Radford College

Academic Subject Guide
Years 11-12, 2027



Contents

Contents 2
About Tertiary (BSSS) 3
Attendance 4
Completion of Assessment Items 4
Penalties for late and non-submission of work 4
Academic Integrity 5
Appeals processes 5
Moderation Procedures 5
Meshing procedures 5
Procedures for calculating course scores 5
Radford College Policies 6
Hurdle tasks/submission of drafts/verbal feedback 6
Word limits 6
Year 11 and 12 BSSS (Tertiary) FAQs 6

Creative Arts 8

Media (A/T) 9
Photography (A/T) 11
Visual Art (A/T) 13

Design and Technology 15

Design and Emerging Technology (A/T) 16
Design and Graphics (A/T) 18
Design and Textiles (A/T) 19
Digital Technologies (A/T) 21
Engineering Studies (T) 23
Hospitality (A/T) 24
Robotic and Mechatronics (A/T) 25

English 28

English (T) 29
Literature (T) 30
Essential English (A) 31

Health and Physical Education 33

Exercise Science (T) 34
Physical Education (A) 35
Promoting Active Lifestyles 36
Improving Team Performance 36
Sport, Culture and Society 36
Physical Education (R) 36

History and Philosophy 37

Ancient History (A/T) 38
Modern History (A/T) 39
History (A/T) 39
Philosophy (A/T) 40

Languages 41

Languages 42
Continuing Chinese (T) 43
Continuing French (T) 43
Advanced French (T) 43
Continuing Japanese (T) 44
Continuing Spanish (T) 44
Beginning Spanish (T) 44

Mathematics 46

Mathematics 47

Specialist Methods (T) and Specialist Mathematics (T) 47
Mathematical Methods (T) 49
Mathematical Applications (T) 49
Essential Mathematics (A) 50

Performing Arts 51

Dance (A/T) 52
Drama (A/T) 53
Music (A/T) 56

Science 58

Biology (T) 59
Chemistry (T) 60
Physics (T) 61
Health Science (A/T) 62
Earth and Environmental Science (T) 63
Psychology (A/T) 65

Studies of Society and the Environment 67

Business (A/T) 68
Economics (T) 69
Global Studies (A/T) 70
Legal Studies (A/T) 71

A Tertiary (or T) program is designed for students who wish to receive an Australian Tertiary Admissions Rank (or ATAR). This course also has the rigour and depth appropriate to prepare students for direct entry into tertiary studies, for example, university.

All students who complete the Tertiary Program need to sit the ACT Scaling Tests in Year 12.

At Radford, students are expected to study a minimum of five Tertiary subjects per semester, as well as Aspire in Year 11.

Attendance

Students are expected to attend and participate in all scheduled classes for the units they are enrolled in, unless there is due cause and adequate documentary evidence is provided. Any student whose attendance falls below 90% of the scheduled classes, without having due cause with adequate documentary evidence, will be deemed to have voided the unit.

Radford College is responsible for implementing procedures to monitor participation in structured learning activities. The principal has the right to exercise discretion in special circumstances if satisfactory documentation is supplied.

See BSSS Policy and Procedure Manual 4.2.8 for further information.

Completion of Assessment Items

Students are expected to complete and submit all assessment items by the due date. Assessment accommodations such as extra time and access to College laptops for in-class tasks, extensions for take-home tasks and exemptions are available to students providing adequate documentary evidence.

In order to meet the minimum assessment requirements of a unit, a student must substantially complete and submit at least 70% of the total assessment, with adequate evidence that learning outcomes have been met.

The principal has the right to exercise discretion in the award of a grade or score in special circumstances where satisfactory documentation is supplied.

See BSSS Policy and Procedure Manual 4.2.9 for further information.

Penalties for late and non-submission of work

Students are encouraged to submit work on time, as this is a valuable organisational skill. Students are also encouraged to complete work even if it is late as there are educational benefits in doing so. The following policy is to ensure equity for all students:

All assessment tasks are expected to be submitted by the specified due date. Where marks are awarded for assessment tasks, a late penalty will apply unless an extension is granted. The penalty for late submission is 5% (of total marks) per calendar day late, including weekends and public holidays, until a notional zero is reached. If an item is more than 7 days late, a notional zero will be awarded. Submission on weekends or public holidays is not acceptable. Calculation of a notional zero is based on items submitted on time or with an approved extension.

Where marks are not awarded and a grade only is given for an assessment task, teachers will take into account the extent to which students have demonstrated their ability to complete and submit the task by the due date (taking into account any extensions granted) in awarding the grade. Unless there are exceptional circumstances, students must apply for an extension to the specified due date in advance, providing due cause and adequate documentary evidence for late submission.

It may not be possible to grade or score work submitted late after marked work in a unit has been returned to other students.

The Principal has the right to exercise discretion in the application of the late penalty in special

circumstances where satisfactory documentation has been provided.

See BSSS Policy and Procedure Manual 4.2.9 for further information.

Academic Integrity

The principle of academic integrity is that the student's work is genuine and original, completed only with the assistance allowed according to the rules, policies and guidelines. In particular, the words, ideas, scholarship and intellectual property of others used in your work must be appropriately acknowledged and sourced.

All assessments not done under test and exams conditions must be submitted to Nexus, by the due date. All submissions are automatically submitted to Turnitin for an originality check. Submissions to Nexus also require agreement that: The work submitted is the student's own work and has not been submitted for assessment before; the student has kept a copy of the assignment and all relevant notes and reference material used in its production; and the student has given references for all sources of information that are not their own, including the words, ideas and images of others.

Please refer to the Senior School Handbook (Section 6) for further information regarding Radford's plagiarism policies and penalties and the BSSS Policy and Procedure Manual 4.2.10.

Appeals processes

Students who believe that the academic penalty imposed is unwarranted may, within five working days in Semesters 1 and 2 of Year 11 or Semester 1 of Year 12, or within two working days in Semester 2 of Year 12, take the issue to the Dean of Senior Studies to notify the Principal of the need for review via the College Appeal Committee.

The student appeals process is detailed in the Senior School Handbook, in Sections 7 and 8.

See BSSS Policy and Procedure Manual 7.2 for further information.

Moderation Procedures

Moderation is a process designed to assist teachers to make consistent and comparable judgements about student performance. Common assessment criteria and unit grades in each subject enable teachers in different colleges to judge the standard at which students are working and to come to common agreement about the standard of the work.

Moderation of student work assists teachers to ensure fairness to students and to provide the wider community with reliable information about student performance. It ensures that unit grades on the Year 12 Certificates reflect the same standard of student achievement in all colleges.

Work done within a unit is moderated within the College through common marking of all items by class teachers, and/or the application of a specific marking scheme. Students' work is compared to ensure the correct ranking of students in any particular assessment item.

See BSSS Policy and Procedure Manual 5 for further information.

Meshing procedures

See BSSS Policy and Procedure Manual 5.4.1 for further information.

https://www.bsss.act.edu.au/__data/assets/pdf_file/0003/601725/_P_and_P_Manual_2025_v3.0.pdf

Procedures for calculating course scores

The method used to generate course scores is detailed in the Senior School Handbook, in Section 2.

See BSSS Policy and Procedure Manual 4.2.6.2 for further information.

Radford College Policies

Hurdle tasks/submission of drafts/verbal feedback

At the discretion of each department, hurdle tasks may be completed, formal drafts may be submitted, or verbal feedback will be provided.

For consistency, the same approach will be offered in each course.

If applicable, hurdle tasks will be student led conversations that occur in class time

If permitted, formal drafts must be submitted at least seven days prior to the final due date.

If hurdle tasks or drafts are not permitted, verbal feedback will be provided either during or outside of class time.

All feedback will be general in nature and will focus on the structure, fluency and/or understanding of the task. An indicative grade or mark will not be provided.

Word limits

To uphold equity, students will be expected to adhere to the maximum word limit for each assessment task. The word count will not include direct quotations, citation information (i.e. in-text referencing), the reference list/bibliography, or the title page, table of contents or appendices (if applicable).

Paraphrasing is, however, included in the word count.

To assist staff, students must include a total word count and a word count with the excluded elements on their title page.

Year 11 and 12 BSSS (Tertiary) FAQs

What combination of majors and minors can you have?

Majors are subjects that have been undertaken over 2 years. Minors are subjects that are undertaken over one year. 5 Majors tends to be the standard package. The following major/minor packages are the minimum requirements to receive a Senior Secondary Certificate:

- 5 Majors
- 4 Majors and 1 Minor
- 3 Majors and 3 Minors

Can a student do 6 subjects?

While this is an option, we tend to advise against this package as it does tend to significantly encroach on extracurricular activities and can detract from the other 5 subjects. If students do a 6th subject, we recommend it to be an accredited subject.

How many points are needed?

To get a senior secondary certificate and an ATAR, a student needs to acquire 20 points and sit the ACT Scaling Tests. Each subject per semester is worth one point. Students in a tertiary package need to complete a minimum of 14 points at a tertiary level. However, almost all students do 16 or more points at a tertiary level. Any accredited subjects taken with a tertiary package contribute to the overall 20 points but are not subjects that are used to calculate the ATAR.

How are ATARs calculated in a BSSS System?

The BSSS uses the best 3.6 tertiary subjects to calculate your ATAR. Therefore, the subject with the lowest course score is not used. Semesters from both Year 11 and 12 count. The course scores in the best 3.6 subjects are scaled against the mark the student gets in the ACT Scaling Tests.

What do the terms 'void' and 'status' mean?

If a student does not attend 90% of classes or complete 70% of assessment in a subject, without

supporting medical documentation, they will be deemed to have voided the subject. This means they will not receive a unit score for the semester.

A student with supporting medical documentation who has not completed 70% of assessment can be awarded status. Status, while not including a unit score, means the student still receives the one point from the semester's study.

What is compulsory in the tertiary package?
An English or Literature major is compulsory as well as Maths in Year 11. We strongly recommend Maths in Year 12 due to the numeracy focus of the ACT Scaling Tests at the end of Year 12. A major in Maths is excellent preparation for the AST test.

What is scaling?
Scaling is a process in which student's scores are scaled against their ACT Scaling Test marks. The ACT Scaling Tests are 50% literacy and 50% numeracy with previous NAPLAN results being the best indicator of future AST marks. The concept of 'subjects' scaling well is a fallacy. It is not subjects that scale well, but the students within the subject and their ACT Scaling Test results, that contribute to how a subject scales. If all students within a subject do well in the ACT Scaling Tests, the subject will 'scale' well.

How subjects scale vary year to year and can never fully be determined until students complete the ACT Scaling Tests at the end of Year 12. It all has to do with the student and the ACT Scaling Tests, not the subject. If a student does poorly in a subject that traditionally scales well, they will not be advantaged. They will actually be disadvantaged as they move further away from the average.

Creative Arts



Media (A/T)

Media is amongst the most powerful cultural influences on contemporary society as it informs, educates and entertains. The study of media enables learners to engage with innovative thinkers and practitioners and to experience media as producers and audience members.

In the making of media products, students learn about media codes and conventions, representation, workflow end-to-end production, technology and the production process, to engage an audience.

In responding to media, students learn about origins, influences and theories of communication. In addition, students engage in media production and investigate the role of audience. Students will develop an informed critical appreciation of media products, considering media practices, elements, genres, styles, production, techniques and conventions in the construction of meaning. They will interpret, analyse and evaluate the social, cultural and historical significance of media. The study of media equips students with communication skills while also providing continuity with many tertiary and industry courses. The units available in this course enable the opportunity for learning in a range of media domains providing rich and individualised experiences.

Course length and composition

- A minor consisting of two units
- A major consisting of four units

Units:

Creativity in Media 1.0 A/T

Students learn about the creative process in Media. They explore techniques and strategies used to create media products. Students apply the creative process, techniques, and strategies to express their understanding of self, others, and the world.

Students will learn how to:

- critically analyse how media expresses the self, others, and the world

- conduct creative media inquiry into significant issues
- demonstrate the use of media techniques and strategies to explore creative ideas
- apply the creative process to making media

Narratives in Media 1.0 A/T
Students learn about narrative forms and structures for fictional and non-fictional media products. Through analysis of narrative in media products, students gain insights on how people connect and perspectives on the world. They explore various presentations of narratives and the role of the storyteller to inform, entertain and persuade. Students apply their storytelling, theoretical and technical skills to construct fiction and non-fiction narratives in a variety of media formats.

Students will learn how to:

- critically analyse narrative forms and structures for fictional and non-fictional media products
- conduct creative media inquiry into storytelling and the role of the storyteller in order to inform, entertain and persuade
- demonstrate how media formats influence narrative
- apply narrative techniques and theories to create fiction and non-fiction media

Entrepreneurship in Media 1.0 A/T
Students learn about the connections between media and business. They examine the business aspects of media, opportunities, and risks in the industry. Students explore the tension between the creative and commercial when working within a media brief. They apply their understanding of entrepreneurship to produce authentic media products for a range of purposes and audiences.

Students will learn how to:

- critically analyse the media industry for entrepreneurial opportunities
- conduct creative media inquiry into the relationship between the creative and commercial
- demonstrate skills and techniques when working within a media brief
- apply their understanding of entrepreneurship to produce authentic media

Implementation Pattern:

- Creativity in Media
- Narratives in Media
- Entrepreneurship in Media

Assessment

- A teacher directed and student-directed practical task (Making) 30%
- A student directed practical task (Responding) 30%
- The generation of a Visual Art Process Diary (Making and Responding) 40%

Photography (A/T)

The study of photography can be used to broaden personal experience and understanding of an increasingly interconnected and technologically rich world. Photography enables students to explore and understand self, others, the world, and their place in it, as creators and consumers. Images are the language of photography, and are used to represent, question, and communicate concepts and ideas. Students learn how photography stems from traditions and has styles, forms and conventions that inform its visual language. Photographic practice has the capacity to engage, inspire and enrich all students, excite their curiosity and imagination. Photography builds resilient, empathetic, and resourceful people with the ability to shape and respond to a changing world. Students develop interpersonal skills to work collaboratively and independently, making and responding to photographic works for a range of audiences. Students develop general capabilities and transferable skills through the creative process. They become problem solvers, and critical and creative thinkers. Students develop sophisticated technical and conceptual knowledge and the skills to be informed visually literate communicators. These skills enable students to flourish in pursuit of their interests and ambitions.

Prerequisites for the Courses or Units

There are no pre-requisites for Semester 1 units. Students are strongly advised to complete Semester 1 units before proceeding to Semester 2 units.

Course length and Composition

This course provides for T level:

- A minor consisting of two units
- A major consisting of four units

Units:

Creativity in Photography 1.0 A/T

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.

Students will learn to:

- critically analyse examples of creativity in photography
- critically analyse how techniques, equipment and strategies are used in the creative process in photography
- apply technical skills to produce creative photographic works
- conduct Creative Inquiry into expression of self, others, and the world

Narratives in Photography 1.0 A/T

Students learn about the photographer as a storyteller. They explore photographic works across different photographic platforms 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 identity are presented. Students apply their theoretical and technical skills to construct and document narratives.

Students will learn to:

- critically analyse narratives within photographic works
- critically analyse how a narrative is produced in photography
- apply storytelling and technical skills through the creative process to produce photographic narratives

- conduct Creative Inquiry to gain insights on how perspectives on the world and/or identity are presented through photography

Photography in Context 1.0 A/T
Students learn about how photographers over time and place have represented their knowledge. They explore how photographers throughout the world and 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.

Students will learn to:

- critically analyse how social, historical, political, and cultural contexts influence photographic works and their meaning
- critically analyse how context influences the photographer and photograph
- apply new technical skills to the creative process
- conduct Creative Inquiry into a range of issues relating to different contexts and intercultural understanding

Communicating Meaning 1.0 A/T

Students learn about how meaning is communicated in a variety of photographic forms, styles, and conventions. They investigate the constructed and contested nature of meaning in photography. 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.

Students will learn to:

- critically analyse how meaning is communicated, constructed and contested in examples of photography
- critically analyse how forms, styles and conventions are used to communicate and transform meaning through Photography
- apply understanding of forms, styles, conventions, and techniques to the creative process
- conduct Creative Inquiry into a range of issues

The photographic units are sequential in nature. There are no compulsory units. Please refer to the Implementation Pattern, below.

Implementation Pattern
Minor/Major

- Narratives in Photography 1.0
- Photography in Context
- Creativity in Photography 1.0
- Communicating Meaning in Photography

Assessment

- A teacher directed and student-directed practical task (Making) 30%
- A student directed practical task (Responding) 30%
- The generation of a Visual Art Process Diary (Making and Responding) 40%

Visual Art (A/T)

Visual Arts education provides unique opportunities for students to develop their capacities for imaginative and novel means of self-expression, critical analysis, self-reflection, creative thinking, practical dexterity, project management, visual literacy, aesthetic sensibility and more; all valuable skills and habits of mind that are sought by employers in the 21st Century. Creativity is the new key economic driver for international competitiveness and visual art has creativity at its core.

Prerequisites for the Courses or Units

There are no prerequisites required to undertake either the Tertiary or Accredited course.

Course length and composition

This course provides for T level:

- A minor consisting of two units
- A major consisting of four units

Units:

Creativity in Visual Arts 1.0 A/T

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 mediums. 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.

Students will learn to:

- critically analyse various creative processes in Visual Arts
- critically analyse ideas and perspectives explored through the artistic movements that precede them
- apply familiar and unfamiliar technical skills conventions and forms and apply to their creative process
- conduct Creative Inquiry into significant issues and processes

Communicating Meaning in Visual Arts 1.0 A/T

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. Student's express concepts, ideas and meaning through visual communication.

Students will learn to:

- critically analyse the construction and communication of meaning in Visual Arts
- critically analyse conventions, structures and forms used by art makers
- create artworks that incorporate familiar and unfamiliar technical skills to construct and communicate meaning
- conduct Creative Inquiry into visual literacy and the world around them

Visual Arts in Context 1.0 A/T

Students learn about how artists over time and place have represented their concepts and ideas. They explore how artists, curators, critics throughout the world and 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.

Students will learn to:

- critically analyse the creative practices of identified contexts
- critically analyse techniques, conventions, structures, and forms used by art makers in identified contexts
- create artworks that incorporate familiar and unfamiliar technical skills
- conduct Creative Inquiry into contexts across time, place, and cultures

Narratives in Visual Arts 1.0 A/T
Students learn about the artist as a storyteller. They explore representational and non-representational art works and how these shape narratives. Through analysis of narratives in art works, students gain insights of 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.Students will learn to:

- critically analyse the construction of a range of narrative forms in visual arts within works and around artists and art movements
- understand narrative techniques, conventions, structures, and forms
- apply familiar and unfamiliar technical skills and apply to their creative process
- conduct Creative Inquiry into narratives that justify, value, and promote personal, national, and cultural identities

The Visual Art units are sequential in nature. There are no compulsory units. Please refer to the Implementation Pattern, below.

Implementation Pattern:

- Narrative in Visual Arts
- Visual Arts in Context
- Creativity in Visual Arts
- Communicating Meaning in Visual Arts

Assessment

- A teacher directed and student-directed practical task (Making) 30%
- A student directed practical task (Responding) 30%
- The generation of a Visual Art Process Diary (Making and Responding) 40%

Design and Technology



Design and Emerging Technology (A/T)

Design and Emerging Technology offers students a range of career pathways in design in fields such as engineering, furniture, jewellery, and materials, at both professional and vocational levels. Students will also be able to understand how the selection and use of technologies contributes to a sustainable and improved future. Students studying technologies will learn about the design process and its application.

Students will develop research skills, computational thinking and refine interpersonal skills including collaboration and project management.

Students will have an opportunity to use design thinking and apply creativity through structured, collaborative and project-based learning, solve problems, develop practical skills and apply critical thinking in the development of ideas.

Course length and composition:

- A minor consisting of two units
- A major consisting of four units
- Units from this course can be combined with units from other Technologies courses to create a Major in Design Technology

Units:
Design for Manufacturing
Design for manufacture 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:

- Apply knowledge of Workplace Health and Safety and workshop procedures
- Apply manufacturing techniques
- Select appropriate materials to suit the needs of the client

- Apply advanced technical skills in the production of timber projects based on the design process

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

This unit enables students to:

- Apply knowledge of WHS and workshop procedures
- Select and identify fastening systems and devices to use the end use
- Apply knowledge of specific purpose materials and products
- Design and manufacture timber projects while considering ethical and environmental concerns
- Apply the design process
- Document the design, production and evaluation of the student-centered project in a folio

Design Processes
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.

This unit enables students to:

- Apply knowledge of Workplace Health and Safety
- Follow workshop organisation and procedures
- Apply technical skills to produce a variety of wood projects
- Use of a range of hand and power tools
- Produce wooden products using a design brief

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, technical knowledge and understanding design opportunities that are brought about by technological change.

This unit enables students to:

- Apply knowledge of Workplace Health and Safety and workshop procedures
- Use a range of simple fabrication techniques
- Describe the properties and limitations of materials
- Identify a range of natural and manufactured materials
- Investigate, devise and evaluate their projects
- Design and manufacture wood products using appropriate hand and power tools

Implementation Pattern:

Semester 1 2027 - Design Process	**Semester 1 2028 - Design for Manufacturing**
Semester 2 2027 - Product Design	**Semester 2 2028 - Innovation and Design**

Design and Graphics (A/T)

This course is designed for students who are contemplating a career in practical design pathways. It is a broad course aimed at fostering design thinking and innovation, requiring students to problem-solve and manage project-based tasks. Students are encouraged to explore a diverse range of applications from Computer Aided Drawing and Design, 3D modelling and traditional technical drafting methods to print, screen and multimedia graphical representations and design solutions. There will be scope for students to develop an awareness of the role of graphics and technology in the industry today. Students studying this course at T level will be required to demonstrate more rigor in the area of design thinking and problem-solving and will undertake major written tasks, design folios and unit tests.

Prerequisites for the Courses or Units:
It is recommended that students complete the Semester 1 Design Application unit before commencing the Semester 2 Design for Clients unit but this is not essential.

Course length and composition:

- A minor consisting of two units
- A major consisting of four units

Units: Graphic Communication

Prerequisite: Nil

This unit provides an understanding of visual cues to transmit a message to people. They will learn to create graphic images using colours, textures, contours and shapes that communicate emotions, attitudes, experiences, lifestyles and concepts. This unit provides the opportunity to:

- Analyse graphic communication techniques and apply these to create visual design solutions
- Use the design process to create solutions or prototypes
- Analyse visual communication theories

Design for Screen and Media
In this unit, students develop design for screen and media. They evaluate materials, techniques and strategies for screen and media design in the film, television and digital industries. Students apply a variety of screen and media techniques. this unit provides the opportunity to;

- Analyse screen and media design in the film, television and digital industries
- Create design solutions using 2D and 3D modelling
- Apply visual storytelling strategies, methodologies and procedures
- Use procedures and processes to record digital media according to industry standards

Design Applications

Prerequisite: Nil

This unit focuses on solving design problems and presenting their ideas and solutions as graphical products. Students explore the use of the design process and to use a range of mediums to create practical solutions to design products. They communicate solutions in the form of graphical representations using a range of processes and applying industry conventions and standards where applicable. Areas covered in this unit include:

- Understand design theory and design process, including the elements and principles of design
- Analyse the tools and processes such as software, 3D printers, free-hand drawing tools
- Understand graphics procedures, conventions and industry standards

- Analyse data and information to solve complex problems

Design for Clients

Prerequisite: Nil

This unit develops the knowledge and skills to generate concepts and solutions in response to a design brief in a range of real-world contexts. They will focus on unpacking different design briefs and delivering solutions that will meet the client's needs. This unit provides the opportunity to:

- Analyse a design brief and create solutions that suits the client's needs
- Explore industrial applications of design process
- Apply creative and critical thinking to solve problems and generate a range of ideas and solutions using technology such as rapid prototyping methodologies and processes
- Understand the impact of cultural and historical contexts on design for clients
- Analyse theatrical and sustainable implications of a design brief

Implementation Pattern:
Semester 1, 2027 - Graphic Communication
Semester 2, 2027 - Design for Screen and Media
Semester 1, 2028 - Design Applications
Semester 2, 2028 - Design for Clients

Design and Textiles (A/T)

Creativity, design and communication skills are central to the study of Design and Textiles. Textiles provide a unique medium for students to explore and express their individuality and opportunities to develop lifelong leisure interests and career directions.

Textiles plays a key role in our lives; it protects, provides comfort, has social and cultural significance and plays a contributing role in many other industries including science, medicine, military, architecture, sport, agriculture, manufacturing and transport.

Today's textile, clothing and footwear industries are global and are based on advanced technologies. Their futures depend on innovative, flexible and collaborative designers. Textile and Fashion provide opportunities for students to develop and demonstrate many skills including creative problem-solving, lateral thinking, communication of design ideas, use of information communication technology, the management of resources and collaborative work practices. These skills are assets to students as lifelong learners.

Studies in Design and Textiles can lead into tertiary courses and exciting careers in design and business related fields. Fashion encompasses the latest or most admired styles, shapes and forms in clothing and interiors. In this course, you will have the opportunity to develop your creative potential through the medium of fabrics and textiles.

Prerequisites for the Courses or Units: Nil

Course length and composition

- A minor consisting of two units
- A major consisting of four units

Units:
Design Aesthetics
This unit examines aesthetics and design theory. Students engage with established methodologies for generating creative textile design concepts, to investigate and experiment with strategies for idea generation and creative product development.

Students will have the opportunity to:

- Analyse and research aesthetics and design theory including the characteristics of design elements and experiment with their application
- Analyse the characteristics of design principles and experiment with their application.
- Apply the design process to develop creative design solutions, evaluating opportunities and constraints.
- Utilise design skills, practices and methods to construct an aesthetic creation, exploring techniques such as embellishments, fabric manipulation and colouration.

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

Students will have an opportunity to:

- Research the future of design within the context of textiles.
- Apply technological tools and design process to create a product and justify its sustainability.
- Investigate production trends and justify the selection of resources and production of the future of textiles
- Research and analyse smart technology and the technological development of fibres, yarns and fabrics.

Design for Communication
The unit examines communication methodologies and meaning that effectively disseminate ideas and convey visual messages in textiles and design.

Students will have the opportunity to:

- Apply design thinking, collaborative practice and problem solving to generate creative textile design concepts.
- Investigate, experiment and develop effective textile design solutions for specific audiences
- Analyse the use of past and present textiles as a form of communication
- Analyse ethical and legal issues related to marketing and the development of brand stories
- Create visual imagery to communicate design ideas such as fashion sketching, rendering and the use of CAD
- Select and use appropriate digital technologies to creatively document, communicate and present design and project work

Design for Purpose
This unit examines how designers create for end purpose. Student engage using a range of textile mediums to design and create products with consideration given to needs, purpose and performance.

Students will have the opportunity to:

- Create a design brief in response to given parameters with specific consideration of needs, purpose and performance
- Design and create a product using a range of textile mediums that acknowledge the needs of the end user and evaluate the end result
- Synthesise information on materials to determine suitable textiles for performance and end use
- Critically examine the properties and characteristics of fibres and fabrics needed for a purpose, fashion or performance

Implementation pattern:

Semester 1 2027 - Design Aesthetics
Semester 2 2027 - Design for Futures
Semester 1 2028 - Design for Communication
Semester 2 2028 - Design for Purpose

Each unit contains the following assessment tasks:

- Design Development 40% such as a Process Folio task
- Practical Task 40%
- Written task 20% such as an essay or report or an oral presentation

At the commencement of the course regardless of the units studied all students must complete a study of the elements and principles of design and an introduction to the design process.

For students who enter late into the Design and textiles Course there is an online module for the elements and principles of design. This is not for general class use but intended for student self-directed learning.

Digital Technologies (A/T)

Information technology is an increasingly important field of study that impacts on almost every aspect of our modern lives. It utilises experiences from diverse sources and is characterised by periods of rapid change.

This course focuses on computational thinking and the application of the design process to create and develop digital solutions using a variety of digital technologies. Through the study of Digital Technologies students present, validate and evaluate their solutions.

Digital technologies involves students creating new ways of doing things, generating their own ideas and creating digital solutions to problems of individual, community and global interests.

Throughout the course, students are exposed to a range of strategies for managing projects and communicating their ideas from ideation to development and launch. This course serves as a basis for further education an employment in the IT industry in a range of fields including programming, web development, robotics and game development.

Prerequisites for the Units or Courses:
Nil. An interest or exposure to programming would be recommended for the IT Programming strand. The web units are not a prerequisite for the graphics units.

Course Length and Composition
Students can do subjects under the Information Technologies course to gain a minor (2 semester units), a major (4 semester units) or a double major by completing 8 units. It is possible to combine 2 unit of Digital Technologies and 2 units of Robotics and Mechatronics to gain a major.

Units:
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.
Students will have an opportunity to:

- Analyse technology theories, concepts and principles to address a need, problem or challenge
- Develop understanding and evaluate various design processes the deal with larger systems
- understand the fundamental computer science principles

- Analyse and develop digital solutions to a given problem in an authentic context

Structured Project
The focus of this unit is on developing students' ability to conceive, define, analyse, develop and publish a project from end to end. Students will develop project management and design skills in order to develop and design solutions for projects that have a clearly defined structure. The project should be authentic context and may take a variety of forms.

Students will have an opportunity to:

- Understand how a project is designed in a systematic manner
- Develop skills and utilise design tools in planning, analysis, design, development and evaluation
- Create specification and user documentation

Digital Assets
The focus of this unit is on developing the students' understanding of the building blocks of larger systems and developing the skills necessary to effectively design and develop digital assets for more complex data driven systems. Students will develop the skills and knowledge retried to interpret and create their own digital assets for a range of purposes and audiences.

This could include the analysis of discrete components of existing processes and products and analysing how they interact within a system as well as re-designing and developing assets. Students will learn about file systems and content organisation architecture, design philosophies as well as fault finding and troubleshooting skills. In this unit, students will have an opportunity to:

- Understand the design process and develop the individual structures of data driven systems
- Investigate the nature and interactions of individual digital assets within the constraints of a larger system
- Analyse and apply the design process, evaluating opportunities and constraints while producing a digital asset
- Use a range of design methodologies to develop solutions
- Understand the development of digital assets within different contexts

Digital Application
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 will have an opportunity to:

- Analyse the components of systems and examine existing applications
- Develop computational thinking skills to solve problems
- Analyse a problem, design a solution by writing code, testing and implementing a system
- Develop knowledge and understanding of programming principles and the interaction of system components in the context of website file management and programming
- Use appropriate tools and methods to communicate understanding of the development of digital asset and justify design choices

Implementation Pattern:

Semester 1 2027 - Digital Solutions	**Semester 1 2028 - Digital Assets**
Semester 2 2027 - Structured Project	**Semester 2 2028 - Digital Application**

Engineering Studies (T)

Engineering, design and technology influences all aspects of our constructed world, and the products people use for purpose and pleasure. This course provides an opportunity for students to utilize an investigative and innovative design process to integrate both the creative and technical requirements of a problem into the development of an engineering solution. Society's heavy reliance on the creativity and problem-solving abilities of Engineers reinforces that Engineering Studies students need to learn how to formulate ideas and strategies to solve problems by applying lateral thinking and mathematical and scientific principles.

Throughout the course students will be exposed to a number of different Engineering disciplines to give them perspective of career options. In doing this student will be exposed to a range of skills from structural engineering, mechanical engineering, mechatronics engineering and aeronautical engineering.

Prerequisites for the Courses or Units: Nil

Course length and composition

- A minor consisting of two units
- A major consisting of four units

Units:
Engineering Systems

In this unit, students learn about engineering systems and how components operate and interact. They explore user needs, including user needs analysis and requirements, and breaking design-problems and solutions into smaller parts. Students create design solutions using scientific concepts, mathematical tools and computer-based simulations. In this unit, students have the opportunity to:

- Investigate and explain how a specific engineering system works in terms of multiple parts working together
- Apply the design process to create an engineering system
- Test evaluate and redesign a system to create an optimised solution
- Address design requirements and client needs in engineering problems and design solutions

Engineering; Process and Concepts

In this unit, students learn about engineering design processes and concepts, and how they are used to develop and optimise solutions to problems. They explore and investigate existing products, resistant materials and components in response to a design brief. Students design and create working models or prototypes of their solutions. In this unit, students have an opportunity to:

- Examine concepts and tools for analysing, interpreting and optimising design solutions
- Draw valid and reasoned conclusions based on evidence and correct engineering concepts
- Create innovative and high-quality design solutions using engineering techniques and approaches
- Create a prototype for a process or concept, carry out tests, complete evaluation and redesign

Applied Engineering

In this unit, students learn how engineering design processes are applied to solve existing problems. they explore real world problems of increasing complexity requiring project-based solutions. Students use guidelines and a context to apply knowledge of the engineering process and theory to develop and respond to design briefs. in this unit, students will have an opportunity to:

- Apply engineering design processes to solve existing problems

- Apply design thinking to real world engineering scenarios
- Explore real world problems and develop project-based solutions
- Develop and respond to design briefs

Emerging Challenges and Innovations

In this unit, students learn about emerging societal, global and environmental challenges and the potential for innovative engineering and emerging technological solutions. They explore and research global challenges. Students develop novel engineering solutions. In this unit, students will have an opportunity to:

- Understand emerging societal, global and environmental challenges
- Crete innovative engineering-based solutions for future focused problems
- Understand the concepts and skills that underpin new and emerging innovations in engineering.

Implementation patterns and guidelines:

Four discrete units will be taught in the Engineering Studies (T) course

Units:
Semester 1 2027 - Applied Engineering
Semester 2 2027 - Emerging Challenges and Innovations

Semester 1 2028 - Engineering Systems
Semester 2 2028 - Engineering; Processes and Concepts

Assessment:

Theory

- Written /oral report 20%
- Design portfolio. 40%
- Practical 40%

Hospitality (A/T)

In Hospitality, students focus on the dynamic nature of the hospitality industry and develop an understanding of contemporary approaches and issues related to food and hospitality. Students investigate contemporary hospitality issues and current management practices and explore concepts such as the legal and environmental aspects, trends in hospitality and consumer protection. They procure, recycle and use resources in light of sustainability and environmental protection.

Students utilise skills in technology, including the use of social media in marketing. They develop safe work practices in the preparation, storage and handling of food, and comply with current health and safety legislation, including infection prevention and control policies and procedures.

Hospitality integrates active, problem-solving approaches to learning. Students participate in collaborative activities to prepare for work in the hospitality industry as well as skills for the 21st Century. They develop their ability to research, to think critically and to solve problems related to the food and hospitality industry.

Pre-requisites for the Course or Units: there are no pre-requisites for this course.

Assessment tasks:

- Practical tasks 40%
- Written / oral tasks 20% (essay, reports, presentations)
- Design task 40%

Course length and composition: Students will receive a Minor in the course by completing two units.

A Major can be achieved by completing four standard units.

Units:
Hospitality Industry
Students learn about contemporary issues and trends in the hospitality industry. They examine the nature of the service industry, including workplace culture, structure and practices, focus on developing communication, collaboration and interpersonal skills with customers. They consider factors that influence food choices, including the use of social media in marketing. Students learn about food allergies and dietary restrictions, and the significance of these for the hospitality industry.

Hospitality Management
In this unit, students develop an understanding of successful management practices. They examine influences on decision-making about food and hospitality, and they make and justify their own decisions. Students build skills in leadership working in an individual and collaborative context. Students examine systems and procedures to ensure efficient operational work practices, effective customer service techniques, and managing workplace relationships.

Hospitality Essentials
In this unit, students develop practical skills in food and hospitality. They develop skills in the selection and use of appropriate technology to prepare, present and serve food and beverages, applying safe food practices and consider issues in food preparation, including food and safety, and Workplace Health and Safety. Students ensure good hygiene practice for employees and consumers and apply infection prevention and control policies and procedures.

Hospitality Operations
Students apply knowledge and problem-solving skills to practical activities in food preparation and hospitality, utilise practical skills, and adapt recipes to meet the needs of consumers. Students investigate and evaluate technologies, systems and procedures to assess the efficiency and sustainability of operational work practices. They analyse communication techniques and interpersonal and intercultural understandings and apply and evaluate these when working with others.

Implementation Pattern:
Semester 1 2027 - Hospitality Industry
Semester 2 2027 - Hospitality Management
Semester 1 2028 - Hospitality Essentials
Semester 2 2028 - Hospitality Operations

Robotic and Mechatronics (A/T)

This course explores automation and physical computing through the engineering disciplines of robotics and mechatronics. The course introduces fundamental principles of both electronics and mechatronics before investigating micro controllers that can be programmed to drive electrical circuits and mechanical systems.
Students apply their knowledge to the design and construction of real systems, examining how these solutions address problems, needs and challenges faced by individuals and societies. They design and program control software for autonomous and manual interfaces connecting for noise and unexpected variations in data imputes and processing. Robotics and Mechatronics aims to build theoretical and practical knowledge to prepare students for technical pathways such as engineering, IT, electronics and science.

Units:
Robotics and Mechatronics
This unit of study provides opportunities for students to investigate the development of robotics and mechatronic systems. Students critically analyse the effect that robotics and mechanised systems have on human society, built and natural environments and general well-being. Students will use the design process to create and control a product or solution incorporating mechanical, electrical and control systems.

Students will have an opportunity to:

- Analyse the role of intelligent machines in society
- Examine ethical use of systems and environmental implications of system construction and deconstruction.
- Investigate the history of robotics and mechanised systems and explain how the systems have been used to enhance society.

Application of Robotics
This unit of study provides opportunities for students to investigate the role of robotics another intelligent machines, including artificial intelligence, machine learning and the design construction and application of robotic systems. They will use system architecture methodologies and the design process to complete a project, using the design process.

Students will have an opportunity to:

- Analyse concepts behind the operation and implementation of machine intelligence, learning vision, motion and other ways in which robots and machine interact
- Explain artificial intelligence concepts and solutions and applications such as computer vision, facial and voice recognition
- Apply strategies for collaboration and solving problems using the design process while working in teams

Building and Programming Circuits
This unit of study provides opportunities for students to learn about the components of electronics and the design and construction of electronic systems. They will use design methodologies to investigate, strategise, prototype, evaluate and critically analyse the construction of electronic systems. Students will gain the skills and knowledge necessary to apply the design process using electronics to create innovative and sustainable systems.

Students will have an opportunity to:

- Analyse and use technologies in a range of contexts to produce or create solutions or products to address a need, problem or challenge
- Understand and apply the design processes to solve a problem
- Apply skills in soldering or prototyping electronics
- Analyse theories of circuit design and control systems
- Research and analyse historical and current electronic systems for value

Digital and Analog Interactions
This unit of study provides opportunities for students to learn to respond to a real world need and justify creation of a complex control system. Students will investigate and program micro controllers and control systems. Students will apply the design process to design interface circuits, prototype and construct systems. In this unit, students will:

- Analyse and use technologies in a range of contexts
- Apply the design process to solve problems
- Program algorithms to control systems using relevant programming languages that collect data to provide meaningful information
- Investigate scenarios which can be ethically and sustainably controlled and monitored using technology

Implementation Pattern:

Semester 1 2027 - Robotics and Mechatronics
Semester 2 2027- Application of Robotics

Semester 1 2028 - Building & Programming Circuits
Semester 2 2028 - Digital and Analog Interactions

English



English (T)

English T focuses on developing students' analytical, creative and critical thinking and communication skills in all language modes. It encourages students to engage with texts from their contemporary world, with texts from the past and with texts from Australian and other cultures.

Aims of the course are to develop students':

- Skills in listening, speaking, reading, viewing and writing
- Understanding and appreciation of the use of language for effective communication
- Critical analysis of contexts, values, attitudes and ideas in texts
- Understanding of the interrelationship between language, audience and purpose
- Investigation and evaluation of different interpretations, representations and perspectives
- Creative and critical communication in a range of modes for a variety of purposes
- Reflection on own thinking and learning

Assessment:

- Students studying ***English T*** will complete responding, creating and investigating tasks
- ***English T*** assessment pieces will be marked using the same criteria as ***Literature T***
- Scores from both courses ***English T*** and ***Literature T*** will be meshed to generate final scores per semester

Prerequisites for the Course or Units: Nil

Usual course length and composition:

- A major: 4 units in ***English T***
- A major/minor: 6 units by completing a combination of units from ***English T*** and ***Literature T***
- A double major: 8 units by completing all units from both ***English T*** and ***Literature T***

English T: is a study of literature, media and language in which students critically and creatively engage with a variety of texts in all language modes. Students engage in a detailed study of increasingly complex texts and language. They learn how to analyse different interpretations of texts and how to use language modes to achieve specific effects. In Year 11, students will study Units 1 and 2.

English T Unit 1: in Unit 1, students explore how meaning is communicated through the relationships between language, purpose, context and audience. This includes how language and texts are shaped by their purpose, the audiences for whom they are intended and the contexts in which they are created and received. A variety of texts are studied to explore these ideas including a core literary text such as a novel, play, poetry or film and other texts such as those listed below.

Possible Texts for *English* Unit 1:

- **Possible Core Texts:** *TheBook Thief* by Markus Zusak, *One Flew Over the Cuckoo's Nest* by Ken Kesey, *The Catcher in the Rye* by JD Salinger
- **Other Texts:** For example: plays, vlogs, documentaries, speeches, images, advertising and social media texts

English T Unit 2: in Unit 2, students analyse the representation of ideas, attitudes and voices in texts to consider how texts represent the world and human experience. Content may include representations of gender or the hero. A variety of texts are used to explore these ideas including a core literary text such as a novel, play, poetry or film and other texts such as those listed below.

- **Possible Core Texts for English T Unit 2:** *A Doll's House by* Henrik Ibsen, *Othello* by William Shakespeare, *A Streetcar Named Desire* by Tennessee Williams
- **Other Texts:** For example: vlogs, documentaries, speeches, images, advertising and social media texts

Implementation patterns and guidelines: the units are sequential **-** Unit 1 and Unit 2 in Year 11 and Unit 3 and Unit 4 in Year 12.

Literature (T)

Literature T focuses on developing students' analytical, creative and critical thinking and communication skills in all language modes. It encourages students to engage with texts from their contemporary world, with texts from the past and with texts from Australian and other cultures.

- Skills in reading, writing, speaking, listening and viewing
- Understanding and appreciation of the use of language for effective communication
- Critical analysis of contexts, values, attitudes and ideas in texts
- Understanding of the interrelationship between language, audience and purpose
- Investigation and evaluation of different interpretations, representations and perspectives
- Creative and critical communication in a range of modes for a variety of purposes
- Reflection on own thinking and learning

Assessment:

- Students studying ***Literature T*** will complete responding, creating and investigating tasks
- ***Literature T*** assessment pieces will be marked using the same criteria as ***English T***
- Scores from both courses ***English T*** and ***Literature T*** will be meshed to generate final scores per semester

Prerequisites for the Course or Units: Nil

Usual course length and composition:

- A major: 4 units in ***Literature T***
- A major/minor: 6 units by completing a combination of units from ***English T*** and ***Literature T***
- A double major: 8 units by completing all units from both ***English T*** and ***Literature T***

Literature T: provides students with the opportunity to study literature at an intensive level and aims to engage students in the detailed study of literary texts. Students learn to appreciate literary texts, and to create their own, enriching their understanding of human experiences and the capacity for language to communicate those experiences.

Literature T Unit 1: Unit 1 develops students' knowledge and understanding of different ways of reading and creating literary texts drawn from a widening range of historical, social, cultural and personal contexts, including the Western Canon. Students analyse the relationships between language, text, contexts, individual points of view and response.

- **Possible Core Texts:** *The Great Gatsby* by F. Scott Fitzgerald, *The Outsider* by Albert Camus, poetry of Wilfred Owen or TS Eliot

Literature T Unit 2: Unit 2 develops student knowledge and understanding of the ways literary texts (including film) connect with each other through intertextuality. Drawing on a range of language and literary experiences, students consider the relationships between texts, genres, authors, audiences and contexts.

- **Possible Core Texts:** *Hamlet* by William Shakespeare and *Hag-seed* by Margaret Atwood, *Emma* by Jane Austen and *Clueless* by Amy Heckerling, *Antigone* by Sophocles and *Home Fire* by Kamile Shamsie

Implementation patterns and guidelines: The units are taught in a 4-semester cycle over 2 years. Units 1 and 2 in Year 11 and Units 3 and 4 in Year 12.

Essential English (A)

English A (Essential English) focuses on consolidating and refining the skills and knowledge needed by students to become competent, confident and engaged users of English in many contemporary contexts including every day, community, social, further education, training and workplace contexts.

Aims of the course are to develop students':

- Skills in listening, speaking, reading, viewing and writing
- Capacity to create texts for a range of purposes, audiences and contexts
- Understanding and appreciation of different uses of language
- Capacity to use and apply language and information effectively, confidently and creatively in vocational, community and academic contexts
- Understanding the ways in which text structure, stylistic feature and register combined to make meaning and influence responses
- Proficiency in using and creating multimodal, literary and digital texts

Assessment:

- Students studying Essential English A will complete responding, creating and investigating tasks

- Essential English A assessment pieces will be marked using different Grade Descriptors to English T and Literature T

Prerequisites for the Course or Units: Nil

Usual Course length and composition

- A minor consisting of two units
- A major consisting of four units

Essential English A: is a study of literature, media and language in which students develop skills to communicate successfully. Students explore different modes of communication, especially digital texts and shorter texts that address contemporary life and concerns. In Year 11, students will study a combination of 2 of 4 units. Examples of which are:

Essential English **Unit 2:** In Unit 2 Students examine the connections between purpose and structure and how a text's meaning is influenced by the context in which it is created and received. The focus is making connections.

Essential English Unit 4: In Unit 4 students learn how community, local or global issues and ideas are presented in texts. They develop independent points of view by synthesising information from a range of sources, and analysing how ideas, attitudes and values are represented.

Implementation patterns and guidelines: The units are not sequential.

Health and Physical Education



Exercise Science (T)

The course will expose students to knowledge and skills and therefore, is ideal for those who wish to pursue further study at a tertiary level or in vocational education and training settings and pathways. It is designed to cater for students who intend to proceed to post -secondary studies (university or CIT) in the fields of medicine, osteopathy, chiropractic science, paramedical science, sports science, nursing, physiotherapy, occupational therapy, sports training and conditioning, strength and conditioning, exercise science, dietetics, nutrition, sports psychology, teaching, community fitness and recreation and other allied areas in applied anatomy and physiology.

Prerequisites for the Courses or Units:
Although entry into the course is open to any student enrolled in Year 11 or Year 12, the rigour of the course requires a committed application as well as competence in English, Science and Mathematics.

Course length and composition
The course provides for:

- A minor consisting of two units
- A major consisting of four units

Units:

Anatomy and Physiology for Exercise
Students will examine the structure and function of the musculoskeletal, cardiorespiratory, and nervous systems. They critically analyse concepts, principles of how these systems contribute to exercise, and adjust to increasing demands. Students investigate the capacity of these systems, models and methodologies for their assessment, and theories and research about their implications. They take an integrated approach to anatomy and physiology and to highly applied exercise concepts.

Nutrition and Training for Performance
Students will gain an understanding of the functional principles of athletic nutrition and training for performance. They examine nutritional and training concepts and principles to critically analyse the theories of human performance during sport and exercise. Students will develop skills in methodologies appropriate to investigating nutrition and training.

The Body in Motion
Students will explore the biomechanical and physiological theories and models involved in analysing

and interpreting the body in motion. They apply a variety of scientific concepts and laws to analyse movement patterns and the physiological demands of sports performance and fatigue. Students will investigate the mechanics of the body and the interrelationship between biomechanical principles that influence movement and sports performance.

Science of Performance
Students will examine theories, concepts, and models related to the psychological and behavioural factors that influence athletic performance and mindset. They will also investigate the causes and nature of injuries and the recovery and rehabilitation processes. Students explore the relationship between mental and physical performance.

Implementation patterns and guidelines:
The order of study is optional. However, it is highly advisable that units be undertaken in the sequence stated above.

Physical Education (A)

Physical Education is an integrated area of study that actively engages students holistically in intellectual, social, emotional and physical development and learning in, about and through physical, recreational and sporting activities.

The course will enable students to: develop knowledge, skills, understanding and values to establish and maintain healthy, satisfying lives; develop physical skills which promote cognitive and academic performance; plan activities independently and collaboratively; communicate ideas; develop self-awareness and personal identity that enables them to manage their emotional, mental, spiritual and physical well-being as well as gain certification in fields related to Physical Education.

This course is relevant to all students with a wide range of interests and aspirations, including those who wish to pursue further formal study at tertiary level or in vocational education and training settings. It also provides valuable knowledge and skills for participation in contemporary society.

Students develop literacy and numeracy skills in Physical Education. Students engage in written, oral and kinaesthetically structured learning experiences and develop insights into the science underpinning sports performance and movement. Students are encouraged to value aesthetic, moral, ethical, social and health outcomes of the affective domain through participation in a wide range of activities, and experience opportunities to develop, practise and apply appropriate skills and knowledge in varied and challenging environments.

When students undertake practical activities in Physical Education they gain knowledge through experiential learning. The general objectives of acquiring, applying, synthesising, evaluating and appreciating reflect the notion that skills and knowledge, once acquired, can be applied to a range of physical activity contexts. In addition, students access and use information by developing research skills.

The study of Physical Education supports students as they develop into young adults, encouraging enhancement of personal wellbeing, lifelong physical activity and the capacity to develop themselves as a lifelong learner and make a positive contribution to society.

Prerequisites for the Courses or Units:
Entry into the course is open to any student enrolled in Year 11 or Year 12. However, the course assumes a sound level of achievement in the Health and Physical Education program to Year 10.

Course length and composition
The course provides for:

- A minor consisting of two units
- A major consisting of four units

Units:

Improving Individual Performance
Students develop knowledge, understanding, and skills essential in the development, execution, and improvement of individual skills in a range of physical activities and sports. They explore a variety of skills within activities through research and practical instruction. Students analyse performance using qualitative and quantitative methods to make informed improvement plans and reflect on their effectiveness.

Promoting Active Lifestyles
Students develop their knowledge, understanding and skills in physical activity emphasising the importance of maintaining lifelong engagement with physical activity. They analyse the opportunities and barriers to lifelong engagement in physical activity and sport. By investigating and experiencing recreational activities and community sport throughout life, students develop knowledge and understanding of a range of physical activities that promote inclusion and wellbeing.

Improving Team Performance
Students develop knowledge, understanding, and skills essential in the development, execution, and improvement of team performances within a range of physical activities and sports. They explore a variety of strategies, tactics, and communication methods within activities through research and practical instruction. Students examine team dynamics and healthy and positive team cultures, including approaches for their improvement. They analyse team performance using qualitative and quantitative methods to make informed improvement plans and reflect on their effectiveness.

Sport, Culture and Society
Students develop knowledge, understanding and skills to investigate cultural and ethical issues in physical activities and sport. They explore a range of activities, skills and cultures from around the world. Students analyse how the experience of physical activity contributes to societal and cultural identity. They reflect on the variation in individual and societal experiences in sport around the world.

Physical Education (R)

Physical Education (R) is a registered unit which comprises of one lesson (Double) per cycle of engaging in a structured physical activity. Once a cycle you will have a physical activity or game organised for you by a PE teacher. Students often decide what activities are chosen during this time. There is no formal assessment of the subject apart from participation and effort. If a student's attendance is below 90%, they risk V grading the subject and will not be able to continue the following semester.

Explain disparities in health. Students examine different cultural perceptions and approaches to health and wellbeing.

Global Health and Human Development
Students will examine the role of international organisations including the UN and WHO in combating inequality. Students explore current issues on global health and review strategies designed to promote health and sustainable human development globally. Students discuss the effectiveness of government and non-government contributions to international health programs.

History and Philosophy



Ancient History (A/T)

The Ancient History curriculum enables students to study life in early civilisations based on the analysis and interpretation of physical and written remains. The ancient period, as defined in this curriculum, extends from the development of early human communities to the end of late antiquity CE650, with a particular focus on the ancient societies of Europe, Near East and Asia.

Prerequisites for the Course or Units:
Entry into the course is open to any student enrolled in Year 11 or Year 12.

Course length and composition
The course provides for:

- A minor consisting of two units
- A major consisting of four units

Units

Investigating the Ancient World
This unit provides an introduction to the nature of the remaining evidence of the ancient past and issues relevant to the investigation of the ancient world. The unit explores the concepts of historical sites and content, cultural heritage and the ethics of ownership and display. The unit involves an investigation of the evidence for an ancient site, individual, group or event and how it has been interpreted and represented. The unit includes a thorough examination of the controversies inherent in interpreting our ancient past.

Ancient Societies
This unit examines how people lived in the ancient world through an investigation of the remaining evidence. The unit focuses on the study of significant features of ancient societies, such as slavery, the family, and beliefs, rituals and funerary practices. The topics for study are chosen from a wide variety of periods across Ancient History from Egypt, Greece, Persia, Rome, China, Israel, Assyria and India.

People, Power and Authority
This unit examines the nature and exercise of power and authority in ancient societies in key periods,

with reference to the evidence of significant political, military, religious and economic features. The study of an individual as part of this unit enables study of the influence of the 'individual' on events and developments. The main focus is elected from: Rome, 133 - 63BCE, or 63BCE – 14CE, Athens 490 – 445BCE, Persia 560 – 330 BCE, New Kingdom Egypt, Archaic Greece 900 – 600BCE or the Han and the Three Kingdoms 180 CE – 280CE.

Reconstruct the Ancient World

This unit focuses on a significant historical period to develop an understanding of the relevant institutions, practises, key events and individuals of the period, in the context of a wide range of sources. This unit allows for greater study of the challenges associated with the interpretation and evaluation of evidence.

Modern History (A/T)

The Modern History curriculum enables students to study the forces that have shaped today's world and provides them with a broader and deeper comprehension of the world in which they live. While the focus is on the 20th century, the curriculum refers back to formative changes from the late 18th century onwards and encourages students to make connections with the changing world of the 21st century.

Prerequisites for the Course or Units:
Entry into the course is open to any student enrolled in Year 11 or Year 12.

Course length and composition
The course provides for:

- A minor consisting of two units
- A major consisting of four units

Units

Understanding the Modern World
This unit provides an introduction to significant developments in the modern period that have defined the modern world, and the ideas that underpinned them such as liberty, equality and fraternity. The focus of this unit is the American and French revolutions.

Change in the 20th Century
This unit examines significant movements, developed in response to the ideas studied in Unit 1 that brought about change in the modern world and that have been subject to political debate. The unit focuses on the ways in which individuals, groups and institutions have challenged authority and transform society, specifically through protest movements in the USA and South Africa.

Modern Nations
This unit examines the 'nation' as the principal form of political organisation in the modern world; the crises that confronted nations in the 20th century; their responses to these crises, and the different paths they have taken to fulfil their goals. The focus of this unit is Nazi Germany and Mao's China.

The Modern World since 1945
This unit focuses on the distinctive features of the modern world that emerged in the period 1945-2010. It aims to build students' understanding of the contemporary world - that is, why we are here at this point in time. The main area of study for this unit is the Cold War.

History (A/T)

Students may study Ancient History and/or Modern History or may combine units from these two courses to make a course in History.

Philosophy (A/T)

Philosophy empowers students to reflect on themselves and the world. They investigate challenges faced by individuals and society and consider perspectives on those challenges. They refine analytical and critical thinking skills and learn to question and challenge assumptions about the world around them.

Prerequisites for the Course or Units:
Entry into the course is open to any student enrolled in Year 11 or Year 12.

Course length and composition
The course provides for:

- A minor consisting of two units
- A major consisting of four units

Units

Knowledge and Knowing
In this unit, students investigate and interrogate the nature of knowledge claims, and their assumptions and foundations. They evaluate claims to knowledge in a variety of academic and popular contexts. Topics include logic, belief, justification, epistemic injustice, populism and anti-intellectualism. Students consider the perspectives of philosophers, including Locke, Gettier and Fricker.

Existence and Reality
In this unit, students explore the nature of existence and reality. They interrogate the philosophical notions of existence and reality by drawing on philosophies from a range of traditions, including Metaphysics. Topics include the senses, the nature of reality, existence of God, identity, consciousness, fate and free will. Students consider the philosophical views of Descartes, Dennett and Grayling.

Judgement and Value
In this unit, students explore the nature of judgement and value. They evaluate these philosophies to universal and particular human dilemmas and consider the significance and effects of their conclusions. Topics include justice, culture, animal rights, media, relativism, consequentialism and virtue ethics. Students examine the views of philosophers, including Aristotle, Nietzsche and Singer.

Philosophy in the World
In this unit, students investigate issues in the world, applying significant philosophical theories and methods to better understand the beliefs, judgements and thinking of the actors involved, and to assist in the construction of their own robust and well-informed beliefs. Topics include politics, language, war, pacifism and social norms. Students consider the philosophical views of Plato, Chomsky, Klein and de Botton.

Languages



Languages

Languages courses should enable students to:

- Enhance their capacity to communicate and interact effectively within and across languages and cultures, showing control over linguistic elements and an awareness of audience and purpose
- Understand the interrelationship of language and culture, and the importance of intercultural competence
- Acquire language learning strategies that can be applied in further studies
- Expand their post school options and meet the growing needs of business and industry for language skills and intercultural understanding
- Understand the variability of language use – how language changes in relation to situational context and culture (participants and their relationship, circumstances of communication)
- Employ technology to enhance communication

Students who complete a major in Modern Languages will be equipped to continue their chosen language at tertiary level. There are various opportunities to connect with native speakers, including the opportunity for French and Japanese students to apply for the Long Exchange Program during the summer vacation between Year 11 and Year 12. Our sister school relationships for this program are:

Lycée Notre Dame in Le Mans and Lycée Blaise Pascal in Segre.

Konko Gakuen in Okaykama and Kure National College of Technology in Kure.

The Languages courses stress communicative proficiency. The four macro-skills of speaking, listening, reading and writing are developed simultaneously and grammatical accuracy is also stressed. Use of the target Language in the classroom is encouraged as much as possible. Native assistants are employed when possible to assist in this process.
The BSSS Modern Languages course is based on a series of thematic modules: The Individual, Society and Community, The Changing World, and Diverse Perspectives. From 2020, all languages have undertaken these units.

Prerequisites for the Courses or Units:
All students enrolling in the BSSS Modern Languages courses must complete the ACT Languages Eligibility Form (located on the BSSS website). This form must be handed to the Head of the Language Department. This declaration of information will inform the Head of Languages of the language level eligibility for each student prior to full enrolment in a senior language course.

Languages courses in senior Chinese, French, Japanese, and Spanish can be offered **only** if the minimum class number of students is reached in the language.

Implementation Patterns and Guideline
These units are implemented in the order the College determines.

Continuing Chinese (T)

From 2020, the BSSS Languages course themes will be the same for all languages.

- The Individual
- Society and Community
- The Changing World
- Diverse Perspectives

Sub themes may include:

- Personal Identity
- Health and wellbeing
- Travel
- Living in China
- Youth Culture/Sub-cultures
- Communication
- Social Issues
- Personal future
- Art and culture

Continuing French (T)

From 2020, the BSSS Languages course themes will be the same for all languages.

- The Individual
- Society and Community
- The Changing World
- Diverse Perspectives

Sub themes may include:

- Personal World
- Education and Aspirations
- Tourism and Urban Living
- Cultural Perspectives
- Social Issues
- Work and Technology
- Popular Culture
- The Arts

Advanced French (T)

From 2020, the BSSS Languages course themes will be the same for all languages.

- The Individual
- Society and Community
- The Changing World
- Diverse Perspectives

Sub themes may include:

- Personal World
- Education and Aspirations
- Tourism and Urban Living
- Cultural Perspectives
- Social Issues
- Work and Technology
- Popular Culture

Continuing Japanese (T)

From 2020, the BSSS Languages course themes will be the same for all languages.

- The Individual
- Society and Community
- The Changing World
- Diverse Perspectives

Sub themes may include:

- Personal Identity
- Health and wellbeing
- Travel
- Living in Japan
- Youth Culture/Sub-cultures
- Communication
- Social Issues
- Personal future
- Art and culture

Continuing Spanish (T)

From 2020, the BSSS Languages course themes will be the same for all languages.

- The Individual
- Society and Community
- The Changing World
- Diverse Perspectives

Organisation of Content

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

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

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

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 and sciences.

Beginning Spanish (T)

From 2020, the BSSS Languages course themes will be the same for all languages.

- The Individual
- Society and Community
- The Changing World
- Diverse Perspectives

This course may be offered if minimum student numbers are reached. Any interested students should consult with the Head of Languages, Michele Sharp.

Mathematics



Mathematics

A senior secondary education in mathematics aims to provide students with the background to successfully deal with the mathematical demands of their future study and general living.

The College offers four Mathematics courses integrating the Australian Curriculum – Specialist Methods/Specialist Mathematics (T), Mathematical Methods (T), Mathematical Applications (T) and Essential Mathematics (A). Students enrolling in T level mathematics courses will be expected to have a calculator. The model of calculator is advised in the booklist.

More detailed information on these courses is available at the Board of Senior Secondary Studies (BSSS) website:
https://www.bsss.act.edu.au/act_senior_secondary_system/curriculum/bsss_courses/mathematics

Specialist Methods (T) and Specialist Mathematics (T)

These courses emphasise the development of a sophisticated understanding of abstract concepts and the ability to deal rigorously with extended logical arguments. Mathematical relationships and techniques are taught in ways that provide students with the opportunity to reason inductively and deductively, to make inferences and generalisations, and to communicate their mathematical understanding confidently. Students are provided with opportunities to analyse complex problems arising in both theoretical and practical situations.

In those topics which are common to the Specialist Methods and Mathematical Methods courses, it is intended that there be a greater depth and breadth of treatment in the Specialist course. This is provided by more emphasis on structure and proof, by incorporating harder and more abstract questions, and through more challenging assessment items than in Mathematical Methods.

This course is designed for students who intend subsequent tertiary study in quantitative disciplines requiring a strong, deep understanding of mathematics. These disciplines include, but are not limited to, mathematical sciences, actuarial studies, physical sciences, engineering, computer sciences and economics.

Please note that a student acquiring a major in only 'Specialist Methods' may not be deemed as having

met the 'Specialist' (or equivalent) prerequisite for some tertiary institutions. For more detailed information about prerequisites and assumed knowledge, consult current publications from tertiary institutions or providers.

Prerequisites for the Course or Units:
There are no formal prerequisites for this course. However, it is expected that students enrolling in this course will have demonstrated an excellent grasp of all mathematical concepts up to and including Year 10, having consistently and comfortably achieved 'A' grades. Typically, students should have covered 10A curriculum content, delivered as part of the Hybrid program. Students enrolling in Specialist Mathematics (SBT) must also be enrolled in Specialist Methods (SAT). Each new unit assumes knowledge and skills from previous units.

Course Length and Composition

- A major consisting of four units (SAT1-4)
- A major/minor consisting of six units (SAT1-4 and SBT1-2)
- A double major consisting of eight units (SAT1-4 and SBT1-4)

Units:

Specialist Methods
Semester 1, Year 11
SAT1 (counting and probability, functions and graphs, trigonometric functions)
Specialist Mathematics
Semester 1, Year 11
SBT1 (geometry and proof, vectors, further combinatorics)

Specialist Methods
Semester 2, Year 11
SAT2 (exponential functions, sequences and series, differential calculus)
Specialist Mathematics
Semester 2, Year 11
SBT2 (further trigonometry, matrices, real and complex numbers)

Specialist Methods
Semester 1, Year 12
SAT3 (further differential calculus, integration, discrete random variables)
Specialist Mathematics
Semester 1, Year 12
SBT3 (further complex numbers, further functions, further vectors)

Specialist Methods
Semester 2, Year 12
SAT4 (logarithms, continuous random variables, confidence intervals)
Specialist Mathematics
Semester 2, Year 12
SBT4 (further integration, differential equations, statistical inference)

Implementation patterns and guidelines
The Specialist Methods (SAT) units provide the core content for this course. Students enrolling in the more advanced Specialist Mathematics (SBT) units must also be enrolled in Specialist Methods (SAT).

The four units for each course should be undertaken in the order outlined above. At the discretion of the Dean of Senior Studies, in consultation with the Head of Mathematics, some variation in the choice and sequencing of Specialist Mathematics (SBT) units may be possible for students undertaking a major/minor.

Mathematical Methods (T)

This course emphasises the acquisition and understanding of abstract mathematical concepts, relationships and techniques, incorporating practical explorations and meaningful applications. Students are provided with opportunities to analyse and solve real world problems, and to communicate their reasoning through logical arguments.

In those topics which are common to the Specialist Methods and Mathematical Methods courses, it is intended that there be a greater depth and breadth of treatment in the Specialist course. This is provided by more emphasis on structure and proof, by incorporating harder and more abstract questions, and through more challenging assessment items than in Mathematical Methods.

This course is designed for students who intend subsequent tertiary study in disciplines for which a sound and broad knowledge of mathematics is required. These disciplines include, but are not limited to, behavioural sciences, the social sciences, applied sciences and business. For more detailed information about prerequisites and assumed knowledge, consult current publications from tertiary institutions or providers

Prerequisites for the Course or Units:
There are no formal prerequisites for this course. However, it is expected that students enrolling in this course will have demonstrated a sound grasp of mathematical concepts up to and including Year 10, having consistently achieved 'A' or 'B' grades, including most of the 10A content delivered through the Hybrid program. Each new unit assumes knowledge and skills from previous units (or equivalent units in Specialist Methods).

Course length and composition

- A major consisting of four units (MMT1-4)

Units:

Semester 1, Year 11
MMT1 (counting and probability, functions and graphs, trigonometric functions)
Semester 2, Year 11
MMT2 (exponential functions, sequences and series, differential calculus)

Semester 1, Year 12
MMT3 (further differential calculus, integration, discrete random variables)
Semester 2, Year 12
MMT4 (logarithms, continuous random variables, confidence intervals)

Implementation pattern and guidelines
The four units for each course should be undertaken in the order outlined above. Students transferring from other mathematics courses after 1 or 2 semesters will begin with unit MMT2 or MMT3, respectively.

Mathematical Applications (T)

This course is designed to provide students with quantitative techniques and analytical skills that can be applied in further study and employment. It presents mathematics as an organised body of useful knowledge and provides students with the skills and confidence necessary to apply this knowledge to practical situations. This course is suitable preparation for general tertiary entry or for students intending tertiary study in areas where mathematical content is not emphasised. For more detailed information about prerequisites and assumed knowledge, consult current publications from tertiary institutions or providers.

Prerequisites for the Courses or Units
There are no formal prerequisites for this course. However, it is expected that students enrolling in this course will have demonstrated success in Mathematics up to and including Year 10, having consistently achieved 'C' grades or higher. Each new unit assumes knowledge and skills from previous units.

Course length and composition

- A major consisting of four units (MAT1-4)

Units:
Semester 1, Year 11
MAT1 (consumer arithmetic, algebra and matrices, shape and measurement)
Semester 2, Year 11
MAT2 (univariate statistics, applied trigonometry, linear equations and graphs)

Semester 1, Year 12
MAT3 (bivariate statistics, growth and decay, graphs and networks)
Semester 2, Year 12
MAT4 (time series, loans and annuities, networks and decision mathematics)

Implementation patterns and guidelines
The four units for this course should be undertaken in the order outlined above. Students transferring from other mathematics courses after 1 or 2 semesters will begin with unit MAT2 or MAT3, respectively.

Essential Mathematics (A)

This course is designed to provide students with opportunities for continuing mathematical growth. The purpose of the course is to provide an appropriate mathematical background for students who either wish to enter occupations or continue training in areas that require the use of basic mathematical and statistical techniques.

This course focuses on mathematical skills and techniques that have direct application to everyday activity. Students will be provided with opportunities for interpreting information and making informed decisions, and to experience success in their learning of mathematics. Wherever possible, units have vocational relevance.

Prerequisites for the Courses or Units
There are no formal prerequisites for this course or any of the units.

Course length and composition
a major consisting of four units (EMA1-4).

Units:

Semester 1, Year 11 or 12
EMA1 (Calculations, Measurement, Algebra and Graphs)
Semester 2, Year 11 or 12
EMA2 (Data, Percentages, Rates and ratios and Time and motion)

Semester 1, Year 12 or 11
EMA3 (Measurement, Scales, plans and models, graphs and data)
Semester 2, Year 12 or 11
EMA4 (probability, earth geometry and time zones, loans and compound interest)

Implementation patterns and guidelines
The four units in this course will be offered over a two-year cycle, in the order outlined above. In Semester 1 of Year 11, students will begin with either EMA1 or EMA3, depending on the calendar year.

Performing Arts



Dance (A/T)

Senior Dance provides students with opportunities to extend and develop their skills, knowledge and understanding of Dance. Students will develop skills in appreciating, choreographing, teaching, leading, performing and producing dance in a wide range of styles and contexts. Senior Dance will cater to students of all abilities with no prerequisites required, although prior skills and knowledge in the technical aspects of dance would be an advantage.

Dance units will be offered at the discretion of the teacher and will include a combination of units from those listed below. As Senior Dance will be a new offering in 2022 students are encouraged to contact Radford's Dance teacher Danielle White for more specific course or unit information.

Creativity in Dance

Students learn about the creative process. Students develop the ability to create dance works with intention, originality, and impact on audiences. Students develop their imagination and ownership of ideas and dance works. They engage with the history, lineage, technical dance skills and the creative processes of dance. Students apply the creative process, experiment, and refine techniques, and use problem-solving strategies to express understandings of self, community, and the world.

Communicating Meaning in Dance

Students learn about how meaning is communicated in a variety of dance forms and styles. They explore technical dance skills, stage craft and production elements for communicating their ideas to an audience and reflect on their success. Students apply their dance literacy, knowledge, skills, and understanding to communicate their arguments and insight into themes and issues. This unit provides the opportunity for students to say something as well as make something.

Dance in Context

Students learn about how dance practitioners over time and place have embodied their knowledge. They explore the impact of dancers and choreographers from history and throughout the world and how they have expressed their understanding of self, place, and themes. Students create Dance works reflecting appreciation of techniques from diverse, cultural, geographical and/or historical contexts, observing ethical approaches and intercultural understanding.

Collaboration in Dance

Students learn about how to collaborate effectively to create and perform works that develop ideas and engage with the school and/or wider community. They explore the opportunities and challenges of working with other dance practitioners and/or artists to create a performance to meet a design brief. Students apply technical dance skills, creative, production, communication, technology, problem solving and collaboration skills to create multifaceted performance works engaging with the community.

Innovation in Dance
Students learn about innovative dance practice. They explore innovations in technique, choreography, digital platforms, technology, and criticism. They examine barriers to innovation, how innovation occurs, and how innovation changes perceptions of dance. Students apply their expanded knowledge of creative choices to engage in ethical and aesthetic issues as dance artists and audiences.

Leadership in Dance
Students learn about leadership in the context of creating dance performances. They explore techniques and methodologies used to create dance works. Students draw on pedagogical, choreographic, artistic direction, stage production, communication, and facilitation skills to lead a variety of dance activities.

Entrepreneurship in Dance
Students learn about the connections between dance and business. They examine the business aspects of dance and the opportunities and risks in projecting their practice into the commercial arena. They explore the tension between the creative and commercial. Students apply their understanding of the dance industry to produce dance for a range of audiences.

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.

Drama (A/T)

This course has the same content as the T Drama with a greater emphasis on practical exploration of unit concepts. This course is designed to meet the needs of a wide range of students interested in studying Drama, as well as for those who wish to pursue Drama as a recreational subject. The course aims to foster values that will encourage watching and participation in Dramatic performances, leading to a continuing interest in later life.

Prerequisites for the Courses or Units:
There are no prerequisites for the A or T course, although the majority of students will have studied Drama in Years 7-10 or will have had some exposure as part of their Years 8-10 English course in the College. In Term 1 each year there is a compulsory Drama camp for A and T students. Industry practitioners, actors and/or directors run workshops with students over a weekend to help develop ensemble and build their performance, production skills.

Course length and composition:
Students considering a major/minor should discuss this prior to subject selection to ensure the viability of their plan.

This course provides for:

- A minor consisting of two units
- A major consisting of four units (must include Actor and Director)
- A major/minor consisting of six units

- A double major consisting of eight units
- Students will have the option of electing to two streams, tech and performance, all units can be structured to accommodate either the technical or performance stream. Where possible, classes will be discreet

Tech Stream
In the Tech stream, students will learn about all aspects of technical theatre including lighting, sound, set and costume design and publicity. They will learn the purpose and value of collaboration as they generate work for live productions as part of a larger production team.

Prerequisites
There are no prerequisites for this course however it is recommended that students in the tech stream also participate in the tech Crew co-curricular which runs on Wednesday afternoons.

Performance Stream
In the performance stream students will have opportunities to make and respond to a wide range of theatrical styles and conventions. They will work as actors, directors, designers and theatre-makers as they create theatre for a range of purposes and audiences. Over the course of their studies, they will have opportunities to engage with scripted, improvised and devised theatre forms.

Prerequisites
There are no prerequisites for this course

Course Delivery
Please note that as units are currently in draft form, subject to final Board approval, there may be minor modifications to the course content. Each unit has been structured around a core idea or concept and content so that all courses may be adapted to either the tech or performance stream. Unit selection will be determined by the teacher, based on the needs of specific cohorts in any given year.

The focus in all units is on the practical exploration of theatre through the lens of either designers and technicians or actors and directors.

Units:
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.

Innovation in Drama
Students learn about innovative dramatic practice, 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, initiative, and confidence to share their vision. In learning about leadership, they gain understanding of the various roles required in a dramatic work, and 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.

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.

The nature of study in this instance will be determined in negotiation between the teacher and student.

Music (A/T)

Music Education at Radford College aims to instil a deep love of music in all students. It encourages each student to experience the joy of music regardless of age or ability as an integral part of the College curriculum. There is an emphasis on active participation, individual expression and knowledge and understanding of the musical concepts. It both challenges and enriches students through performance, composition and academic study. However, it is the intrinsic value of music that is often neglected as a worthwhile pursuit. Music is a vehicle that enables the human spirit to flourish; it gives a sense of well-being, achievement, emotive connectedness and spiritual fulfilment.

In Music, students will develop their auditory, literacy and musicianship skills through making and responding to music. Students will study a variety of traditional and contemporary music styles using the elements of music. They will perform music individually on the instrument of their choice and use voice in class activities. Students will create original compositions and arrangement using computer software and audio recording equipment. Students will also have the opportunity to explore the social, historical and political context of a variety of musical styles.

Tertiary (T) Course

This course is designed to building on students' prior knowledge and experience in studying music. It is assumed students entering this course have a formal knowledge of music notation, developed literacy and performance skills and a general knowledge and understanding of some musical styles. The recommended entry level for T courses is Grade 3 Practical from a relevant examination body or equivalent or at the discretion of the Principal.

Students studying Tertiary (T) music have the opportunity to study units of work that allow them to gain the experience, knowledge and skills in order to pursue further study of Music in a tertiary institution.

Accredited (A) Course

This course is designed to introduce students to studies in music. It is assumed that students entering the A Course have little or no prior experience in studying music (i.e. performance and/or notation skill) or may elect to study this course for personal enjoyment.

Students studying Accredited (A) music have the opportunity to study units of work that allow them to gain the experience, knowledge and skills in order to pursue an area of interest in the music industry at a non-tertiary level.

Course length and composition

This course provides for:

- A minor consisting of two units
- A major consisting of four units

Course length and composition

This course provides for:

- A minor consisting of two units
- A major consisting of four units

Possible Units in Music

Creativity in Music
Students learn about creativity in music by exploring a range of techniques and strategies 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 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 mentoring, 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 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.

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.

Science



Biology (T)

Biology is the scientific study of living organisms and their environment. This includes knowledge and curiosity about human life and health, how humans interact with the natural world, and the need to sustain the complex interactions that make possible the diversity of life on Earth. The course covers a wide array of theory and uses practical experiences to develop this understanding in all units.

Prerequisites for the Course or Units

The course assumes a sound level of achievement in a balanced Science program to Year 10 and competence in English and Mathematics, although entry into the course is open to any student enrolled in Year 11 or Year 12.

Course length and composition

This course provides for:

- A minor consisting of two units
- A major consisting of four units

Units:

Unit 1: Biodiversity and Connectedness

Using fieldwork, students investigate and describe a number of diverse ecosystems, exploring the range of biotic and abiotic components to understand the dynamics, diversity and underlying unity of earth systems, including interactions within and between species, and interactions between abiotic and biotic components of ecosystems. Students use classification keys to identify organisms, describe the biodiversity in ecosystems, investigate patterns in relationships between organisms, and aid scientific communication.

Unit 2: Cells and Multicellular Organisms

Students examine inputs and outputs of cells to develop an understanding of the chemical nature of cellular systems, both structurally and functionally, and the processes required for cell survival. They investigate the biochemical processes of photosynthesis and respiration, and the role of enzymes in controlling biochemical systems. Students examine the structure and function of plant and animal systems at cell and tissue levels including conducting real or virtual dissections and carrying out microscopic examination of cells and tissues.

Unit 3: Heredity and Continuity of Life

Students investigate the biochemical and cellular systems and processes involved in the transmission of genetic material to the next generation of cells and to offspring and the patterns of inheritance shown in genotypes and phenotypes of offspring. This is accompanied by an investigation into the genetic basis for the theory of evolution by natural selection.

Unit 4: Maintaining the Internal Environment
In this unit, students investigate how homeostatic response systems control organisms' responses to environmental change - internal and external - in order to survive in a variety of environments, as long as the conditions are within their tolerance limits. Students study how the invasion of an organism's internal environment by pathogens challenges the effective functioning of cells, tissues and body systems, and triggers a series of responses or events in the short and long-term in order to maintain system function.

Implementation patterns and guidelines
Units 1 and 2 should be completed prior to Units 3 and 4. Students in Year 12 wishing to complete a minor in Biology can complete Units 1 and 2, however they may apply to complete Units 3 and 4 at the discretion of the DARC/SSC, in consultation with the Head of Science.

Chemistry (T)

Chemistry is the study of materials and substances, and the transformations they undergo through interactions and the transfer of energy. Students develop an understanding of key chemical concepts and models of structure, bonding, and chemical change, including the role of chemical, electrical and thermal energy. They learn how models of structure and bonding enable chemists to predict properties and reactions and to adapt these for particular purposes. Students explore key concepts and models through active inquiry into phenomena and through contexts that exemplify the role of chemistry and chemists in society. They design and conduct qualitative and quantitative investigations both individually and collaboratively.

Prerequisites for the Course or Units
The course assumes a sound level of achievement in a balanced Science program to Year 10 and competence in English and Mathematics, although entry into the course is open to any student enrolled in Year 11 or Year 12. It is recommended that students considering Chemistry should also be completing Mathematical Methods as a minimum. This ensures that the mathematical aspects of this course will be managed. Unit 1 is a prerequisite for Unit 2 and Units 1 and 2 are prerequisites for Units 3 and 4.

Course length and composition

- A minor consisting of two units
- A major consisting of four units

Units:
Unit 1: Chemical Fundamentals
Students explore how the atomic model and models of bonding explain the structure and properties of elements and compounds. They learn about the concept of enthalpy and then apply this understanding to describe and explain energy changes in chemical reactions.

Unit 2: Molecules
In this topic, students will examine how models of the shape and structure of molecules and intermolecular forces can be used to explain the properties of substances, including the solubility of substances in water. They also investigate how kinetic theory can be used to explain the behaviour of gaseous systems, and how collision theory can be used to explain and predict the effect of varying conditions on the rate of reaction.

Unit 3: Equilibrium and Redox Reactions

Students further develop their knowledge of chemical processes introduced in Units 1 and 2 but also gain an understanding of the characteristics of equilibrium systems. They explain and predict how equilibrium systems are affected by changes to temperature, concentration and pressure. Students analyse the difference between the strength and concentration of acids and relate this to the principles of chemical equilibrium. This unit also investigates how redox reactions, galvanic and electrolytic cells are modelled in terms of electron transfer.

Unit 4: Structure, Synthesis and Design
In this unit, the students explore how the presence of functional groups and the molecular structure of organic compounds are related to their properties. They gain an understanding of addition, condensation and oxidation reactions, and predict the products of these reactions. Students examine how the knowledge of chemical systems is used to design synthesis processes, and how data from analytical techniques provides information about chemical structure.

Implementation pattern and guidelines:
The four units are to be completed in a sequential fashion. Students in Year 12 wishing to complete a minor in Chemistry would be able to undertake Units 1 and 2 only.

Physics (T)

In this subject, students gather, analyse and interpret primary and secondary data to investigate a range of phenomena and technologies using some of the most important models, laws and theories of physics, including the kinetic particle model, the atomic model, electromagnetic theory, and the laws of classical mechanics. They investigate how the unifying concept of energy explains diverse phenomena and provides a powerful tool for analysing how systems interact throughout the universe on multiple scales. Students learn how more sophisticated theories, including quantum theory, the theory of relativity and the Standard Model, are needed to explain more complex phenomena, and how new observations can lead to models and theories being refined and developed.

Prerequisites for the Course or Units:
The course assumes a sound level of achievement in a balanced Science program to Year 10 and competence in English and Mathematics, although entry into the course is open to any student enrolled in Year 11 or Year 12. It is strongly recommended that students considering Physics also be completing Mathematical Methods as a minimum. This ensures that the mathematical aspects of this course will be managed.

Course length and composition

- A minor consisting of two units
- A major consisting of four units

Units:
Unit 1: Linear motion and waves
In this unit, students learn about Newton's Laws of Motion and how they describe the relationship between the forces acting on an object and its motion. How waves transfer energy is also investigated. Students examine how the wave model can be used to explain the behaviour of sound and light.

Unit 2: Thermal, nuclear and electrical physics
Students investigate how the kinetic particle model and thermodynamics concepts describe and explain heating processes. They gain an understanding of how the nuclear model of the atom explains radioactivity, fission, fusion and the properties of radioactive nuclides. Students complete the unit by analysing how charge is involved in the transfer and transformation of energy in electrical circuits.

Unit 3: Gravity and electromagnetism
In Unit 3, students understand that motion in gravitational, electric and magnetic fields can be explained using Newton's Laws of Motion. They explore how the electromagnetic wave model explains the production and propagation of electromagnetic waves across the electromagnetic spectrum. Transformations and transfer of energy in electromagnetic devices, as well as transformations and transfer of energy associated with motion in electric, magnetic and gravitational fields is also

investigated.

Unit 4: Revolutions in modern physics
Students investigate how shortcomings in existing theories led to the development of the Special Theory of Relativity, the quantum theory of light and matter, and the Standard Model of particle physics. They learn to understand the consequences for space and time of the equivalence principle for inertial frames of reference. Students process how the quantum theory of light and matter explains blackbody radiation, the photoelectric effect, and atomic emission and absorption spectra. How the Standard Model explains the nature of and interaction between the fundamental particles that form the building blocks of matter is also analysed in this unit.

Implementation pattern and guidelines
The four units are to be completed in a sequential fashion. Students in Year 12 wishing to complete a minor in Physics would be able to undertake Units 1 and 2 only.

Health Science (A/T)

Health Science 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 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. Reproduction and the development of the foetus are studied in order to understand the sources of variation that make each of us unique individuals.

The skills developed in this course 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, paramedicine and physiotherapy, for example). The course develops students' personal capabilities through practical exercises that apply theoretical knowledge to the student as subject, and social capabilities through the practice of collaborative endeavours.

Prerequisites for the Course or Units
The course assumes a sound level of achievement in a balanced Science program to Year 10 and competence in English and Mathematics, although entry into the course is open to any student enrolled in Year 11 or Year 12.

Course length and composition

- A minor consisting of two units
- A major consisting of four units

Units:

Human Reproduction and Development
In this unit, students investigate the properties, functions and health of the reproductive system, including the role of their specialised cells and tissues, and their control by the endocrine system in regulating development. They apply this knowledge particularly to investigate the developmental sequence from fertilisation through implantation, embryonic and foetal development. Students explore selected diseases and claims around the efficacy of related therapies.

Cardiorespiratory Health
In this unit, students investigate properties, functions and health of the cardiovascular and respiratory systems and elements of the musculoskeletal system including their specialised cells and tissues. They apply this knowledge to evaluate the impact of lifestyle choices, on the management and prevention of illness and diseases pertaining to these systems. Students explore selected conditions and claims around the efficacy of related therapies.

Human Digestive and Renal Systems
In this unit, students investigate properties, functions and health of the gastrointestinal and urinary systems, including their specialised cells and tissues and their control by the autonomic nervous

system. They evaluate the impact of nutrition on health and explore nutrition related disease and conditions and claims around the efficacy of related therapies.

Concepts in Neuroscience
In this unit, students investigate properties, functions and health of the central and peripheral nervous systems including their specialised cells and tissues and their role in communication relevant to life experiences such as ageing, degenerative conditions, metal health and drugs. They conduct inquiries including an analysis of causation versus correlation in understanding environmental and genetic properties of these conditions. Students explore claims around the efficacy of related therapies, such as alternative and innovative therapies.

Implementation patterns and guidelines
Units 1 and 2 should be completed prior to Units 3 and 4. Students in Year 12 wishing to complete a minor in Biology can complete Units 1 and 2, however, they may apply to complete Units 3 and 4 at the discretion of the DARC/SSC, in consultation with the Head of Science.

Earth and Environmental Science (T)

Earth and Environmental Science is a multifaceted field of inquiry that focuses on interactions between the solid Earth, its water, its air and its living organisms, and on dynamic, interdependent relationships that have developed between these four components. Earth and environmental scientists consider how these interrelationships produce environmental change at a variety of timescales. To do this, they integrate knowledge, concepts, models and methods drawn from geology, biology, physics and chemistry in the study of Earth's ancient and modern environments. Earth and environmental scientists strive to understand past and present processes so that reliable and scientifically defensible predictions can be made about the future.

Prerequisites for the Course or Units
The course assumes a sound level of achievement in a balanced Science program to Year 10 and competence in English and Mathematics, although entry into the course is open to any student enrolled in Year 11 or Year 12.

Course length and composition

- A minor consisting of two units
- A major consisting of four units

Units:

Introduction to Earth Systems
The Earth system involves four interacting systems: the geosphere, atmosphere, hydrosphere and biosphere. A change in anyone 'sphere' can impact others at a range of temporal and spatial scales. In this unit, students build on their existing knowledge of Earth by exploring the development of understanding of Earth's formation and its internal and surface structure. Students study the processes that formed the oceans and atmosphere. They review the origin and significance of water at Earth's surface, how water moves through the hydrological cycle, and the environments influenced by water, particularly the oceans, the cryosphere and groundwater. Students will examine the formation of soils at Earth's surface (the pedosphere) as a process that involves the interaction of all Earth systems.

Students critically examine the scientific evidence for the origin of life, linking this with their understanding of the evolution of Earth's hydrosphere and atmosphere. They review evidence from the fossil record that demonstrates the interrelationships between major changes in Earth's systems and the evolution and extinction of organisms. They investigate how the distribution and viability of life on Earth influences, and is influenced by, Earth systems.

Through the investigation of appropriate contexts, students explore how international collaboration, evidence from multiple disciplines and individuals and the development of ICT and other technologies have contributed to developing understanding of Earth systems. They investigate how scientific knowledge is used to offer valid explanations and reliable predictions, and the ways in which it interacts

with social, economic and cultural factors.

Students use science inquiry skills that mirror the types of inquiry conducted to establish our contemporary understanding of Earth systems: they engage in a range of investigations that help them develop the field and research skills used by geoscientists, soil scientists, atmospheric scientists, hydrologists, ecologists and environmental chemists to interpret geological, historical and real-time scientific information.

Earth Processes

Earth system processes require energy. In this unit, students explore how the transfer and transformation of energy from the sun and Earth's interior enable and control processes within and between the geosphere, atmosphere, hydrosphere and biosphere. Students examine how the transfer and transformation of heat and gravitational energy in Earth's interior drive movements of Earth's tectonic plates. They analyse how the transfer of solar energy to Earth is influenced by the structure of the atmosphere; how air masses and ocean water move as a result of solar energy transfer and transformation to cause global weather patterns; and how changes in these atmospheric and oceanic processes can result in anomalous weather patterns.

Students use their knowledge of the photosynthetic process to understand the transformation of sunlight into other energy forms that are useful for living things. They study how energy transfer and transformation in ecosystems are modelled and they review how biogeochemical cycling of matter in environmental systems involves energy use and energy storage.

Through the investigation of appropriate contexts, students explore how international collaboration, evidence from multiple disciplines and individuals and the development of ICT and other technologies have contributed to developing understanding of the energy transfers and transformations within and between Earth systems. They investigate how scientific knowledge is used to offer valid explanations and reliable predictions, and the ways in which it interacts with social, economic and cultural factors, including the design of action for sustainability.

Students use inquiry skills to collect, analyse and interpret data relating to energy transfers and transformations and cycling of matter and make inferences about the factors causing changes to movements of energy and matter in Earth systems.

Living on Earth

Earth resources are required to sustain life and provide infrastructure for living (for example, food, shelter, medicines, transport, and communication), driving ongoing demand for biotic, mineral and energy resources. In this unit, students explore renewable and non-renewable resources and analyse the effects that resource extraction, use and consumption and associated waste removal have on Earth systems and human communities.

Students examine the occurrence of non-renewable mineral and energy resources and review how an understanding of Earth and environmental science processes guides resource exploration and extraction. They investigate how the rate of extraction and other environmental factors impact on the quality and availability of renewable resources, including water, energy resources and biota, and the importance of monitoring and modelling to manage these resources at local, regional and global scales. Students learn about ecosystem services and how natural and human-mediated changes of the biosphere, hydrosphere, atmosphere and geosphere, including the pedosphere, influence resource availability and sustainable management.

Through the investigation of appropriate contexts, students explore the ways in which models and theories related to resource extraction, use and management have developed over time and through interactions with social, economic, cultural and ethical considerations. They investigate the ways in which science contributes to contemporary debate regarding local, regional and international resource use, evaluation of risk and action for sustainability, and recognise the limitations of science in providing definitive answers in different contexts.

Students use science inquiry skills to collect, analyse and interpret data relating to the extraction, use,

consumption and waste management of renewable and non-renewable resources. They critically analyse the range of factors that determine management of renewable and non-renewable resources.

The Changing Earth
Earth hazards occur over a range of time scales and have significant impacts on Earth systems across a wide range of spatial scales. Investigation of naturally occurring and human-influenced Earth hazards enables prediction of their impacts, and the development of management and mitigation strategies. In this unit, students examine the cause and effects of naturally occurring Earth hazards including volcanic eruptions, earthquakes and tsunami. They examine ways in which human activities can contribute to the frequency, magnitude and intensity of Earth hazards such as fire and drought. This unit focuses on the timescales at which the effects of natural and human-induced change are apparent and the ways in which scientific data are used to provide strategic direction for the mitigation of Earth hazards and environmental management decisions.

Students review the scientific evidence for climate change models, including the examination of evidence from the geological record, and explore the tensions associated with differing interpretations of the same evidence. They consider the reliability of these models for predicting climate change, and the implications of future climate change events, including changing weather patterns, globally and in Australia (for example, changes in flooding patterns or aridity, and changes to vegetation distribution, river structure and groundwater recharge).

Through the investigation of appropriate contexts, students explore the ways in which models and theories related to monitoring and managing Earth hazards and climate change have developed over time and through interactions with social, economic, cultural, and ethical considerations. They investigate the ways in which science contributes to contemporary debate regarding local, regional and international management of Earth hazards, evaluation of risk and action for sustainability, and recognise the limitations of science in providing definitive answers in different contexts.

Students use inquiry skills to collect, analyse and interpret data relating to the cause and impact of Earth hazards. They critically analyse the range of factors that influence the magnitude, frequency, intensity and management of Earth hazards at local, regional and global levels.

Implementation pattern and guidelines
The four units do not need to be completed in a sequential fashion.

Psychology (A/T)

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. Scientific literacy is treated as a core underlying principle to the development of deep understanding in the subject. 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.

Prerequisites for the Course or Units
The course assumes a sound level of achievement in a balanced Science program to Year 10 and competence in English and Mathematics, although entry into the course is open to any student enrolled in Year 11 or Year 12.

Course length and composition

- A minor consisting of two units
- A major consisting of four units

Units:

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 of 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.

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 learning. An Independent Study unit can be proposed by an individual student for their own independent study and negotiated with their teacher. 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. A student can only study a maximum of one Independent study unit in each course. An Independent Study unit requires the principal's written approval. Independent study units are only available to individual students in Year 12. Principal approval is also required for a student in Year 12 to enrol concurrently in an Independent unit and the third 1.0 unit in a course of study.

Implementation pattern and guidelines

The four units do not need to be completed in a sequential fashion.

Studies of Society and the Environment



Business (A/T)

Students will study of the management of resources and the provision of goods and services, as well as the complexities of operating enterprises at the local, national, and global levels. They investigate ethical practices, including social responsibility and sustainability enabling them to engage with the world as responsible citizens and businesspeople. Students develop their knowledge and understanding of business structures. They develop an understanding of the principles and methods of marketing and advertising as central to business activity. Students develop the knowledge, understanding and skills to make business plans for specific contexts and markets. They develop an understanding of business leadership principles, and the ethical and regulatory contexts in which leadership occurs.

Prerequisites for the Course

There are no prerequisites to study this course.

Course length and composition

- Minor: minimum of 2 units
- Major: minimum of 3.5 units

Units:

Unit 1: Business Opportunities

Students investigate the nature of businesses formed in response to economic, social, regulatory, local, national, and global contexts. Students develop skills in communication and planning to support collaborative problem solving and project work. They refine their capacity to analyse numerical data that supports business decisions. In proposing solutions and conclusions, students consider ethical and sustainability factors and issues.

Unit 2: Business Marketing

Students investigate the principles, theories, and ethics of marketing. They critically analyse case studies of marketing campaigns, including social enterprise marketing. Students develop skills in digital and social media to support the creation of marketing campaigns and business solutions derived from principles and theories. Students refine their creativity, teamwork, and communication skills in the collaborative analysis of marketing problems and creation of marketing solutions.

Unit 3: Business Finance and Planning
Students investigate the principles and theories of business finance and planning. Students critically analyse case studies of business finance and planning in small, medium, and large businesses. They evaluate financial practices for different types of business organisations, including social enterprises. Students refine their mathematical skills necessary to use financial data and business statistics in making plans and recommendations.

Unit 4: Leading a Business
Students investigate the principles and theories related to leadership, and managing people, operations, and change. They critically analyse case studies of business leadership from contemporary local, national, and global businesses. Students evaluate contemporary management practices considering emerging challenges and opportunities, and in the context of intercultural, ethical, and regulatory requirements. Students refine teamwork, creativity, and communication skills to create solutions to problems in leading a business.

Implementation:
A typical student will complete units in the following order:

- Business Opportunities
- Business Marketing
- Business Finance and Planning
- Leading a Business

Economics (T)

In Economics, students study the allocation of limited resources to a satisfy unlimited wants and needs. In doing so they address the economic problem of scarcity: what to produce, how much to produce and for whom to produce. They use a range of approaches and perspectives on economics to investigate these fundamental problems to form conclusions and make predictions. Students develop their knowledge and understanding of the history and development of economic theories and concepts, the application of theories in real world contexts, and the roles of stakeholders in addressing economic scarcity, inefficiencies, and inequalities. They develop an understanding of the significance of economics to interpreting their day to day lives and choices, and their subsequent impact.

Prerequisites for the Courses
There are no prerequisites to study this course.

Course length and composition

- Minor: minimum of 2 units
- Major: minimum of 3.5 units

Units:

Microeconomic Foundations
Students investigate the nature and purpose of a range of economic theories and concepts related to microeconomics such as supply and demand, government intervention in markets and the existence of externalities of production or consumption. Students evaluate explanations of microeconomic phenomena provided by economists to draw conclusions about the nature and actions of economic agents.

Macroeconomic Foundations
Students investigate the nature and purpose of a range of economic theories and concepts related to macroeconomics. They evaluate theories, models, and numerical analyses through investigating scenarios in local, national, global economies and developing societies to understand how policy makers foster prosperity. Students evaluate solutions for macroeconomic issues including managing unemployment, inflation and inequality.

Debates in Macroeconomics
Students critically analyse in-depth scenarios in macroeconomics to understand the functional role of economics in bettering lives. They will engage with debate in the discipline around explanations for

contemporary economic dilemmas and the range of possible solutions to problems facing people. Students make predictions and propose solutions to problems facing policy makers and citizens.

Debates in Microeconomics
Students analyse complex scenarios in microeconomics to understand choices of policy makers. They will engage with debate in the discipline on explanations for contemporary economic dilemmas and the range of possible solutions to problems facing people. Students collaborate to make predictions and propose solutions to problems facing policy makers and citizens.

Implementation pattern and guidelines
A typical student will complete units in the following order:

- Microeconomic Foundations
- Macroeconomic Foundations
- Debates in Macroeconomics
- Debates in Microeconomics

Global Studies (A/T)

By undertaking Global Studies, students come to appreciate the nature of global politics. They examine what can be achieved, and why there is a plurality of views on decisions about progress and reform. Students explore how its key participants respond to global challenges and collectively create opportunities for the betterment of the world. A focus of analysis is the choice between pursuing self-interest and the collective good.

Prerequisites for the Courses
There are no prerequisites to study this course.

Course length and composition

- Minor: minimum of 2 units
- Major: minimum of 4 units

Units:

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. Students assess the relative merits of diverse theories to evaluate actors' claims to sovereignty, hegemony, and legitimacy and why some groups are excluded from exercising agency. They reflect on their role as citizens giving legitimacy to global actors through their decisions and beliefs. The choice of actors for study must include a range of actors from different locations and spheres of influence.

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 critically analyse and evaluate different processes for negotiating between actors within global anarchy. Students evaluate the processes by which global systems operate and their potential for reform. They critique processes from different International Relations (IR) perspectives. Students reflect on their place, and their communities' role, in global processes in working towards the common good. The choice of processes for study must include those involving a range of communities and locations.

Global Challenges
Students critically analyse significant contemporary issues that pose challenges to global actors and processes, and to individuals around the world, as a result of processes employed by global actors to address issues and critique the resulting balance of power. They also 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. Students use theory to formulate questions and anticipate future challenges. They reflect on their connection to current global challenges and how they will respond to that realisation. The choice

of challenges for study must include those impacting on a range of communities and locations.

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 lives for individuals and communities. Students evaluate possible pathways for progress and consider to whom current reform processes bring benefits. The nature of international declarations and agreements are considered in terms of their universality and contingency. Students consider their preferred future, the actions necessary to achieve it, and why it would be better. The choice of opportunities for study must include those available to a range of communities and locations.

Implementation pattern and guidelines:
A typical student will complete units in the following order:

- Global Actors
- Global Processes
- Global Challenges
- Global Opportunities

Legal Studies (A/T)

Legal Studies explores the law, and its institutions and processes, in a social, economic and political context allowing students to investigate, question, and evaluate their personal view of the world and society's collective future. Students develop their knowledge and understanding about how legal systems impact on the lives of citizens, seek to balance the rights and responsibilities of individuals, the community, and governments, to achieve justice and equality for all. Students will evaluate the effectiveness of laws, institutions and processes, and consider opportunities for reform.

Prerequisites for the Courses
There are no prerequisites to study this course.

Course length and composition

- Minor: minimum of 2 units
- Major: minimum of 3.5 units

Units:

Crime and Justice
Students investigate the responses of individuals and societies to social transgressions. They examine the criminalisation and punishment of conduct in various jurisdictions over time. They investigate existing law making, legal and judicial procedures and structures, including both common law and statute law. Students investigate theories of justice and punishment.

Civil Law
Students investigate civil law. They examine the origin, purpose, and scope of regulation under civil law. Students apply civil law principles and doctrines that regulate the relationships and activities of individuals and groups to a range of case studies. They evaluate conflict resolution processes to determine their fairness and efficacy, and the possibilities for reform to achieve more just outcomes.

Contemporary Issues and The Law
Students study the significance of legal rights and responsibilities in everyday life from different political, economic and social perspectives. Through the use of a range of contemporary examples, students investigate how the law attempts to balance the rights and responsibilities of the individual with the best interests of the wider community.

International Law
Students investigate the origin, institutions, and processes of international law. They examine how it might be enforced in the context of global treaties and an anarchic international system. Students investigate the impact of international law at global, national, and local levels. They consider the

relevance of international law to ordinary people and the challenges they are faced with accessing international law. Students evaluate case studies of contemporary international legal processes for their fairness and efficacy, including insecurity caused by corruption, autocracy, climate change and conflict.

Implementation pattern and guidelines:
A typical student will complete units in the following order:

- Crime and Justice
- Civil Law
- Contemporary Issues and the Law
- International Law


QATAR
AIRWAYS
HOTEL