

# Stage 1 & 2 Curriculum Guide 2020



**Kangaroo Island**  
COMMUNITY EDUCATION

# Introduction

This booklet is designed to assist parents and students in the Stage 1 (Year 11) and Stage 2 (Year 12) subject selection process. This is an exceptionally important process and many factors need to be taken in to consideration and this handbook is not meant to be the only referral point in the process of subject selection.

## **In the subject selection process the following should be taken in to consideration:**

- The career pathway planning work the students did in their Personal Learning Plan (PLP) and Research Practices subjects this year plus their Care, Career and Transition and Work Studies subject in previous years.
- The student's intended career path and the possible subject requirements of that career path such as pre requisite subjects or assumed knowledge subjects.
- The student's capabilities with intended subjects. (*This needs to be an honest appraisal*)
- The student's interest and areas of strength.
- Current employment opportunities and the job market trends need to be considered

## **Other documents that can assist are:**

- The SATAC University guide
- The SATAC TAFE guide

*The above documents will be made available to all Year 10 , 11 and 12 students at KICE*

- TAFE and all the universities have other documents and information which are available online at the appropriate websites. These all have excellent information re the TAFE and universities in general and course specific information and I would encourage you to visit these where relevant.
- Also industry specific documents that arrive in the school which are made available to students plus industry specific websites.

## **KICE sources of support and information:**

There are a variety of people who you can talk to at the school to assist in this information process; these include:

- The Senior Years' Student Wellbeing Leader: Courtney Trethewey
- Senior Years leadership staff; Samantha Cockshell and Peter Philp
- Subject specific teachers where relevant.
- The parent information evening.
- The individual student, parents and the school subject selection meeting.

*Following the above mentioned parent information evening; if they feel the need to do so parents should make appointments with the relevant staff to complete the subject selection sheet. Also the school will make appointments with relevant students and parents where we have concerns re the subject selections.*

## **Open Access:**

It is not possible for KICE or in fact any school to offer all the SACE subjects as face to face subjects. While the school has implemented measures to increase our face to face delivery of subjects it is inevitable that some students will still need to enrol in subjects delivered by the Open Access College. For further information on the Open Access College and the subjects they offer please visit their website: [www.openaccess.edu.au](http://www.openaccess.edu.au). While enrolled in another school (Open Access College) for these subjects the students are supported by KICE staff in a variety of ways. This support includes subject and personal counselling, individual subject guidance from teachers, material organisation, provision of extra curriculum resources and SSO support.

*As I said at the start of this introduction; subject selection is an exceptionally important process and the key to it is communication so I emphatically encourage you to access all the relevant resources indicated above. Following this if you still have questions or concerns please contact the school and make an appointment with the relevant person/s.*



Peter Philp

Maxine McSherry

KICE Head of Senior Years



KICE Principal

# Achieving the SACE

To gain the SACE, students complete about two years of full-time study which most students spread over three years.

There are two stages to the SACE:

Stage 1, which most students do in Year 11, apart from the Personal Learning Plan, which most students are likely to do in Year 10.

Stage 2, which most students do in Year 12.

Each subject or course successfully completed earns 'credits' towards the SACE. At least 200 credits are required for students to gain the certificate. Ten credits are equal to one semester, or two terms, of study in a subject, and 20 credits are equal to a full-year subject.

Students will receive a grade from A to E (A+ to E- at Stage 2) for each subject. For compulsory subjects, they will need to achieve a C grade or better at Stage 1 and C- or better at Stage 2.

The compulsory subjects are:

Personal Learning Plan (10 credits at Stage 1)

Literacy – at least 20 credits from a range of English subjects or courses (Stage 1)

Numeracy – at least 10 credits from a range of mathematics subjects or courses (Stage 1)

Research Project – an in-depth major project (10 credits at Stage 2)

Other Stage 2 subjects totalling at least 60 credits.

The remaining 90 credits can be gained through additional Stage 1 or Stage 2 subjects or Board-recognised courses of a student's choice.

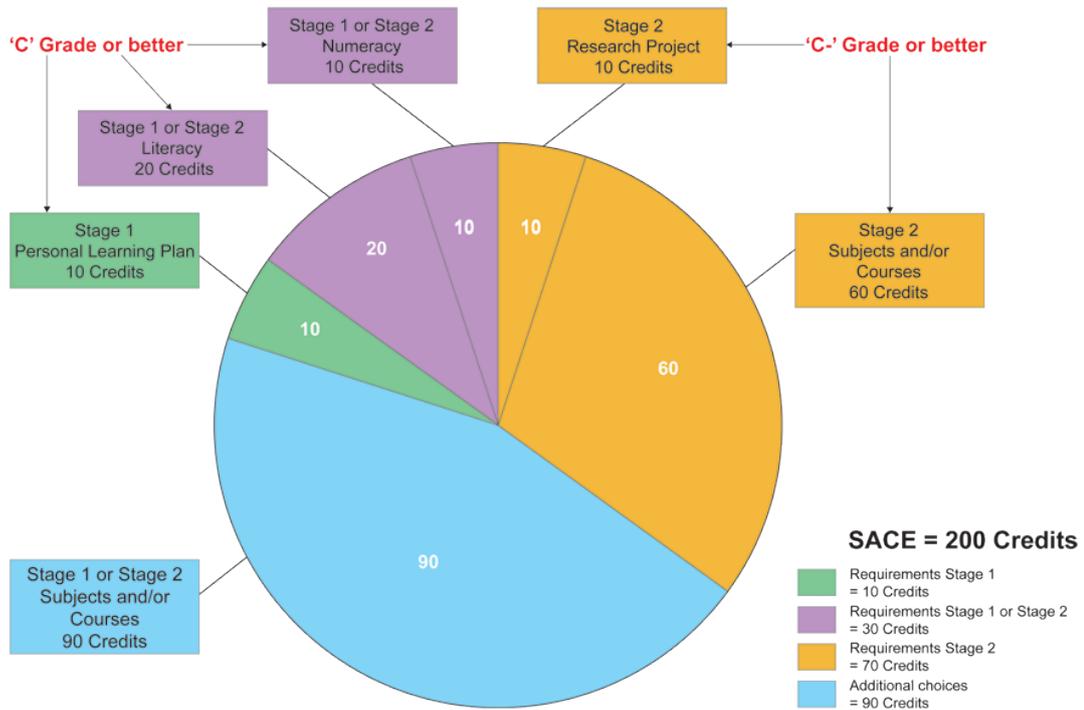
This table shows how the SACE fits together.

| Requirements  | Credits    |
|---|------------|
| <b>Year 10</b>  |            |
| Personal Learning Plan                                      | 10         |
| <b>Year 11 (Stage 1)</b>                                    |            |
| Literacy (from a range of English subjects and courses)     | 20         |
| Numeracy (from a range of Mathematics subjects and courses) | 10         |
| <b>Year 11 or 12 (Stages 1 or 2)</b>                        |            |
| Other subjects and courses of the student's choice          | Up to 90   |
| <b>Year 12 (Stage 2)</b>                                    |            |
| Research Project  | 10         |
| Other Stage 2 subjects and courses                          | 60 or more |
| <b>Total</b>  | <b>200</b> |

|   |   |
|---|---|
|  | Other subjects and courses              |
|  | Stage 1 compulsory subjects and courses |
|  | Stage 2 compulsory subjects and courses |

# SACE Credits

## SACE Credits



# VET

## What is VET?

VET stands for Vocational Education and Training. In other words, VET is education and training that gives students skills and knowledge for work.

VET operates through a national training system, particularly for the trades and other industry, and is certified by Registered Training Organisations, like TAFE. Apprenticeships and traineeships are jobs that combine work and structured training through a VET provider.

*\*\*Attendance is related to the grade marked against industry standard. This must be completed on campus and cannot be made up.*

## How much of a student's SACE can be VET?

Students can earn up to 180 out of 200 SACE credits using VET.

Students can focus their Research Project on their chosen industry area.

## How does VET count towards SACE credits?

Each qualification is different, with varying compulsory and elective options, so the SACE credits to be gained varies according to the VET qualification a student is studying.

The [VET Recognition Register](#) details the SACE credits that apply to the VET qualifications commonly recognised in the SACE.

## Why study VET?

VET is an excellent choice of study for many students. It always includes practical, hands-on learning, which suits many students, but it also leads to excellent jobs in a huge array of fields.

Studying VET as part of the SACE gives students a head-start on a qualification, which is a great way to fast-track progress towards a rewarding career.

## ATAR and VET

One full certificate III qualification can be counted as one Tertiary Admission Subject which is 20 credits.

## IMPORTANT NOTE:

***Some of the VET courses entail some parts of the course to be delivered by TAFE in "Short Courses" (1–5 days) and these days may be longer than the normal school day and students will be required to organise their own transport to and from school on these occasions.***

## More information

For further information about VET options students interested in VET should speak with the SACE Coordinator or Student Counsellors.

## Community Learning

The SACE recognises that learning happens in all kinds of settings, including outside the classroom.

The SACE rules allow students to earn credits for community service or activities such as involvement in the Country Fire Service, St John Ambulance or the Duke of Edinburgh's Award.

Go to our [Recognised Learning](#) section for more information about community learning, including a full list of courses that are recognised for the SACE .



# University & TAFE Entry

## University entry:

For University entry as well as gaining the SACE a student has to meet certain other requirements.

For University entry students must:

- complete the SACE
- complete at least 90 credits of SACE Stage 2. Of the 90 credits, at least 60 must be from Tertiary Admission Subjects (TAS) and the other 30 either from TAS subjects, Recognised Studies, or a mix of the two.
- complete any prerequisite requirement for a chosen university course;
- comply with rules regarding subject combinations;
- obtain an Australian Tertiary Admission Rank (ATAR).

Applications for university courses are handled by the South Australian Tertiary Admissions Centre (SATAC). See the SATAC [tertiary entrance booklet](#) for full details.

## Tertiary Admission Subjects

A Tertiary Admission Subject (TAS) *is a SACE Stage 2 subject which is recognised by the universities as providing appropriate preparation for tertiary studies. Students are required to study a maximum number of credits of TAS to be eligible to receive an ATAR or TAFE SA Selection Score.*

While most subjects in the SACE are recognised as TAS, there are some that will not be recognised by the universities for the purposes of calculating a student's ATAR. These non-TAS subjects include Community Studies, Modified Subjects, local programs and Research Project A.

## Subject combinations

Some combinations of subjects are not allowed to count towards the SACE and university entrance, generally because the subjects are similar. These are called 'precluded combinations'. Also, there are limits on how many subjects in the same discipline can count towards university entrance, even if the subjects aren't precluded combinations. These are called 'counting restrictions'. Precluded combinations and counting restrictions are listed each year in the SATAC tertiary entrance booklet.

## Australian Tertiary Admission Rank (ATAR)

Formerly called the Tertiary Entrance Rank (TER), an ATAR is required to apply for university entrance.

The ATAR is:

- a measure of a student's academic achievement compared to other students;
- used by universities in the selection of students who have completed the SACE;
- reported to students on a range from 0 to 99.95 (students receiving an ATAR of 99.95 are the highest ranked in the state).

## TAFE entry

A TAFE SA award course when successfully completed, entitle the student to a qualification or award.

Award courses range from Certificate I to Advanced Diploma and Degree.

All applications for TAFE SA award courses are to be made online through SATAC [www.satac.edu.au](http://www.satac.edu.au)

## NON COMPETITIVE COURSES

### Course Admission Requirements (CAR)

For **Certificate I, II and III courses**, there are no admission requirements (CAR)

For **Certificate IV, Diploma, Advanced Diploma and Degree courses**, there are minimal admission requirements (CAR).

Because entry to these courses is not competitive, there is no ranking or other selection criteria applied to applicants.

## COMPETITIVE COURSES

Entry to some courses is competitive. This is usually because there are more people applying for a course than there are places available.

### Course Admission Requirements (CAR)

All competitive courses require that minimum education standards be met by applicants in order to be considered for entry. Some competitive courses may require applicants to submit a portfolio, a written assessment, or attend an audition as part of the selection process.

All applicants that meet the CAR are ranked according to rules set by course administrators in order to determine final admission numbers.

The TAFE SA Selection Score is used for this purpose for most SACE students.

The TAFE SA Selection Score is calculated from the scaled scores of the best 40 Stage 2 credits of Tertiary Admissions Subjects (TAS) plus the best 20 credit outcome from a range of subject options.

# SACE Planner

**Personal Learning Plan = 10 credits**

**Literacy = 20 credits**

*Choose from a range of English subjects or courses*

**Numeracy = 10 credits**

*Choose from a range of mathematics subjects or courses*

**Stage 2 subjects or courses = 60 credits**

*Choose from a range of Stage 2 subjects and courses*

**Research Project = 10 credits**

**Additional choices = 90 credits**

*Choose from a range of Stage 1 and Stage 2 subjects and courses*

**To gain the SACE, you must earn 200 credits**

|                          |  |   |
|--------------------------|--|---|
| <input type="checkbox"/> | Compulsory Stage 1                                   | Students must achieve a C grade or higher for Stage 1 requirements and a C- or higher for Stage 2 requirements to complete the SACE |
| <input type="checkbox"/> | Compulsory Stage 1 and Stage 2                       |   |
| <input type="checkbox"/> | Compulsory Stage 2                                   |   |
| <input type="checkbox"/> | Choice of subjects and/or courses (Stage 1 and/or 2) | Students must achieve a grade or equivalent for subjects and/or courses selected  |

Credits

10

Subtotal 10

Subtotal 30

10

Subtotal 70

Subtotal 90

Total 200

# Stage 1 Subject Choices

## Stage 1: Biology

**SACE Code:** 1BGY10 or 1BGY20

**Duration:** Semester or Full Year

### Course Overview:

Science inquiry skills and science as a human endeavour are integral to students' learning in this subject and are interwoven through their study of science understanding, which is organised into four topics. Through the study of these topics, students extend their understanding of the nature of living things, as well as of the interactions of those living things with members of the same species, members of other species, and the environment.

### Stage 1 Biology consists of the following 4 topics:

Topic 1: Cells and Microorganisms  
Topic 2: Infectious Disease  
Topic 3: Multicellular Organisms  
Topic 4: Biodiversity and Ecosystem Dynamics

### Assessment:

The following assessment types enable students to demonstrate their learning in Stage 1 Biology:

*Investigation Folio:* includes 1 practical and 1 science as a human endeavor investigation - 50%

*Skills and Applications Tasks* - 50%

## Stage 1: Chemistry

**SACE Code:** 1CEM10 or 1CEM20

**Duration:** Semester or Full Year

### Course Overview:

Science inquiry skills and science as a human endeavour are integral to students' learning in this subject and are interwoven through the science understanding, which is organised into six topics. In their study of these topics, students develop and extend their understanding of some of the fundamental principles and concepts of chemistry, including structure, bonding, polarity, solubility, acid-base reactions, and redox. These are introduced in the individual topics, with the mole concept and some energy concepts introduced gradually throughout these topics.

### Stage 1 Chemistry consists of the following 6 topics:

Topic 1: Materials and their Atoms  
Topic 2: Combinations of Atoms  
Topic 3: Molecules  
Topic 4: Mixtures and Solutions  
Topic 5: Acid and Bases  
Topic 6: Redox Reactions

### Assessment:

The following assessment types enable students to demonstrate their learning in Stage 1 Chemistry:

*Investigation Folio:* includes 1 practical and 1 science as a human endeavor investigation - 50%

*Skills and Applications Tasks* - 50%

## Stage 1: Design, Technology and Engineering Digital Communication Solutions: Photography (Image Capture)

**SACE Code:** 1DCS10

**Duration:** Semester

### Course Overview:

The course is designed to suit both the beginner and experienced photographer. Students do not need their own digital camera; they will have access to a range of digital cameras to capture their images needed for the assessment tasks. The course begins by looking at the settings and functions of the cameras and how to make the best use of these when capturing images. Students concentrate on developing skills associated with image capture such as image composition, depth of field, shooting angles and lighting. Students will develop a digital portfolio of their original images captured during the semester. Students will also learn to critically examine images for both purpose and techniques. Finally, students will be introduced to the Design Process and will explore the issues involved in working from a design brief to the production of the final product.

### Assessment Type 1: Specialised Skills Tasks [60%]

Camera Techniques  
Digital portfolio of original images

### Assessment Type 2: Design process and solution [40%]

For a 10-credit subject, students undertake one design process assessment type. The design process is in two parts.  
Part 1 – Design development (1000 words)  
Part 2 – Solution realisation (500 words)

### Notes:

Single Semester course or can be combined with Digital Image to make a full year subject.



# Stage 1 Subject Choices

## Stage 1: Design, Technology and Engineering

### Digital Communication Solutions: Photography (Digital Images)

**SACE Code:** 1DCS10

**Duration:** Semester

#### Course Overview:

The focus of this course is to develop skills in the manipulation of digital images. Creative manipulation techniques are explained and students experiment to produce a range of digital effects. Students will work on their original images for assessment tasks, concentrating on the use of Photo editing software. Techniques including the use of layers, masks, filters and composite images will be explored. Students will develop a digital portfolio of their manipulated images produced during the semester. Students will need to critically reflect on and analyse their manipulated images. Finally, students will be introduced to the Design Process and will explore the issues involved in working from a design brief to the production of the final product.

#### Assessment Type 1: Specialised Skills Tasks [60%]

Digital Manipulation Techniques

Digital portfolio of manipulated images.

Assessment Type 2: Design process and solution [40%]

For a 10-credit subject, students undertake one design process assessment type.

The design process is in two parts.

Part 1 – Design development (1000 words)

Part 2 – Solution realisation (500 words)

#### Notes:

Single Semester course or can be combined with Image Capture to make a full year subject.



## Stage 1: Ancient Studies

**SACE Code:** 1ANT10

**Duration:** One Semester

#### Course Overview:

In Ancient Studies, students learn about the history, literature, society, and culture of ancient civilisations, which may include those of Asia–Australia, the Americas, Europe, and Western Asia/North Africa, and the classical civilisations of Greece and Rome. They consider the environmental, social, economic, religious, cultural, and aesthetic aspects of societies.

Contemporary societies have a long heritage based on civilisations of the past. The study of ancient cultures, therefore, enables students to explore the universality and diversity of human experience and enhance their own cultural and intercultural understanding.

#### Stage 1 Ancient Studies has one compulsory topic and five additional topics.

Compulsory topic

Topic 1: Understanding ancient history.

Additional topics

Topic 2: Art, architecture, and technology

Topic 3: Warfare and conquest

Topic 4: Social structures, slavery, and everyday life

Topic 5: Beliefs, rituals, and mythology

Topic 6: Creative representations

#### Assessment:

#### Skills and Applications Assessments

(50%): Students will undertake two Skills and Application Assessments to develop their inquiry skills and research selected ideas, individuals, groups, institutions, social systems, events, and/or artefacts of the ancient world.

**Inquiry Assessments (50%):** Students will undertake two Inquiry Assessments based on an extension of the material covered in class, or a study of an aspect of a different ancient society or culture.

## Stage 1: Community developed program CITB Doorways to Construction in school program

#### Focus: General Construction

**Course Overview:** Students will be involved in a pilot program with the Construction Industry Training Board (CITB). This is a first for South Australia as students will undertake the equivalent of a Certificate I in Construction within the SACE framework and have the potential to convert the units completed to nationally recognised vocational education qualifications. The learning will be undertaken in a simulated construction environment, focussed on developing industry standard knowledge such as design skills, Work, health and safety, safe operation of a range of building and construction plant, tools and equipment.

They will demonstrate the skills they have developed by completing a range of construction related practical activities and projects.

Students will focus on completing units equivalent to;

- CPCCCM1011A Undertake basic estimation and costing
- CPCCCM1012A Work effectively and sustainably in the construction industry
- CPCCCM1014A Conduct workplace communication
- CPCCCM1015A Measurements and Calculations
- CPCCCM2001A Read and interpret plans and specifications
- CPCCVE1011A Undertake a basic construction project
- CPCCCM2006B Apply basic levelling procedures

Further details can be found at:

<https://training.gov.au/Training/Details/CPC10111>

1. Regular attendance is expected to ensure Work, Health and Safety obligations are met.
2. Students will be required to complete a Whitecard course.
3. Suitable workplace hi-vis shirts and personal protective equipment will be provided by the CITB at no cost.

# Stage 1 Subject Choices

## Stage 1: English

**SACE Code:** 1ESH10

**Duration:** Full year

### Course Overview:

English is studied as two 10-credit subjects at Stage 1.

In these courses, students analyse the interrelationship between author, text, and audience, considering how language and style shape ideas and perspectives. Students explore how the purpose of a text is achieved through application of conventions, and how creators position the audience to respond to ideas in texts. Students have opportunities to reflect on their personal values and those of other people by responding to a range of texts. They apply their understanding by creating their own imaginative, analytical, and persuasive texts that may be written, oral, and/or multimodal.

### Stage 1 English consists of the following three learning areas:

#### Responding to Texts

Students examine a range of texts, and make intertextual connections. They learn to recognise purpose, context, and audience, and analyse language and stylistic choices.

Students explore the ideas, perspectives, and influences expressed in texts and how these shape their own and others' ideas and perspectives.

#### Creating Texts

Students create texts for different purposes, contexts, and audiences in written, oral, and/or multimodal forms. They learn to write in the appropriate mode and style for a chosen text type.

Students are expected to use accurate spelling, punctuation, syntax, and conventions.

#### Intertextual Study

Students reflect on their understanding of intertextuality by:

- analysing the relationships between texts, or
- demonstrating how knowledge of other texts has influenced the creation of their own texts.

### Assessment:

The following assessment types enable students to demonstrate their learning in Stage 1

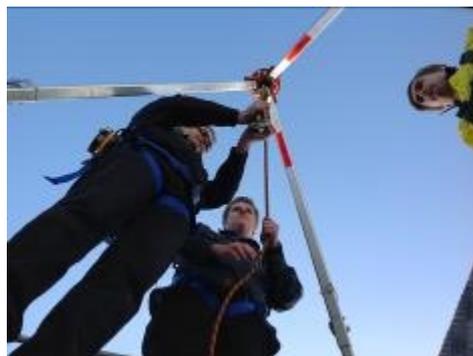
English:

Assessment Type 1: Responding to Texts

Assessment Type 2: Creating Texts

Assessment Type 3: Intertextual Study

In each 10-credit subject, students provide evidence of their learning through four assessments, at least one in each type. At least one assessment should be an oral or multimodal presentation, and at least one should be in written form. Each assessment should have a weighting of at least 20%.



## Stage 1: Essential English

**SACE Code:** 1ETE10

**Duration:** Full year or Semester

### Course Overview:

Essential English is studied as two 10-Credit subjects at Stage 1, in line with the compulsory Literacy credits students must achieve to attain their SACE.

In Essential English literacy skills are developed through a focus on comprehending and creating written, spoken, visual, and digital texts, and using and modifying language for different purposes in a range of social and cultural contexts, including study, work, and community life. Essential English develops an awareness of the sociocultural aspects of language in social, community, workplace, and/or imagined contexts.

### Stage 1 Essential English consists of the following two learning areas:

#### Responding to Texts

Students consider a variety of ways in which texts communicate information, ideas, and perspectives. They explore the relationship between structures and features and the purpose, audience, and context of texts. Engagement with a wide range of texts enables students to comprehend and interpret information, ideas, and perspectives in texts. They locate and extract information and ideas.

Students examine and respond to how language is used in social, cultural, community, workplace, and/or imagined contexts. They identify and develop an understanding of ways in which:

- language is used and composed for different purposes, audiences, and contexts
- structural and language features are used to create meaning.

#### Creating Texts

Students develop their skills in using appropriate vocabulary, accurate spelling, punctuation, and grammar to enable effective communication. They create a range of texts

# Stage 1 Subject Choices

using appropriate language features, content, and mediums for different purposes, audiences, and contexts.

## Assessment:

The following assessment types enable students to demonstrate their learning in Stage 1 Essential English:  
Assessment Type 1: Responding to Texts  
Assessment Type 2: Creating Texts

For each 10-credit subject, students provide evidence of learning through four assessment tasks. At least one *Responding to Texts* task and one *Creating Texts* task will be completed per 10-credit subject. Each assessment type will have a weighting of at least 20%. A total of eight assessments will be completed across the year.

## Stage 1: Essential Mathematics

**SACE Code:** 1MEM10 or 1MEM20

**Duration:** Semester or Full Year

### Course Overview:

Essential Mathematics is a 10-credit subject or a 20-credit subject at Stage 1, and a 20-credit subject at Stage 2.

Essential Mathematics offers senior secondary students the opportunity to extend their mathematical skills in ways that apply to practical problem solving in everyday and workplace contexts. Students apply their mathematics to diverse settings, including everyday calculations, financial management, business applications, measurement and geometry, and statistics in social contexts. 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.

This subject is intended for students planning to pursue a career in a range of trades or vocations.

### Stage 1 Essential Mathematics consists of the following seven 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  
Topic 7: Open Topic

### Assessment:

The following assessment types enable students to demonstrate their learning in Stage 1 Essential Mathematics:

Assessment Type 1: Skills and Applications Tasks

Assessment Type 2: Folio

For a 10-credit subject, students provide evidence of their learning through four assessments. Each assessment type should have a weighting of at least 20%. Students undertake:

- at least two skills and applications tasks
- at least one folio task.

For a 20-credit subject, students provide evidence of their learning through eight assessments. Each assessment type should have a weighting of at least 20%. Students undertake:

- at least four skills and applications tasks
- at least two folio tasks.

## Stage 1 General Mathematics

**SACE Code :** 1MGM10

**Duration :** Full year or Semester

### Course Overview:

General Mathematics is a 10-credit subject or a 20-credit subject at Stage 1, and a 20-credit subject at Stage 2.

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.

Successful completion of this subject at Stage 2 prepares students for entry to tertiary courses requiring a non-specialised background in mathematics.

### 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

### Assessment:

The following assessment types enable students to demonstrate their learning in Stage 1 General Mathematics.

Assessment Type 1: Skills and Applications Tasks

Assessment Type 2: Mathematical Investigation

For a 10-credit subject, students should provide evidence of their learning through four assessments. Each assessment type should have a weighting of at least 20%. Students undertake:

- at least two skills and applications tasks
- at least one mathematical investigation.

For a 20-credit subject, students should provide evidence of their learning through eight assessments. Each assessment type should have a weighting of at least 20%. Students undertake:

- at least four skills and applications tasks
- at least two mathematical investigations.



# Stage 1 Subject Choices

## Stage 1: Mathematics

**SACE Code :** 1MAM10

**Duration :** Full year or Semester

### Course Overview:

Stage 1 Mathematics is a 10-credit subject or a 20-credit subject.

Mathematics develops an increasingly complex and sophisticated understanding of calculus, statistics, mathematical arguments and proofs, and using mathematical models. By using functions, their derivatives and integrals, and by mathematically modeling physical processes, students develop a deep understanding of the physical world through a sound knowledge of relationships involving rates of change. Students use statistics to describe and analyse phenomena that involve uncertainty and variation. Stage 1 Mathematics provides the foundation for further study in mathematics in Stage 2 Mathematical Methods and Stage 2 Specialist Mathematics. Stage 2 Mathematical Methods can lead to tertiary studies of economics, computer sciences, and the sciences. It prepares students for courses and careers that may involve the use of statistics, such as health or social sciences. Stage 2 Specialist Mathematics can be a pathway to mathematical sciences, engineering, space science, and laser physics. Specialist Mathematics is designed to be studied in conjunction with Mathematical Methods.

### Stage 1 Mathematics consists of the following list of twelve topics:

- 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
- 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.

### Assessment:

The following assessment types enable students to demonstrate their learning in Stage 1 Mathematics:

- Assessment Type 1: Skills and Applications Tasks
- Assessment Type 2: Mathematical Investigation.

For a 10-credit subject, students should provide evidence of their learning through four assessments. Each assessment type should have a weighting of at least 20%.

Students complete:

- at least two skills and applications tasks
- at least one mathematical investigation.

For a 20-credit subject, students should provide evidence of their learning through eight assessments. Each assessment type should have a weighting of at least 20%.

Students complete:

- at least four skills and applications tasks
- at least two mathematical investigations.

### Note:

Key concepts from 10A Mathematics in the Australian Curriculum required for the study of Stage 1 Mathematics, Stage 2 Mathematical Methods, and Stage 2 Specialist Mathematics have been incorporated into the relevant topics.

Students who want to undertake Stage 2 Mathematical Methods should study at least 20 credits of Stage 1 Mathematics. This may be two 10-credit subjects or one 20-credit subject. Students who want to undertake Stage 2 Specialist Mathematics should study at least 10 additional credits of Stage 1 Mathematics.



## Stage 1: Health

**SACE Code:** 1HEH10 or 1HEH20

**Duration:** Semester or Full Year

**Course Overview:** Students recognise factors that shape the behaviour and attitudes of individuals and groups in relation to healthy living, caring for themselves and the environment. They develop skills to consider how changing social structures, community values, environmental issues, and new technologies affect the health and well-being of individuals and communities.

### Students study at least one of the following core topics:

1. *Ways of Defining Health*
2. *Health Literacy*

### Students study at least one of the following option studies:

1. *Health and Participation in Active Lifestyle*
2. *The Effects of Alcohol, Tobacco and Other Drugs on Health*
3. *Health and the Environment*
4. *Contemporary Health Priorities in Australia*
5. *Health and Relationships*
6. *Mental and Emotional Health*
7. *Growing Up Healthy*
8. *Careers and Vocational Studies in Health*

### Assessment

The following assessment types enable students to demonstrate their learning in Stage 1 Health:

*Type 1: Issues Response*

*Type 2: Group Activity*

*Type 3: Investigation*

Students undertake 3-4 assessment tasks each semester. Each task is weighted at least 20%.



# Stage 1 Subject Choices

## Stage 1: Earth and Environmental Science

**SACE Code:** 1EES10 or 1EES20

**Duration:** Semester or Full Year

### Course Overview:

Earth and Environmental Science emphasises the way in which Earth materials and processes generate environments, including habitats, where organisms live; the natural processes and human influences that induce changes in physical environments; and ways in which organisms respond to those changes. Students develop and extend their inquiry skills, including in designing and undertaking investigations, and collecting and analysing primary and secondary data. They interpret and evaluate information, synthesis and use evidence to construct and justify conclusions.

### Stage 1 Earth and Environmental Science consists of the following 6 topics:

Topic 1: Turbulent Earth  
Topic 2: Composition of the Geosphere  
Topic 3: Processes in the Geosphere  
Topic 4: The Earth's Atmosphere  
Topic 5: Importance of the Hydrosphere  
Topic 6: Biosphere

### Assessment:

The following assessment types enable students to demonstrate their learning in Stage 1 Earth and Environmental Science:

*Investigation Folio:* includes 1 practical and 1 science as a human endeavour investigation - 50%

*Skills and Applications Tasks* - 50%

## Stage 1: Outdoor Education

**SACE Code:** 2OUE20

**Duration:** Semester or Full Year

**Course Overview:** Through study of three focus areas: environment and conservation, planning and management, and personal growth and development, students develop skills and understanding in preparation and planning for outdoor journeys, consideration of risk management and conservation practices, and develop team work and practical outdoor skills.

Learning experiences take place in a variety of geographical locations to enable students to develop an appreciation of their place in natural environments.

### Learning Framework

#### Focus Area 1: Environment and Conservation

Students transfer their understanding and appreciation of natural environments in local areas through practical opportunities to interact with the environment, and consider appropriate actions and strategies that support conservation, sustainability and minimise human impacts.

#### Focus Area 2: Planning and Management of outdoor activities and journeys.

Students apply planning skills to support positive outdoor experiences in nature for themselves and others, through consideration of safety and risk management practices.

#### Focus Area 3: Personal growth and development

Through learning in natural environments, students develop personal meaning, and appreciation of the role of natural environments in providing life perspective. Learning experience in natural environments enable students to evaluate and reflect on their own learning progression and skills development, as well as their relationship with nature.

### Assessment

The following assessment types enable students to demonstrate their learning:

- Assessment Type 1: About Natural Environments
- Assessment Type 2: Experiences in Natural Environments

For 10-credit subject (each semester)

- One or Two 'About Natural Environments' tasks
- Two 'Experiences in Natural Environments' tasks

*Please note: this subject incurs additional fees for excursions and camps.*

## Stage 1: Physics

**SACE Code:** 1PY110 or 1PY120

**Duration:** Semester or Full Year

### Course Overview:

Science inquiry skills and science as a human endeavour are integral to students' learning in this subject and are interwoven through their study of science understanding, which is organised into six topics. Through the study of these topics, students develop and extend their understanding of the interaction between matter, energy, and forces in linear motion, and electric circuits and the transfer and transformation of energy. They study the wave model to better understand how energy can be transferred through matter and space. Students examine the structure of matter, spontaneous nuclear reactions, and the ionising radiation that results from these processes.

### Stage 1 Physics consists of the following 6 topics:

Topic 1: Linear Motion and Forces  
Topic 2: Electric Circuits  
Topic 3: Heat  
Topic 4: Energy and Momentum  
Topic 5: Waves  
Topic 6: Nuclear Models and Radioactivity

### Assessment:

The following assessment types enable students to demonstrate their learning in Stage 1 Physics:

*Investigation Folio:* includes 1 practical and 1 science as a human endeavour investigation - 50%

*Skills and Applications Tasks* - 50%



# Stage 1 Subject Choices

## Stage 1: Physical Education

**SACE Code:** 1PHE10

**Duration:** Semester of full year

**Course Overview:** Students explore the participation in and performance of human physical activities. It is an experiential subject in which students explore their physical capacities and investigate the factors that influence and improve participation and performance outcomes, which lead to greater movement confidence and competence. Physical Education supports deep learning 'in, through and about' physical activity, through the exploration of movement concepts and strategies within physical activity contexts. Physical activities can include sports, theme-based games, fitness and recreational activities. Classes can undertake a learning and assessment program using a single focus approach (e.g. single sport) or can undertake multiple sports, games and/or activities.

**Student learning is centred around the following focus areas;**

### Focus Area 1: In Movement

- Applying skill acquisition concepts for improvement
- Movement concepts and strategies
- Application of energy sources affecting physical performance
- Application of the effects of training on physical performance

### Focus Area 2: Through Movement

- Physiological barriers and enablers to participation
- Social strategies to manipulate equity in participation
- Personal influence on participation

### Focus Area 3: About Movement

- The body's response to physical activity
- The effect of training on the body
- Learning and refining skills

### Assessment (10-credit, or per semester)

The following assessment types enable students to demonstrate their learning: School assessment (70%)

- Assessment Type 1: Performance in Improvement
- Assessment Type 2: Physical Activity Investigation
- Three assessments
- Each assessment type should have a weighting of at least 20%

## Stage 1: Visual Arts – Art

**SACE Code:** 1VAA10 / 1VAA20

**Duration:** Semester or full year

In Visual Arts students express ideas through practical work using drawings, sketches, diagrams, models, prototypes, photographs and/or audio visual techniques leading to resolved pieces. Students have opportunities to research, understand and reflect upon visual art works in their cultural and historical contexts.

The broad area of Art includes both artistic and crafting methods and outcomes, including the development of ideas, research, analysis and experimentation with media and techniques, resolution and production.

The focus capabilities for this subject are communication and personal development.

### Content

For both 10-credit and 20-credit programs the following three areas of study are covered:

- Visual Thinking
- Practical Resolution
- Visual Arts in Context

### Assessment

Assessment at Stage 1 is school based. Students demonstrate evidence of their learning through the following assessment types.

- Folio
- Practical
- Visual study



## Stage 1: Design, Technology and Engineering

(May be subject to change in 2020 as it is a SACE Draft as of July 2019)

**Focus:** Automotive systems

**SACE Code:** (To be determined)

**Duration:** Year (20 Credits)

**Course Overview:** Students investigate and participate in an automotive repair environment. They will focus on developing industry standard knowledge and skills by using the design process to work safely to investigate, plan, produce and evaluate a range of engine systems, components and tools.

They will demonstrate the skills they have developed by fitting and a test engine to an engine test stand so that it is operational and meets all safety requirements.

**Student learning is centred around the following focus areas;**

**Specialised skills:** Students develop and evaluate a range of automotive industry related skills in a simulated automotive repair workplace. They enhance their understanding of automotive skills and tools by using them to test and service cooling, electrical and fuel systems on a range of combustion engines. Core knowledge will include safety, design, plant and equipment use, maintenance and storage, engine types, electrical configurations, servicing techniques as well as fault finding and tuning procedures.

**Specialised skills task:** Students reflect on their understanding of automotive cooling, electrical and fuel delivery systems and the specialised skills they have developed in order to test and service these systems.

**Design development and Solution realisation;** Students investigate, analyse, design and install one of the systems from the specialised skills task to an engine on an engine test stand with the aim that after installation the engine will run.

### Assessment (2-3 tasks per semester)

The following assessment types enable students to demonstrate their learning;

**Type 1: Specialised skills task (3) 60%**

**Type 2: Design Development and Solution Realisation (1) 40%**

**Note; The combined total of all assessment tasks is 3000 words or 18 minutes of a multimodal equivalent.**

### Notes

1. Regular attendance is expected to ensure Work, health and safety obligations are met.

# Stage 1 Subject Choices

## Stage 1: Integrated Learning

**SACE Code:** 1ILN10 or 1ILN20

**Duration:** Semester or Full Year

**Course Overview:** Integrated Learning requires students to apply their knowledge and skills to real-world task, event, learning opportunity, or context, which leads to a specific purpose, product, or outcome. The subject draws links between aspects of students' lives and their learning and enables students to develop and apply the seven SACE capabilities: literacy, numeracy, ICT, critical and creative thinking, personal and social capability, ethical understanding and intercultural understanding. Integrated Learning facilitates collaboration and teamwork and students are encouraged to develop their skills in communicating their ideas and informed opinions.

### Assessment

Students demonstrate evidence of their learning through the following assessment types:

- Practical Exploration (at least 1 for a 10 credit subject; at least 2 for a 20 credit subject)
- Connections Task (at least 1 for a 10 credit subject; at least 2 for a 20 credit subject)
- Personal Venture (at least 1 for a 10 credit subject; at least 2 for a 20 credit subject)

## Stage 1 Media Studies

**SACE Code:** 1MES20

**Duration:** Full year

**Course Overview:** Media Studies aims to develop media literacy and media production skills. The course aims to move students from being passive consumers of media to being able to critically analyse and create media products. They will need to demonstrate an understanding of how the media shapes and exerts considerable influence on identity, culture and society, and explore bias, values and intent in relation to media production, and distribution.

Students are involved in researching, discussing and analysing media issues, interacting with media, and creating media products, which may include video, radio, news platforms, online media, and television. The subject lends itself to tertiary pathways in media production and communication. It involves the close study of four of the following topics, for a one year course at Stage 1:

- Topic 1: Images of Youth in Media
- Topic 2: Making of the News
- Topic 3: Advertising
- Topic 4: Careers in Media
- Topic 5: Creating Multimedia Texts
- Topic 6: Representations in Media
- Topic 7: Media Audiences
- Topic 8: Media and Leisure
- Topic 9: Media and the Global Community

### Assessment

Folio x2– 40%  
Interaction Study x2– 20%  
Product – 40%

## Stage 1: Workplace Practices

**SACE Code:** 1WPP10

**Duration:** Semester

### Course overview:

There are three areas of study within Workplace Practices:

- Industry and Work Knowledge
- Vocational Learning
- Vocational Education and Training (VET).

At Stage 1 all students undertake Industry and Work Knowledge and one of the following options:

- Vocational Learning or VET or
- Vocational Learning and VET.

### Industry and Work Knowledge

Students develop knowledge and understanding of the nature, type, and structure of the workplace. Specific areas include, for example, the changing nature of work; industrial relations and legislation; safe and sustainable workplace practices; technical and industry-related skills; and issues in industry and workplace contexts.

### Vocational Learning

Vocational learning is general learning that has a vocational perspective. It includes any formal learning in a work-related context outside Australian Qualifications Framework (AQF) qualifications. Students undertake learning in the workplace to develop and reflect on their capabilities, interests, and aspirations and to reflect on the knowledge, skills, and attributes valued in the workplace.

### Vocational Education and Training (VET)

VET includes any 'training and assessment delivered by a registered training organisation which meets the requirements specified in national industry/enterprise Training Packages or in accredited courses' (training.gov.au). Students must attain their competencies for their VET learning to be able to be counted towards their *Performance* assessment (30%).

### Assessment

Assessment at Stage 1 is school-based. Students demonstrate evidence of their learning through the following assessment types:

- 1 x Performance (30%)
- 1 x Reflection (30%)
- 2 x Folio Tasks (40%)

*Prerequisite:* Students are either undertaking a VET subject or have a job outside of school.



# Stage 2 Subject Choices

## Stage 2: Biology

**SACE Code:** 2BIG20

**Duration:** Full Year

**Course Overview:** In their study of Biology, students develop and extend their understanding of 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. They investigate biological systems and their interactions, from the perspectives of energy, control, structure and function, change, and exchange in microscopic cellular structures and processes, through to macroscopic ecosystem dynamics.

**Students study all of the following core topics:**

Topic 1: DNA and Proteins

Topic 2: Cells as the Basis of Life

Topic 3: Homeostasis

Topic 4: Evolution

Many of the concepts studied in Stage 2 Biology build on concepts introduced in Stage 1 Biology.

### Assessment

The following assessment types enable students to demonstrate their learning in Stage 2 Chemistry:

*School Assessment (70%)*

- Assessment Type 1: Investigations Folio (30%)
- Assessment Type 2: Skills and Applications Tasks (40%)

*External Assessment (30%)*

Assessment Type 3: Examination (30%)

Students provide evidence of their learning through eight assessments, including the external assessment component.

Students complete:

- at least two practical investigations<sup>1</sup>
- one investigation with a focus on science as a human endeavour
- at least three skills and applications tasks
- one examination<sup>2</sup>

At least one investigation or skills and applications task should involve collaborative work.

It is anticipated that from 2018 all school assessments will be submitted electronically.

### Notes:

1. Practical investigations are a compulsory requirement of the course
2. The end of year external examination has duration 2. hours

## Stage 2: Chemistry

**SACE Code:** 2CEM20

**Duration:** Full Year

**Course Overview:** In their study of Chemistry, students develop and extend their understanding of how the physical world is chemically constructed, the interaction between human activities and the environment, and the use that human beings make of the planet's resources. They explore examples of how scientific understanding is dynamic and develops with new evidence, which may involve the application of new technologies.

**Students study all of the following core topics:**

Topic 1: Monitoring the Environment

Topic 2: Managing Chemical Processes

Topic 3: Organic and Biological Chemistry

Topic 4: Managing Resources

Many of the concepts studied in Stage 2 Chemistry build on concepts introduced in Stage 1 Chemistry.

### Assessment

The following assessment types enable students to demonstrate their learning in Stage 2 Chemistry:

*School Assessment (70%)*

- Assessment Type 1: Investigations Folio (30%)
- Assessment Type 2: Skills and Applications Tasks (40%)

*External Assessment (30%)*

- Assessment Type 3: Examination (30%)

Students provide evidence of their learning through eight assessments, including the external assessment component. Students complete:

- at least two practical investigations<sup>1</sup>
- one investigation with a focus on science as a human endeavour
- at least three skills and applications tasks
- one examination<sup>2</sup>

At least one investigation enable students to individually deconstruct a problem, design their own method and justify their plan of action. At least one investigation should involve a question or hypothesis for which the outcome is uncertain.

### Notes:

1. Practical investigations are a compulsory requirement of the course
2. The end of year external examination has duration of 2 hours

## Stage 2: Health

**SACE Code:** 2HEH20

**Duration:** Full Year

**Course Overview:** Students recognise factors that shape the behaviour and attitudes of individuals and groups in relation to healthy living, caring for themselves and the environment. They develop skills to consider how changing social structures, community values, environmental issues, and new technologies affect the health and well-being of individuals and communities.

**Students study at least one of the following core topics:**

1. Health Literacy
2. The Social and Economical Determinants of Health

**Students study at least one of the following option studies:**

1. Health Promotion in the Community
2. Health and the Environment
3. Sexuality and Health
4. Health and Relationships
5. Risks and Challenges to Health
6. Stress and Health
7. Vocational Studies and Applications in Health

### Assessment

The following assessment types enable students to demonstrate their learning in Stage 2 Health:

**School Assessment (70%)**

*Type 1: Group Investigation and Presentation (30%)*

*Type 2: Issues Analysis (20%)*

*Type 3: Practical Activity (20%)*

**External Assessment (30%)**

*Type 4: Investigation (30%)*

# Stage 2 Subject Choices

## Stage 2: Design, Technology and Engineering Digital Communication Solutions: Photography

**SACE Code :**

**Duration:** Full year or Semester

### Course Overview:

Students develop design briefs, demonstrating their design and technological ability through activities in contexts that have a practical outcome. Students identify product characteristics and make critical judgments about the design and creation of products. Students investigate and critically analyse a range of products, processes, and production techniques used in industrial situations. This information is used to create potential solutions through the design and creation of products. Students identify demands on their design, taking cost, ethical, cultural, and environmental issues into account. They explain how their ideas address these demands, and use their analysis to produce proposals for the present and future. Communication Solutions focus area involves the use of materials, such as symbols, signs, light, images, or other data to design and make products that communicate information. Students produce outcomes that demonstrate the knowledge and skills associated with manipulation of communication media, both manual and digital.

### Assessment

The following assessment types enable students to demonstrate their learning in Stage 2 Design, Technology and Engineering.

School assessment (70%)

Assessment Type 1: Specialised Skills Task (20%)

Two specialised skills tasks

Assessment Type 2: Design Process and Solution (50%)

Two design process and solution tasks

External assessment (30%)

Assessment Type 3: Resource Study (30%)

One resource study

### Notes:

Students will be advantaged if they have successfully completed a full year of Stage 1 Communication Solutions.

## Stage 2: English

**SACE Code:** 2E20

**TAS:** Yes

**Duration:** Full year

### Assumed knowledge

It is assumed that students have successfully completed Stage 1 English and can independently produce clear and coherent written and spoken texts.

### Course overview

English is a 20-credit subject at Stage 2.

In this subject, students are expected to:

1. analyse the relationship between purpose, context, and audience in a range of texts
2. evaluate how language and stylistic features and conventions are used to represent ideas, perspectives, and aspects of culture in texts
3. analyse how perspectives in their own and others' texts shape responses and interpretations
4. create and evaluate oral, written, and multimodal texts in a range of modes and styles
5. analyse the similarities and differences in texts
6. apply clear and accurate communication skills.

### Content

The content includes:

Responding to Texts

Creating Texts

Comparative Analysis

### Responding to Texts

Students demonstrate a critical understanding of the language features, stylistic features, and conventions of particular text types, and identify the ideas and perspectives conveyed by texts. This includes how language conventions influence interpretations of texts, and how omissions and emphases influence the reading and meaning of a text. Students reflect on the purpose of

the text and the audience for whom it was produced.

### Creating Texts

Students create a range of texts for a variety of purposes. By experimenting with innovative and imaginative language features, stylistic features, and text conventions, students develop their personal voice and perspectives. They demonstrate their ability to synthesise ideas and opinions, and develop complex arguments.

### Assessment

- School Assessment (70%)
- Assessment Type 1: Responding to Texts (30%)
- Assessment Type 2: Creating Texts (40%)
- Assessment Type 3: Comparative Analysis (30%).
- For a 20-credit subject, students should provide evidence of their learning through eight assessments, including the external assessment component.

Students complete:

- three responses to texts
- four created texts (one of which is a writer's statement)
- one comparative analysis.



# Stage 2 Subject Choices

## Stage 2: Essential English

**SACE Code:** 2ETE20

**TAS:** Yes

**Duration:** Full year

### Assumed knowledge:

It is assumed that students have successfully completed Stage 1 Essential English, and can independently produce clear and coherent written and spoken texts.

### Course Overview:

Essential English is a 20-credit subject at Stage 2.

Students who complete 20 credits of Stage 2 Essential English with a C grade or better will also meet the literacy requirement of the SACE.

In this subject students respond to and create texts in and for a range of personal, social, cultural, community, and/or workplace contexts.

Students understand and interpret information, ideas, and perspectives in texts and consider ways in which language choices are used to create meaning.

### Content

The content includes:

Responding to Texts  
Creating Texts  
Language Study

### Responding to Texts

Students respond to a range of texts that instruct, engage, challenge, inform, and connect readers. They consider information, ideas, and perspectives represented in the chosen texts.

### Creating Texts

Students create procedural, imaginative, analytical, interpretive, or persuasive texts appropriate to a context.

## Essential English (cont)

### Language Study

The language study focuses on the use of language by people in a context outside of the classroom.

Students reflect on the strategies and language used to communicate in a specific context.

### Assessment:

*School Assessment (70%)*

- Assessment Type 1: Responding to Texts (30%)
- Assessment Type 2: Creating Texts (40%)

*External Assessment (30%)*

- Assessment Type 3: Language Study (30%)

Students provide evidence of their learning through seven assessments, including the external assessment component. Students complete:

- three assessments for Responding to Texts
- three assessments for Creating Texts
- one Language Study.



## Stage 2: Essential Mathematics

**SACE Code:** 2MEM20

**TAS:** Yes

**Duration:** Full year

### Course Overview:

Essential Mathematics offers senior secondary students the opportunity to extend their mathematical skills in ways that apply to practical problem-solving in everyday and workplace contexts. Students apply their mathematics to diverse settings, including everyday calculations, financial management, business applications, measurement and geometry, and statistics in social contexts.

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.

This subject is intended for students planning to pursue a career in a range of trades or vocations.

Students who complete this subject with a C- or better will meet the numeracy requirement of the SACE.

### Stage 2 Essential Mathematics consists of the following five topics:

- Topic 1: Scales, Plans, and Models
  - Topic 2: Measurement \*
  - Topic 3: Business Applications
  - Topic 4: Statistics \*
  - Topic 5: Investments and Loans \*
- (\* = examinable subjects)

### Assessment:

The following assessment types enable students to demonstrate their learning in Stage 2 Essential Mathematics:

School Based:

Assessment Type 1: Skills and Applications Tasks – 30%

Assessment Type 2: Folio -40%

External:

2 hour exam on \* topics – 30%

# Stage 2 Subject Choices

## Stage 2: General Mathematics

**SACE Code:** 2MGM20

**TAS:** Yes

**Duration:** Full year

### Course Overview:

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 concepts in the topics. Topics cover a diverse range of applications of mathematics, including personal financial management, the statistical investigation process, modelling using linear and non-linear functions, and discrete modelling using networks and matrices. Successful completion of General Mathematics at Stage 2 prepares students for entry to tertiary courses requiring a non-specialised background in mathematics. Students who complete this subject with a C- or better will meet the numeracy requirement of the SACE.

### Stage 2 General Mathematics consists of the following five topics:

- Topic 1: Modelling with Linear Relationships
- Topic 2: Modelling with Matrices
- Topic 3: Statistical Models \*
- Topic 4: Financial Models \*
- Topic 5: Discrete Models \*

### Assessment:

The following assessment types enable students to demonstrate their learning in Stage 2 General Mathematics:

School Based:

Assessment Type 1: Skills and Applications Tasks – 40%

Assessment Type 2: Investigation -30%

External:

2 hour exam on \* topics – 30%

## Stage 2: Mathematical Methods

**SACE Code:** 2MHS20

**TAS:** Yes

**Duration:** Full year

### Course Overview:

Mathematical Methods develops an increasingly complex and sophisticated understanding of calculus and statistics. By using functions and their derivatives and integrals, and by mathematically modelling physical processes, students develop a deep understanding of the physical world through a sound knowledge of relationships involving rates of change. Students use statistics to describe and analyse phenomena that involve uncertainty and variation.

Mathematical Methods provides the foundation for further study in mathematics, economics, computer sciences, and the sciences. It prepares students for courses and careers that may involve the use of statistics, such as health or social sciences. When studied together with Specialist Mathematics, this subject can be a pathway to engineering, physical science, and laser physics. Students who complete this subject with a C- or better will meet the numeracy requirement of the SACE.

### Stage 2 Mathematical Methods consists of the following six topics:

- Topic 1: Further Differentiation and Applications
- Topic 2: Discrete Random Variables
- Topic 3: Integral Calculus
- Calculus
- Topic 4: Logarithmic Functions
- Topic 5: Continuous Random Variables and the Normal Distribution
- Topic 6: Sampling and Confidence Intervals

### Assessment:

The following assessment types enable students to demonstrate their learning in Stage 2 Mathematical Methods:

School Based:

Assessment Type 1: Skills and Applications Tasks – 50%

Assessment Type 2: Investigation -20%

External:

2 hour exam on all 6 topics – 30%



# Stage 2 Subject Choices

## Stage 2: Physics

**SACE Code:** 2PY120

**Duration:** Full Year

### Course Overview:

The study of Physics is constructed around using qualitative and quantitative models, laws, and theories to better understand matter, forces, energy, and the interaction among them. Physics seeks to explain natural phenomena, from the subatomic world to the macrocosmos, and to make predictions about them. The models, laws, and theories in physics are based on evidence obtained from observations, measurements, and active experimentation over thousands of years. By studying physics, students understand how new evidence can lead to the refinement of existing models and theories and to the development of different, more complex ideas, technologies, and innovations.

### The three strands of science to be integrated throughout student learning are:

- science inquiry skills (SIS)
- science as a human endeavor (SHE)
- science understanding.

### The topics for Stage 2 Physics are:

- Topic 1: Motion and Relativity
- Topic 2: Electricity and Magnetism
- Topic 3: Light and Atoms.

### Assessment:

#### School Assessment (70%)

Assessment Type 1: Investigations Folio (30%)

Assessment Type 2: Skills and Applications Tasks (40%)

#### External Assessment (30%)

Assessment Type 3: 2 Hour Examination

Students provide evidence of their learning through eight assessments, including the external assessment component. Students complete:

- at least two practical investigations
- one investigation with a focus on science as a human endeavour
- at least three skills and applications tasks
- one examination.

At least one investigation or skills and applications task should involve collaborative work.

It is anticipated that from 2018 all school assessments will be submitted electronically.

## Stage 2: Visual Arts – Art

**SACE Code:** 2VAA20

**TAS:** Yes

**Duration:** Full year

### Assumed knowledge

No assumed knowledge

### Course overview

In Visual Arts students express ideas through practical work using drawings, sketches, diagrams, models, prototypes, photographs and/or audio visual techniques leading to resolved pieces. Students have opportunities to research, understand and reflect upon visual artworks in their cultural and historical contexts. The broad area of Art includes both artistic and crafting methods and outcomes, including their development of ideas, research, analysis and experimentation with media and techniques, resolution and production.

### Assessment:

#### Internal 70%

- Folio 40%

Students produce one folio that documents their visual learning, in support of their two works of art. The folio should include visual, practical, written, and/or oral forms of evidence. As a guide, there should be a total of forty A3 sheets (or equivalent) of visual and written and/or oral evidence to support two resolved practical works, or a body of resolved work.

- **Practical 30%**

Students produce two practicals, both of which must be resolved works involving the application of technical skills using any of a wide range of media. Students must prepare a written 500 word practitioner's statement for each of the practicals.

#### External 30%

- **Visual study 30%**

A visual study is an exploration of, and/or experimentation with, one or more styles, ideas, concepts, media, materials, methods, techniques, technologies, or processes. Students present the findings of their visual study as well as their conclusions, insights, and personal opinions about aesthetics. Students should submit a maximum of twenty A3 pages, integrated with a maximum of 2000 words of written text.

## Stage 2: Research Project

**SACE Code:** 2RPA10 or 2RPB10

**TAS:** 2RPB10: Yes

**TAS:** 2RPA10: No

**Duration:** Semester 1

### Assumed knowledge

It is expected that students have completed their PLP.

### Course overview

The Research Project is a compulsory element of the SACE which students must complete with a C or higher grade. Students choose a research topic that is based on an area of interest, and a capability (communication, citizenship, personal development, or work) that is relevant to their research.

The four parts of the research framework are:

- initiating, planning and managing the research
- carrying out the research
- communicating the research outcome
- evaluating the research.

This framework is flexible to accommodate different models and approaches to research and enquiry-based learning, and to guide each student's research, on any topic and in any context.

### Assessment

#### Internal 70%

- **Folio** (preliminary ideas and research proposal, research development and discussion) 50%
- **Research outcome** 20%

#### External 30%

- **Evaluation** (including written summary) 30%

### Notes:

This is a **compulsory** subject of the SACE in which students must achieve a C-grade or better. It is designed to be completed in semester 1. Students wanting this subject to count as a TAS must do research Project B.

# Stage 2 Subject Choices

## Stage 2: Workplace Practices

**SACE Code:** 2WPPG20

**TAS:** Yes

**Duration:** Full year

**Assumed Knowledge:**  
Not applicable

### Course Overview:

There are three areas of study within Workplace Practices:

- Industry and Work Knowledge
- Vocational Learning
- Vocational Education and Training (VET).

At Stage 2 all students undertake Industry and Work Knowledge and one of the following options:

Vocational Learning *or* VET *or*  
Vocational Learning and VET.

### Industry and Work Knowledge

Students develop knowledge and understanding of the nature, type, and structure of the workplace. Specific areas include, for example, the changing nature of work; industrial relations and legislation; safe and sustainable workplace practices; technical and industry-related skills; and issues in industry and workplace contexts.

### Vocational Learning

Vocational learning is general learning that has a vocational perspective. It includes any formal learning in a work-related context outside Australian Qualifications Framework (AQF) qualifications. Students undertake learning in the workplace to develop and reflect on their capabilities, interests, and aspirations and to reflect on the knowledge, skills, and attributes valued in the workplace.

### Vocational Education and Training (VET)

VET includes any 'training and assessment delivered by a registered training organisation which meets the requirements specified in national industry/enterprise Training Packages or in accredited courses' ([training.gov.au](http://training.gov.au)). Students must attain their competencies for their VET learning to be able to be counted towards their *Performance* assessment (30%).

At Stage 2, students complete assessment in 4 areas, with both school-based and external assessment:

School-based assessment:

- Folio (3 tasks) (25%)
- Performance (25%)
- Reflection (2 tasks) (20%)

External assessment:

- Investigation (30%)

## Stage 2: Outdoor Education

**SACE Code:** 2OUE20

**TAS:** Yes

**Duration:** Full Year

**Assumed Knowledge:** Not applicable

**Course Overview:** Through study of three focus areas: environment and conservation, planning and management, and personal growth and development, students develop skills and understanding in preparation and planning for outdoor journeys, consideration of risk management and conservation practices, and develop team work and practical outdoor skills.

Learning experiences take place in a variety of geographical locations to enable students to develop an appreciation of their place in natural environments.

### Learning Framework

#### Focus Area 1: Conservation and sustainability

Learning experiences in nature shape students' understanding of environmental systems and issues and enhance their decision-making about conservation and sustainability. Students develop their understanding of a range of different perspectives on the natural environment. Students transfer their understanding and appreciated of natural environments in local areas through practical opportunities.

#### Focus Area 2: Human connections with nature

Students explore and connect with nature and develop relationships that promotes conservation, sustainability, personal growth and development. Students apply planning, leadership skills to support positive outdoor experiences in nature for others, through consideration of safety and risk management, decision making, reflective and collaborative practices.

#### Focus Area 3: Personal growth and development

Through learning in natural environments, students develop personal meaning, and appreciation of the role of natural environments in providing life perspectives. Learning experiences in natural environments enable students to evaluate and reflect on their own learning progression and skills development, and on their collaborations with and leadership of others as well as their relationship and connection with nature.

### Assessment

The following assessment types enable students to demonstrate their learning:

School assessment (70%)

- Assessment Type 1: About Natural Environments (20%)
- Assessment Type 2: Experiences in Natural Environments (50%)

External assessment (30%)

- Assessment Type 3: Connections with Natural Environments (30%)

- One or two 'About Natural Environments' tasks
- Two 'Experiences in Natural Environments' tasks
- One 'connections with Natural Environments tasks'

*Please note: this subject incurs additional fees for excursions and camps*

# Stage 2 Subject Choices

## Stage 2: Physical Education (revised subject for 2020)

**SACE Code:** 1PHE10

**TAS:** Yes

**Duration:** Full Year

**Course Overview:** Students explore the participation in and performance of human physical activities. It is an experiential subject in which students explore their physical capacities and investigate the factors that influence and improve participation and performance outcomes, which lead to greater movement confidence and competence. Physical Education supports deep learning 'in, through and about' physical activity, through the exploration of movement concepts and strategies within physical activity contexts.

Physical activities can include sports, theme-based games, fitness and recreational activities. Classes can undertake a learning and assessment program using a single focus approach (e.g. single sport) or can undertake multiple sports, games and/or activities.

**Student learning is centred around the following focus areas;**

### Focus Area 1: In Movement

- Application of energy sources affecting physical performance.
- Application of the effects of training on [physical performance
- How does biomechanics affect physical activity and movement
- Practical application of learning theories
- Psychology of sporting performance
- Movement concepts and strategies

### Focus Area 2: Through Movement

- Social psychology
- Psychology of sporting performance
- Barriers and enablers to physical activity

### Focus Area 3: About Movement

- Energy sources affecting physical performance
- Physiological factors affecting performance
- The effects of training on physical performance
- Technical developments in biomechanics
- Psychological motor learning theories
- The learning process
- The learning journey

### Assessment

The following assessment types enable students to demonstrate their learning:

School assessment (70%)

- Assessment Type 1: Diagnostics (30%)
- Assessment Type 2: Improvement Analysis (40%)

External assessment (30%)

- Assessment Type 3: Group Dynamics

- Two or three 'Diagnostics' tasks
- One 'Improvement Analysis' task
- One 'Group Dynamics' task

## Stage 2: Earth and Environmental Science

**SACE Code:** 2EES20

**Duration:** Full Year

### Course Overview:

Earth and Environmental Science emphasises the way in which Earth materials and processes generate environments, including habitats, where organisms live; the natural processes and human influences that induce changes in physical environments; and ways in which organisms respond to those changes. Students develop and extend their inquiry skills, including in designing and undertaking investigations, and collecting and analysing primary and secondary data. They interpret and evaluate information, synthesis and use evidence to construct and justify conclusions.

**Stage 2 Earth and Environmental Science consists of the following 4 topics:**

Topic 1: Earth Systems

Topic 2: Earth's Resources

Topic 3: Earth's sustainable Future

Topic 4: Climate Change

### Assessment:

#### Investigations Folio (30%)

Students undertake at least two skills and applications tasks in the form as:

Practicals

Field Investigations

Science as a Human Endeavour

#### Skills and Applications Tasks (40%)

Students undertake at least three skills and applications tasks.

#### Earth System Study (30%)



# VET: Retail Bakery

*Intended to deliver in Partnership with TAFE SA (RTO: 41026)*

**VET: RETAIL BAKERY (Year 10 and Stage 1)** This is a two year program with yearly entry and exit points. There is a clear bakery focus designed to give skills and knowledge appropriate for a person working as a bakery assistant in a retail, franchise or in-store situation.

## **FDF20111 Certificate II in Food Processing.**

This course aims to prepares students in the safe handling of food in preparing bakery (bread, cake, pastry, biscuits & meringue), sausages, pickles and jam products from raw food products.

**Where:** Parndana Campus—Trade Training Centre

**Registered Training Organisation:** TAFESA — 41026

**SACE Stage 1 Credits over two years:**

**Stage 1:** between 20 & 40 credits, each year

### **Units from FDF20111: Certificate II Food Processing**

Teacher may select some competencies from the following:

FDFOP2063A: Apply quality systems and procedures

FDFOP2064A: Provide and apply workplace information

MSAENV272A: Participate in environmentally sustainable work practices

FDFOHS2001A: Participate in OHS processes

*Electives:*

FDFFS2001A: Implement the food safety program and procedures

FDFBK2002A: Operate a pastry forming and filling process

FDFBK2007A: Operate a pastry production process

FDFOP2061A: Use numerical application in the workplace

FDFOP2055A: Freeze dough

SIRXPDK001: Advise on products and services

FDFPRBK1001: Finish products

FDFRB2004A: Provide production assistance for bread products

FDFBK2005A: Operate a doughnut making process

FDFOP2004A: Clean and sanitise equipment



### **In choosing the Food Processing Vocational Pathway you will get opportunities to:**

- Study and work with others with similar interests
- Experience practical and theory based training
- Become work ready
- Explore different career possibilities
- Link with local industry

Consider furthering your study at TAFE or university once you are in employment

The **Food Processing** Vocational Pathway will enable you to gain competencies towards a nationally accredited Certificate II in Food Processing leading to Certificate II in Food Processing as well as credits towards the South Australian Certificate of Education (SACE).

**University Pathways:** Bachelor of Science - Food Technology / Bachelor of Business - Management (course)

**TAFE Pathways:** Commercial cookery, hospitality operations, tourism, Meat Processing and Food Services .

**Career Options:** Brewer, Cheese-maker, Confectioner, Food Technician, Packer. Chef/cook, pastry cook/baker, food and preparation service, butcher, food and beverage, kitchen hand.

Upon completion of relevant VET courses, students can apply for further training in the following qualifications:

- Certificate III in Food Processing
- Certificate II in Hospitality (Kitchen Operations)
- Certificate III in Commercial Cookery

# VET: Hospitality

*Intended to deliver in Partnership with TAFE SA (RTO: 41026)*

## VET: Hospitality (Year 10, 11, 12)

VET studies in Hospitality provide valuable pathways to part time work and further studies at TAFE. In Year 11 and Year 12 students gain valuable experience in food and beverage service working in the Kingscote Campus Café. Working in the café forms part of the assessment at both Year 11 and Year 12 level and the profits from the café support the cookery programme. Students in Senior Years have all their ingredients for their cookery supplied through café profits.

### SIT10216: Certificate I Hospitality (kitchen focus) Year 10: Full Year Course with TAFESA Training Block 15 SACE credits

These nationally recognized competencies enable students to have training in working as food handlers in a commercial kitchen creating simple dishes for service and working as a team. This includes a week of training provided by TAFESA of a number of additional units of competency which are credited towards Certificate III Hospitality.

SITXFSA001: Use hygienic practices for food safety  
SITXWHS00: Participate in safe work practices  
SITHCCC002: Prepare and present simple dishes  
SITXCCS001: Provide customer information and assistance  
SITHCCC001: Use food preparation equipment  
BSBWOR203: Work effectively with others

### Units from SIT20316: Certificate II Hospitality Year 11: Full Year Course 20 SACE credits

Students who have not completed the outlined units from Certificate I Hospitality need to do those competencies in Certificate II Hospitality along with the following nationally recognized competencies. These competencies involve specific culinary skills. Students also undertake work experience outside school hours in running the School Café and other catering events.

SITHIND003: Use hospitality skills effectively  
SITXCCS003: Interact with customers  
SITXCOM002: Show social and cultural sensitivity  
SITHIND002: Source and use information on the hospitality industry  
SITHCCC003: Prepare and present sandwiches  
SITHCCC006: Prepare appetisers and salads



### Units from SIT30616: Certificate III Hospitality Year 12: Full Year Course 35 SACE credits

Students who have completed the units from Year 11 continue on to finish the following nationally recognized competencies.

SITHCCC003: Prepare and present sandwiches  
SITHCCC006: Prepare appetisers and salads  
SITXCCS006: Provide service to customers  
SITXHRM001: Coach others in job skills  
SITHIND004: Work effectively in hospitality service

**Certificate III Hospitality is assessed by TAFESA and is comprised of 15 Units of Competency. Students have the opportunity to achieve an ATAR score and 65 SACE credits.**

**University Pathways:** business, marketing, event management, international tourism, food technology, hotel management

**TAFE Pathways:** kitchen operations, commercial cookery, baking, hospitality operations, tourism, retail manager

**Career Options:** Chef/cook, food and preparation service, accommodation, food and beverage, kitchen hand or waiter.

**The Hospitality Vocational Pathway gives you opportunities to:**

- Study and work with others with similar interests
- Experience practical and theory based training
- Become work ready
- Explore different career possibilities
- Link with the local Hospitality industry and undertake work placement
- Assist in the catering for local events and or functions

# VET: Agriculture

*Intended to deliver in Partnership with TAFE SA (RTO: 41026)*

**VET: Competencies from Certificate II in Agriculture, Certificate II in Conservation and Land Management and Certificate II in Aquaculture (Stage 1 credits only).**

The nationally recognised competencies undertaken will be negotiated with TAFESA on a yearly basis.

**Where:** Parndana Campus—Agricultural facility

**SACE Stage 1:** 20 credits providing successful completion of the competencies



**In choosing the Agricultural Vocational Pathway you will get opportunities to:**

- Study and work with others with similar interests
- Experience practical and theory based training
- Become work ready
- Explore different career possibilities
- Link with the local Agricultural industry and undertake work placement

Consider furthering your study at TAFE or university once you are in employment

The Agricultural Vocational Pathway will enable you to gain competencies towards a nationally accredited Certificate II in Rural Operations leading to Certificate III in Rural operations as well as credits towards the South Australian Certificate of Education (SACE).

**University Pathways:** Bachelor of Science (Agricultural Science), Bachelor of Agriculture, Bachelor of Science (Animal Science).

**TAFE Pathways:** Rural operations, agriculture, rural business management, aquaculture, forest and forest products.

**Career Options:** Farm management, dairy supervisor, agriculture workers, conservation and land management, rural business workers and managers, horse industry workers horticulture industry workers, animal care workers.

**Skills for All:** Upon completion of relevant VET courses, students can apply for further training in the following qualifications:

- Certificate III in Conservation and Land Management
- Certificate III in Agriculture
- Certificate III in Horticulture

# **\*\*Useful Links\*\***

## **Flinders University**

[www.flinders.edu.au](http://www.flinders.edu.au)

## **University of South Australia**

[www.unisa.edu.au](http://www.unisa.edu.au)

## **Adelaide University**

[www.adelaide.edu.au](http://www.adelaide.edu.au)

## **Charles Darwin University**

[www.cdu.edu.au](http://www.cdu.edu.au)

## **TAFE SA**

[www.tafesa.edu.au](http://www.tafesa.edu.au)

## **SACE**

[www.sace.sa.edu.au](http://www.sace.sa.edu.au)

## **SATAC**

[www.satac.edu.au](http://www.satac.edu.au)



# NOTES

