Cross-disciplinary Studies

2019 Subject Outline | Stage 1 and Stage 2
# CONTENTS

Introduction .......................................................................................................................... 1  
Subject Description ............................................................................................................. 1  
Local Programs .................................................................................................................. 1  
Capabilities ....................................................................................................................... 2  
Literacy in Cross-Disciplinary Studies ............................................................................. 4  
Numeracy in Cross-Disciplinary Studies ......................................................................... 4  
Aboriginal and Torres Strait Islander Knowledge, Cultures, and Perspectives ............... 5  

## Stage 1 Cross-disciplinary Studies

Learning Scope and Requirements ..................................................................................... 8  
  Learning Requirements ................................................................................................... 8  
  Content ............................................................................................................................ 8  
Assessment Scope and Requirements ............................................................................. 13  
  Evidence of Learning ..................................................................................................... 13  
  Assessment Design Criteria ............................................................................................ 13  
  School Assessment ......................................................................................................... 14  
  Performance Standards .................................................................................................. 16  
  Assessment Integrity ..................................................................................................... 19  
Support Materials .............................................................................................................. 20  
  Subject-specific Advice .................................................................................................. 20  
  Advice on Ethical Study and Research ......................................................................... 20  

## Stage 2 Cross-disciplinary Studies

Learning Scope and Requirements ..................................................................................... 22  
  Learning Requirements ................................................................................................... 22  
  Content ............................................................................................................................ 22  
Assessment Scope and Requirements ............................................................................. 27  
  Evidence of Learning ..................................................................................................... 27  
  Assessment Design Criteria ............................................................................................ 28  
  School Assessment ......................................................................................................... 29  
  External Assessment ....................................................................................................... 31  
  Performance Standards .................................................................................................. 32  
  Assessment Integrity ..................................................................................................... 35  
Support Materials .............................................................................................................. 36  
  Subject-specific Advice .................................................................................................. 36  
  Advice on Ethical Study and Research ......................................................................... 36
INTRODUCTION

SUBJECT DESCRIPTION

Cross-disciplinary Studies is a 10-credit subject or a 20-credit subject at Stage 1, and a 10-credit subject or a 20-credit subject at Stage 2.

In Cross-disciplinary Studies, students undertake a focused study that is developed by drawing on more than one discipline. For the purposes of this subject, a ‘discipline’ is considered to be any of the following:

- a subject accredited by the SACE Board of South Australia
- a Board-recognised course (e.g. vocational or community learning, or a higher education course)
- a field of inquiry (e.g. global studies or sports psychology).

Cross-disciplinary Studies enables schools to provide learning programs that cannot be studied within one discipline and that are not possible within another Board-accredited subject or Board-recognised course.

Teachers use two or more disciplines to develop a Cross-disciplinary Studies program that facilitates student learning around a chosen learning interest.

The learning interest is a practical or theoretical challenge, topic, or issue that extends throughout the program. The learning interest is usually chosen by the teacher, or a team of teachers, in consultation with students at the start of the Cross-disciplinary Studies program.

The exploration of present-day complexities, whether at a local or global scale, such as climate change, water quality, poverty, homelessness, or skills shortages, may not fit neatly within one discipline. In Cross-disciplinary Studies, students have opportunities to explore aspects of such complexities as a practical or theoretical challenge, by making connections across disciplines and developing insights or creative and innovative solutions.

LOCAL PROGRAMS

Each learning area has a subject outline that is designed to give schools additional flexibility in developing Stage 1 and Stage 2 teaching and learning programs that focus on specific local needs and interests.

The subject outline for Cross-disciplinary Studies provides this flexibility for the Cross-disciplinary Learning Area.

All teaching and learning programs based on the subject outline for Cross-disciplinary Studies must use the capabilities, learning requirements, assessment design criteria, and performance standards specified in this subject outline.
However, schools have the flexibility to:

*either*

- follow the content and assessment recommended in this subject outline
- or
- vary the content and/or school assessment, using this subject outline as a guide.

Stage 2 teaching and learning programs that vary the school assessment must retain the same number of assessment types and the associated weighting of each assessment type specified in this subject outline.

Teaching and learning programs that vary the content and/or school assessment are referred to as ‘local programs’ and are submitted for approval according to SACE Board processes.

**CAPABILITIES**

The capabilities connect student learning within and across subjects in a range of contexts. They include essential knowledge and skills that enable people to act in effective and successful ways.

The five capabilities that have been identified are:

- communication
- citizenship
- personal development
- work
- learning.

Teachers, together with students, focus on capabilities that are relevant to the learning interest of each program.

**Communication**

In this subject, students develop their capability for communication by, for example:

- acquiring a range of skills in literacy, numeracy, and information and communication technologies, as appropriate to the learning interest
- understanding and using the terminology and specific knowledge of the relevant disciplines
- communicating within and across cultures locally and globally, using a range of information and communication technologies
- acquiring skills in reading for understanding and synthesising information from different sources
- formulating questions for different purposes and audiences
- creating texts suited to the purpose and audience by identifying and using appropriate forms, language, and structure
- understanding and responding to cultural ideas and being informed by different cultural and disciplinary perspectives, as appropriate to the learning interest.
Citizenship
In this subject, students develop their capability for citizenship by, for example:
• applying knowledge and understanding of the learning interest in relevant contexts
• comparing the various dimensions of learning, such as social, cultural, environmental, political, economic, ethical, spiritual, and legal, as relevant to the learning interest
• interacting with a range of people with different discipline perspectives and levels of expertise, from within and beyond their school community
• connecting with the community by sharing learning, receiving feedback, and contributing to community life
• appreciating a variety of knowledge bases
• gaining an understanding of diverse cultural — including Indigenous — perspectives.

Personal Development
In this subject, students develop their capability for personal development by, for example:
• striving for personal achievement and a sense of direction, through analysing and responding to feedback on their learning
• constructing ways of viewing challenges and shifts in thinking
• achieving stated goals and a sense of fulfilment
• demonstrating creativity, originality, and innovation in their learning.

Work
In this subject, students develop their capability for work by, for example:
• acquiring problem-solving skills and participating actively in learning
• appreciating the innovative, creative, and productive aspects of work
• working independently and with others
• gaining an understanding of their place in communities and society
• participating creatively and productively in work
• exploring the value to themselves and to the community of a range of work options, such as entrepreneurial opportunities and unpaid work skills, as appropriate to the learning interest
• applying knowledge, skills, and understanding to problem-solving, and generating ideas and solutions
• gaining insights into future work, education, and life opportunities related to the learning interest.

Learning
In this subject, students develop their capability for learning by, for example:
• gaining insights into the role of disciplines and the bases of knowledge
• understanding how knowledge is organised and how it progresses and changes over time
• exploring and applying aspects of disciplinary knowledge and skills
• understanding how the learning interest is informed by the application and critical analysis of cross-disciplinary knowledge and skills
• generating and applying new ideas and insights, and presenting possible innovative and creative solutions
• analysing and reflecting on their own learning.

LITERACY IN CROSS-DISCIPLINARY STUDIES
The literacy demands of a cross-disciplinary program are likely to vary with the learning interest and the relevant disciplines.

Students have opportunities to develop and refine the following literacy skills:
• formulating questions for different audiences and purposes
• developing an understanding of, and using, the specific knowledge and terminology of the relevant disciplines
• developing skills in meeting the literacy demands of the relevant disciplines
• communicating effectively with a range of people with differing expertise, in different settings, to develop and share their understanding
• demonstrating literacy skills through written, oral, and/or visual forms, as relevant to the context and appropriate to the audience
• applying information literacy skills to identify, select, and critically analyse information from different sources
• articulating their understanding of the learning interest and the contributions of the disciplines
• communicating an understanding of their own learning
• developing and using language skills that are appropriate to the learning interest, the relevant disciplines, and the learning context.

NUMERACY IN CROSS-DISCIPLINARY STUDIES
The numeracy demands of a cross-disciplinary program are likely to vary with the learning interest and the relevant disciplines.

Students have opportunities to develop and refine the following numeracy skills:
• developing an understanding of, and skills in meeting, the numeracy demands of each of the relevant disciplines, as appropriate to the learning interest
• developing an awareness of the appropriate use of mathematics and critically questioning the meaning, purpose, and validity of numerical information
• accessing, analysing, and critiquing data as appropriate to the learning interest
• demonstrating numeracy skills by collating data in tables, graphs, and diagrams
• understanding and applying mathematical concepts such as ratios, quotas, percentages, averages, volumes, and algebraic or geometric reasoning where appropriate.
ABORIGINAL AND TORRES STRAIT ISLANDER KNOWLEDGE, CULTURES, AND PERSPECTIVES

In partnership with Aboriginal and Torres Strait Islander communities, and schools and school sectors, the SACE Board of South Australia supports the development of high-quality learning and assessment design that respects the diverse knowledge, cultures, and perspectives of Indigenous Australians.

The SACE Board encourages teachers to include Aboriginal and Torres Strait Islander knowledge and perspectives in the design, delivery, and assessment of teaching and learning programs by:

- providing opportunities in SACE subjects for students to learn about Aboriginal and Torres Strait Islander histories, cultures, and contemporary experiences
- recognising and respecting the significant contribution of Aboriginal and Torres Strait Islander peoples to Australian society
- drawing students’ attention to the value of Aboriginal and Torres Strait Islander knowledge and perspectives from the past and the present
- promoting the use of culturally appropriate protocols when engaging with and learning from Aboriginal and Torres Strait Islander peoples and communities.
Stage 1 Cross-disciplinary Studies
LEARNING SCOPE AND REQUIREMENTS

LEARNING REQUIREMENTS

The learning requirements summarise the knowledge, skills, and understanding that students are expected to develop and demonstrate through their learning in Stage 1 Cross-disciplinary Studies.

In this subject, students are expected to:
1. understand aspects of the disciplines related to the learning interest
2. apply perspectives from two or more disciplines to develop the learning interest and relevant capabilities
3. analyse and synthesise ideas and information from different sources and perspectives
4. reflect on the ways in which the relevant disciplines inform the learning interest
5. work independently and with others to develop and communicate understanding, insights, and ideas
6. analyse their own learning and apply relevant feedback.

CONTENT

Cross-disciplinary Studies is a 10-credit subject or a 20-credit subject at Stage 1. Schools may either follow or vary the content recommended in this subject outline.

The content of Stage 1 Cross-disciplinary Studies is built around:
- the learning interest
- an understanding of the relevant disciplines and capabilities.

The learning interest is a practical or theoretical challenge, topic, or issue that extends throughout the program. The learning interest can be expressed as a:
- set of ideas or questions
- theory or hypothesis to be explored or tested
- practical task or scheme to be investigated
- problem (with contributing factors) to be explored.

In developing the learning interest, the following three steps provide a structure for teaching and learning programs:
- defining the learning interest
- applying knowledge and skills to develop the learning interest
- analysing and reflecting on learning.

All three steps are likely to be covered in both a 10-credit subject and a 20-credit subject.
The details of the steps are outlined in the tables on the following pages. Each step has focus approaches and focus questions. Possible ways to explore the focus questions are included in the tables in italicised text. Teachers and students adjust the approaches to best support the development of students’ knowledge, skills, and understanding.
## Step 1: Defining the Learning Interest

<table>
<thead>
<tr>
<th>Focus Approaches</th>
<th>Focus Questions</th>
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<tbody>
<tr>
<td>Expression of the learning interest</td>
<td>How can the learning interest be expressed? <em>For example, find out what would be involved in developing a plan to help resolve current problems of water quality and quantity in the River Murray.</em> Which disciplines might best give students the knowledge and skills to develop and explore the learning interest? <em>For example, Stage 1 Geography, Economics, and Aboriginal Studies.</em></td>
</tr>
<tr>
<td>Understanding of and engagement in a range of processes such as information searches and background reading, online networks, seeking community views, media scans and/or site visits, and interactions with experts</td>
<td>What kinds of processes will students use to investigate the learning interest? How will different kinds of knowledge and experiences help students understand aspects of the learning interest? <em>For example, investigate the industries that are making money from irrigation from the River Murray (Economics). Explore the catchment area of the River Murray and explain how it has changed in recent years (Geography).</em> What do students need to know to explore the learning interest? <em>For example, find out how to prioritise some aspects of this issue. Critique some views and determine which are the most important.</em></td>
</tr>
<tr>
<td>Redefinition of an understanding of the learning interest</td>
<td>What are the goals in developing and exploring this learning interest? <em>For example, develop a plan for saving the southern section of the River Murray and submit it to federal parliament through a local member of parliament.</em></td>
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<tr>
<td>Exploration of what needs to be known and how to find out what needs to be known</td>
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<tr>
<td>Development of a learning goal</td>
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Step 2: Applying Knowledge and Skills to Develop the Learning Interest

<table>
<thead>
<tr>
<th>Focus Approaches</th>
<th>Focus Questions</th>
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</thead>
<tbody>
<tr>
<td>Application of knowledge and skills</td>
<td>What are some insights to emerge? What sources provide the most useful information? Why?</td>
</tr>
<tr>
<td></td>
<td>What knowledge and skills are most and least relevant in the development of the learning interest?</td>
</tr>
<tr>
<td>Exploration of the chosen disciplines and their relevance to the learning interest</td>
<td>What are the disciplines chosen to help students develop the learning interest? Why were they chosen? For example, consider and identify what Stage 1 Geography, Economics, and Aboriginal Studies can contribute to a deeper understanding of the River Murray crisis.</td>
</tr>
<tr>
<td></td>
<td>What are the key aspects of the relevant disciplines? For example, summarise the different perspectives that students can explore in each subject or discipline.</td>
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<tr>
<td></td>
<td>How have similar issues or challenges been addressed in the past? How are they being addressed in contemporary society? For example, explore similar issues that Stage 1 Aboriginal Studies, Geography, and Society and Culture have addressed or are addressing.</td>
</tr>
<tr>
<td>Identification of the nature of the capabilities and their relationship with relevant disciplines</td>
<td>How do the capabilities help students develop relevant knowledge and skills? For example, examine how each of the disciplines requires common capabilities. Consider how the following are necessary to run a planned education night successfully: leadership skills, good communication, a knowledge of the industries along the River Murray, a critical analysis of the problems involved in saving the River Murray, and a summary of what has been learnt.</td>
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### Step 3: Analysing and Reflecting on Learning

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<tr>
<th>Focus Approaches</th>
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| Identification of and reflection on understanding, insights, and ideas about the learning interest developed | What are some of the findings to emerge?  
How have students' initial understanding and insights about the learning interest changed? |
| Analysis of, and reflection and action on, feedback                             | What are some of the gaps, problems, exclusions, or contradictions to emerge from reflection and feedback? |
| Understanding of how this can be used to improve learning                       | In what ways have students shifted or changed their understanding of the learning interest?  
For example, feedback showed that our interviews with orchard growers were very focused on economic issues. |
| Analysis of students' own learning and reflection on the contribution of the disciplines to the development of the learning interest | What capabilities have been identified for further development?  
For example, clear and informed communication is essential at all times.  
What does working in more than one discipline bring to the learning interest? For example, consider how economic, environmental, and personal interests and needs may clash. |
| Reflection on what kind of extension activity will best demonstrate the exploration of the learning interest | How can the challenges, problems, and suggested solutions be best represented?  
For example, run a youth forum or an education night on the River Murray at school and try to get an action group going.  
What further questions arose out of the exploration of the learning interest? |
ASSESSMENT SCOPE AND REQUIREMENTS

Assessment at Stage 1 is school based.
Schools may either follow or vary the assessment types recommended in this subject outline.

EVIDENCE OF LEARNING

The following assessment types enable students to demonstrate their learning in Stage 1 Cross-disciplinary Studies:

- Assessment Type 1: Group Project
- Assessment Type 2: Skills and Applications Tasks
- Assessment Type 3: Analysis.

For a 10-credit subject, it is recommended that students provide evidence of their learning through three or four assessments, with at least one assessment from each assessment type. Each assessment type should have a weighting of at least 20%.

For a 20-credit subject, it is recommended that students provide evidence of their learning through six to eight assessments, with at least two assessments from each assessment type. Each assessment type should have a weighting of at least 20%.

ASSESSMENT DESIGN CRITERIA

The assessment design criteria are based on the learning requirements and are used by teachers to:

- clarify for the student what he or she needs to learn
- design opportunities for the student to provide evidence of his or her learning at the highest possible level of achievement.

The assessment design criteria consist of specific features that:

- students should demonstrate in their learning
- teachers look for as evidence that students have met the learning requirements.

For this subject the assessment design criteria are:

- knowledge and understanding
- application
- analysis and reflection
- interaction and communication.

The specific features of these criteria are described below.

The set of assessments, as a whole, must give students opportunities to demonstrate each of the specific features by the completion of study of the subject.
Knowledge and Understanding
The specific features are as follows:
KU1 Understanding of aspects of disciplinary knowledge applied to the learning interest.
KU2 Knowledge and understanding of the learning interest and the relevant capabilities.

Application
The specific features are as follows:
A1 Application of perspectives from two or more disciplines in developing the learning interest.
A2 Development of ideas and insights.
A3 Application of the relevant capabilities.

Analysis and Reflection
The specific features are as follows:
AR1 Reflection on the ways in which aspects of the disciplines inform the learning interest.
AR2 Analysis and synthesis of ideas and information from different sources.
AR3 Analysis of the student’s own learning.
AR4 Response to feedback.

Interaction and Communication
The specific features are as follows:
IC1 Interactive and collaborative skills in different situations.
IC2 Communication of understanding, insights, and ideas about the learning interest.

SCHOOL ASSESSMENT

Assessment Type 1: Group Project
Students undertake at least one group project for a 10-credit subject and at least two group projects for a 20-credit subject.
A group project may focus on one or more aspects of the relevant disciplines. Students work with others to explore ways in which the disciplines are applied to a particular learning interest. The application of the disciplines may involve a short activity or an extended activity.
All students must have the opportunity to participate in the group project and to receive feedback on their interactive and collaborative skills.
Students provide evidence of their learning in the group project by:
• contributing to a group outcome
• developing an individual report.
**Group Outcome**

The group outcome provides evidence of the group’s application of the disciplines in practice. The group outcome can be in written, oral, or multimodal form, and may be supported by visual materials.

Teachers make an assessment of the collective outcome of the group.

**Individual Report**

The individual report provides an opportunity for each student to provide evidence of his or her involvement in the group project and to reflect on his or her interaction and collaboration. The individual report could include evidence of:

- analysis of the student’s own learning and the capabilities developed
- response to feedback
- the interactive and collaborative skills demonstrated.

The individual report may be in written, oral, or multimodal form, and may be supported by visual materials. The individual report should be a maximum of 750 words if written or a maximum of 5 minutes for an oral presentation, or the equivalent in multimodal form. Individual students must provide evidence of analysis and reflection and of interaction and communication.

For this assessment type, students provide evidence of their learning in relation to the following assessment design criteria:

- knowledge and understanding
- application
- analysis and reflection
- interaction and communication.

**Assessment Type 2: Skills and Applications Tasks**

Students undertake at least one skills and applications task for a 10-credit subject and at least two skills and applications tasks for a 20-credit subject.

Students develop an aspect of the learning interest. The aspect chosen may be teacher-directed, negotiated by individual students, or undertaken by the whole class with each student focusing on a different perspective and contributing to the activity.

When choosing an appropriate skills and applications task, teachers and/or students should have a specific purpose in mind (e.g. a social, practical, or community purpose). A skills and applications task is an opportunity for students to integrate and apply their cross-disciplinary knowledge and skills.

The task may be presented in written, oral, or multimodal form, and may be supported by visual materials. Examples could include a product, proposed solution(s) or future scenario(s), a display, a publication, an action or event, or an awareness-raising or service activity.

A skills and applications task should be presented in a form that is a maximum of 1000 words if written or a maximum of 6 minutes for an individual oral presentation, or the equivalent in multimodal form.
For this assessment type, students provide evidence of their learning primarily in relation to the following assessment design criteria:

- knowledge and understanding
- application
- interaction and communication.

**Assessment Type 3: Analysis**

For a 10-credit subject, students undertake one or more analysis assessments in written form to a maximum, in total, of 1000 words. For a 20-credit subject, students undertake two or more analysis assessments in written form to a maximum, in total, of 2000 words.

The analysis assessment(s) should enable students to reflect on the ways in which aspects of the disciplines inform the learning interest, and to analyse and synthesise ideas and information from different sources.

Analysis assessments may take a variety of forms, such as:

- an argument
- an article
- a data analysis and explanation
- a problem-solving activity
- a report
- short-answer responses
- a test
- a web-based presentation.

For this assessment type, students provide evidence of their learning primarily in relation to the following assessment design criteria:

- knowledge and understanding
- analysis and reflection
- interaction and communication.

**PERFORMANCE STANDARDS**

The performance standards describe five levels of achievement, A to E.

Each level of achievement describes the knowledge, skills, and understanding that teachers refer to in deciding how well a student has demonstrated his or her learning on the basis of the evidence provided.

During the teaching and learning program the teacher gives students feedback on their learning, with reference to the performance standards.

At the student’s completion of study of a subject, the teacher makes a decision about the quality of the student’s learning by:

- referring to the performance standards
- taking into account the weighting of each assessment type
- assigning a subject grade between A and E.

Teachers can use a SACE Board school assessment grade calculator to help them to assign the subject grade. The calculator is available on the SACE website (www.sace.sa.edu.au).
Performance Standards for Stage 1 Cross-disciplinary Studies

<table>
<thead>
<tr>
<th>Knowledge and Understanding</th>
<th>Application</th>
<th>Analysis and Reflection</th>
<th>Interaction and Communication</th>
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</thead>
</table>
| **A**                       | Insighful understanding of aspects of disciplinary knowledge applied to the learning interest.  
                             | Insightful knowledge and understanding of the learning interest and the relevant capabilities. | Critical reflection on the ways in which aspects of the disciplines inform the learning interest.  
                             | Logical and clear application of perspectives from two or more disciplines in developing the learning interest.  
                             | Comprehensive application of the relevant capabilities. | In-depth analysis and synthesis of ideas and information from a variety of sources.  
                             | Constructive development of in-depth ideas and insights closely related to the learning interest. | Thorough and in-depth analysis of the student’s own learning.  
                             | Well-considered and substantive response to feedback. | Convincing and sustained demonstration of positive interactive and collaborative skills in a range of situations.  
                             |                                                                                          | Clear and coherent communication of understanding, insights, and ideas about the learning interest. |
| **B**                       | Well-informed understanding of aspects of disciplinary knowledge applied to the learning interest.  
                             | Well-considered knowledge and understanding of the learning interest and the relevant capabilities. | Focused reflection on the ways in which aspects of the disciplines inform the learning interest.  
                             | Well-considered application of perspectives from two or more disciplines in developing the learning interest.  
                             | Reflective and systematic synthesis of ideas and information from different sources. | Well-informed analysis and synthesis of ideas and information from different sources.  
                             | Thoughtful development of ideas and insights closely related to the learning interest.  
                             | Thorough and in-depth analysis of the student’s own learning. | Some depth of analysis of the student’s own learning.  
                             | Well-considered application of the relevant capabilities. | Well-considered response to feedback. | Effective interactive and collaborative skills in a range of situations.  
                             |                                                                                          | Clear communication of understanding, insights, and ideas about the learning interest. |
| **C**                       | Informed understanding of aspects of disciplinary knowledge applied to the learning interest.  
                             | Considered knowledge and understanding of the learning interest and the relevant capabilities. | Some focused reflection on the ways in which aspects of the disciplines inform the learning interest.  
                             | Considered application of perspectives from two or more disciplines in developing the learning interest.  
                             | Considered focused analysis of the student’s own learning. | Considered analysis of the student’s own learning.  
                             | Competent development of ideas and insights, with some connection to the learning interest.  
                             | Considered analysis of the student’s own learning. | Considered response to feedback. | Competent interactive and collaborative skills in different situations.  
<pre><code>                         | Considered application of the relevant capabilities. | Considered communication of understanding, insights, and ideas about the learning interest. |
</code></pre>
<table>
<thead>
<tr>
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<th>Application</th>
<th>Analysis and Reflection</th>
<th>Interaction and Communication</th>
</tr>
</thead>
</table>
| **D**                       | Some recognition of aspects of disciplinary knowledge, with some relevance to the learning interest.  
Some knowledge and understanding of the learning interest and some aspects of the capabilities.  
Inconsistent application of basic perspectives from one or more disciplines in developing aspects of the learning interest.  
Some development of basic ideas and insights.  
Some application of aspects of capabilities with prompts. | Basic consideration of one or more ways in which aspects of the disciplines inform the learning interest.  
Partly connected summary of ideas and information.  
Description of the student's own learning.  
Superficial response to feedback. | Some basic interactive and collaborative skills that may not be sustained.  
Partly connected communication of understanding, insights, or ideas about the learning interest. |
| **E**                       | Limited recognition of any aspects of disciplinary knowledge.  
Emerging awareness of the learning interest or aspects of the capabilities.  
Attempted application of a basic perspective from one of the disciplines to begin developing an aspect of the learning interest.  
Attempted development of an idea or insight.  
Limited application of any aspects of capabilities. | Limited attempt at considering any ways in which aspects of the disciplines may inform the learning interest.  
Description of some information that may be relevant.  
Attempted description of aspects of the student's own learning.  
Attempted response to feedback. | Limited interactive and collaborative skills.  
Attempted communication of one or more ideas about the learning interest. |
ASSESSMENT INTEGRITY

The SACE Assuring Assessment Integrity Policy outlines the principles and processes that teachers and assessors follow to assure the integrity of student assessments. This policy is available on the SACE website (www.sace.sa.edu.au) as part of the SACE Policy Framework.

The SACE Board uses a range of quality assurance processes so that the grades awarded for student achievement in the school assessment are applied consistently and fairly against the performance standards for a subject, and are comparable across all schools.

Information and guidelines on quality assurance in assessment at Stage 1 are available on the SACE website (www.sace.sa.edu.au).
SUPPORT MATERIALS

SUBJECT-SPECIFIC ADVICE
Online support materials are provided for each subject and updated regularly on the SACE website (www.sace.sa.edu.au). Examples of support materials are sample learning and assessment plans, annotated assessment tasks, annotated student responses, and recommended resource materials.

ADVICE ON ETHICAL STUDY AND RESEARCH
Advice for students and teachers on ethical study and research practices is available in the guidelines on the ethical conduct of research in the SACE on the SACE website (www.sace.sa.edu.au).
Stage 2 Cross-disciplinary Studies
LEARNING SCOPE AND REQUIREMENTS

LEARNING REQUIREMENTS
The learning requirements summarise the knowledge, skills, and understanding that students are expected to develop and demonstrate through their learning in Stage 2 Cross-disciplinary Studies.

In this subject, students are expected to:
1. understand key elements of the disciplines related to the learning interest
2. understand, apply, and explore connections between aspects of two or more disciplines to develop the learning interest and relevant capabilities
3. analyse and evaluate ideas and information from different sources and perspectives
4. identify and evaluate the ways in which the disciplines inform the learning interest
5. work independently and with others
6. create and communicate reasoned conclusions, develop new ideas and insights, and solve problems
7. analyse and reflect on their learning and evaluate feedback.

CONTENT
Cross-disciplinary Studies is a 10-credit subject or a 20-credit subject at Stage 2.
Schools may either follow or vary the content recommended in this subject outline.
The content of Stage 2 Cross-disciplinary Studies is built around:
- the learning interest
- an understanding of the relevant disciplines and capabilities.
The learning interest is a practical or theoretical challenge, topic, or issue that extends throughout the program. The learning interest can be expressed as:
- a challenging set of ideas or questions
- a theory or hypothesis to be explored or tested
- an initiating plan, a practical task, or a scheme to be investigated
- a complex problem (with contributing factors) to be explored.
In developing the learning interest, the following three steps provide a structure for teaching and learning programs:
- defining the learning interest
- applying knowledge and skills to develop the learning interest
- analysing and reflecting on learning.
All three steps are likely to be covered in both a 10-credit subject and a 20-credit subject.
The details of the steps are outlined in the tables on the following pages. Each step has focus approaches and focus questions. Teachers and students adjust the approaches to best support the development of students’ knowledge, skills, and understanding.
Step 1: Defining the Learning Interest

**Focus Approaches**

Expression of the learning interest

Critical understanding of, and engagement in, a range of processes, such as information searches and background reading, online networks, seeking community views, media scans and/or site visits, and interactions with experts

Redefinition of an understanding of the learning interest

Exploration of what still needs to be known and how to find out what still needs to be known

Development of a learning goal

**Focus Questions**

How can the learning interest be expressed?

Which disciplines might best give students the knowledge and skills to develop and explore the learning interest?

What kinds of processes will students use to investigate the learning interest?

How might the disciplines help with understanding aspects of the learning interest?

What do students need to know to explore the learning interest?

How will each discipline or subject help students understand aspects of the learning interest?

What are the goals in developing and exploring this learning interest?
### Step 2: Applying Knowledge and Skills to Develop the Learning Interest

<table>
<thead>
<tr>
<th>Focus Approaches</th>
<th>Focus Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application of knowledge and skills</td>
<td>What are some of the insights into the learning interest to emerge?</td>
</tr>
<tr>
<td></td>
<td>Who are the experts in the area of the learning interest?</td>
</tr>
<tr>
<td></td>
<td>In what ways do different ideas and information help students to develop the learning interest? What sources of information and perspectives are most useful in developing an understanding of the learning interest?</td>
</tr>
<tr>
<td></td>
<td>What approaches work best to develop and communicate understanding of the learning interest?</td>
</tr>
<tr>
<td>Understanding knowledge production</td>
<td>Is there a difference between knowledge and information? How is new knowledge produced?</td>
</tr>
<tr>
<td></td>
<td>How do people become expert in each of the relevant disciplines?</td>
</tr>
<tr>
<td></td>
<td>What are some examples of what such experts might do? How do they contribute to solving real-world problems?</td>
</tr>
<tr>
<td>Exploration of how disciplines provide a way of organising, producing, and using knowledge</td>
<td>What are the essential knowledge, concepts, methods, and approaches of each of the relevant disciplines?</td>
</tr>
<tr>
<td>Identification of the nature of the capabilities and their relationship with relevant disciplines</td>
<td>To what extent are the capabilities different from discipline knowledge and skills?</td>
</tr>
</tbody>
</table>
## Step 3: Analysing and Reflecting on Learning

<table>
<thead>
<tr>
<th>Focus Approaches</th>
<th>Focus Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluation of the extent to which understanding, insights, and ideas about the learning interest have been developed</td>
<td>To what extent have the capabilities helped students develop their understanding and insights about the learning interest?</td>
</tr>
<tr>
<td>Explanation of the most useful new ideas or insights</td>
<td>In what ways have students deepened and/or changed their understanding of the learning interest?</td>
</tr>
<tr>
<td>Exploration of further questions and emerging problems</td>
<td>What challenges and problems remain to be addressed?</td>
</tr>
<tr>
<td>Evaluation of how the feedback received has contributed to learning</td>
<td>What questions still need to be asked?</td>
</tr>
<tr>
<td>Reflection on and evaluation of how the perspectives of different disciplines inform the learning interest</td>
<td>How has working with others, compared with working independently, helped students to develop their understanding of the learning interest?</td>
</tr>
<tr>
<td>Reflection on the main ways of working across disciplines adopted in the study</td>
<td>In what ways are disciplinary views complementary, contradictory, comparable, connected, or integrated?</td>
</tr>
<tr>
<td>Reflection on the role of the capabilities</td>
<td>What are some of the gaps, further questions, problems, exclusions, or contradictions to emerge?</td>
</tr>
<tr>
<td></td>
<td>In what ways did the related disciplines help students in solving problems?</td>
</tr>
<tr>
<td></td>
<td>To what extent did the cross-disciplinary work go according to plan?</td>
</tr>
<tr>
<td></td>
<td>How do students develop and demonstrate capabilities for learning?</td>
</tr>
<tr>
<td></td>
<td>Which of the other capabilities are most relevant to the learning interest and how do students develop and demonstrate them?</td>
</tr>
</tbody>
</table>
ASSESSMENT SCOPE AND REQUIREMENTS

All Stage 2 subjects have a school assessment component and an external assessment component.

Schools may either follow the assessment types recommended in this subject outline for the school assessment component, or vary the names and details of one or more of the assessment types.

Stage 2 local programs that vary the school assessment must retain the same number of assessment types and the associated weighting of each assessment type specified in this subject outline.

Schools are required to use the external assessment component specified in this subject outline.

EVIDENCE OF LEARNING

The following assessment types enable students to demonstrate their learning in Stage 2 Cross-disciplinary Studies:

School Assessment (70%)
- Assessment Type 1: Commentary (30%)
- Assessment Type 2: Group Project (20%)
- Assessment Type 3: Presentation and Discussion (20%)

External Assessment (30%)
- Assessment Type 4: Analysis (30%).

The number and associated weightings of the assessment types for the school assessment component are prescribed.

The names and details of the assessment types for the school assessment component are recommended, and may be varied.

The assessment type and weighting for the external assessment component are prescribed.

For a 10-credit subject it is recommended that students provide evidence of their learning through four assessments, including the external assessment component. There should be one assessment from each assessment type.

For a 20-credit subject it is recommended that students provide evidence of their learning through six to eight assessments, including the external assessment component.
Students undertake:
• at least one commentary
• at least one group project
• at least one presentation and discussion
• two analysis assessments.

**ASSESSMENT DESIGN CRITERIA**

The assessment design criteria are based on the learning requirements and are used by:
• teachers to clarify for the student what he or she needs to learn
• teachers and assessors to design opportunities for the student to provide evidence of his or her learning at the highest possible level of achievement.

The assessment design criteria consist of specific features that:
• students should demonstrate in their learning
• teachers and assessors look for as evidence that students have met the learning requirements.

For this subject the assessment design criteria are:
• knowledge and understanding
• application
• analysis and evaluation
• interaction and communication.

The specific features of these criteria are described below.

The set of assessments, as a whole, must give students opportunities to demonstrate each of the specific features by the completion of study of the subject.

**Knowledge and Understanding**

The specific features are as follows:
KU1 Exploration of key elements of the relevant disciplines and their connections to the learning interest.
KU2 Understanding of the learning interest, linked to discipline knowledge and skills.
KU3 Knowledge and understanding of the relevant capabilities.

**Application**

The specific features are as follows:
A1 Integration and application of aspects of the relevant disciplines in different situations.
A2 Application of knowledge and understanding to solve problems with creativity and initiative.
A3 Development of ideas, insights, and further questions.
Analysis and Evaluation

The specific features are as follows:

AE1  Analysis and evaluation of ideas and information from different sources and perspectives to deepen understanding of the learning interest.

AE2  Evaluation of the contributions of the disciplines.

AE3  Analysis of and reflection on the student's own learning.

AE4  Evaluation of feedback from others.

Interaction and Communication

The specific features are as follows:

IC1  Interactive and collaborative skills in different situations.

IC2  Communication of understanding, reasoned conclusions, and new ideas and insights about the learning interest.

SCHOOL ASSESSMENT

Assessment Type 1: Commentary (30%)

Students undertake one commentary for a 10-credit subject and at least one commentary for a 20-credit subject.

They prepare a commentary for assessment to illustrate and evaluate the ways in which the selected disciplines or aspects of a discipline, contribute to the solution of one or more contemporary problems or issues. Although students are likely to gather a broad range of evidence of learning, a final synthesised commentary should be presented for assessment.

A commentary should be a maximum of 1000 words if written or a maximum of 6 minutes for an oral presentation, or the equivalent in multimodal form. Where more than one commentary is undertaken for a 20-credit subject, students may focus on different aspects of a problem or issue, or different problems or issues.

Activities to form the basis of a commentary could include:

• responding to guest speakers
• participating in online forums
• interviewing people working or studying in the relevant discipline or a discipline-related industry
• visiting sites or undertaking field trips, workplace observations, or other workplace involvement
• recording observations, collecting data, and compiling and conducting surveys
• responding to issues related to the learning interest
• compiling and analysing information such as media items and articles.

For this assessment type, students provide evidence of their learning primarily in relation to the following assessment design criteria:

• knowledge and understanding
• analysis and evaluation.
Assessment Type 2: Group Project (20%)

Students undertake one group project for a 10-credit subject and at least one group project for a 20-credit subject.

Students plan, organise, and implement a group project that focuses on a learning requirement or an aspect of the content. Examples of possible approaches include:

- developing questions to clearly express the learning interest
- undertaking a practical task associated with a relevant discipline or disciplines or the learning interest
- undertaking and sharing background research (e.g. data collection, or laboratory or field work)
- giving a group presentation on a particular aspect of the program. The focus could be an aspect of a relevant discipline or disciplines; a cross-disciplinary analysis; an aspect or application of the learning interest (e.g. an outcome of the learning in the form of a product, action, or event); or an innovative solution to a problem.

The group project is an opportunity for a collective outcome, an individual student outcome, or a combination of collective and individual evidence of learning.

The conditions under which a group project is undertaken by students and how they are to be assessed by the teacher should be clearly established before the students undertake the assessment. Students must be given opportunities to collaborate in sharing responsibilities and decision-making, and in responding to the project. Students are provided with opportunities to reflect on their contributions and on the collaborative outcome, and to receive feedback from others.

For this assessment type, students provide evidence of their learning primarily in relation to the following assessment design criteria:

- application
- analysis and evaluation
- interaction and communication.

Assessment Type 3: Presentation and Discussion (20%)

Students undertake one presentation and discussion for a 10-credit subject and at least one presentation and discussion for a 20-credit subject.

In negotiation with the teacher, students select an aspect of their learning from across the program for a presentation followed by a discussion. This is an opportunity for students to integrate and apply their cross-disciplinary knowledge and skills in the context of the learning interest and to provide evidence of their learning that encompasses the generation of an idea followed through to its conclusion.

The presentation and discussion combined should be a maximum of 15 minutes; of this, the presentation should be a maximum of 7 minutes.

Evidence of the presentation and discussion must be recorded for quality assurance purposes.

Presentation

Students present a synopsis of their learning in Stage 2 Cross-disciplinary Studies and the personal conclusions they have drawn. The presentation may draw on particular moments, highlights, or insights of particular significance to the student. It could include
the presentation of a product, a creative outcome, a performance, an action, an event, an activity, solutions to problems, or possible future scenarios.

The presentation is an opportunity for the student to provide evidence relevant to the performance standards, such as:

• knowledge and understanding of the contributions and/or connections of specific disciplines to the learning interest
• understanding of the complexities of the learning interest
• creativity, initiative, and problem-solving
• new ideas, insights, solutions, and further questions.

Students may include selected items such as photographs, artefacts, a short written statement, a performance, an exhibition, a data display, a short multimedia presentation, a graphic display, or a combination of these to demonstrate their learning and support the presentation.

Discussion

The discussion involves the teacher asking questions to allow the student to demonstrate:

• reasoning to support the personal conclusions as demonstrated in the presentation
• understanding of the overall learning interest, including the contributions of the disciplines
• evaluation of his or her own learning and the relevant capabilities developed.

Each student should be assessed individually on the discussion, regardless of whether individual or group discussions are conducted.

For this assessment type, students provide evidence of their learning in relation to the following assessment design criteria:

• knowledge and understanding
• application
• analysis and evaluation
• interaction and communication.

EXTERNAL ASSESSMENT

Assessment Type 4: Analysis (30%)

For a 10-credit subject, students undertake one analysis assessment.

For a 20-credit subject, students undertake two analysis assessments.

Students undertake their analysis assessment(s) under the supervision of the teacher.

An analysis assessment should take 1 hour and may be, for example:

• a response to materials provided by the teacher (e.g. news or media items, multimedia items, data, photographs, and/or a guest speaker’s presentation), with questions
• interpretation, manipulation, and analysis of data
• a creative response to a problem
• an extended written response to an issue related to the learning interest.
The stimulus for an analysis assessment must be related to one or more aspects of the learning interest.

The following specific features of the assessment design criteria for this subject are assessed in each analysis:
• knowledge and understanding — KU2
• application — A1 and A2
• analysis and evaluation — AE1.

PERFORMANCE STANDARDS
The performance standards describe five levels of achievement, A to E.

Each level of achievement describes the knowledge, skills, and understanding that teachers and assessors refer to in deciding how well a student has demonstrated his or her learning on the basis of the evidence provided.

During the teaching and learning program the teacher gives students feedback on their learning, with reference to the performance standards.

At the student’s completion of study of each school assessment type, the teacher makes a decision about the quality of the student’s learning by:
• referring to the performance standards
• assigning a grade between A+ and E− for the assessment type.

The student’s school assessment and external assessment are combined for a final result, which is reported as a grade between A+ and E−.
### Performance Standards for Stage 2 Cross-disciplinary Studies

<table>
<thead>
<tr>
<th>Knowledge and Understanding</th>
<th>Application</th>
<th>Analysis and Evaluation</th>
<th>Interaction and Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insightful and sophisticated exploration of key elements of the relevant disciplines and their connections to the learning interest.</td>
<td>Comprehensive integration and application of aspects of the relevant disciplines in familiar as well as complex, less familiar situations.</td>
<td>Comprehensive analysis and evaluation of ideas and information from a variety of sources and perspectives to deepen understanding of the learning interest.</td>
<td>Convincing and sustained demonstration of purposeful interactive and collaborative skills in a range of situations.</td>
</tr>
<tr>
<td>Well-informed and highly effective understanding of the learning interest, incorporating specific discipline knowledge and skills.</td>
<td>Highly focused application of knowledge and understanding to solve problems with insightful creativity and initiative.</td>
<td>Sustained and insightful evaluation of the contributions of the disciplines.</td>
<td>Clear, coherent, and highly focused communication of understanding, reasoned conclusions, and new ideas and insights about the learning interest.</td>
</tr>
<tr>
<td>In-depth knowledge and understanding of the relevant capabilities.</td>
<td>Convincing and in-depth development of ideas, insights, and further questions.</td>
<td>Well-considered and substantive analysis of and reflection on the student’s own learning.</td>
<td>Well-considered evaluation of feedback from others.</td>
</tr>
</tbody>
</table>

<p>| <strong>B</strong>                       |             |                         |                               |
| Well-considered exploration of key elements of the relevant disciplines and their connections to the learning interest. | Well-informed integration and application of aspects of the relevant disciplines in familiar and less familiar situations. | Detailed analysis and evaluation of ideas and information from a variety of sources and perspectives to deepen understanding of the learning interest. | Mostly sustained and focused interactive and collaborative skills in a range of situations. |
| Well-informed understanding of the learning interest, incorporating discipline knowledge and skills. | Well-considered application of knowledge and understanding to solve problems with creativity and initiative. | Sustained evaluation of the contributions of the disciplines. | Clear, coherent, and mostly focused communication of understanding, conclusions, and new ideas and insights about the learning interest. |
| Well-informed knowledge and understanding of the relevant capabilities. | Thoughtful development of ideas, insights, and further questions. | Well-considered analysis of and reflection on the student’s own learning. | Well-considered evaluation of feedback from others. |</p>
<table>
<thead>
<tr>
<th>Knowledge and Understanding</th>
<th>Application</th>
<th>Analysis and Evaluation</th>
<th>Interaction and Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>C</strong></td>
<td>Exploration of key elements of the relevant disciplines and their connections to the learning interest.</td>
<td>Informed integration and application of aspects of the relevant disciplines in mostly familiar situations.</td>
<td>Considered analysis and evaluation of ideas and information from different sources and perspectives to deepen understanding of the learning interest. Analysis sometimes tends towards summary and narration.</td>
</tr>
<tr>
<td></td>
<td>Informed understanding of the learning interest, linked to discipline knowledge and skills.</td>
<td>Considered application of knowledge and understanding to solve problems with some creativity and initiative.</td>
<td>Some evaluation of contributions of the disciplines, tending towards description.</td>
</tr>
<tr>
<td></td>
<td>Informed understanding of the relevant capabilities.</td>
<td>Competent development of ideas and insights, and further questions.</td>
<td>Considered analysis of and reflection on the student's own learning.</td>
</tr>
<tr>
<td><strong>D</strong></td>
<td>Some basic connections between aspects of two or more disciplines and the learning interest.</td>
<td>Superficial integration or application of aspects of the relevant disciplines in highly familiar situations.</td>
<td>Partial summary of ideas and information, with some increased understanding of learning interest. Description of some elements of the contributions of the disciplines.</td>
</tr>
<tr>
<td></td>
<td>Awareness of aspects of the learning interest, discipline knowledge, or skills.</td>
<td>Some creativity evident in occasional problem-solving.</td>
<td>Some reflection on the student's own learning.</td>
</tr>
<tr>
<td></td>
<td>Recognition of some of the capabilities.</td>
<td>Some development of basic ideas and insights.</td>
<td>Basic consideration of feedback from others.</td>
</tr>
<tr>
<td><strong>E</strong></td>
<td>Identification of limited connections between one or more aspects of disciplines and the learning interest.</td>
<td>Attempted application of an aspect of a relevant discipline.</td>
<td>Simple summary of ideas and/or information that may have some relevance to learning interest. Attempted description of one or more elements of the contributions of the disciplines. Attempted description of an aspect of the student's own learning.</td>
</tr>
<tr>
<td></td>
<td>Emerging awareness of one or more aspects of the learning interest or skills.</td>
<td>Attempted identification of a possible solution to a problem.</td>
<td>Attempted description of one or more elements of the contributions of the disciplines.</td>
</tr>
<tr>
<td></td>
<td>Identification of one or more capabilities.</td>
<td>Attempted development of an idea or question.</td>
<td>Attempted description of an aspect of the student's own learning.</td>
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<td>Limited attempt at reflecting on feedback.</td>
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</table>
ASSESSMENT INTEGRITY

The SACE Assuring Assessment Integrity Policy outlines the principles and processes that teachers and assessors follow to assure the integrity of student assessments. This policy is available on the SACE website (www.sace.sa.edu.au) as part of the SACE Policy Framework.

The SACE Board uses a range of quality assurance processes so that the grades awarded for student achievement, in both the school assessment and the external assessment, are applied consistently and fairly against the performance standards for a subject, and are comparable across all schools.

Information and guidelines on quality assurance in assessment at Stage 2 are available on the SACE website (www.sace.sa.edu.au).
SUPPORT MATERIALS

SUBJECT-SPECIFIC ADVICE
Online support materials are provided for each subject and updated regularly on the SACE website (www.sace.sa.edu.au). Examples of support materials are sample learning and assessment plans, annotated assessment tasks, annotated student responses, and recommended resource materials.

ADVICE ON ETHICAL STUDY AND RESEARCH
Advice for students and teachers on ethical study and research practices is available in the guidelines on the ethical conduct of research in the SACE on the SACE website (www.sace.sa.edu.au).