

**ANSC 1602 / SAAS 202**  
**BEHAVIOR AND TRAINING OF DOMESTIC ANIMALS**

**Time:** Lecture 8:00 AM Tuesday and Thursday – GW 209  
Lab/Discussion 1-3 PM Thursday – WBY 100 or as announced

**Instructor:** Dr. Michael J. Darre - Office Room 3 GW, 486-1008  
E-mail michael.darre@uconn.edu  
Office Hours, by arrangement.

**Teaching Assistant:** Genevieve Flock [genevieve.flock@uconn.edu](mailto:genevieve.flock@uconn.edu)

**Required Text:** *Animal Behavior* - Michael D. Breed and Janice Moore. Academic Press  
2012

*Don't Shoot the Dog - The New Art of Teaching and Training.* revised edition, Karen Pryor (DSTD)

Other materials will be presented on HuskyCT or as class handouts.

**Optional Texts:** *Principles and applications of domestic animal behavior.* 2008. Edward O. Price.  
CABI ISBN 13:978 1 84593 398 2

*Domestic Animal Behavior for Veterinarians and Animal Scientists*, 3<sup>rd</sup> edition. 1998,  
Katherine A. Houpt. Iowa State University Press.

**Course Description:** The application of ethology to domestic animal management and training.

**Course Objectives:**

1. Understand the basics of normal and abnormal behavior in domestic animals and learn to apply psychological principles to animal management and training.
2. Interpret research results and evaluate their applicability to domestic animal management.
3. Understand how to apply the principles of ethology to solve animal welfare problems.

**Grading:**

200 points - 2 one-hour written exams (100 points each)

100 points - Final Exam, cumulative

50 points - Student Animal Training Projects

30 points – Scientific Paper Review

120 points - Lab/Discussion write-ups

Total 500 points

450 - 500 = A

435 - 449 = B+

400 - 434 = B

385 - 399 = C+

350 - 384 = C

335 - 339 = D+

300 – 334 = D Less than 300 = F

Assignments and tests are due on the date and time specified by the instructor. **Late assignments will not be accepted**, and the students will not receive points for that assignment. Permission to make-up missed work will be granted only for authorized absences **arranged in advance of the absence**. In case of absence due to emergency, sickness, or death in the family, it is the student's responsibility to notify the instructor as soon as possible. Email me with details of the situation. Absence due to sickness requires an excuse from the infirmary or a doctor.

**ANSC 1602 / SAAS 202**  
**BEHAVIOR AND TRAINING OF DOMESTIC ANIMALS**  
**CLASS SCHEDULE 2014**

**Schedule is Subject to Change as Determined by Instructor**

<b>DATE</b>	<b>TOPIC</b>	<b>ASSIGNMENT</b>
TU-Jan 21 -LEC	Introduction and Background	Pages 1-10
TH-Jan 23 -LEC <i>Lab/Disc</i>	Adaptive Purpose, Evolution of Behavior <i>Video: Animal Behavior - Introduction</i> <i>Understanding Dairy Cattle Behavior</i>	11-24
TU-Jan 28-LEC	The Nervous System and Behavior	25-64
TH-Jan 30-LEC <i>Lab/Disc</i>	Animal Cycles, Biological Clocks <i>Video: "What time is your body - Biological Rhythms"</i> <i>"Finding Their Way - Animal Navigation"</i>	104-112
TU-Feb 4-LEC	Migration, Orientation, Navigation	219-249
TH-Feb 6-LEC <i>Lab/Disc</i>	Learning in Animals <i>Respondent and Operant Behavior</i> <i>A General Procedure for Conditioning</i> <i>Generalization, discrimination and Motivation</i> <i>Sequences of Behavior</i>	125-150
TU-Feb 11-LEC	Hormones and Behavior	38-50
TH-Feb 13-LEC <i>Lab/Disc</i>	Development of Behavior <i>Application of Operant Techniques to Animal Training</i> <i>Lesa Video</i>	67-96 DSTD 1-97
TU-Feb 18-LEC	Cognition, Emotion, Consciousness - handout	151-182
TH-Feb 20-LEC	Animal Communication <i>Lab/Disc Video clips: Language Development, Talking To Strangers,</i> <i>If Dolphins Could Talk - Discussion</i>	183-218
<b>TU- Feb 25 LEC</b>	<b>1st HOUR EXAM</b>	
TH-Feb 27-LEC <i>Lab/Disc</i>	Sexual Behavior <i>Video Clips: Courting and Continuing the line</i>	307-340
TU-Mar 4 -LEC	Mating Systems –Parental Care	341-354
TH-Mar 6-LEC <i>Lab/Disc</i>	Neonatal Behavior <i>Video clips Homemaking and Growing Up</i>	355-363

TU-Mar 11 -LEC	Social Systems	367-432
TH-Mar 13-LEC	Habitat Selection	343-346
	<i>Lab/Disc Video Clips: Friends and Rivals, Living together,</i>	
<b>SPRING BREAK ! March 16- 22 YEA!!</b>		
TU-Mar 25-LEC	Feeding, Drinking and Eliminative Behavior	113-114, 253-280 Husky CT
TH-Mar 27-LEC	Sleep and Grooming, Exploratory Behaviors,	112, Husky CT
	<i>Lab/Disc Video Clips: Finding Food and Hunting and Escaping</i>	
TU-Apr 1-LEC	Avian Flock Behaviors (Don't Fool around today!)	Husky CT
TH-Apr 3- LEC	Non-Ruminant Behavior - Horses	Husky CT
	<i>Lab/Disc Application of Behavioral Training</i>	
<b>TU-APR 8-LEC</b>	<b>2nd HOUR EXAM</b>	
TH-Apr 10 -LEC	Non-Ruminant Behavior - Swine	Husky CT
	<i>Lab/Disc Animal Training Progress/Discussion and Tips</i>	
TU-Apr 15-LEC	Ruminant Behavior - Cattle Sheep & Goats	Husky CT
TH-Apr 17-LEC	Carnivores: Dogs and Cats	Husky CT
	<i>Lab/Disc Behavioral Changes due to Domestication</i>	
TU-Apr 22-LEC	Conflict and Thwarting	102-108, Husky CT
TH-Apr 24-LEC	Aggression and Fear in Livestock	100,118, 359-363 HuskyCT
	<i>Lab/Disc Ethology and Pest Control</i>	
	<i>Video clips: Fighting</i>	
TU-Apr 29-LEC	Student Project Presentations	
TH-May 1-LEC	Student Project Presentations	
	<i>Lab/Disc Student Project Presentations</i>	
	Review of Semester	

Final Exams

## ANSC 1602 / SAAS 202 - Student Scientific Paper Review

1. Research Paper Review papers are due in class on or before **April 3, 2014**
2. If you would like me to "pre-grade" your paper for grammar, spelling, content, etc., you may bring it to me in rough form prior to the due date.
3. An article from an animal behavior journal will be distributed. You will read and review the paper for applicability to animal behavior and training.
4. Review Format:

Read the article assigned for your critical assessment of a scientific paper. You as the reader/reviewer have the right to choose whether or not you think the research presented in the article is appropriate, meritorious, valid or over-extrapolated, unwarranted or groundless.

**COPY the outline below into your document** and then put your answer to **each question after each question in the outline.**

### 1. Title

- A. Is the title reflective of the actual content of the article?
- B. How could it be changed to make it more pertinent to the material presented?

### 2. Abstract

- A. Did the abstract adequately summarize the important scientific points of the research?
- B. Could you read the abstract and feel you understood the main results of the research?
- C. Could the abstract be changed to make it better for the reader?

### 3. Introduction

- A. Why is the problem/ subject of the research important?
- B. Why was the research done? Was there adequate justification of the study in the introduction?
- C. Has other research similar to that presented in the paper been done before?
- D. If so, then why did the authors of this paper still do their research on the same material/subject?

### 4. Research Objectives or Hypothesis

- A. Was the objective or hypothesis clearly stated?
- B. What was the objective or hypothesis of this research?

### 5. Materials and Methods

- A. What procedures were used in this research? (I don't need all the details of every little procedure, just summarize the important procedures that led to results)
- B. Were all of the procedures necessary? Were animals used in the research?
- C. If so, were animals treated in a humane manner throughout the research project?
- D. How was the data analyzed to determine if the results were significant or valid?

### 6. Results and Discussion

- A. What were the main results of the study?
- B. Did the author(s) explain their reasoning well in the discussion?
- C. Do you think the results were as expected by the author(s)? (I know this is speculation on your part, but reading the paper can help discern pre-conceived ideas.)

- D. Were there excuses made in regard to less than desirable results?
- E. How were negative results, if any, discussed and accounted for?

## 7. Implications

- A. Relate the meaning and relevance of the research to animal behavior and training.

## 8. References/Citations

- A. Did the authors appear to cite important research by others to back up their hypothesis, methodology, and results?
- B. Did they appear to cite important background research in their Literature review?

## 9. Critique

The critique is not a re-hash of the research results. Use it to show evidence of **your thoughts** and an understanding of the article reviewed. Consider the following questions:

- A. Was the paper written in a manner easily understood by the intended audience?
- B. How well do you feel the research met the stated objectives, and why do you think this?
- C. Would you suggest alternative procedures or a different study?
- D. What about a follow up study to the one presented. Provide your opinions in this section.

Paper Format:

1. **No More than 6 Double-spaced typed, 12 pitch, pages in length. Answer all questions posed in 1-9 above.**
2. **PROOFREAD!**
3. Papers will be graded according to the following procedure: Did you answer the questions, show an understanding of the paper and present valid arguments and statements for your opinions.

## **ANSC 1602/ SAAS 202 Animal Training Project**

*All* students will choose an animal and train that animal to perform at least three (3) new behaviors. If you have a dog or cat or other pet, that has not already learned the specific behaviors, you may choose it for your project. Farm animals from UConn will also be made available for you to train. Animals must perform the behaviors based on signals from the handler. Animals must respond to two **signals, 1.) Verbal (or other auditory) and 2.) Visual (non-verbal)**. Excessive coaching indicates a lack of training and will result in a lower performance grade. Examples of behaviors are:

Halter training cattle, leading and making cattle move forward, backward and turn on command.

Feed from a specific feeder after doing a series of two or more specific behaviors, such as turn around and back up.

Perform a series of behaviors, like pick up objects, jump a fence, etc.

Rats to learn a maze and do several types of behaviors throughout the maze, such as ring a bell, go under and over objects, etc.

Training Sheep or pigs to follow without halters and to heel, turn around, lie down, etc.

Other animals performing A to B's and chained behaviors.

### **TRAINING LOG BOOK**

I will discuss this project with you. Projects will be demonstrated for the class during the last two

Lecture and Lab/Discussion class meetings. Projects will be graded on the ability of the animal to perform the behaviors (50% of grade) and on a personal training **log book** (50% of grade) to be kept by each student. The log book will contain the following:

1. Description of Behaviors animal is to learn. 10%
2. Detailed description of Methods used in training. 70%
3. Record of progress. How well the training is going over time. (daily, weekly, etc.) 15%
4. Record of Actual Time spent in training, such that total hours required to train the animal to the specific behavior may be determined. 5% (Normally, training sessions do not exceed 30 min, depending on the attention span of the animal.)

Completed log books are to be turned in at the time of the presentation of your project.

### **IN CLASS PROJECT PRESENTATION**

Students must demonstrate the three trained behaviors using the Auditory and Non-Auditory commands, thus showing each behavior twice. Students will be randomly assigned to one of three presentation sessions during the last week of classes. Students may bring the animal to class and demonstrate the trained behaviors or they may produce a 3 minute (Maximum time) video presentation to be shown to the class. This may be put on You-Tube or placed on a memory stick and uploaded to the presentation software in class. You may also make a CD, DVD or video tape of your trained behaviors. If you use any other format, check with Dr. Darre ahead of time to be sure it is compatible with the presentation equipment in the classroom.

**NOTE: If there are any students in this class who have special needs because of learning, physical or other disabilities, please contact the Center for Students with Disabilities at <http://www.csd.uconn.edu/> Arrangements can be made to meet your special requirements.**

Some useful phone numbers:

Counseling and Mental Health Services: 486-4705 (24 hrs) [www.cmhs.uconn.edu](http://www.cmhs.uconn.edu)

Alcohol and Other Drugs Services: 486-9431 [www.aod.uconn.edu](http://www.aod.uconn.edu)

Dean of Students Office: 486-3426 [www.dos.uconn.edu](http://www.dos.uconn.edu)

“Attention Students.

**Final exam week for Spring 2013 takes place from Monday, May 6 through Saturday, May 11. Students are required to be available for their exam during the stated time. If you have a conflict with this time you must visit the Office of Student Services and Advocacy to discuss the possibility of rescheduling this exam.**

**Please note that vacations, previously purchased tickets or reservations, graduations, social events, misreading the exam schedule and over-sleeping are not viable excuses for missing a final exam. If you think that your situation warrants permission to reschedule, please contact the Office of Student Services and Advocacy with any questions. 860-486-3426 (Phone) 860-486-1972 (Fax) [ossa@uconn.edu](mailto:ossa@uconn.edu)**

**Thank you in advance for your cooperation.**

.

## ANSC 1602/ SAAS 202 SELECTED DEFINITIONS

**AGONISTIC:** used as a word for general aggression in animals, covers the responses of approach, fight and flight.

**ALLELOMIMETIC:** a type of social behavior involving imitation of another species member or members. Behaving in the same way in a grouped.

**ALPHA MALE:** the top-dominant male in a social-ranking order.

**ALTRICIAL:** young hatched or born in a very immature condition, generally blind, naked and unable to leave the nest or den.

**ANTHROPOMORPHIC:** assigning to animals the feelings and emotions of humans.

**APPETITIVE BEHAVIOR:** the search for a releasing situation, object or stimulus brought about by an increase in SAP.

**BONDING:** see imprinting.

**CANNIBALISM:** an animal pecking at or feeding on its own species.

**CAST:** a dog's action to go out and surround sheep.

**CENTROID:** the central place in a delineated group or area in which a group is dispersed.

**CONSUMMATORY ACT:** a FAP that is the last in a series of behaviors that use up or consume the nervous energy of the SAP.

**CRECHE:** a nursery or pool of young animals cared for in a group.

**DIURNAL:** a daily recurring rhythm of activity.

**DISPLACEMENT BEHAVIOR:** behaviors that arise when the animal is unable to carry on more relevant behaviors because it is in conflict as to what to do.

**DOMINANCE:** where some animals, because of age, size or sex, can dominate other animals and gain access to limited resources such as the best mates, feeding or watering sites.

**ELIMINATION:** a term to cover both urination and defecation.

**EPIMELETIC:** asocial behavior which relates to the giving of care and attention to the young or new born.

**ET-EPIMELETIC:** social behavior shown by the young to elicit care giving responses from older animals.

**ETHOGRAM:** an exact catalogue of all behavior patterns occurring in an animal species.

**ETHOLOGY:** the biology of behavior. Zoological term for the science of animal and human behavior.

**FERAL:** formerly domestic, but returned to the wild or semi-wild condition.

**FIXED ACTION PATTERN (FAP):** a stereotyped, complex movement or vocalization that is species-specific. (Usually innate behaviors).

**FLEHMEN:** a mammalian response in which the mouth is opened, the upper lip retracted to expose the teeth while the head is lifted high or jerked backward, Occurs frequently in the reproductive season. Also

termed the lip-curl.

**FOSTERING:** making a dam accept an offspring other than its own, or giving an offspring to another dam.

**GENTLING:** stroking or handling of an animal, usually in early life, in a gentle manner to assist tameness and approachability.

**HABITUATE:** to learn passively, to respond less often or not at all to repeated stimuli which do not harm or reward the animal, i.e. biologically un-meaningful events.

**HEAD:** the action of a working dog to go around and gather stock or stop them straying.

**HEEL:** the ability of a dog to bite the heels of cattle to move them along.

**HIERARCHY:** an ordering of group members in relation to social activities like movement, or social status.

**IMPRINTING:** very rapid learning taking place during a sensitive period - usually near birth or close after puberty which bonds an animal for life to its own species or to a substitute. Responses in later life are directed towards the imprinted object.

**INNATE RELEASING MECHANISM (IRM):** postulated physiological mechanism which allow the FAP to occur when the corresponding sign stimulus is perceived. Probably two mechanisms:

1. Blocks the SAP so it may not unload and activate the corresponding FAP permanently.
2. Removes this block when the right sign stimulus occurs.

**INSTINCT:** an inherited and adapted system of coordination within the CNS which when activated finds expression in behavior cumulating in a FAP. It is organized on a hierarchical basis. When charged, it shows evidence of SAP and readiness for release by an environmental releaser.

**INTENTION MOVEMENT:** the first movement by which an animal initiates a definite action. Intention movements are often ritualized and then serve as expressive behavior. Generally intention movements indicate what the animal is going to do next.

**KEY STIMULUS, SIGN STIMULUS, RELEASER:** a physical or behavioral characteristic of an object which releases a definite behavior pattern (FAP) in an animal of a given species.

**LIBIDO:** sexual drive or urge to mate. Usually refers to male in farm animals.

**MATRIARCHAL DOMINANCE ORDER:** the rank order of animals based on their ability to pursue or maintain a dominant position in family groups when adult males are not present but adult females are.

**NEONATE:** the newborn at or near birth.

**NOXIOUS:** animals that are unwanted pests which damage the environment.

**NYMPHOMANIAC:** female animal in continuous oestrus. In cattle called a buller.

**PECK ORDER:** order of social dominance in birds or animals.

**PHEROMONE:** a hormone-like substance produced in distinct glands and released outside the body to transmit information between individuals of the same species.

**POLYDIPSIA:** excessive thirst sometimes resulting from restrictions or stress on a bird or animal.

**PRECOCIAL:** born in an advanced state of development, viz. being able to stand up, move and accompany the dam within minutes or hours of birth.

**PREDATOR:** one which pursues an animal to capture it as prey.

**PROMISCUOUS:** an animal that will mate with many other different animals of its species.

**REFLEX:** an innate, simple, stereotyped response, usually to a localized stimulus, that involves only part of an organism although the whole may be affected.

**RITUALIZATION:** the phylogenetic process by which:

1. a movement has lost its original meaning and acquired a new one.
2. Originally variable and/or chance occurring movements become stable (stereotyped or fixed)

**RUT:** the period in deer and goats when the males are sexually active and mate with the females.

**SOCIAL FACILITATION:** behavior whereby others are enabled to engage in similar action more easily. Any influence exerted on another which increases the frequency of current responding.

**SOCIALIZATION:** to develop social attachments to species members during a sensitive period in young life - less rapid than imprinting - occurs in altricial or slower-developing species rather immature at birth.

**SOCIAL RELEASER:** a physical or behavioral characteristic of an animal which releases a definite behavior in a con-specific.

**SPECIFIC ACTION POTENTIAL (SAP)** - a postulated type of energy in the CNS which is necessary for the performance of a given instinctive behavior and charges that behavior. The terms mood and drive are similar.

**THRESHOLD VALUE:** the minimum value (intensity, size, duration) a stimulus must have to release a response.

**TROPISM OR TAXIS:** positive or negative orientation to a stimulus or stimulating object.

**VACUUM ACTIVITY:** a spontaneous exploding of a behavior (FAP) without stimulation by a releaser.

**SYMBIOTIC:** that which mutually benefits two or more partners