

TRANSDISCIPLINARY SCIENCE LEVEL 3 (CODE)

External Assessment Specifications inform the development of external assessments. The primary audience for the written examination specification is the course Setting Examiner and Exam Critics. It may also be of use to teachers and students. The primary audience for the Folio, Oral or Practical guidelines is teachers and students. These documents also inform the external assessment structure in TASC's reporting, assessment, and certification system, TRACS.

The external assessment specifications are to be read in conjunction with the course document and will not repeat essential information found in other documents.

The external assessment for this course consists of **two (2)** components:

- **A Folio consisting of:**
 - A quad chart summarising progress until Module 2
 - A detailed plan and context for Module 3
 - A scientific paper as a culminating performance for the course
- **Practical assessment consisting of:**
 - A performance – presentation of Poster to panel of examiners.

The Criteria to be externally assessed are:

Folio:

Criterion 3: analyse concepts, processes and interrelationships between scientific models and theories

Criterion 4: analyse and communicate scientific data and information

Criterion 5: analyse the interrelationships between local, national, and global contexts within an inquiry

Criterion 7: apply, analyse and adapt experimental design within an inquiry

Criterion 8: analyse, synthesise and represent scientific inquiry to make valid conclusions

Practical assessment:

Criterion 3: analyse concepts, processes and interrelationships between scientific models and theories

Criterion 4: analyse and communicate scientific data and information

Criterion 8: analyse, synthesise and represent scientific inquiry to make valid conclusions

FOLIO STRUCTURE

Folio Components	Finalised inquiry questions and context	Scientific paper
Criterion/Criteria	Criterion 4 Criterion 5 Criterion 7	Criterion 3 Criterion 4 Criterion 8
Examinable Elements	Criterion 4: Elements 1, 3, 4, 5 Criterion 5: Elements 1, 2, 3, 4 Criterion 7: Elements 1, 3	Criterion 3: Elements 1, 2, 3, 4, 5 Criterion 4: Elements 1, 2, 3, 4, 5 Criterion 8: Elements 1, 2, 3
Course coverage	<ul style="list-style-type: none"> finalised inquiry question finalised context for the scientific inquiry 	Culminating Performance for Inquiry completed in Module 3
Prescribed texts coverage	NA	NA
Response format	Word processed product	Word processed product
Number and nature of components	First section of the submitted folio document.	Second section of the submitted folio document.
Compulsory or optional	All components are compulsory	

Total time allocation	Approximately 10 hours between the two components	Approximately 20 hours
Total word count	Maximum 1500 words or equivalent (diagrammatic, data, graphical, statistical and algebraic modelling) (Maximum 3000 words or equivalent (diagrammatic, data, graphical, statistical and algebraic modelling)
Mark / Rating allocation	Extended ratings of: A+, A, A...B+, B, B-...C+, C, C-...t+, t, t- or z for each Criteria 4, 5 and 7	Extended ratings of: A+, A, A...B+, B, B-...C+, C, C-...t+, t, t- or z for each Criteria 3, 4, 5 and 8
Mark / Allocation reasoning	Students will be directly addressing the standard elements for each of the criterion. Using the criterion ratings is the clearest option for students, providers and markers	Students will be directly addressing the standard elements for each of the criterion. Using the criterion ratings is the clearest option for students, providers and markers

FOLIO GUIDELINES

These guidelines provide comprehensive details for students, teachers and markers about what component/s form the external assessment for this course.

The [TASC Frequently Asked Questions – Externally Assessed Folios](#) provides general information for all students and teachers about externally assessed folios, including a *how-to guide* for submitting folios and a link to the [TASC Academic Integrity Guide](#).

The course Assessment Report available under the *Supporting Documents* section of the [<CODE> course page](#) addresses issues, strengths, and weaknesses about the previous year's assessment of the folio and should be read in conjunction with the guidelines.

Markers will use marking guidelines to mark the Folio. TASC would strongly encourage teachers to use the marking guidelines to assess the projects internally.

The final Folio must be electronically submitted by the student to their teacher for external assessment by the *due to teacher date* published on the [TASC website](#) each year.

The teacher cannot extend the published *due to teacher date*, however they may set an earlier deadline for the purpose of internal assessment.

ADVICE TO STUDENTS

You are required to submit a folio of your work consisting of:

1. Finalised inquiry question and context
2. Scientific paper

TASC will assess the Folio to determine the course external assessment rating for Criteria 3, 4, 5, 7 and 8. If you do not submit a folio you cannot achieve more than a Preliminary Achievement (PA) for this course.

Finalised inquiry question and context

The final scientific inquiry question will reflect the initial focus identified earlier in the inquiry together with any changes in response to the progress of the inquiry. These include, for example, changes in the ability to collect data, what has emerged from the preliminary analysis, or the opportunities to come to

definite conclusions. The most relevant context will be summarised and analysed to provide appropriate background for the final scientific paper that represents the inquiry. The inquiry question and the local, national and global context of the inquiry should be clear and finalised by the end of Module 2.

Learners will finalise their inquiry question and context including:

- final inquiry question and context for inclusion in their external assessment portfolio containing: the inquiry question justifying their choice with reference to:
 - data collected
 - processes undertaken
 - any other relevant information, including but not limited to: data analysis, and scientific theories or models
- summary and analysis of local, national and global context to provide an appropriate background for their inquiry, which may include analysis where:
 - theories of interest have been refined or replaced as new evidence, models or theories have emerged
 - there are opportunities to refine theories, gather more data or question the interpretation of data
 - technology has assisted in greater understanding
 - social, economic, cultural or sustainability considerations are important
 - there is collaboration
 - First Nations Peoples knowledge can be applied.

Scientific Paper

Students will document the critical aspects of their inquiry in the form of a scientific paper. The focus is on what students have discovered, how they found it, and supporting evidence. This is all within the broader societal context of the study and what further investigation may be warranted. The paper should include:

- a summary of findings (including changes since the end of Module 2)
- risk assessments and ethical considerations applied
- the design, data and procedures used
- the research and analysis processes and what was found
- inter-relationships between data, theories and models
- the limitations of the primary and secondary data and how these were addressed
- valid and reasoned conclusions
- analysis of processes, data and conclusions to recommend further investigation

- a detailed bibliography.

Folio length and word count

The folio has a 3000 word maximum:

- 1500 words (max) for Finalised inquiry question and context (both combined)
- 3000 words (max) for Scientific Paper

Presentation of Folio

When presenting your a the following points must be noted:

- be a single coherent folio presentation
- not exceed 40 pages with text no smaller than 10 point for body text and not a series of separate files. Not included in this maximum limit:
 - A cover page (containing the inquiry question and the candidates TASC ID number only)
 - References
 - A clear photographic image or screenshot of the Presentation Poster
- Be no larger than 100 megabytes in total size.

Students must complete and submit the Student Folio Declaration available on the TASC website for teachers before the project is submitted. Teachers will hold the declaration and will be asked to provide to TASC is required.

The folio must be submitted via TRACS. All components of the of the folio will submitted as one complete electronic document.

Referencing

- You must consistently use a single Referencing system in all components of your folio.
- Refer to [Academic Integrity information](#) on the TASC website for information about referencing styles, frequently asked questions, and tips and hints for correct referencing.

- A detailed list of works cited must be shown in the bibliography.

Declaration Form

Students must complete and submit the Student Folio Declaration available on the TASC website for teachers before the Folio is submitted. Teachers will hold the declaration and will be asked to provide to TASC if required.

The Folio must be submitted via TRACS. All components of the of the folio will submitted as one complete document.

ADVICE TO TEACHERS

For each of your students you are required to:

- see all work as it progresses
- make sure the presentation and content requirements for the folio and the penalties for not meeting them are well known

ADVICE TO MARKERS

The Criteria to be assessed through the marking of the Folio are:

Finalised inquiry question and context

Criterion 4: analyse and communicate scientific data and information

Criterion 5: analyse interrelationships between local, national, and global contexts within an inquiry within a scientific inquiry

Criterion 7: analyse and adapt experimental design within an inquiry

Scientific paper

Criterion 3: analyse concepts, processes and interrelationships between scientific models and theories

Criterion 4: analyse and communicate scientific data and information

Criterion 8: analyse, synthesise and represent scientific inquiry to make valid conclusions

Prior to the commencement of marking, markers will be required to meet with the Marking Co-ordinator. This meeting will include training in the use of both the marking guide and the course criterion elements and standards-when determining ratings.

PENALTIES

TASC takes the issue of academic integrity very seriously. If it is found that you breached the external assessment rules, and have not maintained academic integrity when submitting your work for assessment a penalty may be applied.

The following penalties will be applicable through the marking process:

- Folios that exceed the 40-page limit will only have the first 40 pages assessed.

PRACTICAL ASSESSMENT STRUCTURE

Practical components	Poster presentation
Criterion/Criteria	Criterion 3 Criterion 4 Criterion 8
Examinable Elements	Criterion 3: Elements 1, 2, 3, 4, 5 Criterion 4: Elements 1, 2, 3, 4, 5 Criterion 8: Elements 1, 2, 3, 4
Course coverage	Covers the entire year of Inquiry and speaking to a poster produced entirely in Module 3.

Number and nature of Questions / Items	<ul style="list-style-type: none"> • 5-minute presentation to markers • 5-10-minute question and answer by markers
Compulsory or optional	All components are compulsory
Total time allocation	20 minutes - ++ 5 minutes for display and removal of display
Mark / Rating allocation	<p>Extended ratings of:</p> <p>A+, A, A...B+, B, B...C+, C, C...t+, t, t- or z for each Criteria 3, 4 and 8</p>
Mark / Rating reasoning	Students will be directly addressing the standard elements for each of the criteria. Using the criterion ratings is the clearest option for students, providers and markers.

PRACTICAL ASSESSMENT GUIDELINES

These guidelines provide comprehensive details for students, teachers and markers about what component/s form the external assessment for this course.

The [TASC Frequently Asked Questions – Externally Assessed Folios](#) provides general information for all students and teachers about externally assessed folios and practical assessments, including a *how-to guide* for submitting external assessment material and a link to the [TASC Academic Integrity Guide](#).

The course Assessment Report available under the *Supporting Documents* section of the [<CODE> course page](#) addresses issues, strengths, and weaknesses about the previous year's assessment of the practical and should be read in conjunction with the guidelines.

Some components of the practical assessment may need to be electronically submitted by the student to their teacher for external assessment by the *due to teacher date* published on the [TASC website](#) each year.

The teacher cannot extend the published *due to teacher date*, however they may set an earlier deadline for the purpose of internal assessment.

The timetable for practical assessments is published on the TASC website in Term 3 every year.

PRACTICAL ASSESSMENT

The practical assessment requires students to prepare and present to a marking panel an AI poster of work relating to the inquiry question. The presentation includes a question and answer session about the inquiry undertaken - what was discovered by student, this will aid the markers to determine the depth of the student's understanding of their inquiry topic.

The method of presenting a poster represents a world-wide standard convention for scientists to present their work; particularly early in their research career. Although the poster product itself is not assessed it is impossible to provide a brief explanation of an extended inquiry without the detailed information that a well-constructed poster contains.

ADVICE TO STUDENTS

You are required to display an AI poster in support of your inquiry consisting of:

- the inquiry question
- a summary of findings
- a summary of the inter-relationships between data, theories and models
- the limitations of the primary and secondary data and how these were addressed
- valid and reasoned conclusions
- analysis of processes, data and conclusions and recommending opportunities for further investigation

When presenting the student must refer to all the dot points outlined above. The questions from the marking panel must also relate directly to the six dot points above. The presentation of the poster will comprise 2 sections:

- Presenting the inquiry to the panel (5 minutes)
- Answering questions (5-10 minutes)

Venue Information

- You are to be dressed in casual clothes, with no identifying logos as to the name of your school/college. You can not wear your school uniform.
- You must be present 10 minutes prior to the commencement of your practical (interview/discussion) with markers.
- As soon as the interview has concluded you will be asked to leave the venue.
- If you miss the practical (interview/discussion) a time can not be re-scheduled. You will need to make contact with TASC on the day of the assessment who will provide you with further information.

TASC will assess the practical (display/interview) to determine the course external assessment rating for Criteria 3, 4 and 8. If you do not attend the interview you cannot achieve more than a Preliminary Achievement (PA) for this course.

ADVICE TO TEACHERS

For each of your students you are required to:

- see all work as it progresses
- ensure each student has a poster ready for display
- make sure the students are aware of the date and time of their practical (interview/discussion) with markers
- remind them times and dates are not negotiable and if missed they know the penalty for not attending
- teachers are not permitted to be present at the time of the practical assessment.

PROVISIONS AND ADVICE FOR ASSESSMENT PANEL

The Criterion/Criteria to be assessed through the marking of the practical (interview/discussion) are:

- Criterion 3 – Elements 1, 2, 3, 4, 5
- Criterion 4 – Elements 1, 2, 3, 4, 5
- Criterion 8 – Elements 1, 2, 3, 4

Venue Facilities

The inquiry display will be externally assessed during the week before the written examination period commences. The poster display **MUST** be sited at the venue confirmed by your school to facilitate assessment. (Note for TASC - possibly centralised locations [such as IMAS – Hobart etc]– statewide)

Markers will need spaces where the works are displayed to be quiet as possible and free of distraction.

The display must be adequately spaced so as students can stand near their display with the assessment conducted by the markers in the same space. Students will be allocated a time and date on which their assessment will occur.

Markers will also need to be provided with a quiet room in which they can undertake deliberations of the student assessments.

Confidentiality

For reasons of confidentiality, care should be taken to ensure that no one is sitting or standing behind or close by the markers when undertaking assessment.

Assessment Time

Students will present their AI poster to markers and respond to questions from markers (10-15 minutes total). The markers will cease the practical (interview/discussion) at the end of 15 minutes.

Recording of Practical Assessment

Video/Aural recording of Practical Examination work is **NOT** permitted under any circumstances.

PENALTIES

TASC takes the issue of academic integrity very seriously. If it is found that you breached the external assessment rules, and have not maintained academic integrity when submitting your work for practical assessment a penalty may be applied.

The following penalties will be applicable through the marking process:

- If a student fails to attend the practical (interview/discussion) they will be provided with 'z' notations for each of the criteria for this component of the assessment.