



SEATON
HIGH SCHOOL

**SUBJECT
DESCRIPTORS
2027**

Year 11

Subject Descriptors for 2027, Year 11

This booklet contains brief descriptions of the subjects that are available at year 11 in 2027.

Please be aware that a subject will only run if enough students choose that subject.

You should read this document in conjunction with:

1. Tips and Tricks for Subject Selection
2. SACE information document
3. Year 11 program summary
4. Curriculum Area pathways flowcharts
5. Entrepreneurial package flyers

APPLIED TECHNOLOGY

Subject Outline

The course provides students with the opportunity to use a range of advanced technology manufacturing skills and processes to develop a final product. These include 3D CAD modelling software, 3D printing and laser cutting, microcontrollers, computational thinking and programming, as well as a range of multimedia software. Students work with a range of materials including timber, metal, manufactured boards and plastics.

Content/Topics

- Understanding of CAD software
- Construction techniques: rebate joints, dowel joints, plastics, electronics, programming
- Integration techniques: wiring, soldering
- Planning: Developing and keeping to a schedule
- Following a design process
- Integrating science and technology

BIOLOGY - A

Subject Outline

A stand-alone unit. The study of biology is constructed around inquiry into and application of understanding the diversity of life as it has evolved, the structure and function of living things, and how they interact with their own and other species and their environments.

Content/Topics

The course offers two areas of study:

- Infectious Disease - Students examine the various agents that can cause infectious diseases, how infectious disease agents spread, enter hosts, and cause immune responses. The structure and function of the main components of the immune system, the contribution of biotechnology, and the global impacts of infectious diseases is also examined
- Multicellular Organisms - Students examine the structure and function of various multicellular organisms, the hierarchical structure of cells, tissues, organs, and organ systems. The specific attributes of the circulatory, respiratory, excretory, and digestive systems in animals are examined

BIOLOGY - B

Subject Outline

A stand-alone unit. Cells are the basic unit of life, and this course examines this concept and examines the world we live in and the interaction of both the living and non-living components.

Content/Topics

The course offers two areas of study:

- Cells and Microorganisms - The study of cell structures and their functions, the development of the cell theory, the exchange of materials, and processes required for cell survival. Students use the microscope and digital modelling and examine the importance of microorganisms. By recognising the impacts of innovations and new technologies on individuals and society, students extend their personal and social capability.
- Biodiversity and Ecosystem Dynamics - Students investigate diverse ecosystems, exploring the range of biotic and abiotic components to understand the dynamics, diversity, and underlying unity of these systems. Students use classification keys to identify organisms, describe the biodiversity in ecosystems, and investigate patterns and changes in relationships between species.

BUSINESS INNOVATION

Subject Outline

Students use a customer-focused approach to explore a social, ethical or environmental problem in their local community and generate possible solutions to create an imagined business.

Content/Topics

Students study this subject through the following two contexts: Start-up businesses (primary focus) and existing businesses. Through these contexts, students develop and apply their understanding of the following learning strands:

- Explore customer needs and problems
- Generate solutions to customer and business problems
- Apply financial awareness and decision-making skills
- Communicate business information and models
- Evaluate digital and emerging technologies

These skills are developed and applied through each of the learning strands. These learning strands represent the knowledge, skills, understanding, and capabilities fundamental to the learning in the subject.

Year 11 Subject Descriptors

CHEMISTRY - A

Subject Outline

Students study the matter that makes up materials, analyse and characterise the properties of matter, and investigate uses of materials. Students develop investigation skills and explore the interaction between science and society enabling them to become questioning, reflective, and critical thinkers.

Content/Topics

- Materials and their atoms
- Combinations of atoms
- Molecules

CHEMISTRY - B

Subject Outline

Students study the composition of materials, the means of production for materials and investigate chemical reactions. Students develop investigation skills and explore the interaction between science and society enabling them to become questioning, reflective, and critical thinkers.

Content/Topics

- Mixtures and solutions
- Acid and bases
- Redox reactions

DANCE A / B

This course is designed for students who have successfully completed Year 10 Dance or an entry audition process.

Subject Outline

Dance students develop aesthetic and kinaesthetic intelligence, using the body as an instrument for the expression and communication of ideas. Through the development of practical movement, choreographic, and performance skills as an artist, as well as viewing performance, students explore and celebrate the human condition. Students apply specific Dance vocabulary, techniques and processes to their work as a dancer and choreographer, and to their interpretation and appreciation of the work of others. It is highly recommended that Dance A & B are both chosen if wanting to complete Stage 2 Dance the following year.

Content/Topics

- Develop knowledge and understanding of the body, dance skills and elements, structural devices, production elements, and safe dance practices
- Apply technical and expressive dance skills in performance
- Communicate choreographic intent to an audience through composition and performance
- Reflect on their own creative works as an artist and that of others as an audience member
- Investigate dance in global contexts

For health & safety, students must purchase black jazz shoes and/or half soles/foot undies for rehearsals and performance.

Students are also expected to participate in an out-of-hours Dance Showcase, with rehearsals scheduled after hours and during holidays. Full participation is required.

DESIGN ARTS: Contemporary Practices

Subject Outline

Students explore contemporary practices including (but not limited to) photography, graphic design, jewellery making, three-dimensional forms, digital publishing and product design. They explore innovation using 3D printers, laser cutters and photographic dark room processes. Students develop skills in making and marketing and further develop their entrepreneurial skills.

Content/Topics

- Digital art folio: students record their exploration and experimentation of publishing skills and processes
- Modern methods of producing art and graphic design products
- Marketing and publishing skills.

At the end of the semester students present a showcase, exhibiting their work.

DIGITAL TECHNOLOGY

Subject Outline

Want to make a website, game, web app or mobile app? This is where students can explore those ideas and start turning them into real digital products, and anyone can join. Today's digital world needs designers who understand the options, frameworks, processes, expectations and risks involved in creating digital solutions, especially when working across hardware, apps, web-based products and AI-assisted development.

Content/Topics

In Year 10, students developed an understanding of key coding concepts while exploring what AI can do. In Year 11, students build on this knowledge by working across a broader range of digital contexts, including:

- good and poor design choices in app and web design
- best practice and coding conventions for app structure
- how to guide AI to produce reliable code that stays within the intended direction
- how to make safe, informed decisions when developing digital products

The focus is less on isolated skill-building and more on developing a strong process for making informed decisions. The aim is to prepare students for Year 11 Applied Technology by giving them the confidence to create with fewer restrictions, develop ideas quickly, and focus on improving the overall quality of their project. This might involve digitising a physical system or creating a standalone digital product.

Note: A product developed in Year 11 Applied Technology may also be suitable for use or further development in Digital Technology.

DRAMA A / B

This course is designed for students who have been successful in Years 9 and/or 10 Drama or an entry audition process, and who demonstrate a well-developed interest in the performing arts.

Subject Outline

This course explores Drama in both onstage and offstage capacities, providing flexible learning opportunities. Students are active participants in their learning.

Content/Topics

- Ensemble work is a focus. Students can also expect to work in small groups, pairs, and individually
- Students contribute to the development of a performance from the perspective of a theatre company. They actively participate as part of an ensemble, developing dramatic and design skills, to bring theatre to life
- Students develop creativity by exploring how digital technologies shape theatre
- Students study and participate in live theatre and workshops, building understanding of theatrical movements and styles from the perspective of a dramatic practitioner
- Students apply the Dramatic Process to perform to an audience of peers, family and community members

Regular lesson attendance is an expectation. Out-of-hours rehearsals may also be required in the lead up to production.

ESSENTIAL ENGLISH

Subject Outline

Students respond to and create texts for a range of personal, social, cultural, community, and/or workplace contexts.

Content/Topics

- Develop communication skills through reading, viewing, writing, listening, and speaking
- Practise working with and analysing a range of texts from more everyday situations
- Express information, ideas, and perspectives using a range of textual conventions
- Create oral, written, and/or multimodal texts appropriate for purpose and audience in real and/or imagined contexts

GENERAL ENGLISH

Subject Outline

Students study a range of text types. They respond to texts, developing their analytical skills. Students also produce texts, based on their understanding of the way different texts are constructed. In addition, students are required to study the connections between texts.

Content/Topics

- Analyse relationships between purpose, context, and audience and how these influence texts and their meaning
- Identify ways in which ideas and perspectives are represented in texts
- Analyse how language and stylistic features and conventions are used to convey ideas and perspectives in texts
- Create oral, written, and/or multimodal texts for particular purposes, contexts and audiences
- Identify and analyse intertextual connections
- Apply knowledge and understanding of accurate spelling, punctuation, syntax, and conventions

ENGLISH LITERARY STUDIES

Subject Outline

Students study a range of more sophisticated text types. They respond to texts, developing their analytical skills. Students also produce texts, based on their understanding of the way different texts are constructed. In addition, students are required to study the connections between texts, and examine texts from a range of critical perspectives.

Content/Topics

- Analyse relationships between purpose, context, and audience and how these influence texts and their meaning
- Identify ways in which ideas and perspectives are represented in texts
- Analyse how language and stylistic features and conventions are used to convey ideas and perspectives in texts
- Create oral, written, and/or multimodal texts for particular purposes, contexts and audiences
- Identify and analyse intertextual connections
- Apply knowledge and understanding of accurate spelling, punctuation, syntax, and conventions

FOOD & HOSPITALITY

Subject Outline

Students will focus on the dynamic nature of the food and hospitality industry. They will develop an understanding of contemporary and future food trends and issues related to food and hospitality. Students develop safe work practices in the preparation, storage and handling of food in compliance with current health and safety guidelines. They will investigate and discuss contemporary food and hospitality issues and explore concepts such as trends in food and hospitality and the nutritional impact of healthy eating.

Content/Topics

- Investigation: Do social media trends affect the food that we choose to eat?
- Healthy Take-Out: how can we make “take away food” more nutritionally healthy?
- What are high risk foods and how do we handle them safely?
- Skills needed to plan and prepare a pasta dish that would be suitable to be served at a café or restaurant.

FOOD FOR LIVING

Subject Outline

This course gives students the skills to plan and prepare healthy meals for themselves. Recipes cooked as a class are based on what the class identifies as learning needs.

Content/Topics

- Researching and adapting recipes
- Reading, understanding and implementing recipes
- Setting up a kitchen and pantry
- How to prevent food wastage in the home kitchen
- Developing various cookery skills
- Developing independence in the kitchen

HEALTH

Subject Outline

This course offers students the opportunity to explore the diverse factors influencing health and wellbeing in personal, community, and global contexts. It empowers students to develop the knowledge, skills, and critical understanding needed to make informed, responsible lifestyle decisions. Through evaluating current trends, moral perspectives, and ethical dilemmas, students cultivate personal agency to become active advocates for sustainable change. Guided by key frameworks, the curriculum examines how social and cultural attitudes shape health outcomes worldwide.

Content/Topics

-  Health Literacy: Accessing, understanding, and applying health information.
-  Health Determinants: Exploring social, economic, and environmental influences.
-  Social Equity: Addressing fairness and systemic barriers to health.
-  Health Promotion: Implementing strategies for positive lifestyle outcomes

JAPANESE

This subject may run off line, i.e. not during normal school hours. This could include before, or after school or at another school site through the School of Languages.

Subject Outline

Students further increase their understanding of Japanese language and culture, and they become more proficient communicators of Japanese.

Content/Topics

-  The individual
-  The Japanese speaking communities
-  The changing world
-  Japanese scripts
-  Understanding of Japanese culture
-  Speaking, listening, reading, writing in Japanese

LEGAL STUDIES

Subject Outline

-  An introduction to Australia's legal system
-  A study of the societal values that underpin the legal system
-  Observations of the law in action on a field trip to the courts
-  An examination of current issues in relation to the law
-  Knowledge and understanding of the Australian legal system and an awareness of the societal values that are reflected in laws
-  Communicate informed observations and opinions, using legal terminology
-  Display knowledge and understanding of the legal rights and responsibilities of individuals and groups in Australian society

MATERIAL SOLUTIONS - Metal

Subject Outline

This subject complements the Plumbing course. It is designed for students to focus on metalworking to a greater depth so to develop a greater understanding of the pathways to related industries and vocations. Students will develop and display the skills in different welding techniques, metal fabrication and machining. Projects planned aim to demonstrate the learned skills and the design process.

Content/Topics

-  Students develop their knowledge of the design process
-  Students develop their understanding of metal and how it is processed through an investigation essay which has a focus on sustainable practices
-  Strong focus on practical skills and application
-  Develop appropriate workshop behaviours
-  Students develop their understanding of metal and how it is processed through an investigation essay
-  Strong focus on practical skills and application

MATERIAL SOLUTIONS - Timber

Subject Outline

At Stage 1, students use the design and realisation process. They learn to create a design brief that provides the basis for the development of potential solutions to design problem and review design features, processes, materials and production techniques to assist with the realisation of the solution. This course is designed for students to focus on working with timber to develop a greater understanding of the pathways to related industries and vocations. Students develop skills with portable power tools and some fixed machinery. They construct set products and use the design process to develop and make a major product and document the process.

Content/Topics

- Students develop their knowledge of the design process
- Students develop their understanding of timber and its origin through an investigation essay
- Strong focus on practical skills and application
- Students develop relative hand skills
- Develop appropriate workshop behaviours
- Ongoing assessments which includes all theory, drawing and practical work
- A portfolio of work will be produced and provide evidence of task completion

ESSENTIAL MATHEMATICS A & B

Subject Outline

In Essential Mathematics there is an emphasis on developing students' computational skills and expanding their ability to apply their mathematical skills in flexible and resourceful ways. Students practise solving problems with and without a calculator.

Content/Topics

Stage 1 Essential Mathematics consists of the following six topics:

- Topic 1: Calculations, time and ratio
- Topic 2: Earning and spending
- Topic 3: Geometry
- Topic 4: Data in context
- Topic 5: Measurement
- Topic 6: Investing

In this course, students apply numeracy skills to practical, every day and workplace contexts

GENERAL MATHEMATICS A & B

Subject Outline

General Mathematics extends students' mathematical skills in ways that apply to practical problem solving. A problem-based approach is integral to the development of mathematical models and the associated key ideas in the topics. These topics cover a diverse range of applications of mathematics, including personal financial management, measurement and trigonometry, the statistical investigation process, modelling using linear and non-linear functions, and discrete modelling using networks and matrices.

Content/Topics

Stage 1 General Mathematics consists of the following seven topics:

- Topic 1: Investing and borrowing
- Topic 2: Measurement
- Topic 3: Statistical investigation
- Topic 4: Applications of trigonometry
- Topic 5: Linear and exponential functions and their graphs
- Topic 6: Matrices and networks
- Topic 7: Open topic

Students who study this course develop problem-solving skills in ways that apply to mathematical modelling in everyday contexts.

MATHEMATICA METHODS A & B

Subject Outline

Mathematics provides the foundation for further study in mathematics in Stage 2 Mathematical Methods and Stage 2 Specialist Mathematics.

Content/Topics

Stage 1 Mathematics consists of twelve topics. As a guide, topics 1 to 6 prepare students for the study of Stage 2 Mathematical Methods, while topics 7 to 12 prepare students for the study of Stage 2 Specialist Mathematics:

- Topic 1: Functions and graphs
- Topic 2: Polynomials
- Topic 3: Trigonometry
- Topic 4: Counting and statistics
- Topic 5: Growth and decay
- Topic 6: Introduction to differential calculus
- Students use electronic technology, where appropriate, to enable complex problems to be solved efficiently
- A problem-based approach is integral to the development of the mathematical models and associated key concepts in each topic
- Through key questions, students deepen their understanding of concepts and processes that relate to the mathematical models required to address the problems posed

SPECIALIST MATHEMATICS

Semester 2

Subject Outline

This subject is designed for students with a good understanding of Year 10 Advanced Mathematics and is studied in conjunction with Year 11 Mathematical Methods. It is required for students who wish to study Specialist Mathematics at Stage 2.

Content/Topics

Stage 1 Specialist Mathematics consists of Topics 7 to 12 from the Stage 1 Mathematics subject outline, with the aim of preparing students to study Stage 2 Specialist Mathematics:

- Topic 7: Arithmetic and geometric sequences and series
- Topic 8: Geometry
- Topic 9: Vectors in the plane
- Topic 10: Further trigonometry
- Topic 11: Matrices
- Topic 12: Real and complex numbers

- Problem solving and routine calculations with & without the use of technology
- Application of knowledge to develop algorithms & mathematical models to investigate solutions to complex problems

MODERN HISTORY A

Content/Topics

- The Russian Revolution and another elective topic TBA
- Imperialism and ideology – Britain post 1750
- Analyse ways in which societies in the modern world have been shaped by both internal and external forces and challenges
- Identify and explain historical concepts
- Apply hypotheses and/or focusing questions to guide historical inquiry
- Analyse and evaluate sources
- Understand and appreciate the role of particular individuals, groups and events in history
- Draw conclusions and develop reasoned historical arguments

MODERN HISTORY B

Content/Topics

- Social movements – Civil Rights (US slavery) Indigenous peoples – Aboriginal Australia OR other Indigenous groups in Settler Colonial societies and another elective topic TBA
- Analyse ways in which societies in the modern world have been shaped by both internal and external forces and challenges
- Identify and explain historical concepts
- Apply hypotheses and/or focusing questions to guide historical inquiry
- Analyse and evaluate sources
- Understand and appreciate the role of individuals, groups, and events in history
- Draw conclusions and develop reasoned historical arguments

MUSIC - Creative Arts A / B

This course is designed for students who have been successful in Year 10 Music. Alternative entry may be provided for students who play an instrument or sing and have a strong interest in music.

Subject Outline

Students extend musicianship skills and understandings developed in Year 10 Music. Leadership in ensemble work and stagecraft skills are a feature in the course.

Content/Topics

- Practical performance
- Creative arts process, development and production
- Concepts in creative arts

Students will work individually and in groups, so regular lesson attendance is expected. Students are also expected to commit to weekly voice and/or instrumental lessons and participate in an out of hours Performing Arts Showcase.

PHYSICS A

Students should have achieved at a high level in Year 10 Science. Strong mathematical skills, particularly in algebra and trigonometry, will be an advantage as Stage 1 Physics involves problem solving in connection to Physics concepts.

Subject Outline

The course is designed to present physics in such a way as to encourage interest and enjoyment through an emphasis on the understanding of physics concepts and their application. Physics is studied predominantly through the use of language, observations and explanations. Some use of formulae, scientific method and mathematical manipulations are required. Students are provided with the opportunity to address all three core SACE strands:

- Science as a human endeavour (SHE)
- Science inquiry skills (SIS)
- Science understanding (SU)

Content/Topics

- Nuclear physics (nuclear structure and decay)
- Forces and motion
- Energy, work and momentum

Students will further develop logical thinking skills, numerical problem-solving skills, experimental and investigation design skills, information skills, communication skills, mathematical skills (including using formulae and algebraic manipulations), creativity and imagination.

PHYSICS B

Subject Outline

The course continues to build on the understanding of physics concepts and their application, which began in first semester. The level of complexity of the work increases, but there is still an emphasis on conceptual understanding through language rather than mathematics.

Content/Topics

- Waves (wave equations, light, reflection and refractions)
- Electrical physics (circuits)
- Thermal physics (heat transfer, latent heat)

Skill Development

Students further develop logical thinking skills, numerical problem-solving skills, experimental and investigation design skills, information skills, communication skills, mathematical skills (including using formulae and algebraic manipulations), creativity and imagination.

SOCIETY & CULTURE

Subject Outline

Students investigate and analyse contemporary social issues within an Australian and global context. They investigate issues using a social inquiry method to identify perspectives, connections and changes.

Content/Topics

Each year students have the opportunity to negotiate the focus of the two topics chosen. Examples of topics include:

- The media
- World-shaping phenomena
- Peace and conflict
- Popular culture
- Refugee and migrant experiences

Students will:

- Investigate and analyse current issues
- Evaluation and use of a range of sources
- Identify and evaluation social changes in society and power structures in society
- Plan and take part in a group social action

SPORTS STUDIES A - Integrated Learning

This course provides preparation for students intending to study Stage 2 Sport Studies.

Subject Outline

Students explore the personal and social capability and investigate the factors that influence and improve participation through identifying, exploring, and communicating relevant information, concepts, and ideas.

Content/Topics

- Fitness components and training principles
- Coaching in the community
- Inclusive participation in sport and physical activity

Students participate in a variety of physical activities focusing on movement concepts or strategies to consider the application and development of the personal and social capability. These physical activities may include:

- Invasion Games
- Net/Wall Games

SPORTS STUDIES B - Integrated Learning

This course provides preparation for students intending to study Stage 2 Sport Studies.

Subject Outline

Students explore the personal and social capability and investigate the factors that influence and improve participation through identifying, exploring, and communicating relevant information, concepts, and ideas.

Content/Topics

- Game development
- Coaching in the community
- Improving participation in sport and physical activity

Students participate in a variety of physical activities focusing on movement concepts or strategies to consider the application and development of the personal and social capability. These physical activities may include:

- Invasion Games
- Net/Wall Games

TOURISM

Subject Outline

Students develop an understanding of the nature of tourists, tourism, and the tourism industry. They investigate local, national and global tourism; and explore tourism as a business. Students gain an understanding of the complex economic, social, cultural, and environmental impacts of tourism. Developing an understanding of the sustainable management of tourism is central to the subject.

Content/Topics

- Understanding the tourism industry
- Identifying visitors and hosts
- Creating sustainable tourism
- Working in the tourism industry

VISUAL ART A / B

Subject Outline

Students explore to a higher level the skills and techniques they have developed in previous years to make creative decisions, using higher order thinking and problem-solving skills, leading to a final resolved work. Students are active participants in their learning. It is highly recommended that Visual Art A & B are both chosen if wanting to complete Stage 2 Visual Art the following year.

Content/Topics

- Visual art folio: students record their exploration and experimentation of visual art styles, techniques, practitioners and media.
- Practical: creating and evaluating students' own artworks
- Visual Study: students research an arts practitioner, analysing their style and techniques, and apply these to experimentation and a finished artwork.

At the end of each semester, students present a showcase, exhibiting their work.

WORKPLACE PRACTICES

Subject Outline

Students develop knowledge, skills and understanding of the nature, type and structure of the workplace. They learn about the value of unpaid work to society, future trends in the world of work, workers' rights and responsibilities and career planning.

Content/Topics

-  Students can undertake learning in the workplace and develop and reflect on their capabilities, interests, and aspirations
 -  Each assessment task relates to the students' areas of interest or chosen career field. In this way, students remain motivated, and they can see the relevance and importance of the work
 -  Students are taught in a flexible manner as each VET course or work placement takes place at a different time
-