**Pedagogical Merit Review of Live Animal-Based Teaching or Training**

The Canadian Council on Animal Care, which oversees animal use for research, teaching and testing, requires that the use of animals in teaching must first undergo formal review of Pedagogical merit to ensure that animal-based teaching or training is essential to meeting learning objectives and outcomes. This includes the use of animals that might be used in formal teaching of credit courses in the University Calendar, as well as for non-degree/diploma/certificate courses, professional development or continuing education workshops and workshops/courses for training of users of animals in research.

The University of Alberta University Animal Policy and Welfare Committee (UAPWC) has formed a Pedagogical Merit Review Subcommittee and developed a process to ensure that the need to use live vertebrate animals to meet learning objectives and outcomes is formally examined and found to be meritorious before any new course is implemented, and is subsequently reviewed every 4 years.

Courses or training involving animal use that constitutes Invasiveness Category A work, which includes use of eggs, tissue cultures, tissues obtained at necropsy or from an abbatoir, or invertebrates other than Cephalopods, do not require review by an Animal Care Committee or Pedagogical Merit Review. Third-party animal-based activities conducted on campus or off-campus (e.g. Clubs using University facilities, off-campus student practicums) do not require such review. However all of these should be registered with the Research Ethics Office using the Form “Exceptions to ACUC Review” which is available on the REO website (<http://www.reo.ualberta.ca/en/Forms-Cabinet/Forms-Animal>)

The University Animal Policy and Welfare Committee will constitute a standing Pedagogical Merit Review Subcommittee to ensure that sufficient academic rigor and knowledge of animal use and alternatives (replacements) are engaged. Preferably these members would have prior experience serving on an Animal Care and Use Committee (ACUC). Currently serving ACUC Members would be eligible, but would not be permitted to participate in subsequent review of the Animal Use Protocol (AUP) by the ACUC.

The committee will comprise:

* At least one Faculty member with teaching expertise and knowledge of academic program requirements in each of: Agriculture, Biology, and Health Sciences (3+ members)
* At least one Faculty member(s) with expertise in pedagogy and course design. (1 member)
* A graduate student representative. (1 member)

Subcommittee members involved in a review must not be involved with the course being reviewed. Additional reviewers may be sought for a review if serving members agree that sufficient expertise or knowledge of a subject area is lacking.

Support and advice will be provided to the Subcommittee by the University Veterinarian, (non-voting) who will not be involved in the final decision making or the recommendations made by the Subcommittee. Administrative support will be provided by the Research Ethics Office Administrative Assistant.

For each review, at least two members of the Subcommittee, including a faculty member with knowledge of the subject area and of replacement alternatives, and a faculty member with expertise in pedagogy and course design will examine the submitted documents. They will provide their assessment to the rest of the committee, who will then vote on the recommendations to be made. The Subcommittee’s comments will be documented and forwarded to the Instructor, who is asked to make appropriate changes to the AUP and related documents, before resubmitting the documents. If the reviewers agree by vote that the changes adequately address the Pedagogical Merit Review Subcommittee’s recommendations, then the Animal Use Protocol, as well as the reviewers’ comments and conclusions will be submitted to a Professor or Associate Professor delegated by the VP (Research). This individual, if pedagogical merit is confirmed, will forward the following to the ACUC:

* The final AUP
* The documents reviewed
* The reviewers’ comments and conclusions

If based on the comments and conclusions of the Subcommittee, the delegate of the VP (Research) finds that there is not pedagogical merit, this decision will be communicated to the Instructor, Department Chair and Faculty. The ACUC will not undertake ethical review of the protocol unless a subsequent submission of an altered proposal is submitted, reviewed and accepted.

Once the Pedagogical Merit Review Subcommittee finds that pedagogical merit is confirmed, the ACUC will review the AUP. The ACUC has the final decision with regard to animal involvement in teaching and training protocols. The ACUC will review the AUP and the conclusions of the Pedagogical Merit Review Subcommittee, and will determine if animal involvement in the protocol is acceptable both ethically and in practice, based in large part on the Three R’s (replacement, reduction and refinement).

All new courses, or courses for which new animal use is proposed, must undergo Pedagogical Merit Review prior to approval by the ACUC. To ensure that there is sufficient time to complete both reviews, the Animal Use Protocol and Pedagogical Merit Review documents must be submitted at least 6 months prior to the beginning of the course.

For courses that have existing Animal Use Protocols (AUP), a merit review will be completed during the year prior to 4th year renewal. In February of each year, a list will be generated of all courses that expire the following year, and the merit review process will be initiated. This will ensure that the necessary review can be completed prior to the Animal Care and Use Committee review of that AUP.

The Instructor/PI will start a new AUP to describe the use of animals in the course, or may generate a “copy” of the existing AUP to edit/update. In addition to the Animal Use Protocol, the Instructor will submit the following documents:

* The Course Syllabus
* A detailed list of course objectives and outcomes, if not described in the Syllabus
* If the course is a required part of an academic program, a list or description of program objectives/and or outcomes
* A description of learning assessment methods (i.e. how will students be evaluated on knowledge or skill acquisition that pertain to the use of animals). Methods might include essays, written exam questions, multiple choice questions, laboratory reports, successful performance of a task evaluated by an instructor, etc.)
* The proposed learning activities that require the use of a live animal must be clearly described (usually in the Animal Use Protocol or in a standard operating procedure). Such activities might include observation, capture, restraint, anesthesia, dissection, tissue harvest, muscle preparations, etc.

Reviewers will assess whether there are clear, logical alignment between stated Learning Outcomes, Learning Assessment Methods, and Learning Activities. That is, do learning outcomes align with learning assessment methods, and do both align with the learning activities in support of the outcomes? For example, if the student is expected to develop technical skills, are the assessment methods adequate to assess whether that objective is met?

In cases where a provincial government ministry or a professional regulatory body dictates learning outcomes or required competencies for students, the process can be simplified. Step one (ensuring curricular alignment) and step two (ensuring the specific learning outcomes are essential for the students) have already been addressed. The only remaining task is to assess whether absolute or relative replacement alternatives are available and are being adequately employed.

The goal of the review process is to determine if the use of animals proposed by the instructor is the best learning model in support of the intended learning outcomes. Is the involvement of the proposed animal model essential, or can replacement alternatives be used to achieve the same outcomes as evaluated using the assessment methods proposed? Consideration should be given to both absolute replacements (e.g. replacement of animals with computer models or simulators) and relative replacements (e.g. replacement of more sentient vertebrate animals with less sentient animals such as invertebrates).

To submit forms or for further information, contact the Research Ethics Office.

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University Animal Policy and Welfare Committee

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