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Disclaimer

Please note that although this Handbook uses information directly from the South Australian Certificate in Education (SACE), Technical and Further Education South Australia (TAFE SA) and the South Australian Tertiary Admissions Centre (SATAC) websites it is meant as a guide only. Although the College endeavours to keep this booklet up to date, changes in policies, procedures, and information can occur at any time and students must refer directly to the following websites for the most up to date information.

SACE  https://www.sace.sa.edu.au/home
TAFE  http://www.tafesa.edu.au/
SATAC  http://www.satac.edu.au/

SACE Overview

The South Australian Certificate of Education (SACE) signifies that a student has completed the requirements for high school in South Australia.

Upon completing the requirements for the SACE, students may:

- Attend university (with the required ATAR and subject requirements)
- Attend TAFE (with the required ATAR and subject requirements)
- Join the workforce

All information contained in this handbook has been adapted from http://www.sace.sa.edu.au and from St George College policies and procedures.

Stages of the SACE

There are two stages to SACE; Stage 1 and Stage 2:

- Stage 1 - most students do in Year 11, apart from the Personal Learning Plan subject, which most students do in Year 10
- Stage 2 - most students do in Year 12

Credits

Each subject or course successfully completed earns 'credits' towards the SACE, with a minimum of 200 credits required for students to gain the certificate. The 200 credits required to complete the SACE include compulsory courses of 110 credits and non-compulsory courses of 90 credits.

Compulsory Courses

- Personal Learning Plan (10 credits at Stage 1)
- Literacy – at least 20 credits from a range of English subjects or courses (Stage 1 or Stage 2)
- Numeracy – at least 10 credits from a range of Mathematics subjects or courses (Stage 1 or Stage 2)
- Research Project – an in-depth major project (10 credits at Stage 2)
- 4 other Stage 2 subjects totalling at least 80 credits

Compulsory Grades

Students will receive a final grade from A to E for each Stage 1 subject and A+ to E- for Stage 2 subjects. For compulsory requirements, to gain their SACE they will need to achieve:

- a C grade or better at Stage 1
- a C- grade or better at Stage 2
Description of Compulsory Requirements

The SACE has the following compulsory requirements:

Personal Learning Plan (PLP)
The PLP is a compulsory Board-accredited Stage 1 subject of 10 credits which students must successfully complete to a C standard. PLP is usually completed in Year 10.

Research Project
The Research Project is a compulsory Board-accredited Stage 2 subject of 10 credit points which students must successfully complete to a C standard (C+, C, or C–). At St George College, Research Project is usually completed in Year 11.

Literacy
Students must successfully complete 20 credits from a range of English subjects or recognised literacy courses at Stage 1 or Stage 2.

A minimum C grade in the following Board-accredited subjects will meet the SACE literacy requirement:

- English (Stage 1)
- English as Additional (Stage 1)
- English Essentials (Stage 1)
- Literacy for Work and Community Life (Stage 1)
- Any Stage 2 English subject at a C level (C+, C, or C–)

Please note that English Essentials (Stage 1) and Literacy for Work and Community Life (Stage 1) will allow students to achieve their SACE but cannot be used to attain an ATAR.

Numeracy
Students must successfully complete 10 credits from a range of mathematics subjects or recognised numeracy courses at Stage 1 or Stage 2.

A minimum C grade in these Board-accredited subjects will meet the SACE numeracy requirement:

- General Mathematics or Mathematical Methods (Stage 1)
- Essential Mathematics (Stage 1)
- Numeracy for Work and Community Life (Stage 1)
- Specialist Mathematics (Stage 1)
- Any Stage 2 mathematics subject at a C level (C+, C, or C–)

Please note that Essential Mathematics (Stage 1) and Numeracy for Work and Community Life (Stage 1) will allow students to achieve their SACE but cannot be used to attain an ATAR.

Non-Compulsory Courses

The remaining 90 credits can be gained through additional Stage 1 or Stage 2 subjects or Board-recognised courses (such as VET or community learning) of a student’s choice.

VET and SACE

The SACE Board enables students to include Vocational Education and Training (VET) in their SACE studies.

- To complete the SACE, students must achieve 200 SACE credits, 150 of which can be gained through the recognition arrangements for VET in the SACE
- The remaining 50 SACE credits are derived from the Personal Learning Plan (10 credits), the Research Project (10 credits), the literacy requirement (20 credits), and the numeracy requirement (10 credits)
- Students can use a maximum of two qualifications at Certificate I level to gain credits towards the completion of the SACE
- There is no limit to the number of qualifications at Certificate II level or higher that students can use to gain credits towards the completion of the SACE

Please note that only Cert III courses or above can be applied to students ATAR and a maximum of 20 credits can be applied to an ATAR and/or TAFE SA Selection Score.
Further details can be found in the Recognition Arrangements for Vocational Education and Training (VET) in the SACE Policy on the SACE website:  www.sace.sa.edu.au

Typical SACE Pathway at St George College

Normally SACE at St George College is completed through the following pathway:

<table>
<thead>
<tr>
<th>SUBJECT TYPE</th>
<th>SUBJECT NAME</th>
<th>REQUIRED RESULT</th>
<th>CREDITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compulsory</td>
<td>Personalised Learning Plan</td>
<td>C</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits after Yr 10</strong></td>
<td></td>
<td><strong>10</strong></td>
</tr>
<tr>
<td>STAGE 1 (Year 11)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Compulsory - Literacy</td>
<td>English / EAL</td>
<td>C</td>
<td>20</td>
</tr>
<tr>
<td>Compulsory - Numeracy</td>
<td>General Mathematics or other Mathematics</td>
<td>C</td>
<td>20</td>
</tr>
<tr>
<td>Compulsory</td>
<td>Research Project</td>
<td>C-</td>
<td>10</td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></td>
<td>10</td>
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<tr>
<td><strong>Total Credits after Stage 1</strong></td>
<td></td>
<td></td>
<td><strong>130</strong></td>
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<tr>
<td>STAGE 2 (Year 12)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Compulsory Stage 2</td>
<td></td>
<td>C-</td>
<td>20</td>
</tr>
<tr>
<td>Compulsory Stage 2</td>
<td></td>
<td>C-</td>
<td>20</td>
</tr>
<tr>
<td>Compulsory Stage 2</td>
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<td>C-</td>
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<tr>
<td>Compulsory Stage 2</td>
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<td>20</td>
</tr>
<tr>
<td>(Elective)</td>
<td></td>
<td></td>
<td>(20)</td>
</tr>
<tr>
<td><strong>TOTAL CREDITS</strong></td>
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<td></td>
<td><strong>210</strong></td>
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This illustrates a typical pathway to SACE completion and an ATAR score.

Students are able to complete their SACE through VET options as well.

To directly attend University through SATAC, students must obtain an ATAR score by completing SACE requirements and complete at least 90 credits of SACE Stage 2, at least 60 must from Tertiary Admissions Subjects (TAS) and the other 30 either from TAS subjects, Recognised Studies, or a mix of the two.

Students will also need to complete the required prerequisites for the chosen University course.
**Biology**

*Length | Full Year*

*Credit Points | 20*

In Biology students investigate and learn about the structure and function of a range of living organisms, how they interact with other living things and with their environments.

Students have the opportunity to engage with the work of biologists and to join and initiate debates about how biology impacts on their lives, on society and on the environment.

The study of biology offers opportunities for students to consider the impact of human activities both on the organisms and ecosystems that constitute the biosphere and on individual human beings and human society. An understanding of biology and the application of this understanding will help students to appreciate the factors such as culture, ethics, economics, power and relationships that influence the pursuit of science, and have a significant impact on the way people live.

This study enables students to make informed decisions about modifying and interacting with nature.

**Content**

A program based on the areas of study allows students to develop an understanding of the nature of living things, as well as of the interactions of those living things with members of the same species, with members of other species and with the physical environment.

Especially through practical investigations, such a program also allows an inquiry approach to learning through observation, speculation, prediction, experimentation, analysis, communication (sharing) and confirmation (repetition), which provides confidence in current knowledge.

The social, economic, and ethical consequences of disturbing natural systems, deliberately or inadvertently, should be explored.

**Topics**

- Macromolecules
- Cells
- Organisms
- Ecosystems.

The themes are arranged as a hierarchy. Each theme is divided into the following six threads:

- Organisation
- Selectivity
- Energy Flow
- Perpetuation
- Evolution
- Human Awareness.

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**Business and Enterprise**

*Length | Full Year*

*Credit Points | 20*

In Stage 2 Business and Enterprise, students will be required to study the course’s core topic: ‘The Business Environment’ and two option topics: ‘People, Business, and Work’, and ‘Business and Marketing’.

The program enables students to undertake an extensive study and analysis of the business environment, recognising that it is both complex and dynamic and has economic, ethical, social and environmental implications and consequences.

Furthermore, the interconnections between business, consumers, the government, the overseas sector (i.e. globalisation) and the ethics of business practice will be explicitly embedded within the program in order to ensure that students will be able to see that the business environment is a complex world in which there are a number of stakeholders and a wide range of issues that must be taken into account in order for commercial operations to be successful in both economic and social contexts.

Stage 2 Business and Enterprise provides students with the opportunity to undertake independent research (especially involving research of real life case studies of businesses in the community) wherein they will be able to see the practical application of the business theories that they are learning. This will significantly expand their understanding of business and the importance of the role of business in our community.

Throughout the course, students will be provided with opportunities to directly investigate the business world and present their findings in detailed and professionally presented research reports that use tables, diagrams and graphs. This level of independent, student-based, quantitative and qualitative research is encapsulated in the 30% Report, wherein students will develop their own situational analysis based on an analysis and evaluation of data that they have collected.

**Content**

**Core Topics**

The Business Environment

Business in Australia

- The social and economic role of business (e.g. the provision of choice, resources, scarcity in the market economy, quality of life, wealth, employment, innovation, and entrepreneurship)
The impact of government, households (consumers) and financial and international sectors on Australian businesses

The nature of and trends in globalisation

The nature and structure of business

The classification of business by sector, size, industry and legal structure

Forms of ownership such as incorporated or unincorporated, sole trader, partnership, cooperative, proprietary or public company, trust and statutory body — advantages, disadvantages and evaluation

The legal requirements for the establishment of a business

The marketing and sale of goods and services

The Business Enterprise

Reasons for establishing a business — its prime function and mission statement

The business life cycle — establishment, growth, maturity and decline

Types and purposes of business plans such as feasibility studies, situation analyses, strategic plans, full business plans and budgets

Internal and external sources of finance available to business

The social role of business such as ethical and moral responsibilities for the environment and, for internal and external stakeholders such as creditors and consumers

Society, employees, employers and government.

Option Topics

People, Business and Work

Business and the Global Environment

Business and Finance

Business, Law and Government

Business and Technology

Business and Marketing.

Chemistry

Length | Full Year

Credit Points | 20

The study of Chemistry offers students opportunities to consider the use that human beings make of the planet’s resources and the impact of human activities on the environment. An understanding of chemistry, and the application of this understanding, helps students to appreciate the factors that influence the pursuit of science and to make informed decisions about modifying and interacting with nature.

Scientific inquiry commonly involves teams of people with diverse skills and knowledge. Chemists can contribute to such teams through their study of the properties, uses, means of production and reactions of natural and processed materials. Chemists also make a critical study of the social and environmental impact of materials and chemical processes. Their skills in observation, and in designing and performing experiments, make an important contribution to advances in scientific theories.

Through the study of chemistry, students develop an understanding of the physical world that enables them to be questioning, reflective and critical thinkers. As a way of knowing, students can use chemistry to explore and explain their experiences of phenomena around them.

Content

The subject is organised so that each intended student learning is related to a key idea or concept. Within the study of these chemical ideas and concepts, students develop their chemistry investigation skills through practical investigations and other learning activities.

In this subject, students are expected to:

- Demonstrate and apply knowledge and understanding of chemical concepts and interrelationships
- Formulate questions, manipulate apparatus, record observations in practical chemical activities and design and undertake chemistry investigations
- Demonstrate an understanding of how knowledge of chemistry can be used to make informed conclusions or decisions, taking into account social and environmental contexts
- Develop possible solutions to a variety of problems in chemistry in new or familiar contexts
- Critically analyse and evaluate chemical information and procedures from different sources
- Communicate in a variety of forms using appropriate chemical terms and conventions.

Topics

Learning in Chemistry is achieved through a close study of these topics:

Topic 1: Elemental and Environmental Chemistry

1.1 The Periodic Table
1.2 Cycles in Nature
1.3 Greenhouse Effect
1.4 Acid Rain
1.5 Photochemical Smog
1.6 Water Treatment.

Topic 2: Analytical Techniques

2.1 Volumetric Analysis
2.2 Chromatography
2.3 Atomic Spectroscopy.

Topic 3: Using and Controlling Reactions

3.1 Measuring Energy Changes
3.2 Fuels
3.3 Electrochemistry
3.4 Rate of Reaction
3.5 Chemical Equilibrium
Drama

Length | Full Year

Credit Points | 20

Telling stories and representing our humanity to each other are basic human activities. They are the essence of drama. Students learn by participating in creative problem-solving; generating, analysing and evaluating ideas; developing personal interpretations of texts; learning to set goals and working collaboratively to achieve them; rehearsing, workshopping and improvising solutions; as well as presenting their product or performance.

Students have the opportunity to develop their curiosity and imagination, creativity, individuality, personal identity, self-esteem and confidence. They also have opportunities to improve their skills in experimentation, communication, self-discipline, collaboration, teamwork and leadership. Students learn to acknowledge and respect diversity and different perspectives on the world.

Drama is a dynamic, collaborative process, stemming from experimentation that involves intuition and analysis. Students analyse texts and other materials, performances and their own learning. Drama enables students to acquire the skills and understanding to generate creative and imaginative solutions to the challenge of staging theatrical works.

Drama values the exploration of all forms of learning, integrating the creative with the physical and the intellectual. As students experience diverse perspectives and challenge their own imaginations, they have the opportunity to develop confidence in the validity of their own ideas.

Drama involves working collaboratively to manipulate words and images to create meaning that is shared with an audience. The exploration of drama through participating, viewing and critiquing is an important part of the process of achieving an artistic and socially and culturally relevant production. It provides the context through which students may gain insights into the world in which they live, while reflecting on their own lives.

Drama is used to express shared beliefs, record experiences, present concepts and explore opinions and feelings. It encompasses historical, cultural and community diversity, while informing and nourishing empathy and humanity.

The study of Drama allows students the opportunity to explore a range of world theatre traditions, including contemporary and Indigenous Australian theatre, as well as theatrical work from diverse cultural and community groups. It allows students to examine drama in the social, political, cultural and economic life of local and global communities, in the past and present and to consider its possible role in the future.

Content

For a 20-credit subject, teachers develop a teaching and learning program based on the following four areas of study:

- Group Analysis and Creative Interpretation
- Review and Reflection
- Interpretative Study
- Presentation of Dramatic Works.

Group Analysis and Creative Interpretation

In this area of study, students work in groups to analyse a play-script or the work of a dramatic innovator and devise creative interpretations of these works in practical and collaborative ways to create a Group Presentation.

Students adopt an off-stage or on-stage role, developing a group dramatic work that is presented to an audience. Students investigate, develop, and draw together the knowledge, skills, language and expertise necessary to engage with their audience through their practitioners’ role(s).

Review and Reflection

In this area of study, students expand their knowledge and understanding of drama as a performing art, developing their skills of observation, analysis and criticism and their ability to apply arts-specific terminology. Students have the opportunity to use the knowledge and experience they acquire to reflect on and evaluate the work they have viewed.

Students have the opportunity to review, analyse, and evaluate their own learning and involvement in the dramatic performance or presentation (group or individual).
This area of study gives students the opportunity to explore in depth a specific play-script or the work of a dramatic innovator. In doing so, they learn to investigate, analyse and communicate their interpretation of concepts and ideas about play-scripts and innovators.

Students who investigate and respond to a play-script adopt the role of a director, actor or designer. Students who investigate and respond to a dramatic innovator create a question that they answer through their study.

Presentation of Dramatic Works

For a 20-credit subject, students undertake either a group performance or a related off-stage presentation or an individual performance or presentation.

Within the study of the performance or presentation, students explore dramatic elements, social issues, genres and important events in the history of drama.

Group Performance or Related Off-stage Presentation

The group performance or related presentation gives students the opportunity to work with others, participating in the planning, rehearsal and performance of a dramatic work. It is intended to provide students with an overview of the processes of creating and presenting a dramatic work with other people.

Students adopt the role of a practitioner in developing a performance work that is presented to an audience of peers, other classes or schools, parents or the wider community. The product takes the form of a collaborative group production that involves two or more students. Students investigate, develop and draw together the knowledge, skills, language and expertise necessary to engage with the audience through a practitioner’s role.

Students extend their understanding of the rehearsal and performance process and ways of developing self-confidence, independent learning skills and an ability to understand the views of other people. The creative process is fostered and developed through continuous self-evaluation of work, as well as reflection on the work of others.

Individual Performance or Presentation

The individual performance or presentation allows students to investigate and develop knowledge and skills in a chosen area or areas of specialisation within the dramatic arts. Determining the content and processes for the individual performance or presentation involves a high degree of creativity and individual decision making.

An analysis of a student’s cultural background, dramatic ability, prior knowledge and experience may be a successful starting point for this process. Through their involvement in investigation, development and presentation, students have the opportunity to consider and engage with differing views.

Students adopt the role of a practitioner in developing a performance work that is presented to an audience of peers, other classes or schools, parents or the wider community. The product takes the form of an individual performance or presentation. Students investigate, develop, and draw together the knowledge, skills, language, and expertise necessary to engage with the audience through a practitioner’s role.

Students extend their understanding of the rehearsal and performance process and ways of developing self-confidence, independent learning skills and an ability to understand the views of other people. The creative process is fostered and developed through continuous self-evaluation of work, as well as reflection on the work of others.

English Communications

Length | Full Year

Credit Points | 20

English develops students’ confidence and competence in using the English language and in understanding how texts are constructed for particular purposes and audiences. The term ‘text’ is used to refer to either a written text or a film and the term ‘reader’ to a reader, a listener, or a viewer.

The study of English helps students to develop their personal and social identity through reading and composing texts. Students have opportunities to reflect on their personal values and those of other people by responding to aesthetic and cultural aspects of texts.

The study of English also involves exploring, responding to and composing texts in and for a range of, personal, social, cultural and workplace contexts. Some texts and contexts will be familiar to the student and some will be unfamiliar.

Content

In English Communications students read a range of educational, vocational and cultural texts. Students develop knowledge of socio-cultural, political and situational influences on the construction and interpretation of texts. Their exposure to a range of perspectives on complex issues requires them to clarify and support their opinions and conclusions.

Students learn to recognise the conventions of different text types for different purposes, audiences and contexts. They use this learning in composing their own texts and in commenting on the texts they read.

Students consider the powerful role that language plays in communication between individuals, groups, and organisations.
There is a focus on the ways in which language defines, shapes and reflects the relationships between people. Students come to appreciate that clear and effective writing and speaking should display a depth of understanding, engagement and imagination for a range of purposes, audiences and contexts.

Students also learn that the complex language demands of workplace, further study and personal development require them to constantly extend their range of language skills. Through their reading of a wide range of texts students learn to recognise the extent to which the author of a text follows the conventions of the text type. They learn to recognize and evaluate ideas and concepts in literature, popular culture and media by detecting bias or the use of incorrect evidence.

Students also consider the many ways in which a text is interpreted by the reader, and use this knowledge when composing their own texts.

Reading a variety of texts helps students to develop an understanding of the diversity of cultures and perspectives including Indigenous that make up Australian society. English Communications develops students’ literacy skills in a broad range of contexts, enabling them to accept increased responsibility for making decisions about their own learning in the negotiated parts of this subject.

**Topics**

**Assessment Type 1: Text Analysis**  
**Assessment Type 2: Text Production**  
**Assessment Type 3: Communication Study.**

**External Assessment**

**Assessment Type 4: Folio**

**English as a Second Language (ESL)**

**Length | Full Year**

**Credit Points | 20**  
**Pre-Requisite | NIL**

To support students to develop their confidence and competence as users of English, develop skills as critical viewers, listeners, speakers, readers, and writers.

**Course Description**

Students undertake tasks within the areas of Communication Study, Text Production Study, Interaction Study and Investigative Study. Students demonstrate evidence of their learning through the following assessment types:

**School-based Assessment**

- Communication Study (20%)

**Food and Hospitality**

**Length | Full Year**

**Credit Points | 20**

Students focus on the dynamic nature of the food and hospitality industry in Australian society. They develop an understanding of contemporary approaches and issues related to food and hospitality.

Students work independently and collaboratively to achieve common goals. They develop skills and safe work practices in the preparation, storage and handling of food, complying with current health and safety legislation. Students investigate and debate contemporary food and hospitality issues and current management practices.

Stage 2 Food and Hospitality may be undertaken as a 10 credit subject or a 20 credit subject.

**Content**

Stage 2 Food and Hospitality focuses on the contemporary and changing nature of the food and hospitality industry. Students critically examine attitudes and values about the food and hospitality industry and the influences of economic, environmental, legal, political, socio-cultural and technological factors at local, national and global levels.

Students develop relevant knowledge and skills as consumers and/or industry workers. Students may be required to participate in activities outside school hours, both within the school and in the wider community.

There are five areas of study in Stage 2 Food and Hospitality, as described below.

- **Area 1: Contemporary and Future Issues**
- **Area 2: Economic and Environmental Influences**
- **Area 3: Political and Legal Influences**
- **Area 4: Socio-cultural Influences**
- **Area 5: Technological Influences**

Students should provide evidence of their learning through seven or eight assessments, including the external assessment component. Students undertake:

- At least four practical activities
- At least one group activity
- One investigation.
Information Technology

Length | Full Year

Credit Points | 20

Students will develop an understanding of computer-based systems and the role they play in supporting efficient and effective use of technology. They will learn about how computers work, how people use computers to communicate, and how to develop software solutions that meet the needs of individuals, organisations, and communities.

Students will develop and construct real world solutions using dynamic website languages and online Relational Databases. The course delivers theoretical concepts through practical solutions, consisting of blended learning opportunities and flipped classroom pedagogy.

Learning Outcomes

At the end of the programme in Stage 2 Information Technology Studies students should be able to:

- Apply and use information technology concepts with appropriate terminology
- Explain how data is represented and transferred in computer-based systems
- Apply skills and concepts to manipulate and process data to produce components involving complex processes
- Apply information technology knowledge, skills and problem solving techniques, to create and document user-friendly, reliable, and accurate systems
- Critically analyse the responsibilities of the developer of systems
- Critically analyse and discuss ethical use, and social impact on individuals and society, of current and potential computer-based systems/technologies.

Content Summary

Stage 2 Information Technology is organised into the two compulsory core topics:

- Information Systems
- Computer and Communication Systems.

And two option topics

- Relational Databases
- Dynamic Website.

Assessment Procedures

School-based Assessment – 70%

Assessment Type 1: Folio – 20%
Assessment Type 2: Three Skills and Applications Tasks – 30%
Assessment Type 3: Single Project – 20%

External Assessment – 30%

Mathematical Applications

Length | Full Year

Credit Points | 20

Mathematics is a diverse and growing field of human endeavour. Mathematics can make a unique contribution to the understanding and functioning of today's complex society. By facilitating the current and new technologies and institutional structures, mathematics plays a critical role.

Individuals require many aspects of mathematics in order to function adequately as members of society. The unprecedented changes that are taking place in today's world will profoundly affect the future of today's students. The effective use of technology and the processing of large amounts of quantitative data are becoming more important. Mathematics is increasingly relevant to the workplace and in everyday life. The study of mathematics provides students with the abilities and skills to thrive now and in the future.

Mathematics is much more than a collection of concepts and skills; it is a way of approaching new challenges by investigating, modelling, reasoning, visualising and problem-solving, with the goal of communicating to others the relationships observed and problems solved.

Mathematics enables students to identify, describe and investigate the patterns and challenges of everyday living. It helps students to analyse and understand the events that have occurred and to predict and prepare for events to come so they can more fully understand the world and be knowledgeable participants in it.

Mathematics is a universal language that is communicated in all cultures. It is appreciated as much for its beauty as for its power. Mathematics can be seen in patterns in nature and art, in the proportions in architecture, in the form of poetry and in the structure of music. Mathematics describes systematic, random and chaotic behaviour; it is about relationships, exploration, intuition and strategy.

Content

In this subject, students are expected to:

- Understand mathematical concepts and relationships identify, collect and organise mathematical information relevant to investigating and solving problems taken from social, scientific, economic or historical contexts
- Recognise and apply the mathematical techniques needed when analysing and solving a problem in context
- Make informed use of electronic technology to provide numerical results and graphical representations
- Interpret results, draw conclusions, and reflect on the reasonableness of these in the context of a problem
- Communicate mathematical reasoning and ideas using appropriate language and representations
• Work both independently and cooperatively in planning, organising and carrying out mathematical activities.

**Topics**

Learning in Mathematical Applications is achieved through a close study of four topics selected from the following list:

- Topic 1: Applied Geometry
- Topic 2: Investment and Loans
- Topic 3: Mathematics and Small Business
- Topic 4: Matrices
- Topic 5: Optimisation
- Topic 6: Share Investments
- Topic 7: Statistics and Working with Data

**Mathematical Studies**

**Length | Full Year**

**Credit Points | 20**

Mathematics is a diverse and growing field of human endeavour. Mathematics can make a unique contribution to the understanding and functioning of today’s complex society. By facilitating the current and new technologies and institutional structures, mathematics plays a critical role.

Individuals require many aspects of mathematics in order to function adequately as members of society. The unprecedented changes that are taking place in today’s world will profoundly affect the future of today’s students. The effective use of technology and the processing of large amounts of quantitative data are becoming more important. Mathematics is increasingly relevant to the workplace and in everyday life.

The study of mathematics provides students with the abilities and skills to thrive now and in the future.

Mathematics is much more than a collection of concepts and skills; it is a way of approaching new challenges by investigating, modelling, reasoning, visualising and problem-solving, with the goal of communicating to others the relationships observed and problems solved.

Mathematics enables students to identify, describe and investigate the patterns and challenges of everyday living. It helps students to analyse and understand the events that have occurred and to predict and prepare for events to come so they can more fully understand the world and be knowledgeable participants in it.

Mathematics is a universal language that is communicated in all cultures. It is appreciated as much for its beauty as for its power. Mathematics can be seen in patterns in nature and art, in the proportions in architecture, in the form of poetry and in the structure of music. Mathematics describes systematic, random and chaotic behaviour; it is about relationships, exploration, intuition and strategy.

**Content**

The aim of this subject is to give students the tools to explore, describe and explain aspects of the world around them in a mathematical way. The subject focuses on the mathematics needed for this exploration. This mathematics can empower students to describe their world and changes in it. As a result, students appreciate the role that mathematics can play in effective decision-making.

The interrelationships of the topics are indicated and used in relevant contexts involving mathematical, physical and social phenomena.

**Topics**

Learning in Mathematical Studies is achieved through a close study of topics selected from the following list:

- Topic 1: Working with Statistics
- Topic 2: Working with Functions and Graphs
- Topic 3: Working with Linear Equations and Matrices

**Mathematics - Specialist**

**Length | Full Year**

**Credit Points | 20**

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Content

Specialist Mathematics presents three traditional topics, complex numbers, vectors and geometry and the calculus of trigonometric functions, in a way that promotes their fundamental concepts as a paradigm for models of interacting quantities.

The aim is to provide students with an appreciation of certain mathematical ideas that are both elegant and profound and at the same time to allow them to understand how this kind of mathematics enables computers to model, for example, chemical, biological, economic and climatic systems.

Topics

Stage 2 consists of the following five topics:

Topic 1: Trigonometric Preliminaries
Topic 2: Polynomials and Complex Numbers
Topic 3: Vectors and Geometry
Topic 4: Calculus
Topic 5: Differential Equations.

Modern History

Length | Full Year

Credit Points | 20

The study of History gives students the opportunity to make sense of a complex and rapidly changing world by connecting past and present. Through the study of past events, actions, and phenomena students gain an insight into human nature and the ways in which individuals and societies function. Student’s research and review sources within a framework of inquiry and critical analysis.

Learning Requirements

The learning requirements summarise the knowledge, skills, and understanding that students are expected to develop and demonstrate through their learning. In this subject, students are expected to:

- Demonstrate knowledge and understanding of people, places, events, and ideas in the history of societies in selected periods and places since c. 1500
- Formulate hypotheses and/or focusing questions and apply them to explain historical concepts
- Apply the skills of historical inquiry, including critical analysis
- Construct reasoned historical arguments based on a critical understanding of evidence from sources
- Reflect on the short-term and long-term impacts of individuals, events, and phenomena
- Evaluate why individuals and groups acted in a certain ways at particular times
- Communicate informed and relevant arguments using subject-specific language and conventions.

Course Content

Stage 2 Modern History is a 20-credit subject that consists of:

- A thematic study
- A depth study
- An essay.

Students choose one topic from a choice of six for the thematic study, and one topic from a choice of five for the depth study. The topic for inquiry for the essay may be developed from any of the eleven topics available for study in the subject, or from any other area of interest relevant to modern history since c. 1500.

Thematic Study: the thematic study requires students to undertake a critical analysis of a period, phenomenon, or event. The analysis may involve comparison of people, ideas, and events within one or more case studies.

Students investigate the French Revolution for a thematic study based on Topic 3: Revolutions and Turmoil: Social and Political upheavals since c. 1500.
Depth Study: The depth study requires students to undertake an analysis that leads to an appreciable depth of involvement in the process of historical inquiry; this is also known as depth-indiscipline analysis. Through this approach, students gain detailed knowledge of the topic under investigation.

Students investigate American Slavery and Civil Rights for a depth study based on Topic 11: Persecution and Hope: Power and Powerlessness in Society since c.

In addition to formative assessments, the following summative assessment types enable students to demonstrate their learning in Stage 2 Modern History.

**School-based Assessment – 70%**
- Assessment Type 1: Folio – 50%
- Assessment Type 2: Essay – 20%

**External Assessment – 30%**
- Assessment Type 3: Examination – 30%

In each subject, students should provide evidence of their learning through eight to ten assessments, including the external assessment component. Students undertake:

- Six to eight assessments for the folio
- One individual history essay
- One 3 hour externally assessed examination.

**Music**

**Length | Full Year**

**Credit Points | 10 or 20**

Stage 2 Music Experience Course is designed for students who have at least three years of development on their chosen instrument and have completed SACE Stage 1 Music.

Students engage in some of the following activities which should be selected according to the needs and interests of students and the nature of the school program.

**Content**

Individual Study, Ensemble Performance, Solo Performance, Special Study and Music in Contexts:

- Present a repertoire of contrasting works or an extended work with a number of contrasting sections for instrument or voice
- Students study a range of works that allows them to demonstrate musicianship and technical proficiency
- They will prepare and present three public performances, which covers a minimum of 20 minutes of repertoire. In the ensemble, students perform a first public performance of a minimum of one-quarter, and maximum of half of their repertoire for the subject, and a second public performance of half to three-quarters of their repertoire.

For each assessment type, students provide evidence of their learning in relation to accuracy, technique and musicianship.

**Performing**

- Practicing individually or with others
- Performing publicly as a soloist or in an ensemble
- Exploring a variety of ways of interpreting the music and choosing the one that seems most appropriate
- Listening to live or recorded performances by advanced performers or professional musicians.

Students will prepare and present three public performances which covers a minimum of 20 minutes of repertoire. In the ensemble, students perform a first public performance of a minimum of one-quarter and maximum of half of their repertoire for the subject, and a second public performance of half to three-quarters of their repertoire.

- Discussing and appraising performances, either orally or in writing
- Participating in concert practice and being constructively critical of the performances of self and others
- Reflecting on and critically appraising their own performances.

**Individual Study**

The students will undertake an individual study on a topic of their choice. This may be an area in which they are interested or in which they have a particular talent.

They negotiate topics in discussion with the teacher. Topics include tutoring, music in the community, instrument construction, research into music and culture, and experience in the music industry. Topics should be realistically achievable and appropriate to the resources available. With teacher support, students contact experts in relevant areas and negotiate times to consult with them where appropriate.

During the single lessons class the student will be guided in setting up their project, planning, record keeping, researching and reflecting, as well as being provided with time to complete their product.

**Music in Contexts**

Students place examples of music by composers and/or bands in their stylistic, historical, and cultural context. Students recognise stylistic features of the music. Students investigate musical works and use analytical skills to communicate findings.

Students read, understand, and write about musical elements of a score, transcription, chart, or recording of a musical work.
Students explore and discuss aspects of music, including style, era, genre, cultural function, and performance practice.

Core Topics

Teachers select two core topics for study from the following list:

Topic 1 - Bach: Music and Patronage
Topic 2 - Beethoven: Music Finds Its Voice
Topic 3 - Schubert: The Romantic Voice
Topic 4 - Stravinsky: A New Musical Direction
Topic 5 - Contemporary Australian Indigenous Music
Topic 6 - The Blues: Of Sadness and Joy
Topic 7 - Duke Ellington: Pianist, Composer, and Bandleader
Topic 8 - Miles Davis: Jazz Comes of Age
Topic 9 - The Beatles and the Beach Boys: Soundtracks of a Generation

Each topic comprises the study of one or more set works in their stylistic, historical, and cultural context, and an analysis of the work or works, using a score, transcription, chart, and/or recording.

Students communicate their knowledge, understanding, and appreciation of musical style in writing.

The study of the set works requires students to:

- Discuss music in its stylistic, historical and cultural context
- Identify and examine compositional features and stylistic aspects, such as melody, harmony / tonality, rhythm / metre, timbre / instrumentation / dynamics, texture and form
- Use appropriate musical terminology
- Read musical scores / transcriptions / charts
- Discussing orally or in writing the structure, composition techniques, style and historical, social and cultural contexts of a work
- Undertaking detailed analysis
- Attending live performances and discussing critical and aesthetic responses
- Researching the non-musical influences on a composer
- Presenting research to the class in written, audio and/or visual format.

Part B: School-developed Topic

The school develops one topic for the class, which must be approved by the SACE Board. See the operational information on the Music in Context subject page of the SACE website (www.sace.sa.edu.au) for details.

A school-developed topic consists of one or more works, which must be different from those studied in the core topic. A work may be either a single movement or a group of shorter pieces. The total work or works should be approximately 10 to 15 minutes long. The study of each work requires the use of scores or charts and recordings.

Students undertake an assessment of their aural recognition and written response skills based on the school-developed topic. The proposed skills assessment must be approved by the SACE Board. See the operational information on the Music in Context subject page of the SACE website (www.sace.sa.edu.au) for details.

Possible topics are listed below. Other school-developed topics may be chosen:

- The American Musical
- The Birth of Rock and Roll
- The Classical Concerto
- Contemporary Australian Indigenous Music
- Dance Music
- Late Romantic Keyboard Music
- Minimalism
- Music of the Digital Age
- Music for Film, Games or Advertising
- 1970s Progressive Rock
- Opera
- Post war Avant-garde
- Punk and Grunge Music
- Ragtime, Stride and Boogie-woogie
- Traditional Australian Indigenous Music
- Work Songs.

Students analyse the following aspects of music from stylistic and historical perspectives: melody; harmony / tonality; rhythm / metre; timbre / instrumentation / dynamics; texture; form; compositional features used; underlying ethos.

Students communicate their knowledge, understanding and appreciation of musical style through aural recognition, the reading / analysis of scores / transcriptions or charts and the use of appropriate musical terminology.

Nutrition

Length | Full Year

Credit Points | 20

Good nutrition is integral to a healthy and active life, and it is important that accurate information on nutrition is made available to individuals and communities.

Students of Nutrition are presented with up-to-date scientific information on the role of nutrients in the body as well as on social and environmental issues related to nutrition.

Content

Students integrate scientific knowledge and skills gained in their study of nutrition and apply them to designing and carrying out investigations that explore the links between food, health and diet-related diseases.
In practical investigations, students formulate and test hypotheses by collecting, presenting, analysing and evaluating empirical data in order to describe trends and clarify theoretical concepts related to nutrition. This acquired knowledge helps students to reinforce or modify their own diets and lifestyle habits to maximise their health outcomes, so that they may participate fully in their communities.

Using the literature on nutrition, students critically examine factors that influence food choices and reflect on local, national, Indigenous and/or global issues related to the study of nutrition. The exploration of short-term and long-term strategies to address these issues should allow students to become more discriminating and informed as consumers who are aware of their rights and responsibilities.

Students investigate methods of food production and distribution that affect the quantity and quality of food and consider the ways in which these methods and associated technologies influence the health of individuals and communities.

Students work individually and collaboratively to reflect on the nature of work in research sciences and in particular, the field of nutrition. The study of Nutrition encourages students to think about the role of nutrition in their own futures and, more broadly, about its importance in social, economic and cultural development in Australia and the rest of the world.

Topics

Core Topics

- Core Topic 1: The Fundamentals of Human Nutrition
- Core Topic 2: Diet, Lifestyle and Health
- Core Topic 3: Food Selection and Dietary Evaluation
- Core Topic 4: Food, Nutrition and the Consumer.

Option Topics

Teachers should choose one of the following option topics in consultation with students:

- Option Topic 1: Global Nutrition and Ecological Sustainability
- Option Topic 2: Global Hunger.

Physical Education

Length | Full Year

Credit Points | 20

In Physical Education, students study human physical activity and its place in the lives of individuals and groups of people. Students examine the practical application of human physical skills and analyse the personal, community and global issues that surround the role of human physical activity in society.

Students learn mainly through physical activity in a way that promotes immediate as well as long-term benefits to themselves and society. Physical Education is an experiential subject in which students explore their physical capacities and investigate the factors that influence performance. They explore and analyse associated performance, health, and lifestyle issues.

Students acquire an understanding of human functioning and physical activity and an awareness of the community structures and practices that influence participation in physical activity. They develop skills in communication and investigation and the ability to apply knowledge to practical situations. Students gain enjoyment from skilled performance in individual and group activities.

Content

Practical Skills and Applications

Students undertake three practicals, which are balanced across a range of individual, fitness, team, racket, aquatic and outdoor activities. The practicals should cater for the different skills, interests and needs of students.
Principles and Issues

- Exercise Physiology and Physical Activity
- The Acquisition of Skills and the Biomechanics of Movement
- Issues Analysis.

Topics

- Practical Skills and Applications (50%)
  - Badminton - practical 1
  - Kayaking - practical 2
  - Lightweight Bushwalking or Indoor Soccer - practical 3
  - Exercise Physiology and Physical Activity (20%)

Key Concept 1: The Sources of Energy Affecting Physical Performance

- Sources of nutrients: fats, carbohydrates, protein
- Chemical breakdown of nutrients: glucose, glycogen, free fatty acids
- Aerobic and anaerobic energy: ATP–CP system, lactic acid system, oxygen system
- Contribution of energy systems in specific activities
- Acute response to exercise: responses in the circulatory, respiratory, and muscular systems to provide energy

Key Concept 2: The Effects of Training and Evaluation on Physical Performance

- Chronic responses to aerobic and anaerobic training
- Circulatory, respiratory and muscular systems at rest
- Sub-maximal and maximal exercise
- Analysis of energy demands of sport prescriptions
- Measurement and monitoring of fitness relevant to performance
- Training principles and methods specific to fitness factors and to physical activities.

Key Concept 3: The Specific Physiological Factors Affecting Performance

- Body stature and composition
- Environmental considerations and performance
- Nutrition and physical performance: pre-event, during the event, post-event and hydration
- Fatigue and physical performance.

The Acquisition of Skills and the Biomechanics of Movement

Key Concept 1: Skills Acquisition

- The definition and descriptions of learning styles
- The classification of skills
- The characteristics of a skilled performer
- The learning process in acquiring physical skills
- The stages of learning.

Key Concept 2: Specific Factors Affecting Learning

- The nature of the task
- Practice and feedback

Environmental factors
- Characteristics of the learner
- Retention of learning
- Timing and anticipation.

Key Concept 3: The Effects of Psychology of Learning on the Performance of Physical Skills

- Goal-setting
- Feedback, communication, and performance
- Anxiety
- Visualisation
- Self-esteem
- Arousal and performance
- Models of coaching.

Key Concept 4: The Ways in Which Biomechanics Improve Skilled Performance

- Motion: projectile, linear, rotational and combination
- Speed
- Summation of force, direction and impact
- Leverage
- Equilibrium (static and dynamic)
- Centre of mass; balance and stability
- Improved technology and performance.

Issues Analysis (10%)

The issues analysis enables students to investigate a chosen issue that is related to physical activity and relevant to local, regional, national, or global communities. Students are expected to analyse critically and interpret their findings and experiences.

Issues could be related to topics such as:

- Sport in the Australian context
- Declining involvement in physical activity
- Maintenance of activity levels
- Equity
- Corruption
- The Paralympics
- Professionalism
- Culture/race relations
- Historical and Indigenous factors
- Gender
- The community and recreation
- Children
- Patterns of physical activity
- The science of drugs
- Technology
- Commercialism
- Media.

External Examination (30%).
Physics

Length | Full Year

Credit Points | 20

Learning about and working in physics gives people an understanding of the processes that direct the universe and the world, so that they may appreciate and respect them.

Through exploring the processes that shape the universe, physicists debate and advance understanding of its workings and of the ways in which actions may affect the future of the Earth. In Physics, students have the opportunity to engage with the work of classical and modern physicists and to join in and/or initiate debates about how physics affects their own lives, society and the environment.

Content

Students develop their knowledge of the principles and concepts of physics and the ability to use that knowledge to formulate questions and hypotheses and identify opportunities and challenges. They also acquire new knowledge through their investigations.

Students develop the skills and abilities to observe, record and explain the phenomena of physics and to draw evidence-based interpretations from investigations of issues related to physics. In this way they develop literacy skills in physics that support career pathways, including those that are related to physics and help them to live and work as informed and reflective citizens in a world shaped by physics and technology.

The study of physics offers opportunities for students to understand and appreciate the natural world. This subject requires the interpretation of physical phenomena through a study of motion in two dimensions, electricity and magnetism, light and matter, and atoms and nuclei. As well as applying knowledge to solve problems, students develop experimental, investigation design, information and communication skills through practical and other learning activities.

Students gather evidence from experiments and research and acquire new knowledge through their own investigations.

Topics

The stage 2 course is organised into four sections, as shown in the table below. Each section is divided into four topics. Each topic includes one application, which is an integral part of the curriculum statement.

Visual Arts

Length | Full Year

Credit Points | 20

The broad area of Art encompasses both artistic and crafting methods and outcomes. The processes of creation in both art and craft include the initiation and development of ideas, research, analysis and exploration, experimentation with media and technique and resolution and production of practical work.

Visual Arts engages students in conceptual, practical, analytical and contextual aspects of creative human
endeavour. It emphasises visual thinking and investigation and the ability to develop ideas and concepts, refine technical skills and produce imaginative solutions.

An integral part of Visual Arts is the documentation of visual thinking. Students learn to communicate personal ideas, beliefs, values, thoughts, feelings, concepts and opinions, provide observations of their lived or imagined experiences and represent these in visual form.

Content

Through the initiation and development of ideas, problem-solving, experimentation and investigation in a diversity of media, processes and techniques, students demonstrate a range of technical skills and aesthetic qualities.

By analysing other practitioners’ works of art or design, students gain knowledge and understanding of their styles, concepts, content, forms and conventions and learn to respond to these works in informed ways. A range of approaches to the interpretation of works of art or design from different cultures and contexts are used to explore the messages and meanings that these works communicate.

Of particular interest in this subject are past and present influences that impact on the visual arts: local and global events, social and political values, different perspectives provided by the diversity of cultural groups and the styles, aesthetic values, and philosophies of individuals and groups of practitioners of particular times and places.

Topics

Visual thinking for the practical.

(Folio)
The folio documents the student’s visual learning and supports their resolved visual artwork.

Each student undertakes:

A series of introductory exercises to develop idea generation on the topic of their choice. Experimentation and problem-solving is encouraged.

Research and analysis of paintings from various artists is encouraged to deconstruct their art works and study aesthetic qualities.

The student works towards a final resolved practical, a suite or individual artwork by brainstorming ideas, drawing and experimenting with colour, technique and composition.

60, A3 pages in total for a 20 point subject (or equivalent) of visual and written and/or oral evidence to support one practical work.

(Practical)Stage 2 requirements ask for 2 complete practical pieces for a 20 point subject.

Students may work in the medium and style of their choice which is supported by the FOLIO they have produced.

A Practitioner’s Statement – The student completes an accompanying comment on influences, methods of communicating and expression; included is a focused and coherent evaluation of their work. Size and number of pieces is negotiated with teacher.

A written Practitioner’s Statement of a maximum of 500 words for one resolved practical.

(Visual study)Students must complete a study comprising of 20 A3 pages and a total of 2000 words on an area of the Visual Arts of their interest.

They research and analyse the artwork of artists, styles, techniques and influences. In this task the student uses appropriate terminologies and language.