

# EXTERNAL ASSESSMENT SPECIFICATIONS

## AGRICULTURAL SYSTEMS

COURSE CODE: AGR315117

These guidelines provide students, teachers and markers with details about what students have to do for the folio that forms the external assessment for this subject.

This document does not repeat essential information found in other documents and must be read in the context of:

- THE COURSE DOCUMENT

(<https://www.tasc.tas.gov.au/students/courses/technologies/agr315117/>)

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 guide to Authenticity and Academic Integrity.

The course Assessment Report, located on the TASC website, addresses issues, strengths and weaknesses about the assessment of the previous year's folios and should be read in conjunction with the guidelines.

A folio assessing Criteria 2, 5, 6, 8, 9

The folio will include the Agribusiness case study and the Engineering Solution project folio.

### FOLIO

Students are required to complete and submit an individual folio. The structure of the folio must follow the format provided in these guidelines.

The folio will form the evidence that will be assessed externally by TASC in determining student ratings on assessment Criteria 2, 5, 6, 8 and 9. If you do not submit a folio the best award you can achieve is a Preliminary Achievement (PA) in this course.

The final folio will be externally assessed and **MUST** be submitted by the student to their teacher for external assessment. Due dates for folio submission are available from the [TASC website](#).

# ADVICE TO STUDENTS

Your folio will be comprised of the following two work requirements:

1. Agricultural Technologies – Engineering Solution Project Folio (Unit 5)  
Assessed against Criteria 6, 8 and 9
2. Agribusiness case study (Unit 6)  
Assessed against Criteria 2, 5 and 9

This folio work forms part of the work requirements for Agricultural Systems as specified in the course document.

Your teacher will allow about 45 hours of dedicated class time for this folio work:

30 hours from Unit 5 Agricultural Technologies to complete the Engineering Design Solution

15 hours from the Unit 6 Agribusiness Case Study.

Teachers must approve topics selected and you must consult with your teacher regularly during the development of the folio.

## PRESENTATION OF YOUR FOLIO

Your folio must be a single word-processed document which:

1. may include photos and scanned items such as concept sketches with hand written annotations
2. must be submitted as a single PDF in digital format.

Teachers and students need to work together to ensure that the single file submitted **MUST** be no larger than 50 megabytes..

This means:

- considered use of graphical elements
- appropriately optimised images (including cover pages and the backgrounds of pages).

Your work must be identified by your TASC candidate number **ONLY**. There is to be no other identification system/code such as student ID etc.

Your name, the name of your school or teacher must **NOT** appear anywhere in the folio.

The Harvard referencing style is recommended to be used throughout the folio.

## SECTION A WORK REQUIREMENT:

### ENGINEERING DESIGN SOLUTION PROJECT FOLIO

The project folio will outline and explain the engineering design and development of a solution to an identified need.

Section A is to be a maximum of 20 A4 pages and must reflect the aspects below. Should additional pages be submitted, only the first 20 pages will be assessed. This page limit does not include references.

SECTION A	EXPLANATION	CRITERIA ASSESSED	ELEMENTS ASSESSED
Brief	A succinct statement of the project's purpose including reference to the existing problem/challenge	6	1 - 7
Background	Needs analysis detailing requirements, current practice, any previous approaches to the problem and existing limitations	6, 9	All elements
Research (analysis/comparison, survey, feedback)	<ul style="list-style-type: none"><li>• Legal, ethical and environmental considerations</li><li>• Existing approaches to similar problems elsewhere</li><li>• Technology – current and emerging which may be a part of a designed solution</li></ul>	6, 9	All elements
Design Development	<p>Design ideas are to be presented and justified. Presentation may take the form of:</p> <ul style="list-style-type: none"><li>• concept sketches with annotations</li><li>• diagrams/charts</li><li>• experimental design</li><li>• testing</li><li>• evidence of planning in an alternate form.</li></ul> <p>Planning and design ideas are to be analysed to articulate the positive and negative aspects of each when assessed against the design brief and needs.</p>	8	1 - 7
Final Design	<p>Detail engineering solution:</p> <ul style="list-style-type: none"><li>• tools, materials and techniques to be used</li><li>• experiments/prototype/models/testing</li><li>• improvements/modifications/redesign as needed</li><li>• risk management.</li></ul>	8	1 - 7
Evaluation	Evaluation against project's stated purpose and needs	6, 8	1 - 7
References	Including in-text referencing and a reference list	9	7 - 9

## SECTION B WORK REQUIREMENT:

### AGRIBUSINESS CASE STUDY

Learners use a case study approach to analyse an agricultural and/or a horticultural system within a small business from 'producer to consumer'. Learners investigate the factors that influence the enterprise conducted at that location. They collect and evaluate the following aspects to determine which factors have influenced the business.

The Agribusiness case study is expected to be between 2000 – 3000 words, excluding references.

SECTION B	AGRIBUSINESS ASPECTS TO DETAIL AND EVALUATE	CRITERIA ASSESSED	ELEMENTS ASSESSED
Production	<ul style="list-style-type: none"> <li>the inputs into the production</li> <li>production processes and timelines</li> <li>risks involved with the production process</li> <li>outputs – both intended and unintended</li> </ul>	2 9	3, 4, 5
External considerations	<ul style="list-style-type: none"> <li>environmental considerations including:                             <ul style="list-style-type: none"> <li>waste minimisation strategies</li> <li>climatic influences</li> <li>water management</li> </ul> </li> </ul>	2 9	All elements
	<ul style="list-style-type: none"> <li>factors that influence the operation of the small business project</li> </ul>	5	
Finances	<ul style="list-style-type: none"> <li>a snapshot of cost and income for specific product</li> <li>cost benefit analysis</li> </ul>	5	1 - 6
Marketing	<ul style="list-style-type: none"> <li>documenting the marketing chain</li> <li>examine current marketing of products</li> <li>future marketing direction proposal</li> </ul>	5	1 - 6
Evaluation and future direction	<ul style="list-style-type: none"> <li>current success of the business</li> </ul>	2	3, 6, 7
	<ul style="list-style-type: none"> <li>aspects for future improvement.</li> </ul>	5	All elements
References	Including in-text referencing and a reference list	9	All elements

## INFORMATION FOR TEACHERS

You should encourage students to select topics that links with an area of genuine interest to them. Learners must have access to practical environments which allow them to develop an engineering solution to an agricultural problem or situation using existing or emerging technologies.

Each section of the folio must contain reference to primary information and not be based solely on secondary knowledge.

Examples of primary information include:

- Expert interviews
- Surveys of agricultural management practices
- Observations
- Measurements or sampling data
- Data recorded to indicate:
  - Resource use
  - Impacts of resource use
- Consumer opinion surveys.

You are to allow 45 hours of dedicated class time from the specified units for folio work.

You must approve the topics for both the Engineering solution and the Agribusiness case study. You must consult with your students regularly during the development of their folio.

## INSTRUCTIONS TO MARKERS

The folio will be assessed against:

### AGRICULTURAL TECHNOLOGIES – ENGINEERING DESIGN SOLUTION PROJECT FOLIO

Criterion 6 (Elements 1, 2, 7) Examine technologies and technological innovations employed in the production and marketing of agricultural products

Criterion 8 (all Elements) Apply appropriate engineering principles to agricultural problems and situations

Criterion 9 (Element 6, 7, 8, 9) Explain the impact of innovation, ethics and current issues on Australian agricultural systems

### AGRIBUSINESS CASE STUDY

Criterion 2 (Elements 3, 4, 5, 7) Analyse physical and biological systems that support sustainable agricultural production

Criterion 5 (All Elements) Assess general business principles and decision-making processes involved in sustainable farm management and marketing of farm products

Criterion 9 (Elements 2-5, 7, 8, 9) Explain the impact of innovation, ethics and current issues on Australian agricultural systems