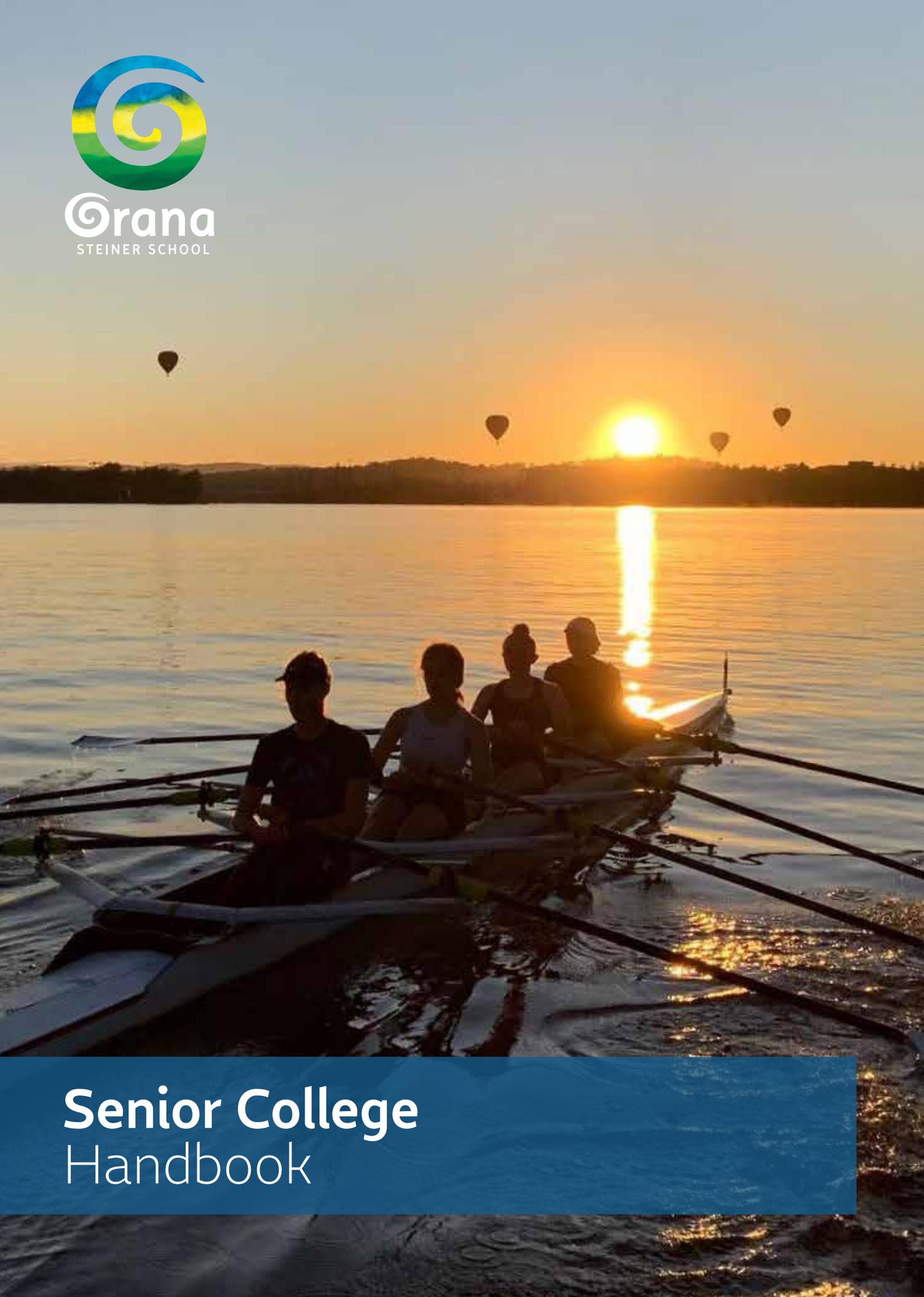




Crana
STEINER SCHOOL



Senior College Handbook

Contents

Philosophical Background	1
Senior College at Orana Steiner School	2
The Senior College Team	2
Student Facilities, Privileges and Expectations	5
The Act College System	6
BSSS Procedures and Requirements	8
Assesment and Reporting	10
Senior College Course and Unit Descriptions	12
Course Information	14
Year 12 Major Projects	29



Philosophical Background

The curriculum and philosophy of Dr Rudolf Steiner (1861-1925) focuses on the education and nurturing of the whole child by combining the humanities, arts and sciences to give children an integrated 'human-centred' picture of the world and their place in it.

One fundamental premise of our curriculum is an emphasis on connectedness and integration – between, for example, human beings, communities, disciplines, society and the natural world. It provides a balanced range of learning experiences; experiences that are academic, artistic, and practical.

From Kindergarten through to Year 12, the education of the child and young person is fully supported by a unique thirteen-year curriculum that is designed to meet and nourish the needs of each stage of development, as well as providing appropriate knowledge and skills.

The aim of Steiner education is to place into the world balanced, well-rounded, and emotionally stable young people with a depth of understanding about themselves, their relationships with others, and the society and times in which they live.

Vision

Our highest endeavour is to provide a purposeful education that will inspire the students to achieve to the best of their individual ability, work creatively, and become aware of themselves as spiritual beings who will contribute positively to global social change.

Guiding Principles

We work within the school's vision to:

- Encourage a lifelong love of learning
- Respect the growing child and their stages of development
- Provide a supportive environment for physical, emotional and spiritual development
- Strive for a balance between academic, artistic and practical learning experiences
- Foster an understanding of the human being as informed by Rudolf Steiner
- Foster self-confidence in the students
- Inspire a healthy respect for and responsibility toward themselves, each other and the environment

Objectives

The vision will be achieved in harmony with our values as the following five key objectives are realised:

- A strong Steiner-based curriculum and culture
- A school of full of students engaged in the act of learning
- An involved and supported community
- Quality facilities, integrated with the curriculum
- Effective governance and administration

“

The aim of Steiner education is to place into the world balanced, well-rounded, and emotionally stable young people with a depth of understanding about themselves, their relationships with others, and the society and times in which they live.

”

Senior College at Orana Steiner School

Orana launched its first Year 11 in 2001 with Year 12 following in 2002. A comprehensive Steiner - based curriculum has been developed at Orana, with approval by the ACT Board of Senior Secondary Studies. A feature of this curriculum is a broad and integrative approach to the Senior College subjects. The emphasis is on providing a well-rounded education with balanced exposure to arts and sciences, together with a range of electives.

Year 12 is the culmination of all that has come before in the student's education, beginning many years ago in Kindergarten. It is a year of synthesis, a bringing together of the divergent and varied subjects that students have studied; a time of more conscious awareness of the connectedness of all they have learnt.

The opportunity for individual, self-directed work is given to each student in the form of the Year 12 Project. This is a research or practical-based task which extends over the whole year. It offers students the chance to demonstrate the skills they have learnt and developed over their school life. At the end of Year 12, all students present their project work to a gathering of the school community and the broader community.

Normally, after completing the Year 12 in a Waldorf or Steiner School, students take a further year to sit matriculation or university entrance examinations. At Orana Steiner School, however, students complete their studies at the end of Year 12 and have an Australian Tertiary Admission Rank (ATAR), if they have chosen a T package. The ATAR score

can be used in enrolment applications to any tertiary educational institution in Australia. In addition, all students who complete an approved educational program in Years 11 and 12 receive an ACT Year 12 Certificate.

The Senior College Team

Senior College students are supported by the Guardians, Pastoral Care Coordinator, Year 12 Project Coordinator and BSSS Coordinator. The Senior College team collaborates with the class cohort and consistent individual students to support wellbeing and academic potential.

The Coordinators work in consultation with the High School Deputy Principal and Senior College Subject Teachers to ensure each student is provided with every opportunity to complete their ACT Senior Secondary Certificate.

The Coordinators work to ensure student's needs are met throughout the Senior College Program. Queries should be directed in the first instance as follows:

Senior College BSSS & Curriculum Coordinator:
ACT Scaling Test (AST) Practice and Facilitation
Academic Progress & Support
Course Selection & Progress Support
Student Attendance
Package Selection & Progress Guidance
Australian Tertiary Admission Rank (ATAR) Estimates
Scaling and Meshing Procedures
Course and Unit Score Calculation and Reporting

Guardian:
Pastoral Care Class of Senior Students
Monitoring & Support for Students on Care Plans
Mentor and first point of communication for students
First point of communication for parents
Community Engagement Coordination & Monitoring
Year 12 Project Support

Careers Adviser & Pastoral Coordinator:
Oversight of Pastoral Care Year 11 & 12 Students
Transition to College Support
Course Selection & Support
Assist with individual work experience placements
Advise on work and training options after college
Advise, assist, and support students to apply and complete an ASBA

Year 12 Project Coordinator:
Oversight of the major projects
Selection/approval of mentors and supervisors
Co-ordination of Project presentations and displays



“

The emphasis is on providing a well-rounded education with balanced exposure to arts and sciences, together with a range of electives.

”



“

Senior College students are always expected to be role models in the school and set a positive example in attitude and behaviour.

”

Student Facilities, Privileges and Expectations

Use of Private Vehicles

Car parking for students is provided in the area below the Senior Resource Centre. Senior College students may drive to and from school provided they adhere to ACT road rules and show all due care to the school community. If driving another student during study periods, written permission is required from a parent or carer.

Signing In and Out

Senior students leaving prior to 3.10pm must sign out so that the school is aware that they are no longer on the premises in the case of an emergency or evacuation.

At times, students may be required to leave the school during school hours to use external facilities or to engage in individual research as in the case of the Year 12 Project. These facilities may include other Colleges, the National Library, galleries etc. Signing out procedures apply in these situations also.

Senior Study and Common Room

In Years 11 and 12 students are provided with a dedicated Senior Study Space, which can be used for both group study sessions and individual study and revision work.

A Senior Common Room is also available, providing students with a space to socialise and relax in their break times.

Study Skills

Study Skills are an essential component to academic success in Senior College. At this stage of learning, students will need to set individual learning goals, sustain motivation, negotiate distractions, maintain subject study notes and adhere to a personal home study program of at least two hours per night. Unless this is a well-established habit, students will need guidance and plenty of it.

Orana subscribes to www.studyskills.com.au, a resource compiled by Enhanced Learning. The online handbook can be accessed for personal student learning at home.

Example of Modules:

- Goal setting
- Motivation
- Dealing with exam and assessment stress
- Home study environment
- Overcoming online distractions
- Home study schedules
- How to take good study notes

ICT Code of Practice and Use of Personal Devices

At Orana we support the rights of all members of the school community to access and engage in a safe, inclusive, and supportive learning environment. This extends to the use of digital tools and online communities and is underpinned by our expectation of responsible behaviour. All students must sign the student declaration of acceptable use of ICT.

Senior students are permitted to use devices for educational purposes, so long as this is in keeping with the school culture. Devices may be used in the Study Space and Common Room and may be used in some classes under the direct instruction of the teacher. Devices should not be used in the High School garden/playground.

Schoolbox, School Email and ACS Portal

Students are encouraged to check their Schoolbox pages and their school email accounts on a daily basis. Teachers will use Schoolbox to post unit outlines, task outlines and due dates as well as classwork and information updates where applicable.

The ACS portal provides students with the ability to check their official academic records and results directly from the BSSS database. Students should check their results on ACS after receiving assessment feedback for each task.

Community Engagement

Senior College students at Orana take an active leadership role in the life of the school. Students are given the opportunity to contribute to the Orana community in a variety of areas, such as:

- Event Management at school Swimming, Athletics and Cross-Country Carnivals
- Coaching interschool and extra-curricular Orana sports teams
- Assistance with High School and Primary School musical rehearsals and performances
- Support of High School Elective Drama performances
- Volunteering with the Canteen, the before/after school childcare
- Senior School Leadership Group.

The students are expected to complete a minimum of 30 hours of school-based or community engagement over the year. Senior College students are always expected to be role models in the school and set a positive example in attitude and behaviour.

The ACT College System

The ACT Senior Secondary education system is based on the principle of continuous assessment throughout Years 11 and 12. Assessment tasks completed throughout the two years count towards the Senior Secondary Certificate and may count towards an Accredited or Tertiary Package and an Australian Tertiary Admission Rank (ATAR).

Students at Orana Senior College continue to access the Steiner Curriculum in Years 11 and 12, and all units and courses studied are accredited or registered with the ACT Board of Senior Secondary Studies.

Definitions

Below are some key terms which are applicable to Senior College. For more details, please refer to the Board of Senior Secondary Studies website.

- **Course:** An approved program of study in a particular subject area, such as English or Drama.
- **Unit:** Units form part of courses. A standard unit (SU) usually spans one semester, has the value of 1.0 and is delivered over a minimum of 55 hours. Main Lessons and Term Units have the value of 0.5 standard unit and involve a minimum of 27 ½ hours of study.
- **Accredited Courses:** These are courses approved by the Board of Senior Secondary Studies as suitable for study in Years 11 and 12. They emphasise the learning of general education skills and their application.
- **Tertiary Courses:** These are accredited courses which are approved by the Board of Senior Secondary Studies as also being suitable preparation for tertiary entrance. Scores from these courses may be used in the calculation of a student's Australian Tertiary Admission Rank (ATAR).
- **M Courses:** These are courses considered by the Board to provide appropriate educational experiences for students who satisfy specific disability criteria.
- **H Courses:** These are external courses designed and accredited by an Australian higher education provider, but suitable for students in Years 11 and 12.
- **C Courses:** These are accredited vocational education and training programs which count towards a Senior Secondary Certificate for students in Years 11 and 12 and are delivered and assessed by a Registered Training Organisation.
- **E Courses:** These are external vocational learning courses run by a Registered Training Organisation which lead to a nationally recognised vocational program. E units are also awarded for students undertaking an ASBA.
- **R Units:** R Units are registered with the Board of Senior Secondary Studies and provide learning situations appropriate to Years 11 and 12 students in personal development, recreational or community service activities. Students can use a maximum of 5 R-unit points towards their Senior Secondary Certificate.
- **Course Length:** Course lengths are based on the number of hours spent in each, and are expressed as follows:
 - **Minor:** Course consisting of at least 2 standard units
 - **Major:** Course consisting of at least 3.5 standard units
 - **Major Minor:** Course consisting of at least 5.5 standard units
 - **Double Major:** Course consisting of at least 7 standard units
- **Note:** A maximum of 8 standard units in any course area will be recognised on a Senior Secondary Certificate.
- **Marks:** Students are awarded marks as a result of an assessment task.
- **Unit Score (or Unit Mark):** A number indicating a student's ranking in a T unit or course.
- **Unit Grade:** A criterion-based, global, summative award for a particular semester unit of study, A to E.
- **Accredited Package:** A package that grants a Senior Secondary Certificate.
- **Tertiary Package:** A package that grants a Senior Secondary Certificate and a Tertiary Entrance Statement.
- **AST:** The ACT Scaling Test. This is a standardised test taken by all students in the ACT intending to obtain a tertiary package.
- **Course Scores:** The score you are awarded when you have completed a T course. It indicates your ranking in the scaling group relative to other students.
- **Aggregate:** You will receive an aggregate score only if you have completed a tertiary package. The Aggregate score is the sum of the best three major scaled scores plus 0.6 of the next best scaled score.
- **ATAR:** Australian Tertiary Admission Rank. This is your rank by Year 12 candidature and is the figure which will determine your acceptance for tertiary study. For example, an ATAR of 92 means that the student is placed in the top 8% of candidates in Australia.
- **ACT Senior Secondary Certificate:** This certificate is issued at the end of Year 12 to all students who have completed an approved programme of studies in Years 11 and 12 which include 17 Standard Units containing a minimum of four courses from at least three different course areas including English.
- **Tertiary Entrance Statement:** This is an additional certificate issued at the end of Year 12 to all students who have qualified for the ATAR, that is, they have completed a tertiary package.

The Senior Secondary Certificate

The Certificate gives results for all units and courses completed by the student during Years 11 and 12.

Students will qualify for the award of a Senior Secondary Certificate on completion of an educational program approved by the College as having provided a coherent pattern of study and which includes the equivalent of at least 17 standard units. Within these units there must be a minimum of four A, T, M, H, C or E courses from at least three different course areas including English.

The Senior Secondary Certificate reports results of studies and is especially useful to employers in selecting candidates. It may also be of use to other education or training institutions at any stage after completing Year 12 studies. It can be used to accompany applications for awards of scholarships and applying for voluntary work with community organisations.

The Tertiary Entrance Statement and ATAR

This statement is awarded to students who complete a Tertiary Entrance Package and who qualify for an Australian Tertiary Admission Rank (ATAR). It contains information (such as courses completed, course lengths, scaled scores and the student's ATAR) which may be used in applying to tertiary institutions. It accompanies the Senior Secondary Certificate.

Gaining an ATAR does not guarantee a student admission to university or to a university course of his/her choice. Universities have their own admission procedures and minimum ATARs for their courses.

To qualify for a Tertiary Entrance Statement a student must:

- Complete units which are the equivalent of 20 standard units which must include at least the equivalent of 18 standard A, C, E, T, M, or H units.
- Have a course package consisting of at least 4 majors and 1 minor OR 3 majors and 3 minors or 5 majors.
- AND of these major and minor courses, at least 3 majors and 1 minor must be T or H Courses;
- Sit for the ACT Scaling Test (AST) in Year 12. The AST is used in compiling the Australian Tertiary Admission Rank (ATAR).

The ATAR Calculation:

Senior Secondary Certificate

The Senior Secondary Certificate is made up of units and courses and will come as either an A (accredited) or T (tertiary) package (See above). The certificate is made up of courses of study for example Mathematics, English, and Visual Art. Within each course are the units studied that make up the course. Within each unit are the assessment items that count towards the final unit score. For a Tertiary Package each unit score within a course is used to calculate the course score via an 80% rule. Course scores and AST (ACT Scaling Test) result are then used, through a scaling process, to calculate each student's ATAR (Australian Tertiary Admission Rank).

How Does This Process Work?

A student should be able to achieve his or her best ATAR no matter what courses he/she chooses and no matter which college he/she attends. Within Orana Senior College and the whole ACT there are checks and balances to ensure that every student has a fair go.

At the Level of the Unit

Assessment items are carefully designed so that they assess similar skills and knowledge to a similar standard within and across subject areas. Once assessment is complete for a unit, a teacher uses his/her professional judgment to rank the students' work according to set criteria. This is called meshing. Teachers compare marks and grades in similar subjects in the Senior College to ensure comparability. This is moderation and it also takes place twice a year on Moderation Days involving all Senior Secondary teachers in the ACT.

At the level of the course

Raw unit scores are collected in scaling groups (groups with similar assessment and meshing characteristics) and are statistically scaled to ensure the integrity of the students' rank order and to obtain data which is statistically representative of the cohort (that is, the mean and standard deviation truly represents the abilities of the cohort). Therefore, a

student's raw scores will not necessarily be their final unit score. For each course a student takes, they will be given a score at the end of Year 12. The best 3.6 of his/her course scores will then go towards the calculation of a student's ATAR.

AST and ATAR

The AST is designed to measure a range of general skills that are relevant to success in a variety of school subjects and further education. The AST scores are used, along with a student's scaled course scores, to calculate his/her ATAR. The process used is a scaling process that aims to obtain scores that are comparable between different courses and different colleges. A student's rank order within his/her college is maintained through this process. The ATAR can then be used when applying for university entrance anywhere in Australia.

What Does the AST Involve?

The AST is held in the first week of September for students in Year 12. Students will sit three exams: Multiple Choice exam, Short Response Exam, Written Exam. Practice AST lessons will take place during Main Lesson time in Class 12. Practice examinations will run throughout Years 11 and 12.

Statement of Achievement

The Statement of Achievement records the units and courses you studied during Years 11 and 12 up to the time that it was requested. It is issued on request, and would be beneficial if a student were leaving college to seek employment, moving interstate or changing colleges. It is issued on request and would be beneficial if a student were leaving college to seek employment, moving interstate or changing colleges.

BSSS Procedures and Requirements

Absences and Attendance

It is an expectation by the BSSS that students should have no more than 10% unexplained absence for any course they undertake. More than 10% of the course in unexplained absences will result in a V grade or Void and the student will not be able to count the units towards their Year 12 Certificate.

Students need to ensure that their parents have notified the school of absences. This includes providing notes or parental emails for lateness to both the front office, class teachers and Guardian.

Rolls will be kept for every subject. Parents/carers must provide a signed note or email to the office staff for all student absences. Students will be required to provide a medical certificate for absences of more than three days or in the case of a missed assessment task, unless leave applications have been arranged.

Applications for Leave

Where a student absence is known in advance, students can request leave by providing a parent-signed request to the BSSS & Curriculum Coordinator. Students will be required to have the absence form signed by all teachers and arrangement to complete work.

Absences exceeding five school weeks will require the receipt of an Exemption Certificate from the ACT Department of Education and Training.

Individual Plans of Study

All students will have guidance from the Careers Adviser/Pastoral Coordinator and BSSS & Curriculum Coordinator on compiling their individual course of study. Student subject choices must meet the requirements of the BSSS and must be approved by the BSSS & Curriculum Coordinator.

Withdrawals from Courses/Changes of Study Plans

Students must consult with the BSSS & Curriculum Coordinator to gain approval for withdrawal from subjects or changes to their plan of study.

Unit Outlines

All students will be given a Unit and Assessment Outline within the first two weeks of a semester unit or in the first week of a Main Lesson or term unit. This outline will summarise the content of the unit and list the assessment items and when they are due, giving the weighting for each assessment item. The Outline details may only be altered by the teacher in consultation with the classes concerned. Unit and Assessment Outlines will also contain information regarding attendance expectations, the appeals process and penalties for late submission of work and for breaches of discipline including plagiarism.

Submissions of Assignments

The dates for submission of assessment tasks will be stated on the Unit Outline. If dates need to be adjusted, students will receive adequate notice before an assessment task is due.

All work needs to be submitted to the class teacher by the date and time stated on the assessment item. Problems with printing or other computer difficulties are not regarded as valid reasons for late submission of work.

Students should ensure that all work is regularly backed up and saved in three separate ways, e.g. hard drive, cloud, USB – to avoid technical problems. Students need to keep copies of all work submitted for the duration of their Senior College program.

Applying for an Extension

If an assessment item cannot be completed by the set date, or assignment work cannot be completed and submitted because of illness or circumstances beyond the student's control, the difficulty should be discussed with the teacher or Senior College Coordinators. This should be done before the due date whenever possible. Only in exceptional circumstances will an extension of the due date be given.

Difficulties with computers or any other piece of equipment are not appropriate reasons for granting an extension.

Missed Assessment Tasks

For cases of illness where a test is missed or an assessment task is due, a medical certificate should be obtained to cover such an absence, and this certificate should state the functional disadvantage suffered by the student in relation to his/her school work.

Where extensions are not granted, then penalties will be imposed for each day late until the work is submitted. Late work will receive a penalty of 5% (of possible marks) per calendar day late, unless an extension is granted by the class teacher prior to the deadline. 'Per calendar day late' means each day late whether it be a weekday, weekend, or public holiday. Items due on any date must be submitted to the class teacher, faculty staff room or front office by 4:10pm on that day. After 4:10pm the item will attract a late penalty. A maximum of up to the notional zero may be lost in this way. If work is submitted to someone other than the class teacher, the student must ensure that it is signed and dated by the person accepting the work.

Unless prior approval is granted, any student who fails to submit assessment tasks worth in total 70% or more of the assessment for the unit will be considered not assessable and will receive a V grade. The faculty has

the right to exercise discretion in the application of the late penalty in special circumstances where satisfactory documentation is provided.

Non-substantive Submissions

In the case of a student submitting a task lacking in substantive effort, teachers will advise parents by email and the task will not count as being submitted until the task has been resubmitted demonstrating substantive effort. A new deadline will be set by the teacher. Late penalties will apply.

If work is incomplete or not submitted by the due deadline, students will receive a notional zero for the assessment task.

Special Consideration/Status for Illness

Students seeking Special Consideration due to illness must contact the BSSS Coordinator. The application will be considered by the Senior College Coordinators. Parents/guardians will receive emailed advice about the decision on the application.

Possibilities for special consideration may include an exemption from completing an assessment item, alternative or modified assessment items, or an extended time period to complete a task.

In the case of on-going or chronic illness, students may be considered for a grade of Status. This will only be awarded if the student has completed insufficient assessment to be awarded a fair grade in the subject. However, Status can only be awarded to cover less than 50% of the units within any course. In cases of prolonged illness or misadventure, students have the alternative of deferring the completion of the Year 12 Certificate and may complete it over a period of up to five years.

The primary aim of special consideration is to provide assessment opportunities for students to demonstrate evidence for grading that is fair to the student who has suffered the illness or misadventure and the other students in the class.

Cheating and Dishonest Practice

The integrity of the College's assessment system relies upon all involved acting in accordance with the highest standards of honesty and fairness. Any departure from such standards will be viewed very seriously and regarded as a breach of discipline.

Plagiarism is the copying, paraphrasing or summarising of work, in any form, without acknowledgement of sources and presenting this as the student's own work.

Examples of plagiarism could include, but are not limited to:

- Submitting all or part of another person's work with/without that person's knowledge
- Submitting all or part of a paper from a source text without proper acknowledgment
- Copying part of another person's work from a source text, supplying proper documentation, but leaving out quotation marks
- Submitting materials which paraphrase or summarise another person's work or ideas without appropriate documentation
- Submitting a digital image, sound, design, photograph or animation, altered or unaltered, without proper acknowledgment of the source.

The ACT Board of Senior Secondary Studies produces a brochure on plagiarism and how to avoid it, which is available on its website.

Breaches of discipline will result in one or more of a range of penalties, from a verbal reprimand or reassessment, in minor cases, to the cancellation of results.

Appeals Procedure

The ACT senior secondary system is designed to give students the opportunity to see how their work is assessed. Students should always check their scores and/or grades directly with their subject teacher as well as through the ACS portal. If the student believes they have been assessed wrongly for a piece of work, a test, unit or a course, they may query the decision; sometimes mistakes are made.

If a student is dissatisfied with a mark for a particular piece of work, they should discuss the matter with their teacher, pointing out why they feel they need a re-mark. The teacher will explain the criteria applied in marking the piece. If the student is still unhappy, they may approach the BSSS Coordinator.

If the student is still dissatisfied with the result of the appeal, they can lodge a formal appeal with the Principal and after this with the ACT Board of Senior Secondary Studies.

A student may appeal a mark, a unit score or grade, a course score or grade, or a disciplinary penalty.

Note: Appeals should be made within five working days of the assessment outcome being made available except in the case of the second semester of Year 12, where students have two working days to lodge an appeal after results being made available to them.

Students should be aware that an appeal may have one of three outcomes: a higher mark/grade/score, no change, or a lower mark/grade/score.

Assessment and Reporting

Assessment Procedures

There are no external subject examinations in the ACT and assessment is continuous throughout Years 11 and 12. Students are assessed on a regular basis during each unit, and in the case of T courses, a course score is calculated at the end of Year 12 based on the work completed during Years 11 and 12, so consistent effort in all units is important.

Assessment varies from course to course. Assessment instruments include tests, assignments practical work, field work, oral presentations, essays and in-class exercises.

Reports are sent out every semester. T students will be given unit scores and grades. A students will be given unit grades.

Unit Grades

In R units, grades may be recorded as P (satisfactory) or V (void). For T and A units, there are five Unit Grades with A representing the highest and E the lowest grade. Course framework descriptors for each Unit Grade detail criteria and standards against which student work is assessed in particular units to study. All students will be given descriptors for each unit they study at A or T level.

An **R** Grade (Recognition) may be awarded where a unit is transferred from another college.

An **S** Grade (Status) may be awarded where the study program is badly interrupted by illness, misadventure. A unit with an S grade can be counted towards a course.

A **V** grade (Void) is awarded when a student does not satisfy the unit attendance or assessment requirements. A unit with a V grade will not count towards a course.

Moderation

Orana's Senior College is part of the process of moderation. This process is designed to support teachers to make consistent and comparable judgements about student performance in the ACT senior secondary education area. It ensures fairness for all students and provides the wider community with reliable information about student performance.

Qualitative moderation involves teachers in their own colleges and in cross-college moderation days reaching consensus about grades through consultation and negotiation in relation to samples of student work. Common assessment criteria and unit grade descriptors in each course will allow teachers in different colleges to judge standards and to agree on their application.

Some Requirements of Tertiary Institutions

Students should carefully check the pre-requisites or assumed knowledge for the course they intend to study at the end of Year 12. While entry to most university courses requires only a satisfactory ATAR, for some courses the student must have studied certain subjects (pre-requisites). For others it is assumed that certain subjects have been studied at college and without this knowledge you will find the course difficult.

Relevant information can be found in the following:

1. Various publications by the BSSS available on the School Intranet or the BSSS website, <http://www.bsss.act.edu.au/>
2. UAC Information Guide
3. Job Guides
4. Handbooks from tertiary institutions



“

In the Senior College, we aim to address the needs of the young person, as well as being mindful of the demands of society.

”

Senior College Course and Unit Descriptions

Main Lesson Units

Within the framework of the courses that have been approved by the ACT Board of Senior Secondary Studies, students at Orana will continue to complete Main Lessons alongside their other classes. Main Lessons are compulsory and may be taken at T, A or R level depending on the individual student's package.

The Main Lessons in Years 11 and 12 build on all that has been studied in the previous years. Through this process, students continue to connect with the many complex and diverse strands of the 12-year curriculum.

The Main Lessons undertaken in Years 11 and 12 are described in more detail in the course and unit descriptions section of this handbook. Further information is available from the subject teachers.

Over the two years of Senior College, students will study the following Main Lessons:

English

- Romanticism
- Parzival
- Shakespeare
- World Literature

Humanities

- Medieval History
- Modern History
- Big Ideas
- Political Theory

Arts

- Photography
- Architecture

Technology

- Cooking
- Silversmithing

Science

- Botany
- Science of Water
- Science of Colour
- Evolution

Mathematics

- Surveying
- Projective Geometry
- Financial Mathematics
- Fractals

Subjects

Many of the subjects have Main Lesson units as well as specialist units. Main Lesson and Specialist units may be combined to make Major courses and Minor courses.

In most classes A and T level levels are taught in the same class. Some units will have combined student groups from Years 11 and 12.

Subjects from the list below will definitely run in 2022:

- English
- Essential English
- Essential Mathematics
- Maths Applications
- Maths Methods
- Maths Specialist Methods
- Maths Specialist
- Design & Emerging Technologies
- Design & Textiles
- Information Technology
- Visual Arts
- Photography
- Drama
- Economics
- Human Biology
- Physics
- Interdisciplinary Science
- Exercise Science
- Japanese

Subjects from the list below will run based on student interest:

- Biology
- Chemistry
- Global Studies
- History
- Geography
- Oceanography
- Earth and Environmental Science
- Business
- Music
- Sociology

- Philosophy
- Australian and Global Politics
- Engineering
- Translating and Interpreting skills
- Interdisciplinary Inquiry
- German and other Language courses (accessed through the Canberra Academy of Languages)

External Learning

Students may also include units studied outside of Orana. These include language or music courses delivered by Karabar Distance Education Centre or the Canberra Academy of Languages; Vocational and Recreational courses offered by CIT; H Courses offered by ANU and other university secondary colleges. These units can be taken at M, R, T, C, E, H or A level depending on the course.

Vocational Programs

At Orana Senior College the main Vocational Program offered is through the ASBA program.

Australian School-Based Apprenticeships (ASBAs) offer students 15 years or over the opportunity to achieve a nationally recognised vocational qualification by combining paid work and training as part of their education program.

A **Certificate II** qualification requires a minimum of 8 hours (equivalent to one day) in the workplace and a minimum of 3 hours off the job training per week. Students will be entitled to a maximum of 2 units a semester in the relevant industry area (1 unit for structured training and 1 unit for on-the-job training).

A **Certificate III** qualification has a greater time and work commitment (12 hours on the job and 3 off) and may require further work and study after the completion of Year 12. Students will be entitled to a maximum of 3 units a semester in the relevant industry area (1 unit for structured training and 2 units for on-the-job training).

There are many areas in which an ASBA can be completed and students completing an ASBA will finish Year 12 with the added benefit of a Certificate II or III qualification. In fact, many students who undertake an ASBA are immediately placed in full time employment at the completion of Year 12.

ASBAs can be taken by Senior College students (undertaking an Accredited course) with the only pre-requisite being that they are 15 years of age. The Careers Coordinator will work closely with the students to monitor progress and provide support with the completion of schoolwork.

An ASBA can result in the attainment of up to 8 Accredited Units (out of 18) towards the Senior Secondary Certificate and therefore offers a real alternative to students. It is difficult to include an ASBA as part of a Tertiary package because of the heavy workload this entails, so this is not advised.

For more information about ASBA's please contact our Careers Adviser, Kirstie Brass.

How Do I Choose What Courses to Study?

Selecting courses to study in Years 11 and 12 can be a challenge, as the ACT Senior College system is quite different from the curriculum studied up until Year 10.

However, during Year 10 and throughout Years 11 and 12, our Careers Adviser, Guardians and BSSS Curriculum Coordinator will help students to select their courses. The best advice is to choose subjects you have enjoyed and done well at in High School, or new ones which really interest you. There are only a few university courses nowadays which have prerequisite subjects and our Careers Adviser can help you find out about these.

During the first few weeks of Year 11, it is common for students to change units and levels of study. Students will be advised about the deadlines for these changes several times prior to the deadline. The important thing to remember is that your teachers want to

help you find the course which will suit you best for your future.

Orana Careers Service for Senior College Students

The Orana Careers Service has been established to address the needs of our Years 10-12 students during their transitional periods: Year 10 to Senior College and Year 12 to post-secondary options. The service aims to nurture and develop the career-building skills of our senior students, while providing individualised support and guidance in achieving career pathway goals.

Support offered to students via our Careers Service include:

- Individual Pathways Planning
- Work Experience Coordination
- ASBAs Coordination
- Subject Selection and Senior College Package Advice
- Careers Guidance
- Registration of educational pathway goals and course interest; issue relevant information to students relating to university, CIT and further education admissions information and open days
- Assistance and support with applications to university and CIT
- Registration of Community Engagement/volunteer experience.

Course Information

English

There is one English Main Lesson each semester, alongside the regular weekly lessons in this subject. In Year 11, these may include Romantic Poetry and Literature, and Parzival.

The Main Lesson on Romantic Poetry and Literature investigates the period of foment which arose from the Enlightenment in Europe and informs much of our understanding today about the role of poetry and the Arts as agents of change in society, nature and the spiritual world, the concept of the Genius and the Hero, emergence of women as individuals in their own right in society and the contemporary allure for the Gothic imagination.

The Parzival Main Lesson focuses on the rise of the individual as a moral being with a social conscience directed outward into the world. It is a 'journey and quest' with personal and universal relevance to the 21st century.

In Year 12, English Main Lessons can include an intensive examination of a Shakespearean play which allows students to consider the way in which we wrestle with our concept of self, such as an intensive study of Hamlet and his existential struggle. Crime and Punishment includes examination of questions of justice and the repercussions of one's actions; Modern World Literature focuses on the way in which our perspective is shaped by our circumstances, and how we can approach understanding the perspective of another.

For English, the Main Lesson forms part of the BSSS required Units of Study, so different Main Lessons may be selected to suit the individual teacher (and students') approach to the relevant unit.

History

History can be taken as a Major or a Minor at A and T levels. There is one Main Lesson in Year 11 and one in Year 12. They are compulsory units with a value of half a standard unit or 27.5 hours (Q).

Why Study History?

Studying history helps us to understand the world we live in. History shows how ideals from the past can also affect the lives we live today. Studying history not only develops the skills of thinking, critical analysis, and judgement, but engages us as people with moral initiative, social awareness and the freedom to make choices, now and in the future.

History Main Lesson Units

Medieval History

This is a Main Lesson which focuses on the concept of the Golden Ages and the development of many of the institutions which form part of the legacy of modern Australia. It begins with the collapse of the Roman Empire and the ensuing unsettled period when a number of different ethnic groups fought for supremacy over the island of Britannia, culminating in the successful campaigns of King Alfred. The Main Lesson reflects the struggle between chaos and order, reason and emotion, and group versus individual consciousness through the study of such topics as Church and state, the Viking wars and laws and justice.

The Modern World Since 1945:

This Main Lesson offers a great variety of possible topics and allows students to engage with the modern history of the world around them. The unit is studied in Term 1 of Year 12 and the students choose which topic they will study as a class beforehand. Possible options for topics are: the rise of international terrorism; the Cold War; the decline of the U.S.S.R and rise of the U.S. as a sole superpower; the changing nature of a chosen Asian country in the 20th century; the changing economic and social conditions of the world during the 20th century; changing patterns of

human migration; the struggle for peace in the Middle East.

Architecture

This Main Lesson is a stand-alone Main Lesson that looks at architecture and its connection with human aspirations and activity. It examines the understanding of humanity's relationship both to itself and to the environment, which is demonstrated by the various architectural forms, both ancient and modern. The inspirational element in the processes of designing and constructing architectural forms is investigated as part of the development of various civilisations. This Main Lesson includes a camp in Sydney.

Drama

Yes, I have tricks in my pocket, I have things up my sleeve. But I am the opposite of a stage magician. He gives you illusion that has the appearance of truth. I give you truth in the pleasant disguise of illusion. — Tennessee Williams, The Glass Menagerie

In Senior Drama, we explore the human condition through acting. We take on roles that extend our understanding of others, and ourselves; we work collaboratively to express greater truths through the creative medium.

Theatre ranges from light-hearted or comedic expression through to quite abstract, philosophical ideas made real and accessible through performance. Performance can be used as a medium for political statements, for grappling with social issues, or as a playful exploration of life, a celebration or expression of artistry. At Orana, we see dramatic exploration as a part of the process by which we explore and define our sense of identity and values, and how we share that process with others. Through acting, we develop our self-expression, communication, empathy, awareness, and confidence.

The Senior Drama course can be taken as either a minor or a major, and at both Accredited and Tertiary levels. The teacher and students work collaboratively in forming aspects of the study program

to meet our individual interests as well as the requirements of the BSSS.

Assessment for Drama involves creating original work, performing, and critically evaluating work undertaken. There are no prerequisites for Senior Drama.

BSSS units that may be undertaken are as follows;

Creativity in Drama

Students develop their skills to think imaginatively and flexibly, to express their understanding of self, others, and the world. They explore techniques and strategies to achieve their purpose and apply the creative process. Students work collectively, collaboratively, and independently to examine the human experience and create new insights.

Communicating Meaning in Drama

Students examine how meaning is communicated in drama, utilising performance skills, elements of production, forms, and styles. By conducting research and analysing dramatic works that have made a difference, students draw conclusions about the purpose and intended audience. They develop skills in empathy, interaction, responsiveness, and communication. Through the creation of their own dramatic works, students understand semiotics and power relationships in different societies. They apply dramatic techniques to shape audience response, by provoking, informing, or entertaining.

Drama in Context

Students explore the works of dramatists and performers from different times and different places, to understand the way social, historical, political and/or cultural contexts have shaped theatre and impacted audiences. They engage with the issues and ethical dilemmas confronting people in other contexts, to develop insight and intercultural understanding. Through a range of perspectives, they examine the possibilities - through different genres, forms of practice and approaches to technique, they gain understanding of dramatic techniques that may be applied.

Adaptation in Drama

Students examine a range of spoken, performed, visual or written texts to

understand how universal themes and perspectives are represented. They assess the relevance of the challenges and the issues that are revealed and explore possible interpretations to reimagine them as dramatic performances for a contemporary audience. They develop skills in adaptability, critical analysis and versatility. In adapting texts, students use a variety of methods, mediums, and techniques to achieve transformation.

Independent Study

An Independent study unit has an important place in senior secondary courses. It is a valuable pedagogical approach that empowers students to make decisions about their own individual learning. An Independent study unit must be proposed by an individual student, be for their own independent study, and negotiated with their teacher. An Independent study unit requires the principal's written approval. The program of learning for an Independent study unit must meet the unit goals and content descriptions as they appear in the course. Students must have studied at least three standard 1.0 units from this course.

Innovation in Drama

Students learn about innovative dramatic practice, both past and present, and employ techniques and forms to break with conventions and to be inventive in their work. They explore the dramaturgical and technical capacity to encompass innovations in technique, performance, direction, production and/or digital platforms. Students examine the nature of ensemble and group practices, and the reinvention of traditional notions of theatre, processes, and roles. They develop skills in inquiry, resourcefulness, sustainability, and curiosity. Students appraise works that have revolutionised theatre over time and challenged and redefined audience expectations.

Leadership in Drama

Students learn about leadership in the context of creating dramatic works. They explore the possibilities for shaping and influencing a dramatic work, through engagement with aspects such as producing, writing, directing, performing, or designing. Students develop skills in

risk taking, integrity, and initiative, and develop the confidence to share their vision. In learning about leadership, they gain an understanding of the various roles required in a dramatic work, and of the communication, teamwork, and collaboration skills necessary to shape and effectively execute performances.

Entrepreneurship in Drama

Students learn about creating opportunities and examine the various avenues for engaging in performance. They examine the theatre landscape and different pathways for participation in the industry. Students learn from the past about the ways that theatre groups and performers have overcome obstacles and worked creatively within constraints. They develop an enterprising mindset and consider the possibilities for authentic experiences for a range of audiences. Students appraise the role of technology in dramatic ventures, now and in the future.

Interdisciplinary Inquiry in Drama

Interdisciplinary inquiry is an approach to studying and addressing complex problems or issues to explore new perspectives and advance critical thinking. Students learn about how drama can embrace concepts from other disciplines, and how forms, structures and techniques from other works can be employed to inform, persuade, or entertain. They develop skills in synthesising viewpoints, recognising bias, and drawing conclusions. They examine how to incorporate knowledge and skills from disciplines and consider how dramatic works can incorporate other mediums, such as multimodal texts.

Global Studies

Global Studies is the study of the political, economic, social and cultural relationships of the world. The course content encourages a global perspective and provides students with the background to study other cultures in relation to their own, including the concepts of identity and belonging. This interdisciplinary course explores global issues, global communities, global challenges and change.

The Global Studies course teaches students to think critically about

key global issues and to develop an understanding of international politics, global economic forces, intercultural relationships, international cooperation, and global citizenship.

Global Studies takes a multi-disciplinary approach. The course incorporates units from Philosophy, Politics, Sociology, Anthropology, and more. It is a course best suited for those students who have an interest in a wide variety of Humanities courses and in how theories from those courses relate to real world examples.

Unit 1: Global Actors

Students critically analyse the distinctive nature and origin of actors within contemporary global politics. They use theories to question and analyse hierarchies and taxonomies of actors and power.

Unit 2: Global Processes

Students critically analyse the purpose, nature, and origins of global processes in the international order, and how these facilitate or impede relationships among global actors in many communities. They analyse different processes for negotiation between actors within global anarchy. Students evaluate the processes by which global systems operate as well as their potential for reform.

Unit 3: Global Challenges

Students critically analyse significant contemporary issues that pose challenges around the world as a result of processes employed by global actors to address issues and critique the resulting balance of power. They question whether the mechanisms that regulate global behaviour effectively manage the tension between self-interest and collectivism. They analyse the challenges faced by actors and processes with the emergence of new powers and value systems.

Unit 4: Global Opportunities

Students analyse what progress and change can be achieved by global political action. They examine how the global system is perceived and used to improve the lives of individuals and communities. Students evaluate possible pathways for progress and consider to whom current reform processes bring benefits.

Economics

Overview

Economics is a study of the actions of individuals and societies, particularly as they relate to choices about satisfying needs and wants, and the utilisation of scarce resources. It uses theories and models to attempt to explain these behaviours.

Students develop their knowledge and understanding of the structure and operation of Economic models. They examine the relationship between theory and practice including the role of stakeholders and decision-making. Students develop insights into the impact of change on the economic environment. This course examines representations and interpretations of economic issues.

Students develop the skills to create innovative solutions to Economic problems. They will research and analyse information to present logical and coherent arguments through an inquiry approach to learning. Students will assess the ethical implications and consequences of a changing commercial environment. Skills implicit in the study of Economics empower students to communicate in a variety of contexts.

The study of Economics enables learners to develop their knowledge, understanding and skills to enhance the well-being of all citizens locally, nationally and globally.

This course provides continuity with many pathways into tertiary and industry studies.

Economics Units

Each unit may have a value of a standard unit of 55 hours or could be made up with two ½ standard units of 27.5 hours each. The units will be taken from the following:

Unit 1: Economics Principles and Price Mechanism

This unit looks at the basics of Economics: The concept of Scarcity, Opportunity Cost, Sunk Costs, etc., as well at the notion of The Invisible Hand, which is the relationship between Supply and Demand.

Unit 2: Market Failure and Macroeconomic Issues

This unit looks at the areas where the free market fails to result in efficiency, which is usually a result of monopolies, externalities, or the allocation of public goods. The unit will also examine the basics of Macroeconomics, including Aggregate Supply/Demand, Monetary Theory, and the concept of Multipliers.

Unit 3: Trade Economics and Finance

This unit examines the structures of trade including Tariffs Exchange Rates, and the Current Account. It also examines the Financial Markets of developed economies and the basics of Debt, Equity, and Risk.

Unit 4: Economic Development and Population Theory

This unit will examine the concept of Economic Development, which includes an examination of Inequality and an evaluation of Foreign Aid. The unit will also focus on the impact of population growth and decline within both countries and globally.

Interdisciplinary Inquiry

Interdisciplinary Inquiry is a course that allows students to pursue an inquiry into their chosen passion or perspective field. The students develop a line of questioning, conduct rigorous research, and produce a substantial report, artistic piece, or other project in response to their inquiry.

The inquiry takes place over the course of one year and can be undertaken in Year 11, Year 12, or both years. Students will receive a minor if they complete one year and will receive a major if they complete both years. Students can complete this course at Tertiary or Accredited level.

Due to the independent nature of this course and the expectation that students complete a substantial piece of work upon completion of the year, Interdisciplinary Inquiry serves as an option to receive Tertiary credit for the Year 12 Project.

Interdisciplinary Inquiry is broken into four units:

Communication Inquiry:

In this unit, students develop methods of communication to improve their own work while conducting and reporting on an inquiry.

Creativity and Innovation Inquiry:

In this unit students study the elements of creativity and innovation and apply this learning within their own inquiry. Students learn how creativity and innovation provide methodologies to improve one's own work.

The Critical Thinking Inquiry:

In this unit students study theories and processes of critical thinking such as the laws of logic, different modes of reasoning, identifying, constructing and evaluating arguments, detecting inconsistencies, biases and other barriers to critical thinking.

Collaboration Inquiry:

In this unit students learn how collaboration skills can be practised and developed for use in different contexts. They study elements such as socio-emotional awareness, giving and receiving feedback, recognising talents, leadership, organisation, conflict

resolution strategies, stakeholder perspectives and cultural awareness.

Languages

Orana offers both Continuing and Advanced language courses in German and Japanese. These courses can be taken as a Major or Minor, at either A or T level. Continuing courses are suitable for students who have studied the language throughout High School, while Advanced courses are best suited to students who may have lived in the country for some time or grown up speaking the language (students who have participated in the Exchange program are expected to enter the Continuing level course).

Other languages (at Beginner, Continuing and Advanced levels) are also accessible through the Canberra Academy of Languages as part of an accredited or tertiary package.

Why Study Languages?

There are definitely practical benefits to achieving proficiency in another language. If you're considering tertiary courses such as International Relations, Media and Tourism, Strategic Studies, Foreign Affairs, European Studies and International Law / Business, you will be required to take a language. Hoping to spend a year abroad? Knowing the language opens up a multitude of pathways for overseas study and work.

Language study is also excellent for your brain – it challenges you to develop cognitive flexibility and problem-solving abilities and enhances creative and critical thinking skills. Students studying a language have been shown to perform better in standardised tests (like the AST) in both literacy and numeracy.

Learning languages has short-term benefits as well – many Australian universities (including the ANU) offer bonus ATAR points to students who have studied a language to Year 12 level. Some employers (including many areas of the public service and defence force) even offer a financial bonus to employees who have attained proficiency in another language!

Units of Study

The Individual

Students learn about how relationships and personal experiences shape identity. Students explore ways of belonging and reflect upon their own expression of identity through the target language.

Topics include personal experiences and identity, relationships and belonging.

Society and Community

Students learn how different language communities are organized. They learn through the target language how to engage in diverse cultural practices and consider these in relation to their own. Students explore how to participate in society and the community.

Topics include Language communities, cultural practices and traditions, roles, rights and responsibilities.

The Changing World

Students learn how values and culture/s shape an understanding of, and interaction with, issues that impact our world. Through the target language students explore challenges and opportunities to share responsibilities.

Topics include Global issues, change and challenges, sustainability.

Diverse Perspectives

Students learn how culture and language are expressed and appreciated in diverse mediums to communicate, sustain and challenge thinking, behaviour and systems. Students examine and demonstrate an awareness of perspectives. They explore, through the target language, a diversity of cultural expressions in the arts.

Topics include Art and culture: literature, media, visual art, performing arts.

Mathematics

Mathematics Courses

Courses are offered at 4 levels to students, however the maths courses which run in any given year will depend on the number of students choosing each course:

- Specialist Mathematics (T)
- Mathematical Methods and Specialist Methods(T)
- Mathematical Applications (T)
- Essential Mathematics (A)

Mathematical Methods (T) or Specialist Methods (T)

Unit 1	Unit 2	Unit 3	Unit 4
Functions and graphs Trigonometric functions Counting and probability	Exponential functions Arithmetic and geometric sequences and series Introduction to differential calculus	Further differentiation and applications Integrals Discrete random variables	The logarithmic function Continuous random variables and the normal distribution Interval estimates for proportions

Mathematical Applications (T)

Unit 1	Unit 2	Unit 3	Unit 4
Consumer arithmetic Algebra and matrices Shape & measurement	Univariate data analysis and the statistical investigation process Applications of trigonometry Linear equations and their graphs	Bivariate data analysis Growth and decay in sequences Graphs and networks	Time series analysis Loans, investments and annuities Networks and decision mathematics

Specialist Mathematics (T)

Unit 1	Unit 2	Unit 3	Unit 4
Combinatorics Vectors in the Plane Geometry	Trigonometry Matrices Real & Complex numbers	Complex numbers Functions and sketching graphs Vectors in three dimensions	Integration and application of integration Rates of change and differential equations Statistical influence

Essential Mathematics (A)

Students who do not intend to undertake a T package are encouraged to complete a Minor in General Mathematics in order to be comfortable with the requirements of post-secondary training and apprenticeships. Units include:

Unit 1	Unit 2	Unit 3	Unit 4
Calculations, percentages and rates Measurement Algebra Graphs	Representing and comparing data Percentages Rates and ratios Time and motion	Measurement Scales, plans and models Graphs Data collection	Probability and relative frequencies Earth geometry and time zones Loans and compound interest

All standard mathematics units are covered during class time outside of Main Lesson. Added to this we have two Main Lessons in each senior year with a mathematical focus, which aim to foster an appreciation of maths beyond the BSSS curriculum. Examples of topics which may be covered are financial applications of maths, patterns and fractals, as well as geometry of perspective.

Physics

The goal of the Physics Major is to provide the student with a broad understanding of the physical principles of the universe, to develop critical thinking and quantitative reasoning skills to support analysis. The course is aimed at providing training for students planning careers in physics and in the physical sciences broadly defined, including those whose interests lie in research, K-12 or college teaching, industrial jobs, or other sectors of our society.

Physics can be taken as a Major (two years) or a Minor (one year) and is available at T level only. It is an individual discipline of the Science strand and complements many of the units in the Interdisciplinary Science Course. There are no overlaps with the Interdisciplinary Science course, and both can be taken as part of a student's overall package.

Physics Units

Each unit may have a value of a standard unit of 55 hours or could be made up with two ½ standard units of 27.5 hours each. The units will be taken from the following:

Unit 1: Linear Motion and Waves

This unit looks at Newton's Laws of Motion and the relationship between forces on objects as well as the wave model of sound and light. It will include practical classes, investigations, modelling, and excursions when possible.

Unit 2: Thermal, Nuclear and Electrical

This unit will look at the kinetic particle model and thermodynamics as well as the nuclear model of the atom. It will include practical classes, investigations, modelling, and excursions when possible.

Unit 3: Gravity and Electromagnetism

This unit looks at the Laws of Motion in gravitational, electric and magnetic fields as well as the electromagnetic wave model and the transformation and transfer of energy. It will include practical classes, investigations, modelling, and excursions when possible.

Unit 4: Revolutions in Modern Physics

This unit will look at the equivalence principle and its consequences for space and time as well as the

quantum theory of light and matter, the photoelectric effect, and atomic emission and absorption spectra. It will include practical classes, investigations, modelling, and excursions when possible.

Chemistry

Chemistry is the science describing matter and its transformations. It is the science that defines molecules, nanostructures, and extended solids, and their properties, reactions and applications. This empowering science is central to virtually all areas of modern science and technology, especially the new, exciting inter- and multi-disciplinary areas of molecular genetics, molecular biology, nanotechnology, medicinal chemistry, drug design and development, and green (environmentally sustainable) chemistry/industry.

Chemistry is called the central science because all scientists study chemicals at some level. Geologists examine the way chemicals come together to form rocks. Biochemists and pharmacologists study chemicals that cause and cure diseases. Astronomers study the chemical compositions of stars, planets and galaxies. Geneticists study the chemicals of biological inheritance. A background in chemistry is useful in a career in all these disciplines.

Chemistry can be taken as a major (two years) or a minor (one year) and is available at T level only. It is an individual discipline of the Science strand and complements many of the units in the Interdisciplinary Science Course. There are no overlaps with the Interdisciplinary Science course, and both can be taken as part of a student's overall package.

Chemistry Units

Each unit may have a value of a standard unit of 55 hours or could be made up with two ½ standard units of 27.5 hours each. The units will be taken from the following:

Unit 1: Chemical Fundamentals

In Unit 1 students use models of atomic structure and bonding to explain the macroscopic properties of materials and to predict the products and explain the energy changes associated with chemical reactions.

Unit 2: Molecules

In Unit 2, students continue to develop their understanding of bonding models and the relationship between structure, properties and reactions, including consideration of the factors that affect the rate of chemical reactions.

Unit 3: Equilibrium and Redox Reactions

In Unit 3, students investigate models of equilibrium in chemical systems; apply these models in the context of acids and bases and redox reactions, including electrochemical cells; and explain and predict how a range of factors affect these systems.

Unit 4: Structure, Synthesis and Design

In Unit 4, students use models of molecular structure, chemical reactions and energy changes to explain and apply synthesis processes, particularly with consideration of organic synthesis; and they consider current and future applications of chemical design principles.

Interdisciplinary Science

Humans have an innate curiosity and desire to understand the universe. The study of Science encourages and enables students to develop an understanding of the universe through observation, questioning, experimentation, discussion, critical analysis and creative thinking.

Students explore key concepts and models through active enquiry into phenomena and through contexts that exemplify the role of Science in society. They learn how an understanding of Science is central to the identification of, and solutions to, some of the key issues facing an increasingly globalised society. The subject explores ways in which scientists work collaboratively and individually in a range of integrated fields to increase understanding of an ever-expanding body of interconnected scientific knowledge.

Scientific processes challenge current understanding and are continually re-evaluated. Students are constantly encouraged to examine and reconsider their understanding of scientific concepts, their inquiry methods and phenomena.

The study of Interdisciplinary Science equips students with the skills to be

independent thinkers and life-long learners who are confident to pursue a wide range of study pathways and careers. Students who undertake Interdisciplinary Science have a general interest in science as a subject and are looking to have a broad package without necessarily specialising in a particular field of science.

Interdisciplinary Science Units

Each unit may have a value of a standard unit of 55 hours or could be made up with two ½ standard units of 27.5 hours each. Currently, 4 half units are offered as Main Lessons – two in Year 11 and two in Year 12. These four Main Lessons constitute a Minor in Interdisciplinary Science. Other units may be offered as term or semester units to make up a major if required.

Unit 1: Scientific Controversies

In this unit students study conflicting or seemingly conflicting perceptions of science in a range of contexts. They will appreciate the underlying scientific principles and methodologies applied in justifying claims and how this information is presented and communicated. Scientific controversy around the theory of evolution and genetic engineering is offered as a Main Lesson in Year 12.

Unit 2: Hidden Science

In this unit, students study the application of underlying scientific principles to explain how “things” work. Students will examine the science used in contemporary applications or explore things that happen in everyday life that society takes for granted. The hidden science of water is currently offered as a Main Lesson in Year 11 and the hidden science of colour is offered in Year 12.

Unit 3: Science in Context

Students learn that scientific breakthrough is developed and applied within a context. Students analyse contextual factors contributing to past discoveries and research such as culture, geography, economics, and other factors. These contextual factors will be applied in investigation of development and application of contemporary science. Students learn how progress in science can be made through unexpected outcomes or applications of a field of research and improvements in

technology. Botany in context is currently offered as a Main Lesson in Year 11.

Unit 4: Science Innovations

Students study existing, future or theoretical research and how it can be applied to address an existing or emerging problem. Students will scan broad areas such as sociology, psychology, health, technology and industry to identify problems or areas of improvement. Students will investigate and evaluate current or emerging scientific research to determine the feasibility of solutions and their ethical implications. Innovative science may be explored through investigation of one or more scientific issues, topics or case studies. This unit may be offered as a semester unit if required.

Unit 5: Negotiated Study

A negotiated study unit is decided upon by a class, group(s) or individual student in consultation with the teacher and with the Principal’s approval. A negotiated study unit may be undertaken as a part of the Year 12 Project where the topic meets the guidelines and requirements of the Interdisciplinary Science Course.

Human Biology

Human Biology covers a wide range of ideas relating to the functioning of the human body. Students learn about themselves, relating structure to function. They learn how integrated regulation allows individuals to survive in a changing environment and to maintain homeostasis. They research new discoveries that are increasing our understanding of the causes of dysfunction, which can lead to new treatments and preventative measures.

The Human Biology course uses the human life cycle as a means to create a close link between personal experience and theoretical content for students. Health issues that relate to particular life cycle stages are explored in relation to the structure and function of the human body. This connects theory to practice and provides real world examples.

As a senior secondary subject, Human Biology provides a valuable foundation for students who wish to follow a variety of career pathways by introducing them

to the complex technical language of the discipline and to key concepts around the structure and function of the human body. In addition, students develop their numeracy skills through the analysis of mathematical data and their information and communications technology (ICT) skills by undertaking research, analysis and the interpretation of scientific materials. Students are exposed to the real world of individuals working in this area through talks given by experts in their fields.

These skills enable students to make informed decisions about their pathways into Tertiary studies in the fields of medicine and allied subjects (Nursing, Nutritional Health, Occupational Therapy, Osteopathy, Para-medicine and Physiotherapy, for example).

Human Biology Units

The units will be taken from the following:

The Essentials of Human Life

Students learn about the stem cells from which tissues form in the embryo and which are the foundation for the growing therapeutic treatment of a number of degenerative diseases. They also focus on the anatomy and physiology of different tissue types and their purposes in the mature human body.

The Aging Human Body

From birth to adulthood, the human body grows at different rates and changes in form. Students focus on a range of illnesses that relate to age and tissue types so that they gain a deep understanding of how disease relates to tissue function in the body.

Human Health and the Environment

This unit investigates the impact of environmental conditions upon the health of humans both at the individual and population level.

Treating the Human Body

In this unit, students study the exponential growth of research and knowledge about the functioning of the human body that informs the Western mode of treating illness, and also consider alternative ways of treating illness in Australia.

Psychology

Psychology is the study of the human mind and behaviour. Students develop an understanding of themselves and others by exploring the interactions of biological, social, and psychological factors in individuals and groups.

Students develop scientific inquiry skills. As a science, the subject matter of this course is founded on knowledge and understanding that has been gained through systematic inquiry and scientific research.

Students are introduced to new discoveries and advances, as well as considering the ethical issues relating to treatment and research. As a result, students learn to think critically, to evaluate evidence, to solve problems and to communicate understanding of human behaviour, thoughts, and feelings scientifically.

Students apply evidence-based research to understanding and interpreting data. They develop analytical and critical thinking skills and learn to question and challenge assumptions about human feelings, thoughts, and behaviour. Students develop skills to communicate effectively, and present logical and coherent arguments.

Unit content

Self and Identity

Students examine traditional and contemporary psychological understandings of how individuals develop a unique self and identities in their context, using a range of approaches, including the interaction between nature and nurture. In examining differences, they will focus on individual difference in thoughts, feelings, and behaviour. Students develop skills in ethically and scientifically generating, evaluating, and communicating valid qualitative and quantitative data and conclusions.

Cognition and Emotions

This unit examines traditional and contemporary understandings on the basis of human cognition and emotion in context. Students explore how our perception of, and feelings about, the world shapes our interaction with it. They develop skills in ethically and scientifically generating, evaluating, and communicating valid qualitative and quantitative data and conclusions.

Normality and Abnormality

This unit examines traditional and contemporary understandings of the continuum of normality and abnormality, and the social construction of healthy and unhealthy thoughts, feelings, and behaviour. Students explore biological, psychological, and social, and contextual aspects of normality and abnormality, how they are determined, and how that has changed over time. They develop skills in ethically and scientifically generating, evaluating, and communicating valid qualitative and quantitative data and conclusions.

Groups and Society

This unit examines traditional and contemporary understandings of the implications of identity and membership within groups and society for thoughts, emotions, and behaviour. They explore how and why humans think, feel and act in group and social settings using a range of approaches. They develop skills in ethically and scientifically generating, evaluating, and communicating valid qualitative and quantitative data and conclusions.

Visual Art

Visual Art may be studied as a Major or Minor. The course takes place within a broader context of a whole school context, offering much more than just the acquisition of practical skills in a range of media areas. In acknowledging the importance of the arts in education, it teaches independent thought and creativity, confidence and self-expression, critical analysis and critical thinking. In Steiner Education, the aesthetic qualities in art practice are also explored. Ideally, one of the aims of teaching art is to convey the concept of beauty to the young person, both theoretically and materially. The study of art in historical, social and technological contexts enables students to become more aware of the beliefs and values of their own time and culture.

Students have the opportunity to study within a range of contexts and are given ongoing opportunities to develop their individual strengths and interests. Visual Art offers a specific unit and focus area each semester. Each individual unit contains a variety of assessment tasks that make up a body of work throughout the semester:

- Students are taught practical skills relating to a variety of art mediums and application techniques, with consideration for the implementation of elements and principals of design. Practical tasks give students the ability to make individual choices based on learnt skills to create a body of work.
- Formal theory allows students choice for research, analysis and critique of artists, artworks, exhibitions, art history and art movements within focus areas.
- A Visual Art Process Diary is designed to express the progression and development of each unit of study. The Visual Diary should evidence ideas, sketches, experimentation with materials/techniques, practice samples, brainstorming, artist/artwork examples, photos of student work (including progression of development & finished work) and art theory.

The course content and practical assessment tasks are generally the same for A and T levels. Students studying this course at T level will be required to demonstrate more rigor and conceptual depth in practical assessment tasks. Literacy assessment tasks may differ in relation to the amount of critical analysis between A and T level studies.

Visual Art Units of Study

Elective units have a value of a standard semester unit or 55 hours. The units offered each year depend on the specialisations of the staff and the interests of the students. The units offered in 2022 will be chosen from the areas of:

Creativity in Visual Arts

Students learn about the creative process in Visual Arts by critically and creatively analysing art works, experimenting with creative processes, and developing technical proficiency to express their ideas through various conventions and forms. They understand that creativity in the visual arts is the transformation of materials to convey ideas. Students apply their emerging creative process, techniques, and strategies to express their understanding of self and the world.

Communicating Meaning in Visual Arts

Students develop visual literacy by learning about how meaning and concepts are constructed and communicated in a variety of art works. They analyse the forms, conventions, vocabulary, and symbols used by artists to construct meaning and express their ideas. Students explore techniques for communicating their ideas to an audience and develop skills as audience and artist. They apply techniques to communicate their understanding of a range of issues through art works. Students express concepts, ideas and meaning through visual communication.

Visual Arts in Context

Students learn about how artists have represented their concepts and ideas over time and place. They explore how artists, curators and critics throughout the world and through history have expressed their understanding of self, place, and issues. Students apply their technical knowledge, empathy, ethics, and principles of intercultural understanding to creating art works.

Narratives in Visual Arts

Students learn about the artist as a storyteller. They explore both representational and nonrepresentational art works and how these shape narratives. Through analysis of narratives in art works, students gain insights into how perspectives on the world are presented and how that affects reception of and responses to art works and artists. Students apply their theoretical and technical skills to create representational and non-representational art works that convey narratives and responses to narratives.

Independent Study

An Independent Study unit has an important place in senior secondary courses. It is a valuable pedagogical approach that empowers students to make decisions about their own individual learning. An Independent study unit must be proposed by an individual student, be for their own independent study, and negotiated with their teacher. An Independent study unit requires the principal's written approval. The program of learning for an Independent study unit must meet the unit goals and content descriptions as they appear in the course.

Innovation in Visual Arts

Students learn about innovative art practice and practitioners who break with codes and conventions. They explore their capacity to encompass innovations in technique, form, style, creation, digital platforms, and criticism through experimentation and problem-solving. Students apply their knowledge, understanding and skills to expand their arts practice and engage in ethical and aesthetic issues as artists and citizens.

Curation and Exhibition

Students learn about stylistic and curatorial choices and how these not only position audiences to interpret art works but also convey attitudes, values and perspectives. They explore the representations of ideas in art as artists and curators through developing an informed response to art works and exhibitions they have seen and experienced. Students apply technical and curatorial skills to create their own works and exhibitions.

Entrepreneurship in Visual Arts

Students learn about entrepreneurship and the interface between art and industry. They explore the tension between creative and commercial considerations. Students apply their understanding of entrepreneurship in the art industry to produce authentic art works for a range of purposes and audiences.

Interdisciplinary Inquiry in Visual Arts

Interdisciplinary inquiry is an approach to studying and addressing complex problems or issues in order to explore new perspectives and advance critical thinking. Students develop skills in synthesising viewpoints, drawing conclusions, and exploring alternative applications of art practice. Students learn about and explore techniques for understanding how Visual Art can be used to comprehend and communicate concepts and represent knowledge from other disciplines. Students apply Visual Art as a way of knowing the world and sharing their insights.

Photography

Images are the language of photography and are used to represent, question and communicate concepts and ideas. The study of photography enables students to experience photography as producers and as audience members.

In broad terms, learning in Photography involves making and responding. Students learn as photographers by making photographic works that communicate to audiences. They also learn as audiences, by responding critically to photographic works. These actions are taught together as each depends on the other. In the making of photographic works, students learn about photographic technology, techniques and equipment as well as the process to engage audiences.

In responding to photographic works, students learn about visual literacy and about the role of photographers, audiences and critics. Students will develop an informed critical appreciation of photographic works, considering practices, elements, genres, styles, techniques, conventions and production in the construction of meaning. They explore how Photography influences our perception and understanding of the world. Students will interpret, analyse and evaluate the social, cultural and historical significance of Photography. The study of Photography equips students with life skills while also providing continuity with many tertiary and industry courses.

The units offered in 2022 will be chosen from the areas of:

Creativity in Photography

Students learn about the creative process in Photography. They explore techniques and strategies used to create photographic works. Students apply the creative process, techniques, use of equipment and strategies to express their understanding of self, others, and the world.

Communicating Meaning in Photography

Students learn about how meaning is communicated in a variety of photographic forms, styles, and conventions. They explore techniques for communicating their ideas to an audience.

Students apply their understanding to communicate meaning in response to a range of issues through photography.

Photography in Context

Students learn about how photographers have represented their knowledge over time and place. They explore how photographers throughout the world and throughout history have expressed their understanding of self, place, and issues. Students apply their knowledge of context, empathy, ethics, and principles of intercultural understanding to creating photography.

Narratives in Photography

Students learn about the photographer as a storyteller. They explore photographic works that are constructed or documented to shape narrative. Through analysis of narratives in photographic works, students gain insights on how perspectives on the world and/or identity are presented. Students apply their theoretical and technical skills to construct and/or document narratives.

Independent Study

An Independent Study unit has an important place in senior secondary courses. It is a valuable pedagogical approach that empowers students to make decisions about their own individual learning. An Independent study unit must be proposed by an individual student, be for their own independent study, and negotiated with their teacher. An Independent study unit requires the Principal's written approval. The program of learning for an Independent study unit must meet the unit goals and content descriptions as they appear in the course. Students must have studied at least three standard 1.0 units from this course.

Innovation in Photography

Students learn about innovative photographic practice and practitioners who break with codes and conventions. They explore the aesthetics and ethics of new technological and conceptual innovations in photography. Through experimentation and problem solving, students apply their skills and knowledge of innovative photographic practice.

Photographic Exhibitions

Students learn about stylistic and curatorial choices and how these position audiences to interpret photographic works. They explore how the presentation, display and use of photographic works influences attitudes, values, and perspectives. Students apply technical and conceptual skills in curation to create their own texts and exhibitions. They explore the representations of ideas in photographs as photographer, editor, and curator.

Entrepreneurship in Photography

Students learn about entrepreneurship and the connections between photographic practice and industry. They explore the tension between the creative and commercial considerations when working within a client brief. Students apply their understanding of entrepreneurship and industry to produce authentic photographic products for a range of purposes and audiences.

Interdisciplinary Inquiry in Photography

Interdisciplinary inquiry is an approach to studying and addressing complex problems and/or issues to explore new perspectives and advance critical thinking. Students develop skills in synthesising viewpoints, drawing conclusions, and exploring alternative applications of photographic practice. They learn how photographic practice can be applied to and work with other disciplines. Students examine how to incorporate knowledge and skills from other disciplines and consider how photographic works can incorporate other mediums.

Independent Study

An Independent Study unit has an important place in senior secondary courses. It is a valuable pedagogical approach that empowers students to make decisions about their own individual learning. An Independent study unit must be proposed by an individual student, be for their own independent study, and negotiated with their teacher. An Independent study unit requires the Principal's written approval. The program of learning for an independent study unit must meet the unit goals and content descriptions as they appear.

Music

Music is a unique art form that records and enriches human civilisation, reflecting the development of human cultures. The study of music enables critical thinking and engagement with innovative musicians to experience music as artists and audience members. In broad terms, learning in Music involves making and responding. Students learn as musicians, by making musical works that communicate to audiences. They learn as audiences, by responding critically to music. These actions are taught together as each depends on the other.

In making musical works, students learn about composing, arranging, improvising, music technology, and technical and performance skills to engage an audience. In responding to musical works, students learn about theory, elements of music, origins of music, influences of music, performance styles, technology and being an audience. Students will develop an informed critical appreciation of music, considering music practices, elements, genres, styles, production, techniques and conventions. They will interpret, analyse and evaluate the social, cultural and historical significance of Music.

Studying Music enables students to:

- Develop technical knowledge and notation skills
- Perform and compose music according to given guidelines
- Respond creatively and critically to music works
- Comprehend the diverse cultural, social and historical contexts of music
- Develop knowledge of musical concepts and styles
- Pursue excellence in all aspects of music

In every Music course, students study the concepts of music through learning experiences provided in Creating (Composing), Performing and Musicology.

Music is offered at T and A levels, as both Major and Minor courses. The T level Music course assumes students have a formal knowledge of musical notation, developed literacy and performance skills and general knowledge and understanding of some musical styles (approximately at a minimum of Grade 3 AMEB level).

The units offered in 2022 will be chosen from the areas of:

Creativity in Music

Students learn about creativity in music by exploring a range of techniques and strategies that musicians use in the creative process. They make informed personal interpretations in performances, compositions and criticism to evoke responses from target audiences. Students make music to express their understanding of the world through interpretation, performance, production and composition in authentic contexts.

Communicating Meaning in Music

Students learn about how meaning is communicated in a variety of musical genres by analysing musical works and performances that have made a difference. They explore technical skills, stage craft and production elements for communicating their ideas to a target audience to shape response, provoke, inform, or entertain. Students apply techniques to communicate their understanding of themselves and the world through music.

Music in Context

Students explore the works of musicians from different times and places, to understand the way social, historical, political and/or cultural contexts have shaped music and impacted audiences. Students apply their knowledge and appreciation of techniques from a variety of contexts. They demonstrate empathy, ethics, and principles of intercultural understanding to the creation of their own music.

Improvisation and Variation in Music

Students learn about improvisation and variation through a range of musical genres. They explore how musicians adapt ideas, arrange, improvise and create variation in music. They consider regulatory and ethical issues associated with using the works of others. Students create music that explores a variety of interpretations of an idea, context, mood, or emotion. They develop skills in adaptability, resilience, critical analysis and versatility.

Negotiated Study

A negotiated study unit has an important place in senior secondary courses. It is a valuable pedagogical approach that empowers students to make decisions about their own learning. A negotiated study unit is decided upon by a class, group(s) or individual student in consultation with the teacher and with the Principal's approval. The program of learning for a negotiated study unit must meet all the content descriptions as appears in the unit.

Innovation in Music

Students learn about innovative music practice, past and present, and employ techniques and forms to break with conventions, and to be inventive in their work. They explore innovations in technique, performance, production and digital platforms. They examine innovation in acoustic and digital music, barriers to innovation, how innovation occurs, reinvention of traditional notions and how innovation changes perceptions of music. They develop skills in inquiry, resourcefulness, sustainability and curiosity. Students appraise works that have revolutionised music over time and challenged and redefined audience expectations.

Music Leadership

Students learn about leadership in the context of creating and presenting across a variety of music activities. They explore the possibilities for shaping and influencing others in music making by applying leadership techniques and methodologies. Students develop skills in risk taking, integrity, initiative and confidence to share their vision. Students draw on technical, pedagogical, production, communication and collaboration skills to lead in music development in various roles, such as conducting, teaching, and producing.

Entrepreneurship in Music

Students learn about the music landscape and the interface between music and business. They examine the tension between the creative and the commercial and explore different pathways for participation in the industry. Students learn from the past about the ways that musicians have overcome obstacles and worked creatively within constraints. They examine the opportunities and risks in projecting their practice into the commercial arena. They develop an enterprising mindset and apply their understanding of the industry to produce authentic or simulated music experiences for a range of audiences.

Interdisciplinary Inquiry in Music

Interdisciplinary inquiry is an approach to studying and addressing complex problems or issues to explore new perspectives and advance critical thinking. Students learn about how music can be used to know and apply concepts and techniques from other disciplines. They explore examples of how music has been used as a means for communicating deep knowledge and interpretations of a range of contexts. They explore techniques for understanding, and synthesising knowledge from other disciplines to share perspectives. Students apply music as a way of knowing the world and sharing their insights.

Design and Emerging Technologies

Overview

Design and Emerging Technology offers students a range of career pathways in a range of design fields.

Students studying technologies will learn about the design process and its application. Students will also be able to understand how the selection and use of technologies contributes to a sustainable and improved future.

Students will develop research skills, computational thinking and a range of communication skills. They will refine their interpersonal and intrapersonal skills including collaboration and project management and will be able to reflect on their own learning. Students will have opportunities to use design thinking and to apply creativity through structured, collaborative and project-based learning, solve problems, develop practical skills and apply critical thinking in the development of new ideas. Students will consider and use global perspectives, identify ethical issues related to the technologies in relevant industries and the sustainability of solutions as they manage projects from beginning to end.

Students may study units at T and A level from four standard units, however a negotiated unit is available to Year 12 students in second semester 2022.

The course may be taken as a Major (4 units) or a Minor (2 units). Units will be taken from the following:

Design Processes

A design process is the central framework that designers use to create innovative ideas and solutions.

This unit gives students the opportunity to apply a staged design process to develop design solutions. They will apply design thinking in a focus area such as creating products, systems or environments. Student skills and understanding are developed by using the design process to define needs or opportunities, collect information, develop ideas, analyse, plan, produce and evaluate final solutions.

Product Design

Designers play a vital role in shaping the way we live through the design of the products that surround us. This unit gives students the opportunity to develop a user centred product while considering the social, ethical and environmental responsibilities of designers. It provides opportunities for creative thinking, for the development of technical knowledge and for understanding design opportunities that are brought about by technological change.

Design for Manufacturing

Design for manufacturing explores the way in which design solutions are produced using existing and emerging technologies. The focus of this unit is on production processes, prototyping, manufacturing, economy of scale, material properties and emerging technologies. This unit offers students the opportunity to design, make and evaluate design solutions using a range of materials, technologies and production processes.

Innovation and Design

Authentic innovation in design can be achieved by combining process thinking with new ideas and existing and emerging technology. This unit offers students the opportunity to explore an area of futuristic design concepts within the focus areas of systems, product or environment design. Students will use their understanding of design process, technical knowledge, and social, ethical and environmental responsibilities to create, test and evaluate this design solution.

Negotiated Study

In this unit students will study an area of special interest within Design and Emerging Technologies to be decided upon by a class, group(s), or an individual student in consultation with the teacher and with the Principal's approval. The program of learning for a Negotiated Study unit must meet all the content descriptions as appear in the unit.

Information Technology

The Information Technology course focuses on computational thinking and the application of the design process to create and develop digital solutions using a variety of digital technologies. Digital Technologies involve students creating new ways of doing things, generating their own ideas and creating digital solutions to problems of individual, community and global interest. Students will develop and extend their understanding of designing and programming, including fundamental computer science principles such as algorithm selection and complexity, structuring data for processing and problem-solving. This course serves as a basis for further education and employment in the IT industry in a range of fields including programming, web development, robotics and games development.

Students may study units at T and A level, from a choice of four out of five units. The course may be taken as a Major (4 units) or a Minor (2 units). Units will be taken from the following:

Digital Assets

The focus of this unit is on developing the students' understanding of digital assets. Digital assets function as the building blocks of larger systems and could be as small as a simple programming function or a 3D model, or as large as a webpage or a 3D environment. Students develop the skills necessary to design and develop digital assets for more complex data-driven systems. They interpret and create their own digital assets for a range of purposes and audiences. Students analyse discrete components of existing processes and products in order to examine how they function within a system. They can then use this understanding to re-design and develop assets.

Digital Applications

The focus of this unit is on managing and understanding the complexity of a data-driven system by examining the individual components involved in its operation and the interconnectedness of those components. Students develop the skills and knowledge required to analyse and examine existing applications.

Applications could be as simple as a static website or as complex as a distributed learning and management platform. They design and build their own applications to further their understanding of the interconnected nature of various digital assets.

Digital Solutions

The focus of this unit is creating appropriate data-driven solutions to authentic problems, and on developing students' understanding and application of a design process.

Students develop the skills and knowledge required to analyse and examine existing solutions to known problems and produce their own solutions to existing problems.

They focus on understanding how to choose and apply a design process to create a relevant solution for a client's needs.

Structured Project

The focus of this unit is on developing students' ability to conceive, define, analyse, develop, and publish a data-driven project. Students develop and refine their design skills and knowledge in order to create and develop a project using a clearly defined structure in an authentic context.

They focus on effectively applying a design process to inform and develop their project.

Negotiated Study

A negotiated study unit has a prominent place in senior secondary courses. It is a valuable pedagogical approach that empowers students to make decisions about their own learning.

A negotiated study unit is decided upon by a class, group(s) or individual student in consultation with the teacher and with the Principal's approval. The program of learning for a negotiated study unit must meet all the content descriptions as appears in the unit.

Design and Textiles

The Design & Textiles course focuses on design thinking and the application of the design process to create and develop practical solutions using textiles as a medium. This will empower students to utilise design thinking in different contexts. Students learn about the design and related industries by exploring fundamentals of design, as well as textile futures, history and culture, sustainability and ethics. Students apply innovation, creativity, problem solving, collaboration and project management skills in making appropriate design solutions.

Design and Textiles is an interdisciplinary course of study and forms the basis for further education and employment in the design fields such as interior design or decoration, personal styling, fashion design, industrial design, costume design, production manufacture, architecture, landscape architecture and textile technologies.

The course may be taken as a Major (4 units) or a Minor (2 units). Students may study units at T and A level, from four standard units, however, a negotiated unit is available to Year 12 students in second semester 2022.

- Design Aesthetics
- Design for Purpose
- Design for Futures
- Design for Communication
- Negotiated Study

Design Aesthetics

This unit examines the value of aesthetics and its relationship to design theory. Students engage with established methodologies for generating creative design concepts. They investigate and experiment with strategies for idea generation and product development, incorporating the medium of textiles.

Design For Purpose

This unit examines how designers create for end purpose, using relevant criteria and considering the user's experience. Students engage using a range of textile mediums to design solutions and create a product with consideration given to needs, purpose and product performance.

Design For Futures

This unit examines the future of design within the context of textiles. Students examine technological tools and processes to create solutions and/or products for the 21st century, with special consideration given to sustainability.

Design For Communication

This unit examines communication theories, methodologies and meanings within the area of design and textiles. Students develop skills in effectively disseminating ideas to convey visual messages in the design, making and promotion of solutions and/or textiles products. They utilise a range of tools to communicate and make meaning.

Negotiated Study

In this unit students investigate a contemporary "wicked problem". Wicked problems are complex and challenging. The design process is used to frame the problem and create a solution.

This unit has a prominent place in senior secondary courses. It is a valuable pedagogical approach that empowers students to make decisions about their own learning. A negotiated study unit is decided upon by a class, group(s) or individual student in consultation with the teacher and with the principal's approval. The program of learning for a negotiated study unit must meet all the content descriptions as appears in the unit.

Exercise Science (T and A)

Exercise Science examines biological, physiological, biomechanical and psychological theories; and the interrelationship and influences on performance and participation in physical activity. Students develop insights into the science underpinning sports performance and movement. When students undertake practical activities in Exercise Science they gain knowledge through experiential learning.

Exercise Science can be studied as a T or A level course. Students who complete one year of study will receive a minor in Exercise Science. Two years of study will constitute a major in Exercise Science.

S1 2022 Anatomy and Physiology of the Human Body

In the unit Anatomy and Physiology of the Human Body students will examine and explore the structure and function of musculoskeletal and cardiorespiratory systems and analyse how the systems adapt and adjust to the demands of physical activity. Students will investigate these systems from a cellular to systemic level allowing them to develop an understanding of how each system acts as an enabler or barrier to physical performance.

S2 2022 The Body in Motion

In the unit The Body in Motion students will explore the biomechanical and physiological principles involved in analysing and interpreting the body in motion and energy production. Students will apply a variety of methods used to analyse movement patterns and examine the physiological adaptations to exercise. Students will investigate the biomechanical and physiological factors that influence athletic performance.

S1 2023 Preparation for Training and Performance

In the unit Preparation for Training and Performance students investigate the factors that influence sports performance. Students will critically analyse the effectiveness of training and nutritional guidelines and how they contribute to the improvement of athletic performance. Students will explore a variety of training and nutritional principles to

develop an understanding of the varying needs of community target groups and elite athletes.

S2 2023 Factors Affecting Performance

In the unit Factors Affecting Performance students will examine the physiological, psychological and behavioural theories that influence athletic performance. Students will be introduced to factors affecting performance and develop basic insights into the science underpinning the management of sports injuries and the athletic mindset. Students will examine and explore how the extent and intensity of sports participation relates to the incidence of sports injuries and will explore a range of technical and scientific approaches for maintaining the physical and mental well-being of athletes.

Negotiated Study

A Negotiated Study unit has a prominent place in senior secondary courses. It is a valuable pedagogical approach that empowers students to make decisions about their own learning. A negotiated study unit is decided upon by a class, group(s) or individual student in consultation with the teacher and with the Principal's approval. The program of learning for a negotiated study unit must meet all the content descriptions as appears in the unit.

Employment/Further Studies Pathways

This course prepares students for further study and provides pathways into careers such as Physiotherapy, Sport and Injury Prevention, Fitness training and Allied Health.

Students who graduate with a minor in Exercise Science will have gained valuable foundation knowledge for related tertiary study such as Physiotherapy, Nursing, Physical Education Teaching, Medical Science and Sports Science.



“

Year 12 is a year of synthesis, a bringing together of ... varied subjects ... a time of more conscious awareness ... of all they have learnt.

”

Year 12 Major Projects

Why the Major Project?

In the Senior College, we aim to address the needs of the young person, as well as being mindful of the demands of society. Traditionally, the latter are often met by an examination system where the motivation remains external, and the students learn through competition rather than through personal inspiration.

In contrast, as a Steiner school, we strive to assist the students to become self-motivated and to awaken their interest in the world. One way of doing this is by allowing them to work in an area of study of their own choosing – an area which excites and interests them.

In the Year 12 project the student is responsible for the content and method of inquiry and is also connected to the content for a longer time. Some students may choose to develop an existing interest, while others may find their project opens new avenues of interest for the future. In either case, it should enable a new, freer relationship to form with that subject and their future direction.

Year 12 Projects begin in Year 11. The project itself is carried out through the following year and is presented to the school community in both written oral and form, complemented by a visual display at the end of that year.

Projects are of a high standard and are accredited as 2 Registered Units. Students completing studies in Interdisciplinary Inquiry will receive A or T level units.

The aims of the Year 12 Project are to allow students to:

- Engage in personal inquiry on issues that are relevant to themselves
- Demonstrate the skills, attitudes and knowledge required to complete a project over an extended period of time
- Reflect on their learning and knowledge (on their own and with others)
- Move towards thoughtful and positive action
- Develop confidence as independent learners
- Present their project to an adult audience

The Year 12 Project is:

- The student's project to do what they want to do
- The student's chance to show the skills they have developed during High School in their Main Lessons and specialist lessons
- The student's opportunity to share with others something that is of great interest to them as an individual but that also shows some of what they have learned as a result of their 12 years of Steiner Education

- The student's chance to develop new skills and explore an area outside your experience

The Year 12 Project should:

- Have a clear and achievable goal
- Be something the student really wants to do
- Be the result of the student's initiative, creativity and ability to organise and plan
- Reflect the student's special interests, hobbies, special abilities or concerns about a particular issue
- Deal with a topic or area to which the student is committed.

What Type of Project can be done?

A Written Report (3,000 words)

Possible options include but are not limited to:

A scientific report (on an original experiment or meta-analysis), academic article, literature review (think NY Review of Books or similar), a business plan, a management plan for original event.

A Practical/Creative Product (Plus 1,000-word report)

Possible options include but are not limited to:

An original work of art (visual, dramatic, musical, literary (including narrative or poetry), etc.), an invention or specially designed object or system, an originally programmed piece of software.

Assessment

There are four components to the Class 12 Project:

Task	Description	Weighting
Viva Voce	Presentation of a verbal progress report to the Pedagogical Trust Group with a Q&A section. This will commence in Week 2, Term 2, dependent on PTG availability.	15%
Oral Presentation	This 20-minute presentation will be given to peers, teachers, parents, and the wider community on the weekend of Week 7, Term 4.	30%
Display	The supervisor will assess how well the student has displayed their project to the community and taken advantage of discussion times.	15%
Final Product and Process Journal.	The final product can take one of two forms. 1. A written report detailing the findings of the inquiry. This report must be 3,000 words in length and must meet the formatting and stylistic expectations of your chosen field. 2. A substantial physical, artistic, or software product with a written explanation of 1,000 words.	30%



Orana
STEINER SCHOOL

Orana Steiner School
Unwin Place, Weston
ACT 2611 Canberra, Australia

PO Box 3567,
Weston Creek ACT 2611

02 6288 4283
info@oranaschool.com
www.oranaschool.com