# ASSESSMENT REPORT 2020

## AGR315117 – AGRICULTURAL SYSTEMS

# PART A - FEEDBACK TO STUDENTS AND TEACHERS

### Using primary sources of information, researching and collecting data

The Engineering Solution Project Folio (Unit 5) and the Agribusiness Case Study (Unit 6) must contain reference to primary information and primary sources, and not be based solely upon the secondary sources and textbook-type sources. Primary resources include expert interviews, observations or surveys of current practice, measurements or sampling data, impact data or industry/manufacturer advice. Referencing conventions must be followed to enhance academic integrity when using personal communications, such as recorded interviews, documented conversations, or photographic images and sketches.

In 2020, most candidates utilised the maximum of 20 x A4 pages and 3000 words in each section respectively, demonstrated their understanding of the work requirements and followed conscientiously a full-proof detailed template in their reports. They addressed all the pertinent elements in each criterion, considered current and emerging technologies, acknowledged their primary information source or other advisers, knew how to label a graph, table or image in-text, provided evidence of how they analysed their information in their tables or graphs in their findings, referenced their own information or that sourced from elsewhere, and provided conclusions and recommendations for future development based upon their design cycle, or prototype testing, and/or advice from their advisers.

Systems-thinking, technological developments, or the current agricultural and horticultural industry developments of existing products, processes or reviews all require authentic research of both print and online information databases, rather than just a cursory google search or review of overseas YouTube examples. Students who achieved excellent ratings used agricultural databases or industry information services as well as the primary source information gained through expert interviews, personal observations, or surveys.

In order to stay within word limits effectively, high performing students often presented their own research and industry evidence in the form of a table that they drew up themselves or a summary diagram or chart of their own analysis of the data, making the large amount of information that they had sourced more readable in a tabulated summary form. An option is also to move that to appendices to keep the report within the 3000-word limit.

The UTAS Library's Harvard Referencing publications [on pages 14-16] details guidance for identifying personal communications and labelling own images taken to support folio work with the following interpretation suggested for TASC candidates.

- **In-text:** Replace name by TASC candidate number (date)
- **Bibliography:** Replace name by TASC candidate number (date) *Title of image* or *Personal communication in italics*. Format e.g. JPG or Email. Include time of day and month if email.

Where students are unsure of how much information to add, the convention is to use […] brackets, i.e. [add own notes inside square brackets]. A good standard of referencing for both a personal photographic image and a personal email communication could be variations of the following if the main elements are present: e.g.

- TASC ID (2019) Tractor modification.jpg Agricultural display, location, date. [image taken at Agfest display]
- TASC ID (2019) Personal communication. Email 3 October 2019 [Survey response]

## Engineering design solution project folio

Excellent achievements by candidates involved their demonstration of their understanding of all Elements of Criterion 6 and Criterion 8 whether using existing or emerging technologies. They:

- generated a design solution
- used technology skills, processes, and systems-thinking
- applied some management skills, such as planning for the challenge
- implemented risk assessment, disaster prevention and mitigation strategies
- evaluated or justified why an engineering solution was needed
- suggested modifications and improvements to the engineered solution following a period of prototype testing and user feedback.

These project folios reflected:

- a design brief (problem/challenge, background, requirements, and limitations)
- research (analysis/comparison, survey, feedback)
- concept sketches or perspective drawings, with notes or annotations
- descriptions of the tools, materials, techniques, and experiments/building prototypes/testing in the production stages
- evaluation of outcomes (of requirements from initial design brief)
- maximum of 20 pages length.

## Agribusiness case study

Excellent achievements by students involved their demonstration of their understanding of the factors that influence or affect the enterprise or business by collecting and evaluating the following data:

- the inputs into the production
- production processes and timelines
- risks involved with the production process
- environmental analysis - considerations such as waste minimisation strategies, climate change and influences
- outputs – both intended and unintended
- external e.g. government factors that influenced the operation of the small business project
- budgeting – planned and actual
- marketing of products
- success of the business and aspects for future improvement
- references
- a word count of the report (2000 - 3000 words).

That is, specifically, an understanding of Criterion 5 Elements 1-6, Criterion 2 Elements 2, 3, 4, 5 and 6 and Criterion 9 Elements 7, 8 and 9.

Students presenting case studies of a high standard, reflecting their high interest, used their knowledge of the Southern Oscillation Index (SOI), interview information and recent Bureau of Meteorology press releases to examine the specific climate change risks of the much-anticipated La Niña events and long wet in Tasmania as well as other annual production inputs, biosecurity processes and expected outputs. Specifically, many examined the impact of COVID-19 in 2020 such as labour, marketing plans or monocultural production systems.