

Learning and Teaching Academic Standards Statement for Agriculture



The Statement on the Nature and Extent of Agriculture and Threshold Learning Outcomes were approved by The Australian Council of Deans of Agriculture on 9 April 2014.

Scope

For the purpose of this statement, 'agriculture' encompasses a range of degrees and sub-disciplines, including (but not limited to):

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

Nature and extent of agriculture

Agriculture is defined as the land-based 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 technologies and knowledge gained from multiple disciplines to manage agro-ecosystems in a way that produces more from our natural resources than could be achieved without intervention. Agriculture aims to adopt a stewardship role ensuring environmental, economic and social sustainability.

Agriculture is undertaken in diverse and variable systems that span the entire value chain from production to consumption. Agriculture has its foundation in scientific method. Evidence gained from empirical investigations is applied in the development of new technology, processes and practices in the value chain to improve productivity. The process of extension, diffusion and adoption of new agricultural practices at local, national and global scales depends on effective communication and is underpinned by application of rural sociology and education.

Degrees in agriculture provide a wide range of knowledge and skills across broad subject areas allowing career flexibility for graduates. Graduates of agriculture and related sub-disciplines are employed in diverse roles that contribute to the successful practice of agriculture to meet the needs of society. Such roles include (but are not limited to):

- Research and the generation of new knowledge and technologies
- The development and application of knowledge and technologies to solve complex problems and create opportunities
- Primary production in the value chain
- Educators in secondary and tertiary institutions
- Extension and adoption of knowledge by society
- Provision of policy and regulatory advice
- Provision of advice by finance and marketing professionals
- Agriculture professionals who provide leadership and advocacy
- Media specialists who communicate about agriculture

Agricultural industries use a range of specialised disciplines to develop sustainable production systems. Graduates must therefore be encouraged to undertake continued professional development. The academic standards for learning and teaching of graduates in agriculture will be the foundation for further training by industry that leads to certification to practice as agriculture professionals. As with initial training, Universities and industry both have responsibilities for the ongoing learning.

Threshold Learning Outcomes for Agriculture

Upon completion of a bachelor level degree in agriculture or a related sub-discipline, graduates will, as a minimum, be able to demonstrate their knowledge and skills in the following:

Understanding agriculture

1. Demonstrate an integrative understanding of agriculture by:
 - a. Explaining the role and relevance of agriculture and its related sciences, and agribusiness in society.
 - b. Understanding the major biophysical, economic, social and policy drivers that underpin agricultural practice and how they contribute to practice change.
 - c. Understanding how information is adopted and the context within which producers, processors and consumers, make decisions.

Knowledge of agriculture

2. Exhibit depth and breadth of knowledge of agriculture by:
 - a. Demonstrating knowledge of the core sciences in the context of agriculture.
 - b. Demonstrating broad generalist knowledge of relevant agricultural production systems and their value chains, with specialist knowledge in at least one area.
 - c. Understanding how knowledge is integrated and applied from different disciplines to agriculture.
 - d. Demonstrating an appreciation of economics, business and social science as they apply to agriculture.

Inquiry and problem solving

3. Critically analyse and address dynamic complex problems in agriculture by:
 - a. Identifying contemporary issues and opportunities in agriculture.
 - b. Gathering, synthesising and critically evaluating information from a range of relevant sources and disciplines.
 - c. Selecting and applying appropriate and/or theoretical techniques or tools in order to conduct an investigation.
 - d. Collecting, accurately recording, analysing, interpreting and reporting data.

Communication

4. Be effective communicators by:
 - a. Understanding methods of effective two-way written and verbal communication with different audiences.
 - b. Communicating with a range of audiences in an agricultural context using a variety of modes.

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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