



Good practice guidelines for the use of animals in teaching

This document outlines good practice relating to the care and use of animals for teaching at Charles Sturt University. The guidelines are evidence based, reflecting current or accepted good practice and allow for the flexibility that is required in teaching activities using animals.

This document is designed to provide guidance to Charles Sturt University animal users and animal care staff in designing teaching activities involving animals. This guide may also be used by the Animal Ethics Committee (AEC) in assessing the suitability of teaching proposals involving animals.

Summary

- Charles Sturt University and investigators must ensure that animals are used for teaching only when their use is essential and suitable alternatives to replace the use of animals to achieve the educational outcome are not available.
- The 3Rs (replacement, reduction, and refinement) must always be carefully considered for animal use in teaching with a strong focus on the justification of using live animals.
- Investigators and animal care staff involved in the care and use of animals for teaching must be named on a Charles Sturt University animal ethics authority and deemed competent in the procedure/s they are performing.
- To promote transparency when teaching with animals, investigators should discuss with students the University requirements for animal use, along with the AEC authority for their project and consideration of the 3Rs.
- Respect for animals and their welfare must underpin all decisions involving teaching activities with animals and take precedence over teaching outcomes.

Benefits and risks

Appropriate training of staff and students minimises the welfare impact on animals undergoing procedures as well as reducing the risk of injury to staff and students. Appropriate and consistent use of animals in teaching contributes to improved teaching and animal welfare outcomes.

If investigators or students are allowed unsupervised access to animals prior to attainment of competency, animals may receive inadequate monitoring, intervention, or care, resulting in compromised animal wellbeing, human work health and safety risk or severe consequences such as injury or death.

Teaching, human and animal welfare outcomes may be compromised if appropriate supervision, training or competency assessment is not undertaken.

Continuous review of the use of animals in teaching is required as new methods of replacement or refinement are being developed.

Principles of teaching with animals

Tertiary and veterinary modern education recognises that demonstration and practice of many practical or clinical techniques can be performed effectively using a variety of alternatives to live animals and/or in a clinical or existing research context. It is internationally well recognised that performing invasive techniques purely for demonstration or teaching is no longer best practices on both animal welfare and pedagogical principles.

There is a large body of available lesson plans, webinars, online modules, replicas, video and photographic modalities, in-vitro options as well as opportunities for teaching alongside existing research or clinical activities.

Charles Sturt University aims for best practices and standards in research and teaching. Except for animals seen as part of a routine clinical or agricultural setting, only healthy animals must be used for teaching purposes. A healthy animal is defined as an animal not having any condition that requires treatment or causes any pain or discomfort to the animal under normal husbandry conditions.

Where cadavers are used as an alternative to live animals for teaching, they are to be sourced ethically, with informed consent where relevant. Animals are not to be humanely killed for the primary purpose of teaching as there are a myriad of sourcing options for animal cadavers or tissues.

All investigators or staff involved in teaching with animals must have undertaken the Charles Sturt University ELMO '*Animal Care and Ethics*' training in the last 3 years prior to teaching with animals. All investigators and animal facility staff working with animals must undertake the relevant facility induction from the appropriate technical staff, prior to being permitted any unsupervised access to animal facilities.

Teaching with animals

At the start of a teaching session, students are recommended to be shown the '*Charles Sturt University Animal Use*' YouTube video. The video provides a basic summary on legal, welfare (including the 3Rs), social, and ethical issues of animal use in teaching. Students are to be made aware of the procedures performed on animals prior to use and the source of animals on named AEC approvals (i.e., owned, excess to use, purchased from supplier).

The Animal Welfare Officer (AWO) may review or observe any procedures involving animals used in teaching at Charles Sturt University.

Where applicable, any teaching of procedures on live animals should include theory, cadaver or teaching model use, observation, and appropriate training in any equipment required. Teaching with animals should include information on the equipment, technique, safety, relevant anatomy, monitoring and potential adverse events with appropriate response.

Investigators must ensure they have animal ethics approval (with an active AEC authority) of the procedure to be taught prior to commencing teaching with live animals.



All staff and investigators involved in the care and use of animals are to be competent to a reasonable standard of animal husbandry in relation to the species in accordance with the procedure [Animal Care Competency Training and Assessment](#). Persons who are not yet competent are not permitted to be Chief Investigators and must work under the supervision of competent individuals.

An animal ethics application for teaching using animals must include a timeline with all procedures performed during the teaching project, to allow the AEC to adequately assess the cumulative burden to animals. Each AEC teaching application must include a limit on the number of times a procedure can be performed on an individual animal within a teaching session and if applicable for the duration of an animal's life. The maximum ratio of teaching staff to students must also be included in the AEC application.

If the fate of the animal is euthanasia, surplus animals are to be the primary source of teaching animals. Teaching with surplus animals requires approval from the Animal and Field Manager and this approval must be included in the project's animal ethics application.

Investigators and staff are to be aware that animal welfare is everyone's responsibility and should be of high priority. Chief investigators are ultimately responsible to ensure that staff are trained to competency, adhere to AEC approval protocols and Charles Sturt University processes when working with animals.

Experienced investigators, animal carers and veterinarians should seek continuing education to advance their knowledge of new and improved ways to refine, reduce and replace use of animals in teaching. At the renewal of each application the investigators are encouraged to review with the AWO if they can forgo the use of animals in teaching, use scavenged tissues, a hybrid teaching arrangement (mix of scavenged tissues/animals and alternatives), source animals excess to requirements, or re-home animals.

Any privately owned animals used in teaching require formal consent and this information is to be included in the teaching application.

Where possible, animals used for teaching are to be re-homed following the Charles Sturt University [Animal Rehoming procedure](#).

AEC approval requirements when teaching with animals

AEC approval is not required for the training and application of agricultural extension work practices, or the training of students in veterinary science, veterinary nursing or animal technology to achieve competency-based outcomes in routine procedures if all of the following apply:

- the animals are at their home property, or a premises licensed by a state or territory Veterinary Surgeons Board.
- the procedures would normally occur as part of routine management or veterinary clinical management of the animal.
- the animals are not subjected to anything additional to routine management or veterinary clinical management of the animal.
- the teacher is competent to carry out the procedure.



All use of animals for teaching (other than the above) requires AEC approval. Investigators may contact the AWO if there is any question or concern to determine if AEC approval is required for any animal activity involving students.

Monitoring, intervention and record keeping

Teaching with live animals must include monitoring and intervention criteria specific to the procedure. The intervention criteria must clearly define humane endpoints and outline potential side effects or adverse events. All AEC approved animal monitoring records must be kept and where applicable, information on individual animal histories must also be retained.

All records must be kept and stored by personnel and/or Chief Investigators who undertake teaching and must be available for AEC or AWO inspection, internal or external audit or other Charles Sturt University internal review. This includes the number of teaching sessions and procedures performed on an individual animal.

All animals are to be managed, used and monitored as per the approved AEC application. Deviations must not occur except in the interest of animal welfare. Any deviation must be reported immediately to the Animal Ethics Partner. Project modification requests are to be submitted to the AEC for formal consideration and approval **before** any modification is implemented.

Where unexpected adverse events occur in relation to a project, a report must be submitted to the AEC promptly.

Exemptions

Where adherence to this guideline conflicts with proposed work, the AEC may grant exemptions to all or part of the guideline. To seek exemption, applications should clearly outline how the proposed work deviates from the guideline in the application and justify the need for this. It is recommended that you consult with Charles Sturt University's AWO.

Unexpected adverse events

Anyone identifying an [unexpected adverse event](#) must act to remove and/or minimise any immediate risk to animals. An [adverse event report](#) must then be promptly completed and sent to the AEC via the animal ethics partner.

Glossary

- (1) For the purpose of this guideline, the following terms have the definitions stated:
 - a. 3Rs - means Replacement, Reduction and Refinement
 - b. Invasive procedure – means a procedure that may cause an animal a level of pain, suffering, distress, or lasting harm equivalent to, or higher than, that caused by inserting a hypodermic needle. This includes administration of a sedative/anaesthetic agent, insertion of an instrument into a body orifice, and the use of X-ray radiation.



- c. Unexpected adverse event – means any event which impacts negatively on the wellbeing of animals, and which was not anticipated, or has occurred at a frequency or severity in excess of what was anticipated in line with the AEC approval. This can be a single or cumulative event, and will normally involve unexpected mortality, morbidity or injury.

Table of references

The following source material contributed to the development of this guideline, along with contributions from the Animal Welfare Officer network of Victoria:

Number	Reference type	Title, Publisher, Date	Hyperlink
1	Industry Standard	Australian code for the care and use of animals for scientific purposes, 8 th edition, 2013	https://www.nhmrc.gov.au/about-us/publications/australian-code-care-and-use-animals-scientific-purposes
2	Legislation	UK Animals Scientific Procedures Act, 1986	https://www.legislation.gov.uk/ukpga/1986/14/contents
3	Industry Standard	ARRP policies and guidelines on the use of animals in teaching	https://www.dpi.nsw.gov.au/dpi/animals/animal-ethics-infolink/arrp-policies,-guidelines-and-factsheets
4	Standard	RCVS standards and guidance for the accreditation of veterinary degree programmes 2023	https://www.rcvs.org.uk/document-library/rcvs-standards-and-guidance-for-the-accreditation-of-veterinary/
5	University procedure	Animal care competency training and assessment, Charles Sturt University, 14 March 2023	https://policy.csu.edu.au/document/view-current.php?id=491
6	University procedure	Animal rehoming, Charles Sturt University, 19 April 2023	https://policy.csu.edu.au/document/status-and-details.php?id=438

