

**WILLIAM PATERSON UNIVERSITY
COLLEGE OF HUMANITIES AND SOCIAL SCIENCES
DEPARTMENT OF PSYCHOLOGY**

Syllabus

PSY 3540 Psychology of Learning, 3 credits

Faculty

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Required Text

Klein's *Learning: Principles & Applications, 7e*, ISBN 9781452271941, Mississippi State University, USA

This course requires that you approach the material in an organized and disciplined manner. You should read three chapters each week.....take one quiz each week and respond to a Reflection question each week. At the end of three weeks....you will have completed the course.

It is **CRITICAL** that you have access to the textbook because it will be your principle source for all of the assignments we cover in class. Whether you buy, rent, borrow, share, eRead or otherwise, you absolutely must have access to the textbook for regular use. You will need this textbook from the first day of class.

Prerequisites and Background: Students attempting this course should have successfully completed PSY 1100 (General Psychology) or the equivalent. In addition, students should be familiar with Blackboard (BB) support documentation: <http://www.wpunj.edu/dotAsset/198460.pdf>; and the BB help for students: <http://help-archives.blackboard.com/Blackboard-Learn/9.1/SP09/EN-US/NAHE/Student/index.htm> to facilitate your use of the online learning management system, BB.

To successfully complete this course you will need regular access to BB (<https://bb.wpunj.edu/>). All of the chapter quizzes listed in the course calendar are offered on BB, and can only be completed online. It is your responsibility to gain access to BB and become proficient in using it. Technical problems must be directed to the HELP desk: <https://help.wpunj.edu/>. As discussed in more detail below, for issues relating to course policy and academic questions please contact me.

DESCRIPTION OF COURSE: This course examines the research and theories of conditioning and learning. In great contrast to the field of education, learning emphasizes classical and operant conditioning, behavioral modifications, habits, and relatively simple (and, often, directly observable) forms of knowledge acquisition. Learning is integrated with the variables of motivation, reinforcement, aversion, and memory. The topics in this course draw heavily on animal models of conditioning in non-humans (e.g., rats, dogs, monkeys). Historical and contemporary trends in the study of learned phenomena are also included.

COURSE PREREQUISITES: PSY 1100 General Psychology

COURSE OBJECTIVES:

The overall goal of this course is to provide a comprehensive treatment of the historical and contemporary foundations of learning and behavior with the following objectives:

- a) Provide an understanding of foundational methodological and research terminology
- b) Develop students' knowledge of learning and behavior theory from historical and contemporary perspectives
- c) Distinguish between biological, behavioral, and cognitive perspectives underlying human learning and behavior
- d) Connect theories to real world experiences to explain how and why humans and non-human animals learn and behave as they do

STUDENT LEARNING OUTCOMES:

Students will be expected to:

- a) Demonstrate an understanding of methodological and research terminology by being able to interpret research reports
- b) Compare and contrast historical and contemporary learning theories using critical thinking skills
- c) Apply theoretical learning perspectives to predict learning behavior in problems and examples
- d) Demonstrate knowledge of, and linkages between, biological, behavioral, and cognitive learning theories

OUTLINE OF COURSE: * = chapter is covered

1. *An Introduction to Learning
2. *Traditional Learning Theories
3. *The Modification of Instinctive Behavior
4. *Principles and Applications of Pavlovian Conditioning
5. Theories of Pavlovian Conditioning

6. *Principles and Applications of Appetitive Conditioning
7. *Principles and Applications of Aversive Conditioning
8. Theories of Appetitive and Aversive Conditioning
9. *Biological Influences on Learning
10. Stimulus Control of Behavior
11. *Cognitive Control of Behavior
12. *Memory Processes

TEACHING METHODS AND STUDENT LEARNING ACTIVITIES: Your interest in this course can be boosted by relating material to real life, such as how advertisements can influence behavior, how implicit beliefs are formed, and how to study for an exam. Real world examples help you connect with the material. Students can practice applying various theories to problem sets to see how different theories make different predictions regarding behavior.

ASSESSMENT:

There will be three quizzes over the course of three weeks. Three reflection questions will be posted on Blackboard that should be responded to each week.

Quiz I: 1,2,3 30 pts:
 Quiz II: 4,6,7 30 pts:
 Quiz III: 9, 11,12 30 pts:
 Reflections: 10 pts

SUGGESTED READINGS and TEXTS

Textbooks:

Introduction to Learning and Behavior, 4/e. Powell, R. A., Honey, P. L., Symbaluk, D. G. (2012). ISBN-10: 111183430X, ISBN-13: 978-1111834302.

Learning and Behavior, 7/e. Mazur, J. E. (2012). ISBN-10: 0205246443, ISBN-13: 978-0205246441

Research articles:

Aarts, H., Ruys, K. I., Veling, H., Renes, R. A., de Groot, J. H. B., van Nunen, A. M., & Geertjes, S. (2010). The art of anger: Reward context turns avoidance responses to anger-related objects into approach. *Psychological Science*, 21, 1406-1410.

Balsam, P. D., Drew, M. R., & Gallistel, C. R. (2010). Time and associative learning. *Comparative Cognition & Behavior Reviews*, 5, 1-22.

Botvinick, M. M. (2012). Hierarchical reinforcement learning and decision making. *Current Opinion in Neurobiology*, 22, 956-962.

Bouton, M. E. & Todd, T. P. (2014). A fundamental role for context in instrumental learning and extinction. *Behavioural Processes*, 104, 13-19.

Fiorillo, C. D., Tobler, P. N., & Schultz, W. (2003). Discrete coding of reward probability and uncertainty by dopamine neurons. *Science*, 21, 1898-1902.

Gallistel, C. R. & Matzel, L. D. (2013). The neuroscience of learning: Beyond the Hebbian synapse. *Annual Review of Psychology*, 64, 169-200.

Lake, B. M., Salakhutdinov, R. & Tenenbaum, J. B. (2015). Human-level concept learning through probabilistic program induction. *Science*, 11, 1332-1338.

Stahl, A. E. & Feigenson, L. (2015) Observing the unexpected enhances infants' learning and exploration. *Science*, 3, 91-94.

Journals:

Animal Learning & Behavior

Behavioural Processes

Behavioral and Brain Sciences

Journal of Comparative Psychology

Journal of the Experimental Analysis of Behavior

Journal of Experimental Psychology: Animal Learning and Cognition

Journal of Experimental Psychology: Learning, Memory & Cognition

Neurobiology of Learning and Memory

Neuropsychology

Psychological Science

Science

Databases:

Library of Medicine

PsychInfo

10) **BIBLIOGRAPHY OF SUPPORTIVE TEXTS AND OTHER MATERIALS:**

Principles of Behavior, 6/e. Malott, R. W. (2007). Pearson. ISBN-13: 978-0132433631; ISBN-10: 013243363X

Memory and the Computational Brain, 1/e. Gallistel, C. R., & King, A. P. (2009). Wiley-Blackwell. ISBN-10: 1405122889; ISBN-13: 978-1405122887

Emotions, Learning, and the Brain: Exploring the Educational Implications of Affective Neuroscience, 1/e. Immordino-Yang, M. H. (2015). ISBN-13: 978-0393709810; ISBN-10: 0393709817

The Secret History of Kindness: Learning from How Dogs Learn. Pierson, M. H. (2015). Norton. ISBN-10: 0393066193; ISBN-13: 978-0393066197

Behaviorism. Waton, J. B. (1970). Norton. ISBN-10: 0393005240; ISBN-13: 978-0393005240

About Behaviorism. Skinner, B. F. (1976). Vintage. ISBN-10: 0394716183; ISBN-13: 978-0394716183

Science Times (from the *New York Times*)

NPR's *Science Friday* and *Radio Lab* broadcasts.