

### **Course Overview**

Title: Learning Theory 101: An Introduction to How Animals Learn

# **Course Dates:**

Start: January 8, 2020, 1:00pm ET
 End: February 11, 2020, 1:00pm ET

<u>Description:</u> When most people think of learning, they think of intentional learning, such as taking a class or teaching a dog to sit. However, it's so much more than that. Everything dogs (and humans) do is affected by learning. This includes unhealthy or maladaptive behavior such as aggression and anxiety as well as simple, everyday behavior such as walking on leash, playing and interacting with people. In addition, learning is affected by everything dogs do and experience. Things like stress and trauma, as well as enjoyable experiences, all impact how dogs learn. This course will cover the basics of classical and instrumental learning and how to apply those principles to working directly with dogs (and people).

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

- 1. Are unfamiliar with, unable to define, and/or do not know how or when to apply:
  - Classical conditioning and instrumental conditioning
  - Emotional conditioning
  - Reinforcement and punishment
  - R+, R-, P+, P-
  - US, CS, UR, CR
  - Pattern and rate of learning
  - Flooding, systematic desensitization, exposure therapy, and counter conditioning
  - ABC Sequence

### **<u>Learning Outcomes:</u>** After completing this course, students can expect to be able to:

- 1. Define learning and explain how it is influenced by biological and environmental factors
- 2. Define, recognize, and apply various components of classical conditioning, including but not limited to conditioned and unconditioned stimuli and responses, flooding, systematic desensitization, and counter conditioning
- 3. Define, recognize, and apply various concepts of instrumental conditioning including but not limited to positive/negative reinforcement/punishment, reward, pattern and rate of learning, and ABC Sequence



- 4. Define and differentiate between classical conditioning and instrumental conditioning
- 5. Define emotion, explain how it is produced, and identify its influence on memory encoding and recall
- 6. Assess flooding, exposure therapy, desensitization and counter conditioning and the proper application of each

**Instructor:** Kristina Spaulding, PhD, CAAB

<u>Bio:</u> Kristina Spaulding owns Smart Dog Training and Behavior, LLC. She specializes in the prevention and treatment of behavior problems in dogs. Dr. Spaulding has a PhD in Behavioral Neuroscience/Biopsychology and is a Certified Applied Animal Behaviorist. In graduate school, Kristina gained substantial teaching experience as the Instructor of Record for several different undergraduate Psychology courses and received the Excellence in Teaching by a Graduate Student Award. She currently conducts private behavior work in Upstate New York and teaches monthly webinars on dog behavior research through her website. She is a member of the APDT Education Committee, volunteers her time with Fear Free's Meeting of the Minds and is a member of their Speaker's Bureau. She is particularly interested in learning, cognition, social behavior, stress and its impacts on behavior, and helping dogs cope with stress. 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)
  - o 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:

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 Wednesday 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 Wednesday are considered one day late (3 point deduction). Assignments submitted at 12:01 pm on Thursday 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 of entire course from CCPDT, IAABC, KPA, & IACP.

# **Recommended Course Materials:**

- Excel-erated Learning- Pamela J. Reid
- Links to selected journal articles may also be provided in your dashboard during class



# **Course Calendar & Deadlines**

Day	Date	Time	Event
Prior to start of cours	e		Secure recommended reading (optional, but strongly recommended) Become familiar with course platform Review course details
Wednesday	1/8/2020	12:00pm ET	Week 1 Begins Lecture recording becomes available Assignments given
		1:30pm ET	Online discussion begins
Tuesday	1/14/2020	12:00pm ET	Week 1 ends - Deadline for ALL assignments
Wednesday	1/15/2020	12:00pm ET	Week 2 Begins Lecture recording becomes available Assignments given
		1:30pm ET	Online discussion begins
Tuesday	1/21/2020	12:00pm ET	Week 2 ends - Deadline for ALL assignments
Wednesday	1/22/2020	12:00pm ET	Week 3 Begins Lecture recording becomes available Assignments given
		1:30pm ET	Online discussion begins
Tuesday	1/28/2020	12:00pm ET	Week 3 ends - Deadline for ALL assignments
Wednesday	1/29/2020	12:00pm ET	Week 4 Begins Lecture recording becomes available Assignments given
		1:30pm ET	Online discussion begins
Tuesday	2/4/2020	12:00pm ET	Week 4 ends - Deadline for ALL assignments
Wednesday	2/5/2020	12:00pm ET	Week 5 Begins Lecture recording becomes available Assignments given
		1:30pm ET	Online discussion begins
Tuesday	2/11/2020	12:00pm ET	Week 5 ends - Deadline for ALL assignments



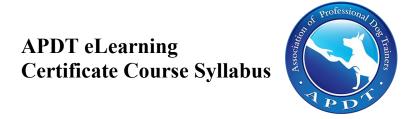
### **Course Details**

# Week 1:

# - Lecture: Introduction to Concepts of Learning

- Summary: The same basic rules, concepts, and processes apply to all animals that are capable of learning humans and dogs, birds and frogs, and everything in between. They all, essentially, learn the same way. Decades of research has identified specific modalities by which animals' behavior is shaped by their experience. As professional dog trainers and behavior consultants, a solid understanding of these concepts is critical to form a solid foundation for any successful career. This week will do that for you.
- o Learning Outcomes: After this week, students will be able to:
  - 1. Define learning
  - 2. Explain how evolution and natural selection impact how a dog learns
  - 3. Describe and distinguish between the different ways in which genetics can affect behavior
  - 4. Define epigenetics and explain the ways in which it can influence behavior and other traits
  - 5. Define and identify gene by environment interactions and explain how they affect behavior

- 1. Submit two secret words from eLearning course (attended lecture via recording in your Education dashboard).
- 2. Participate (at least two thoughtful posts) in the Online Discussion Forum
- 3. Complete the assignment.
  - Review the two scenarios provided in your dashboard. Respond to ONE
  - Please limit your paper to two double spaced pages, 10-12 point font
- 4. Submit by uploading via your Education Dashboard
- 5. Recommended reading:
  - a. Excel-erated Learning: pages 5-7 (up to motivation), 9-11, 97-99 (up to "discrimination or reflexive behavior)
  - b. https://www.youtube.com/watch?v=\_aAhcNjmvhc
  - c. pg 20 and 21 of Miklosi (scanned copy will be posted in discussion forums)



### Week 2:

# - Lecture: Classical Conditioning

- Summary: Most trainers know the name Pavlov, or at least know about his bell and drooling dog. But not all know how to take that story and apply it to the dogs being worked with today. This week goes beyond bells and saliva, and dives into the world of classical (or Pavlovian) conditioning, including CS, US, CR, UR, rate of learning, and more. Learn how the things Pavlov observed apply to the furry fella at the end of your bed.
- o <u>Learning Outcomes:</u> After this week, students will be able to:
  - Define, identify components of, and assess examples of classical conditioning
  - Recognize the three types of behaviors that can become a CR.
  - Describe the pattern and rate of learning

- 1. Submit two secret words from eLearning course (listen to lecture via Education dashboard).
- 2. Participate (at least two thoughtful posts) in the Online Discussion Forum
- 3. Take the guiz on your dashboard
- 4. Submit by uploading via your Education Dashboard
- 5. Recommended reading:
  - Excel-erated Learning: pages 20-22, 49-51 (up to operant conditioning)



### Week 3:

## <u>Lecture</u>: Emotional (Fear) Conditioning

- Summary: Most dog training and behavior professionals know that fear is the real basis for many very serious, very difficult to modify behavior problems, such as aggression, separation anxiety, phobias, and more. However, it is important to better understand how the emotion of fear impacts the memories that drive dog's behavior so we are better prepared for addressing the unwanted behavior. This week will focus on how emotion, specifically fear, plays a role in animal learning and how to most effectively address it in our companion animals.
- o Learning Outcomes: After this week, students will be able to:
  - Define emotion and explain its influence on memory encoding and recall
  - Describe how physiological responses, conscious processing and behavior combine to produce emotion
  - Assess flooding, exposure therapy, desensitization and counter conditioning and the proper application of each

- 1. Submit two secret words from eLearning course (listen to lecture in your Education dashboard).
- 2. Participate (at least two thoughtful posts) in the Online Discussion Forum
- 3. Complete the assignment.
  - Part 1:
    - Give one example of an undesirable behavior a client has sought your assistance with and explain in what way(s) you think emotion is contributing to the dog's behavior.
    - If you do not currently see clients, you can use an example from your own dogs or a made up example.
  - Part 2:
    - If you are NOT yet working on the behavior, explain which treatment method(s) (counter conditioning, flooding, desensitization, etc.) you would use and why.
    - If you ARE already working on the behavior, give one example of a treatment method that is being used. Based on what you learned this week, describe what (if any) changes to the treatment



methods you would suggest and why. If you would make no changes, explain why you think the current method is the best.

- Limit your answer to 1 to 2 double spaced pages (10 12 point font)
- 4. Submit by uploading via your Education Dashboard
- 5. Recommended reading:
  - Excel-erated Learning: pages 149-top of 154



### Week 4:

## - <u>Lecture</u>: Instrumental Conditioning – Basics

- Summary: Now that you've learned about Classical Conditioning, it's time to learn about Instrumental Conditioning and how it differs from what you learned during week 2. This week you will discover the ABCs of instrumental conditioning. You will also learn to identify and distinguish between the four quadrants of instrumental conditioning: positive and negative reinforcement and punishment. As you may or may not already know, the "animal learning" definition of many of these terms varies significantly from the "lay" definitions. Finally, you will learn about some of the factors that influence the rate and strength of instrumental conditioning. For example, what makes one reinforcer more desirable or effective than another? This week you will learn all that, and much, much more.
- Learning Outcomes: After this week, students will be able to:
  - Distinguish between instrumental and classical conditioning
  - Define instrumental conditioning, including the A-B-C sequence
  - Define, identify and distinguish between negative and positive reinforcement and punishment
  - List and describe the factors influencing instrumental conditioning
  - Distinguish between a reward and a reinforcer

- 1. Submit two secret words from eLearning course (listen to lecture in your Education dashboard).
- 2. Participate (at least two thoughtful posts) in the Online Discussion Forum
- 3. Take the quiz on your dashboard.
- 4. Submit by uploading via your Education Dashboard
- 5. Recommended reading
  - a. Excel-erated Learning: 25-33, 42-44, 51-top of 52, 77-78 (up to discrimination and generalization), 81-82, 87-89 (up to context effects)



#### Week 5:

# - <u>Lecture:</u> Instrumental Conditioning – Application

- Summary: Last week you learned the basics of instrumental conditioning; this week will teach you how to best apply that knowledge. Does reinforcement always mean something really great, like a cookie? Is a positive reinforcer good, and a negative reinforcer bad? Is it the same as a reward? Does punishment mean "something unpleasant like spanking"? Or does it mean something else? Is positive punishment worse or better than negative punishment? What makes a punisher effective or not, humane or not? All this and more will be cleared up during this, our final week.
- <u>Learning Outcomes:</u> After this week, students will be able to:
  - Identify which quadrants should are most effective for dog training and behavior work and explain why
  - Explain what is necessary for punishment to be effective, why it often doesn't work, and why it is so often used

- 1. Submit two secret words from eLearning course (listen to lecture in your Education dashboard).
- 2. Participate (at least two thoughtful posts) in the Online Discussion Forum
- 3. Complete the assignment.
  - Create a professional, clear, and succinct handout that you could distribute to your students or clients that highlights the training methods you do/don't recommend, and why you recommend them.
  - You are welcome, even encouraged, to make this a "how to" handout but make sure you include explanations for *why* you recommend the methods you do. Make sure that you clearly state your answer to the question (so I don't have to guess your opinion or infer it from the rest of the paper).
  - You may use material for any or all weeks of class, but remember that this is the week 5 assignment, so you should focus on the material presented this week
  - Please limit your paper to two double spaced pages, 10-12 point font
- 4. Submit by uploading via your Education Dashboard
- 5. Recommended reading:
  - a. Excel-erated Learning: 103-104, 108-132