, including the pigeon-hole principle, the inclusion-exclusion principle, permutations and combinations, combinatorial identities, and matrices.

Data analysis, probability and statistics

In this area of study students cover the study of linear combinations of random variables and the distribution of sample means of a population, with the use of technology to explore variability of sample means.

Space and measurement

In this area of study students cover trigonometry and identities, rotation and reflection transformations of the plane and vectors for working with position, shape, direction and movement in the plane and related applications.

Algebra, number and structure

In this area of study students cover the arithmetic and algebra of complex numbers, including polar form, regions and curves in the complex plane and introduction to factorisation of quadratic functions over the complex field.

Functions, relations and graphs

In this area of study students cover an introduction to partial fractions; reciprocal and inverse circular functions and their graphs and simple transformations of these graphs; locus definitions of lines, parabolas, circles, ellipses and hyperbolas and the cartesian, parametric and polar forms of these relations.

Units 3&4

This course is designed for those students who are interested in further study in Mathematics and is recommended for students interested in the physical sciences and some engineering and IT courses. Specialist Mathematics Units 3&4 assumes familiarity with the key knowledge and key skills from Mathematical Methods Units 1&2; the key knowledge and key skills from Specialist Mathematics Units 1&2; and concurrent study or previous completion of Mathematical Methods Units 3&4. Together these cover the assumed knowledge and skills for Specialist Mathematics Units 3&4, which are drawn on as applicable in the development of content from the areas of study and key knowledge and key skills for the outcomes.

Discrete mathematics

In this area of study students cover the development of mathematical argument and proof.

Functions, relations and graphs

In this area of study students cover rational functions and other simple quotient functions, curve sketching of these functions and relations, and the analysis of key features of their graphs including intercepts, asymptotic behaviour and the nature and location of stationary points and points of inflection and symmetry.

Algebra, number and structure

In this area of study students cover the algebra of complex numbers, including polar form, factorisation of polynomial functions over the complex field and an informal treatment of the fundamental theorem of algebra.

Calculus

In this area of study students cover the advanced calculus techniques for analytical and numerical differentiation and integration of a broad range of functions, and combinations of functions; and their application in a variety of theoretical and practical situations, including curve sketching, evaluation of arc length, area and volume, differential equations and kinematics, and modelling with differential equations drawing from a variety of fields such as biology, economics and science.

Space and measurement

In this area of study students cover the arithmetic and algebra of vectors; linear dependence and independence of a set of vectors; proof of geometric results using vectors; vector representation of curves in the plane and their parametric and cartesian equations; vector kinematics in one, two and three dimensions; vector, parametric and cartesian equations of lines and planes.

Data analysis, probability and statistics

In this area of study students cover the study of linear combinations of random variables and introductory statistical inference with respect to the mean of a single population, the determination of confidence intervals, and hypothesis testing for the mean using the distribution of sample means.

End of year examinations

Examination 1

Respond to a collection of short answer and some extended answer questions covering all areas of study. One hour in length, no calculators or notes.

Examination 2

Respond to a collection of 20 multiple-choice questions plus a number of extended response analysis problems. Two hours in length; a bound reference and CAS calculator are permitted.

Assessment and reporting for all mathematics subjects

- Units 1&2 will be assessed internally on course work and end-of-semester exams
- Units 3&4: In Mathematics, the student's level of achievement will be determined by school assessed course work and examinations
Percentage contributions to the final assessment are as follows:
 - Units 3&4 school assessed course work: 40%
 - Units 3&4 examinations: 60%

Theatre Studies

Rationale

Theatre Studies focuses on the interpretation of playscripts and the production of theatre for audiences. Students study the contexts – the times, places and cultures – of these scripts, as well as their language. They experiment with different possibilities for interpreting scripts and apply ideas and concepts in performance to an audience. They examine ways that meaning can be constructed and conveyed through theatre performance.

Students consider their audiences and, in their interpretations, incorporate knowledge and understanding of audience culture, demographic and sensibilities. Students learn about innovations in theatre production across different times and places and apply this knowledge to their work. Through the study of plays and theatre styles, and by working in production roles to interpret scripts, students develop knowledge and understanding of theatre styles, its conventions and the elements of theatre composition. Students analyse and evaluate the production of professional theatre performances and consider the relationship to their own production work. Students learn about and demonstrate an understanding of safe and ethical and practices in theatre production.

Aims

This study is designed to enable students to:

- Acquire knowledge of theatre including its styles, traditions, purposes and audiences
- Interpret play scripts through engagement in the production process
- Creatively and imaginatively explore and experiment with theatrical possibilities
- Develop and apply production roles and acting skills to interpret playscripts
- Apply skills of theatrical analysis and evaluation to their own production work and that of others

Unit 1: Pre-modern theatre styles and conventions

- Identify and describe the distinguishing features of playscripts from the pre-modern era
- Apply acting and other production roles to interpret playscripts from the pre-modern era
- Analyse a performance of a play-script from a pre-modern era in performance

Unit 2: Modern theatre styles and conventions

- Identify and describe the distinguishing features of playscripts from the modern era
- Apply acting and other production roles to interpret playscripts from the modern era
- Analyse and evaluate production roles in a performance of a play-script from the modern era.

Unit 3: Producing theatre

- Apply acting and other production roles to interpret a playscript for performance to an audience and demonstrate understanding of the stages of the production process
- Analyse the use of production roles in the development of a playscript for production, incorporating the specifications appropriate for each stage of the production process.
- Analyse and evaluate ways in which a written playscript selected from the prescribed playlist is interpreted in its production to an audience.

Unit 4: Presenting an interpretation

- Interpretation of a monologue from a playscript through application of acting and direction or design
- Develop a theatrical brief that presents an interpretation of a scene from a playscript
- Analyse and evaluate acting in a production from the prescribed playlist

Assessment and reporting

Unit 1&2 will be assessed internally on course work and end of semester exams.

Units 3&4 will be assessed internally for the SAC (school assessed course work) outcomes and externally for the monologue and exam.

Visual Communication Design

Aims

Visual communication design can inform people's decisions about where and how they live and what they buy and consume. The visual presentation of information influences people's choices on what they think they need or want. This study provides students with the opportunity to develop an informed, critical and a discriminating approach to understanding and using visual communications, and nurtures their ability to think creatively about design solutions. Design thinking, which involves the application of creative, critical and reflective techniques, processes and dispositions, supports skill development in areas beyond design, including science, business, marketing and management. The rapid acceleration of the capabilities and accessibility of digital design technologies has brought new challenges to visual communication design practices. Through the consideration of ethical and environmental sustainability issues, students are able to make informed choices that affect current and future practices. The study of visual communication design can provide pathways to training and tertiary study in design and design related studies, including graphic design, industrial and architectural design and communication design.

This study enables students to:

- Develop and apply drawing skills using a range of techniques to make their design thinking visible
- Develop a range of skills in selecting and applying media, materials, and manual and digital methods to suit design purposes
- Apply a design process to create visual communications
- Understand how key visual communication design elements, design principles, media, materials, and manual and digital methods contribute to the creation of their own visual language
- Develop a capacity to undertake ongoing design thinking while conceiving, communicating and presenting ideas
- Understand how historical, social, cultural, environmental and contemporary factors influence visual communications

Structure

The study is made up of four units:

Unit 1: Introduction to visual communication design

Unit 2: Applications of visual communication design within design fields

Unit 3: Visual communication design practices

Unit 4: Visual communication design development, evaluation and presentation

Each unit deals with specific content and is designed to enable students to achieve a set of outcomes for that unit.

Unit 1: Introduction to visual communication design

This unit focuses on using visual language to communicate messages, ideas and concepts. This involves acquiring and applying design thinking skills as well as drawing skills to make messages, ideas and concepts visible and tangible. Students practise their ability to draw what they observe and they use visualisation drawing methods to explore their own ideas and concepts. Students develop an understanding of the importance of presentation drawings to clearly communicate their final visual communications. Through experimentation and through exploration of the relationship between design elements and design principles, students develop an understanding of how design elements and principles affect the visual message and the way information and ideas are read and perceived. Students review the contextual background of visual communication through an investigation of design styles. This research introduces students to the broader context of the place and purpose of design. In this unit students are introduced to three stages of the design process: researching designers, generating ideas and applying design knowledge and drawing skills to develop concepts.

Areas of Study

Drawing as a means of communication

This area of study introduces the skill set that underpins the discrete design process stages generating ideas, developing concepts and refining drawings. It focuses on the development of visual language and design thinking skills. Students use observational, visualisation and presentation drawing as the means by which ideas and concepts are communicated. Through observational drawing students consider reasons for the choices designers make regarding the aesthetics, appearance and function of objects/structures. Students investigate ways of representing form and surface textures, and apply different materials and media to render drawings. Students use drawing methods such as paraline and perspective to create three-dimensional freehand drawings that maintain proportion. Students use these observational drawings as a starting point for visualising new design possibilities. They creatively use a range of media to generate drawings that represent alternative visualisations. Freehand visualisation drawing methods are used to make thinking visible and to communicate ideas.

Design elements and principles

This area of study focuses on design elements and design principles. Students experiment with these elements and principles when using freehand and image-generation methods such as photography, digital photography, printmaking and collage to visualise ideas and concepts. They investigate purposes for creating visual communications and consider how the relationship between design elements and design principles contributes to achieving these purposes. Through addressing a stated purpose, students are introduced to a skill set that underpins the design process stages of generation of ideas and development of concepts.

Visual communication design in context

Visual communication design draws on a broad range of sources to support creativity and innovation. Historical and cultural practices and the values and interests of different societies influence innovation in visual communication designs. Through a case study approach, students explore how visual communications have been influenced by social and cultural factors and past and contemporary visual communication practices. Students consider the works of key designers in terms of visual language and the use of materials, methods, media, design elements, design principles and presentation formats. This area of study introduces students to the design process stage of research.

Unit 2: Applications of visual communication design within design fields

This unit focuses on the application of visual communication design knowledge, design thinking skills and drawing methods to create visual communications to meet specific purposes in designated design fields. Students use presentation drawing methods that incorporate the use of technical drawing conventions to communicate information and ideas associated with the environmental or industrial fields of design. They investigate how typography and imagery are used in visual communication design. They apply design thinking skills when exploring ways in which images and type can be manipulated to communicate ideas and concepts in different ways in the communication design field. Students develop an understanding of the design process detailed on pages 12 and as a means of organising their thinking about approaches to solving design problems and presenting ideas. In response to a brief, students engage in the stages of research, generation of ideas and development of concepts to create visual communications.

Areas of Study

Technical drawing in context

This area of study focuses on the acquisition and application of presentation drawing skills that incorporate the use of technical drawing conventions. These drawings present information and ideas associated with a specific design field. One of the following design fields is selected for detailed study:

- Environmental design or
- Industrial/product design

Within the environmental design field, students can focus on a specific area such as architectural, interior or landscape design. Within the industrial design field, students can focus on a specific area such as appliances/home wares, packaging, tools and transport. In the selected design field students investigate ways in which information and ideas can be communicated to a client and draw on these understandings when creating presentation drawings. They acquire knowledge and skills related to technical drawing conventions and apply these when representing forms using two- and three-dimensional presentation drawings appropriate to the selected field. Students use manual and/or digital methods to create the drawings.

Type and imagery in context

Increasing advancements in the digital communication of information and their popularity has led to a greater need for understanding the meaning and function of typography in visual language. In this area of study students develop knowledge and skills in manipulating type and images when communicating ideas and concepts in the design field of communication. Within the field of communication design, students can focus on areas such as graphic design, packaging/surface design and brand identity. They consider historical and contemporary factors that have influenced the style and layout of print and screen-based presentation formats. Students develop and apply skills in selecting and manipulating type to evoke different moods and emotions, and use a range of manual and digital methods when creating and manipulating images. Students consider the suitability of file formats of images for print and on-screen presentations and the relationship between images and type when communicating ideas and concepts. They use imagination and creative thinking techniques to stimulate curiosity and the development of divergent options when selecting and manipulating images and type for print and screen-based presentations.

Applying the design process

This area of study focuses on the application of specific stages of the design process to organise thinking about approaches to solving design problems and presenting ideas. Students respond to a given brief addressing communication, environmental or industrial fields of design that outlines the messages or information to be conveyed to a target audience. The brief also provides a basis for reflection, as students develop an understanding of the iterative nature of this process by revisiting stages to meet the brief's requirements. In response to a given brief, students engage in research and analysis to support their interpretation of the brief and as stimulus for imagining and generating ideas. Drawing on their creativity, students use a range of manual and/or digital methods, media and materials to generate ideas for further development. Students reflect on these options and further develop their preferred one. In response to their own evaluation, using the brief as a point of reference, students refine and present their visual communication. Throughout the design process students accumulate and annotate their drawings as part of their ongoing evaluation to assist with creating visual communications.

Unit 3: Visual communication design practices

The purpose of this unit is to enable students to produce visual communications through the application of the design process to satisfy specific communication needs. Students also study the production of visual communications in a professional setting, and evaluate examples of visual communications.

Areas of Study

1. Analysis and practice in context

In this area of study students explore a range of existing visual communications in the communication, environmental and industrial design fields. The focus of each design field is:

- communication – the design and presentation of visual information to convey ideas and concepts
- environmental – the design and presentation of visual information for built/constructed environments
- industrial – the design and presentation of visual information for manufactured products

2. Design industry practice

In this area of study students investigate how the design process is applied in industry to create visual communications.

3. Developing a brief and generating ideas

In this area of study students gain a detailed understanding of three stages of the design process: development of a brief, research and the generation of ideas.

Unit 4: Visual communication design development, evaluation and presentation

The purpose of this unit is to enable students to prepare one brief that defines the need or needs of a client. Students apply the design process to produce developmental work and two final presentations based on the brief.

Areas of Study

1. Development, refinement and evaluation

2. Final presentations

Final presentations based on the developmental work are also produced. The visual communication production process is applied throughout the production of solutions to the brief.

Assessment and reporting

Units 1&2 will be assessed internally on course work and end-of-semester exams. In Units 3&4; school-assessed course work and an end-of-year examination will determine the student's level of achievement. Percentage contributions to the final assessment are as follows:

- Unit 3 school assessed course work: 25%
- Units 3&4 school assessed task: 40%
- Units 3&4 examination: 35%