

Learning and Teaching Academic Standards Statement for Agriculture V1



Scope

For the purpose of this project, the term agriculture encompasses a range of degrees and sub-disciplines:

- Agribusiness
- Agricultural Economics
- Agriculture
- Agricultural Business Management
- Agricultural or Rural Science
- Agrifood Systems
- Horticulture
- Viticulture and Oenology
- Wine Business
- Wine Science

Nature and extent of agriculture

Agriculture is defined as the sustainable production of food, fibre and fuel into quality product(s) that may be used unchanged or be transformed into other products for the good of society. Agriculture applies the outcomes of a range of disciplines to produce, in a sustainable and profitable way, more from our natural resources than could be achieved without intervention.

Agriculture is undertaken in systems involving the entire value chain from production to consumption by integrating the use of inputs, processes and markets with environmental, economic and social sustainability. Agriculture has its foundation in scientific method that uses empirical evidence to support or refute hypotheses. Evidence gained from scientific investigation is applied in the development of new methods, processes, practices and systems to address issues facing agriculture, within the context of financial and environmental constraints. The process of extension and adoption of new agricultural practices both nationally and internationally depends on communication and has a foundation in rural sociology and education.

One of the major features of degrees in agriculture is that they provide a wide range of skills across broad subject matter allowing career flexibility for graduates. Graduates of agriculture and related sub-disciplines or specialisations, are employed in diverse roles all of which contribute to the successful practice of agriculture to meet the needs of producers, consumers and society, such as (but not limited to):

- Research and the generation of new knowledge and technologies
- Development and application of knowledge and technologies to solve complex problems and create opportunities
- Input production and advice, output marketing and processing
- Education, as teachers in secondary and tertiary programs or through the extension or adoption of knowledge by society
- Policy and regulation
- Finance and banking
- Agriculture professionals that provide leadership and advocacy
- Communication and media

Given the dynamic nature of agricultural industries that utilise a range of disciplines to develop sustainable production systems, there is a need to encourage continued professional development among graduates. It is recommended that the academic standards for learning and teaching of graduates in agriculture be linked with further training by industry through accreditation of agriculture professionals.

Threshold Learning Outcomes for Agriculture

Upon completion of a bachelor level degree in agriculture or a related sub-discipline, graduates will:

Understanding agriculture

1. Demonstrate a coherent understanding of agriculture by:
 - a. Explaining the role and relevance of agriculture and its related sciences, and agribusiness in society.
 - b. Understanding the role of the major biophysical, economic and policy drivers on agricultural practice and practice change.

Knowledge of agriculture

2. Exhibit depth and breadth of knowledge of agriculture by:
 - a. Demonstrating fundamental knowledge in core sciences related to agriculture.
 - b. Demonstrating knowledge of relevant agricultural production systems and their value chains.
 - c. Understanding the information adoption process and the context within which producers and processors make decisions.
 - d. Demonstrating in-depth specialist knowledge in at least one area.
 - e. Understanding how knowledge from different disciplines is integrated and applied.
 - f. Demonstrating a basic understanding of economics, business and social science as they apply to agriculture.

Inquiry and problem solving

3. Critically analyse and address complex problems in agriculture by:
 - a. Identifying contemporary issues or opportunities in agriculture.
 - b. Gathering, synthesising and critically evaluating information from a range of sources and disciplines.
 - c. Designing and planning an investigation.
 - d. Selecting and applying appropriate and/or theoretical techniques or tools in order to conduct an investigation.
 - e. Collecting, accurately recording, analysing, interpreting and reporting data.
 - f. Drawing conclusions from data and information and making decisions from them that could form the basis of advice or actions, with consideration of the profitability and sustainability that may exist in agricultural systems.

Communication

4. Be effective communicators by:
 - a. Engaging effectively in communicating results, information, or arguments to a range of audiences (peers, professionals, clients and the public).
 - b. Communicating for a range of purposes, and using a variety of modes within an agricultural context.

Personal and professional responsibility

5. Be accountable for their own learning and professional work by:
 - a. Being independent and self-directed learners
 - b. Working effectively, responsibly and safely in an individual and team context
 - c. Demonstrating knowledge of the regulatory frameworks relevant to their specialist area in agriculture
 - d. Personally practising ethical conduct.

Supported by:



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The views expressed in this information sheet do not necessarily reflect the views of the Australian Government Office for Learning and Teaching