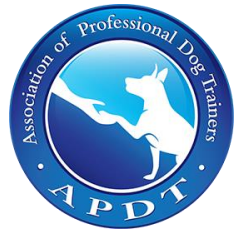


APDT eLearning Hybrid Course Certificate Course Syllabus



Course Overview

Title: Learning Theory 201: An Advanced Look at How Animals Learn

Course Dates:

- Start: Wednesday, July 10, 2019
No class the week of July 22
- End: Tuesday, August 20, 2019

Recommended Course Materials:

- *Excel-erated Learning* (Pamela J. Reid). Available through www.Dogwise.com
- Links to selected journal articles may also be provided in your dashboard during class

Description: Once you know the basics of how animals learn, it's time to take it to the next level. How do you know if you know the basics? You can define and distinguish between operant and classical conditioning. You understand the differences between positive and negative reinforcement and punishment and how to apply them. If you know the previous information, you're ready gain a deeper understanding of animal learning. This course is the ideal follow-up to *Intro to Animal Learning*.

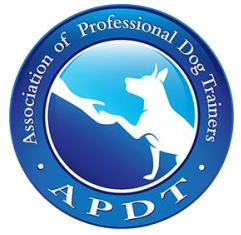
Level of Knowledge: *Prior to attending this course, it is assumed that all students:*

1. Have attended APDT's Learning Theory 101
And/or
2. Are familiar with, able to define, and/or know how/when to apply:
 - Classical conditioning, instrumental conditioning and emotional conditioning
 - Reinforcement, punishment and R+, R-, P+, P-
 - US, CS, UR, CR
 - Pattern and rate of learning
 - Flooding, systematic desensitization, exposure therapy, and counter conditioning
 - ABC Sequence

Learning Outcomes: After completing this course, students can expect to be able to:

1. Define and distinguish between different types of classical conditioning (e.g. higher order conditioning and blocking) as well as other types of learning that are often confused with classical conditioning (e.g. habituation and sensitization).
2. Explain the different types of reinforcers and reinforcement schedules and their influences on behavior.

APDT eLearning Certificate Course Syllabus



3. Discuss various theories of reinforcement and how they apply to training and behavior.
4. Explain and distinguish between the different methods of eliciting behaviors in dogs including, but not limited to, shaping, luring and prompting.
5. Define generalization, discrimination and social learning.
6. Identify the major brain areas and neurological processes that are involved in learning, classical conditioning, operant conditioning and stress and describe how they influence the various types of learning.
7. Apply the principles from the preceding six learning outcomes to real world scenarios in dog training and behavior.
8. Analyze, integrate and apply new information to fit into current framework of knowledge of learning to be able to pursue novel paths of thinking if new information does not fit into that current framework.

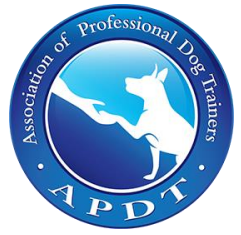
Instructor: Kristina Spaulding

Bio: Kristina Spaulding, PhD, CAAB owns *Smart Dog Training and Behavior LLC* and specializes in the prevention and treatment of behavior problems in dogs. Kristina has a PhD in Biopsychology, where she studied the social cognition, evolution and behavior of dogs. She regularly sees private training clients and also oversees family dog training classes. In addition, she has taught Learning for APDT for several years, is a member of the APDT Education Committee, the APDT Foundation and the Fear Free Advisory Group. She also offers online seminars on current dog behavior research. Prior to opening *Smart Dog* in 2001, Kristina obtained her B.S. in Wildlife Ecology at the University at Wisconsin and served as an assistant trainer at *Dog's Best Friend*, then owned by Dr. Patricia McConnell

Course Evaluation & Completion: will be determined based on:

- On-time completion of all required homework assignments (see details below).
- Participation on the discussion boards. (10 points)
 - Participating students are required to make two posts each week
 - You will get 1 point for each discussion post, for a maximum of 2 points per week.
 - Discussions must relate to course material (questions about due dates, technical issues, etc., do not count toward your discussion requirement).
- Completing weekly assignments. (90 points)
 - There will be one assignment each week.
 - Each assignment is worth 18 points
 - Grading will be based on understanding of the course material, critical thinking and application skills and grammar, punctuation and clarity of writing
 - Each assignment will be graded using the following scale:

APDT eLearning Hybrid Course Certificate Course Syllabus



Grade	Total points
High honors	16 - 18
Honors	14 - 15
Pass	11 - 13
Unsatisfactory (no pass)	Less than 11

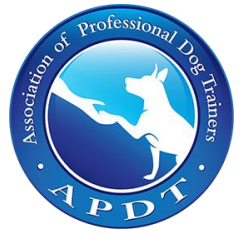
- Late assignments
 - Assignments are due on Tuesday at 12 pm ET.
 - Unexcused late assignments will be assigned a 3 point penalty for each day they are late
 - Assignments submitted at 12:01 pm ET on Tuesday are considered one day late (3 point deduction). Assignments submitted at 12:01 pm on Wednesday are considered two days late (6 point deduction), etc.
 - Extensions without point deductions will only be granted in the case of emergencies and with proper documentation.
- The overall course grade will be determined as follows

Grade	Total points	Percentage
High honors	90 or more	90 and above
Honors	80 - 89.5	80 - 89
Pass	65 - 79.5	65 – 79
Unsatisfactory (no pass)	Less than 65	Less than 65%

CEUs: (partial CEUs will not be awarded.)

- 20 for successful completion (passing grade) of entire course from CCPDT, KPA, IAABC & IACP

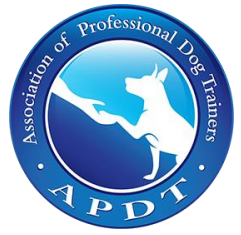
APDT eLearning Certificate Course Syllabus



Course Calendar & Deadlines

Day	Date	Time	Event
Prior to start of course			Introduce yourself on the discussion board Secure recommended reading Become familiar with course platform Review course details
Wednesday	July 10	12:00pm ET	Week 1 Begins Lecture recording becomes available Assignments given
		1:30pm ET	Online discussion begins
Tuesday	July 16	12:00pm ET	Week 1 ends - Deadline for ALL assignments
Wednesday	July 17	12:00pm ET	Week 2 Begins Lecture recording becomes available Assignments given
		1:30pm ET	Online discussion begins
Tuesday	July 30	12:00pm ET	Week 2 ends - Deadline for ALL assignments
Wednesday	July 31	12:00pm ET	Week 3 Begins Lecture recording becomes available Assignments given
		1:30pm ET	Online discussion begins
Tuesday	August 6	12:00pm ET	Week 3 ends - Deadline for ALL assignments
Wednesday	August 7	12:00pm ET	Week 4 Begins Lecture recording becomes available Assignments given
		1:30pm ET	Online discussion begins
Tuesday	August 13	12:00pm ET	Week 4 ends - Deadline for ALL assignments
Wednesday	August 14	12:00pm ET	Week 5 Begins Lecture recording becomes available Assignments given
		1:30pm ET	Online discussion begins
Tuesday	August 20	12:00pm ET	Week 5 ends - Deadline for ALL assignments

APDT eLearning Hybrid Course Certificate Course Syllabus



Course Details

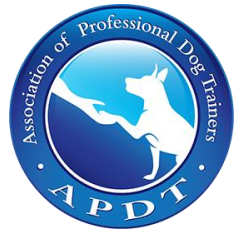
Prior to Start of Course:

- It is strongly recommended that all students:
 1. View Course Orientation Video at least once found at the following link
<https://apdt.com/resource-center/how-to-use-apdts-new-learning-platform-access-webinars-and-certificate-courses/>
 2. Review Education Dashboard, note deadlines
 3. Become familiar with Discussion Area and introduce yourself to fellow classmates with a practice post
 - Note: This will NOT count toward required assigned Discussion Posts
 4. Secure Recommended Reading (optional, but strongly recommended)

Week 1:

- **Lecture: Advanced Concepts in Classical Conditioning**
 - **Summary:** You already understand the basics of classical conditioning involving a single stimulus. However, in the real world, this is not always such a simple relationship. What happens if there are multiple stimuli? How does prior learning impact classical conditioning? What other phenomenon are often confused for classical conditioning and how do you distinguish between them? What happens when the unconditioned and conditioned stimuli are no longer paired together? All of these questions will be answered this week. As a result, your ability to understand and interpret dog behavior will be enhanced.
 - **Learning Outcomes:** After this week, students will be able to:
 1. Define and distinguish between higher-order conditioning, overshadowing, blocking and latent inhibition.
 2. Define and distinguish between classical conditioning, habituation, and sensitization
 3. Define conditioned taste aversion and explain what makes it unique
- **Assignments:**
 - Submit two secret words from eLearning course (attended live or via recording in your Education dashboard.
 - Participate (at least two thoughtful posts) in the Online Discussion Forum

APDT eLearning Certificate Course Syllabus



- Describe scenarios that illustrate:
 - 1. TWO of the following: higher-order conditioning, overshadowing, blocking and/or latent inhibition.
AND
 - 2. ONE of the following: habituation, sensitization, or generalization.

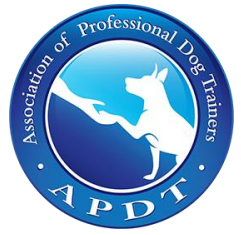
The scenarios should be based on one of your client's dogs, your own dogs or made up examples. They should not be one that was addressed in the lecture, on the discussion boards or in the reading. For each scenario, identify which type of learning you are addressing and explain how it is an example of that particular type of learning. Limit your answer to 1 - 2 double spaced pages, 10 - 12 point font.
- Submit by uploading via your Education Dashboard
- Recommended reading:
 - 1. Excel-erated Learning – pp. 34 – 41, 82-87, 154-156

Week 2:

- Lecture: Advanced Application of Positive Reinforcement

- Summary: In positive reinforcement training, an animal is trained by reinforcing them for a desired response. There are several factors to consider if you want to maximize your effectiveness as a trainer. In order to reinforce a behavior, it first has to be offered by the dog. There are a variety of different ways of doing this. In addition, different types of reinforcers have different impacts on learning and motivation. Finally, the pattern of delivery has consistent and predictable effects on the behavior of the dog. This week we will discuss how to apply the principles of reinforcement as successfully as possible. This knowledge will improve the efficiency and success of your training.
- Learning Outcomes: After this week, students will be able to:
 - 1. Distinguish between the different types of reinforcers
 - Intrinsic/extrinsic
 - Primary/secondary
 - Contrived/natural
 - 2. Correctly identify and distinguish between different schedules of reinforcement
 - Pattern of reinforcement
 - Characteristic behavior patterns

APDT eLearning Hybrid Course Certificate Course Syllabus



Assignments:

1. Submit two secret words from eLearning course (attended live or via recording in your Education dashboard.
2. Participate (at least two thoughtful posts) in the Online Discussion Forum
3. Review the scenarios provided below, choose TWO and briefly and succinctly discuss which schedule you would use and why. Use information from lecture to defend your answer. Limit your answer to 1 - 2 double spaced pages, 10 - 12 point font.

You are training a new dog how to come when called. The family would like the dog to be off leash on hikes and come away from wildlife.

You are working with a client's dog that is dashing out the door every time they open it.

You want to improve your dog's start line stay in agility

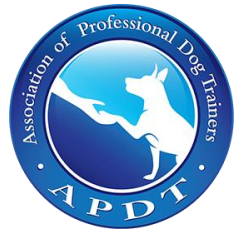
4. Submit by uploading via your Education Dashboard
5. Recommended reading:
 - Excel-erated Learning – pp. 52 – 72

Week 3:

Lecture: Maintaining and Refining Instrumental Conditioning

- Summary: You have done an excellent job of teaching a dog several new behaviors. Now you want to maintain and refine those behaviors. Do you worry that fading the food reward will result in a dog that ignores you? Do your clients complain that their dog is perfect in their living room, but out of control at the park? Does your dog get confused about what you are asking it to do? This week you will learn why learned behaviors often break down or fail to progress and how to overcome these obstacles.
- Learning Outcomes: After this week, students will be able to:
 1. Distinguish between the Premack Principle and Response Deprivation theory
 2. Explain the partial reinforcement effect
 3. Distinguish between the discrimination and frustration hypotheses

APDT eLearning Certificate Course Syllabus



4. Define stretching the ratio and ratio strain
5. Describe the role criteria setting plays in learning
6. Define errorless learning and discuss the pros and cons of using it
7. Explain the different methods of producing behaviors in dogs (e.g. shaping, chaining, luring)

○ **Assignments:**

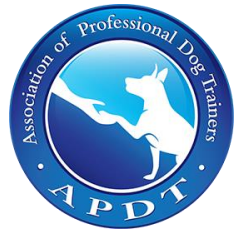
1. Submit two secret words from eLearning course (attended live or via recording in your Education dashboard.
2. Participate (at least two thoughtful posts) in the Online Discussion Forum
3. Choose ONE of the following:
 - In 1-2 pages, create a detailed training plan for how you would teach a particular behavior. Include how you plan to get the behavior in the first place, how you will reinforce it, what schedule you will use, a list of criteria for each step, as well as an indication of when you would move onto the next step.
 - Detail how you would address the situation below with a client. Include how you would explain to the client why the recommendations you make will help their dog learn. Limit your answer to 1 - 2 double spaced pages, 10 - 12 point font.
 - Sandy is working with her dog on a stay and her dog is frequently getting up because Sandy is not rewarding him frequently enough. Her and the dog are growing increasingly frustrated.
4. Submit by uploading via your Education Dashboard
5. Recommended reading:
6. Excel-erated Learning – pp. 73–76, bottom of 94 – 96, 105-107, 133-146

Week 4: Other types of learning

○ **Lecture:**

- **Summary:** By definition, behavior that is punished will weaken and/or decrease in frequency. However, the use of punishment raises many ethical and practical concerns. This week we will discuss the drawbacks of punishment as well as alternative methods of decreasing behavior.
- **Learning Outcomes:** After this week, students will be able to:
 1. Define and distinguish between generalization and discrimination
 2. Define and describe the generalization gradient

APDT eLearning Hybrid Course Certificate Course Syllabus



3. Distinguish between the different types of generalization
4. Describe peak shift and the differential outcomes effect
5. Explain how generalization and discrimination apply to dog behavior
6. Define social learning and distinguish between the different types of social learning
7. Discuss cultural learning and “understanding” in nonhuman animals
8. Summarize what is known about social learning in dogs

○ **Assignments:**

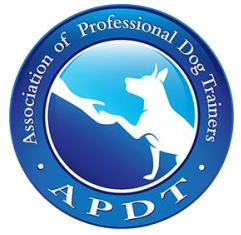
1. Submit two secret words from eLearning course (attended live or via recording in your Education dashboard).
2. Participate (at least two thoughtful posts) in the Online Discussion Forum
3. In 1-2 pages, prepare a well organized and professional handout for clients that summarizes the important points of: generalization, discrimination, social learning in dogs, and how it impacts their behavior at home. Be sure to word the document for a client/lay person and avoid jargon and scientific terminology.
4. Recommended reading
 - a. Excel-erated Learning – pp. 78-81, 90-96

Week 5:

Lecture: The Neurobiology of Learning

- **Summary:** Behavior does not occur in a vacuum. The “mind” and “body” are not separate, unrelated entities but rather two interconnected sides of the same coin. Understanding the neurological drivers behind learning can enhance our understanding of behavior and our ability to interpret and modify it. This week will cover the essentials of what we know about the brain and animal learning.
- **Learning Outcomes:** After this week, students will be able to:
 1. Describe the neurological basis for learning (LTP)
 2. Explain how the amygdala and hippocampus are involved in fear learning
 3. Explain the role of norepinephrine and the basolateral amygdala in the emotional boost to memories
 4. Describe the two neural pathways for fear
 5. Describe the impact of stress on neurobiology
 6. Explain how the ventral tegmental area and orbitofrontal cortex are involved in operant conditioning

APDT eLearning Certificate Course Syllabus



7. Define and distinguish between hedonic and motivational value and discuss their role in reinforcement
8. Discuss the role of dopamine and endogenous opioids in operant conditioning
9. Explain the incentive salience hypothesis of dopamine function

○ **Assignments:**

1. Submit two secret words from eLearning course (attended live or via recording in your Education dashboard.
2. Participate (at least two thoughtful posts) in the Online Discussion Forum
3. Choose ONE of the following topics. Limit your answer to 1 - 2 double spaced pages, 10 - 12 point font. Use information from this week's course content to:
 - Support or dispute the following statement: An ounce of prevention is worth a pound of cure. At the beginning of the assignment clearly state your position, then use the remaining space to support your choice.
 - Explain why behavior problems in dogs can be difficult to treat
 - Explain what is likely happening in a dog's brain when you train new behaviors. How might it be different for training methods that use primarily positive reinforcement? Primarily punishment based methods?
4. Submit by uploading via your Education Dashboard