

**ANSC 6730 APPLIED ENVIRONMENTAL PHYSIOLOGY
AND ANIMAL HOUSING (3-0) 0.5
WINTER 2018**

Professor: Dr. V. R. Osborne
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Lectures: Mondays 10:00 -11:20 am, ANNU Room 101

Course Description

Understanding animals' biological responses to the environment is essential for providing good animal care and maintaining optimum performance. This course is designed for all students who will be involved in the care and management of agricultural, laboratory, exotic or companion animals.

We will cover innovative concepts of environmental physiology and their application to animal housing and management. The course will review aspects of the thermal, light and air environment as they relate to animal biology, health and welfare.

Course Objectives

Develop an advanced understanding of animals' physiological responses to the environment and how these responses influence health, productivity and well-being and to provide an opportunity for you to develop science-based recommendations for animal housing and management.

Lecture/Discussion Topics

(Advanced level themes listed, and as many different animal types as possible to be included)

Environment/Animal Integrated Physiology and Geometry/Performance Relationships
Thermal Environment/Modelling responses
Biological Rhythms/Photoperiods
Animal Factors and Ergonomics in Design
Animal Building Envelopes, New Materials and Equipment

Evaluation:

Science Paper Critiques/Presentations x2	25 %
SWOC Assignment	25 %
Personal Research Notebook	50 %

SWOC Assignment

I would like to work with each student individually to further develop their anticipated area of study to better understand how environment and housing may affect research outcomes and to develop a SWOC (strengths, weaknesses, opportunities, challenges) analysis.

Personal Research Notebook

Over the course of the semester, students maintain a personal research journal based on the topics discussed during class. This is to develop and enhance the student's knowledge on the subject and which research group(s) around the world is leading the industry, academia or government. The journal is to be handed in end of semester. The template for the notebook will be discussed in the first class period.