2021 ASSESSMENT REPORT
AGR315117 - AGRICULTURAL SYSTEMS

Overview

Being a critical thinker is central to this inquiry-based subject. This means that questioning is an essential skill that needs to be developed. As students begin their studies, it is important to spend some time examining the criteria and reflecting on how they might construct both parts of their portfolio and most importantly, how they will ensure they have explicitly demonstrated their knowledge so that it is evident to the examiners.

Before students complete and submit their studies it is important they check that they have demonstrated their knowledge and understanding and provided evidence against each of the elements of the criteria being assessed.

Students are advised to pay close attention to the key words which differentiate the standards in each criterion. For example, have they evaluated, applied, justified, analysed, or simply described, or noted something? Students should also practice writing a commentary that evaluates or applies some thinking or explanation to a new setting. Successful students write sentences which explicitly state how they evaluated, why something is justified and how they analysed the various pieces of information or data.

At the end of the writing phase, it is important that students spend time proof-reading their work to make sure the finished product is readable and carefully constructed.

Using Primary Sources of Information, Researching, and Collecting Data

An important part of this portfolio is to make use of primary sources. Primary sources are original materials, regardless of format, so in this subject it could be emails, photographs, interviews, sound recordings and anything that was created at the time of undertaking the study.

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 and textbook-type sources. Primary resources may include expert interviews, observations or surveys of current practice, measurements or sampling data, impact data or industry/manufacturer advice.

Referencing conventions are an important part of academic studies. In this subject, these ensure academic integrity when using personal communications, such as recorded interviews, documented conversations, or photographic images and sketches.

Most students utilised the maximum of 20 x A4 pages and 3000 words in each section respectively and demonstrated their understanding of the work requirements by following the detailed template for their reports.

Successful portfolios:

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- addressed all the pertinent elements in each criterion
- considered current and emerging technologies
- acknowledged their primary information source or other advisers
- correctly labelled graphs, tables or images in-text
- provided evidence of how they analysed their information in their tables or graphs in their findings
- correctly 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.

Authentic Applied Research Techniques

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 superficial google search or review of YouTube examples.

Successful students used agricultural databases or industry information services as well as the primary source information gained through expert interviews, personal observations, or surveys. It is an expectation that a high standard of referencing is used for both sections of the portfolio. Successful students provided carefully notated references which identified their sources of information whether that was an email, a photograph, a website or a textbook.

To stay within the prescribed word limit for each section, one option is to provide an in-text reference to material that can be placed in the appendices. An appendix contains supplementary material that is not an essential part of the text itself, but which may be helpful in providing a more comprehensive picture of the problem or situation. It might, for example, contain the contents of a series of emails, or the survey questionnaire questions. An appendix should not contain elements that are central to the work and assessment such as a budget, for example.

Engineering Design Solution Project Folio

Successful project folios were those where students demonstrated their understanding of **all** the assessable Elements of Criterion 6 and Criterion 8 whether using existing or emerging technologies. These folios included an explanation of:

- a design solution that had been created
- technology skills, processes, and systems-thinking used
- management skills, such as planning for the challenge, that were employed
- risk assessment, disaster prevention and mitigation strategies that were employed
- an evaluation or justification of why the engineering solution was needed and

- modifications and improvements to the engineered solution that followed prototype testing and user feedback.

These successful 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)

A reminder that folios should be a maximum of 20 A4 pages length and a reference list should be included.

Agribusiness Case Study

The case study specifically requires an understanding and demonstration of:

- Criterion 5 Elements 1 to 6;
- Criterion 2 Elements 2, 3, 4, 5 and 6; and
- Criterion 9 Elements 7, 8 and 9.

Successful case studies were those where students demonstrated their understanding of the factors that influenced or affected 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

A reminder that the report should be 2000-3000 words in length and a reference list should be included.