

Psychology 321: Learning (5 credits)  
Spring 2017 TR 10:00-11:50AM  
AW 406

**Professor:** Dr. Jacqueline Rose  
**Office:** 596 AIC East  
**Phone:** 650-6421  
**email:** [Jackie.Rose@wwu.edu](mailto:Jackie.Rose@wwu.edu)  
**twitter:** @WWUNeuroRose  
**Office hours:** Wednesdays 3 – 5 PM or by appointment

**Course Summary:**

Each day we are inundated by stimuli, situations and events and all of this information is somehow filtered and processed by our nervous system. Humans are prepared to associate stimuli based on several properties including: salience, timing and consistency. This course will introduce recognizing singular moments as a mosaic of information that can and will determine one's current behavior and future responses. Examples from both humans and animals will be employed to examine the role of conditioning in fear responses, drug addiction and decision-making processes. Neuronal mechanisms and signaling patterns that underlie these changes in behavior will be introduced and discussed.

**Course Goals:** Upon completion of this course, students will have gained experience in:

- recognizing informative components of an event or experience
- understanding how an event has modified a behavior pattern
- predicting future behavioral outcomes from past experiences
- understanding changes in behavior with regards to neural signaling
- how a nervous system codes and stores this information
- applying this understanding to situations encountered in everyday life

These course goals contribute to the following **Psychology Department Learning Objectives:**

1. demonstrate knowledge of psychological theory across a broad range of content areas
3. evaluate data and draw appropriate conclusions
4. recognize applicability of psychological theories and principles in real world settings
6. demonstrate critical thinking
8. view their education in psychology as relevant to their lives post-graduation

In addition, the course goals support the following **BNS Content and Process Competencies:**

- Fundamental principles in molecular, cellular, and systems neuroscience and the neural basis of normal and abnormal behavior.
  - Foundational principles in the natural sciences, especially as they relate to understanding neuroscience.
  - Think integratively and creatively about issues related to the natural sciences, especially neuroscience.
  - Think critically, in a scientific and quantitative manner, about issues related to the natural sciences, especially neuroscience.
  - Integrate principles from across the natural sciences, especially in the context of understanding neuroscience.
  - Communicate precisely and effectively, in written and spoken word, in general and in matters related to neuroscience.
- Recognize the applicability of an education in neuroscience to real world settings and their lives post-graduation.

## Learning Approach:

As this course is an upper-level Psychology course, students will be expected to interact with the material and participate in class activities. Although a good portion of class time will be spent on interactive projects and activities, some class time will still be dedicated to lecture. As such, much of the preparation for class discussion and exercises is expected to be performed outside of class time. This approach is reflected in the course schedule and homework readings and assignments are listed and updated on the schedule throughout the quarter so **CHECK THE CANVAS PAGE FREQUENTLY**.

## Required Textbook:

Principles of Learning and Behavior, 7<sup>th</sup> - Michael Domjan  
Sniffy the Virtual Rat (Lite Edition) - **Provided**

## Supplemental Materials:

Online Lectures – links to additional lectures will be posted to Canvas and the information provided in the online lectures is included on exams.

## Prerequisites:

Psychology 101 and 301

**Extra Learning Requirements:** Reasonable accommodation for persons with documented disabilities should be established within the first week of class and arranged through Disability Resources for Students: telephone 650-3083; email drs@wwu.edu; and on the web at <http://www.wwu.edu/depts/drs/>

## Summary of Assessment:

Group Presentation on Habituation	5%	Thursday, April 6 <sup>th</sup>
In-Class Exercises, Assignments & Participation	10%	see Canvas for details and deadlines
Debate Assignment	10%	May 25 <sup>th</sup> – June 1 <sup>st</sup>
Exam #1	10%	Thursday, April 13 <sup>th</sup>
Exam #2	15%	Thursday, April 27 <sup>th</sup>
Exam #3	15%	Thursday, May 11 <sup>th</sup>
Exam #4	15%	Finals Week Thursday, June 8 <sup>th</sup> 8-10AM
Sniffy Assignment IC	10%	Tuesday, May 2 <sup>nd</sup> (at start of class)
Sniffy Assignment CC	10%	Tuesday, May 16 <sup>th</sup> (at start of class)

**Grades:** Course grades are determined using the following system:

93.0-100	A	87.0-89.9	B+	77.0-79.9	C+	67.0-69.9	D+	0-59.9	F
90.0-92.9	A-	83.0-86.9	B	73.0-76.9	C	63.0-66.9	D		
		80.0-82.9	B-	70.0-72.9	C-	60.0-62.9	D-		

**Reading Assignments:** Students will be responsible for completing questions relating to assigned readings. Assigned readings will serve as background for in-class discussion and are due prior to the next class time. Check Canvas for dates and deadlines.

**Oral Presentations:** Brief introductions to habituation, a form of non-associative conditioning that all organisms from *Planaria* to humans exhibit. Students will be split into groups and prepare a 10-minute (max) presentation on one of the 10 'rules of habituation' outlined in Rankin, 2009 (posted to Canvas). Groups must clearly describe and define the habituation principle, describe how habituation is studied in a model system and provide a real-life example of the specific habituation principle. See Canvas for details.

**In-Class Assignments:** class time will be comprised of lecture, as well as in-class exercises and group work. Exercises will focus on interpretation of experimental findings. Additional details with regards to class assignments will be posted to Canvas.

**Debate Assignment:** at the end of the quarter, students will be divided into debate teams that will present arguments either 'for' or 'against' a controversial topic in the field of Learning and Plasticity. Teams will be given one week to prepare arguments. Audience members must compose a one-page statement as to which team 'won' the debate and explain why. See Canvas for details.

**Exams:** Comprised of a combination of multiple choice, short-answer and essay questions. Exams will test not only knowledge of learning principles, but also require application of course material to both real-life and laboratory situations. A Collaborative Study guide will be made available on Canvas where students can add information to a Wiki-like document creating a class-generated study guide. Individual contributions to the study guide are included in the Participation grade.

**Sniffy the Virtual Rat:** 'Sniffy' is an animated computer program that allows students to apply learning principles often studied using live animals in laboratory settings. In order to maximize the learning experience, students will be required to train Sniffy in two separate learning paradigms. Sniffy is available on computers in the Psychology Computer Lab or can be downloaded from the course Canvas page (Mac users are advised to use campus computers). Be prepared to dedicate at least two hours to complete each computer simulation. Step-by-step instructions will be provided in advance of the due date. Sniffy Assignments will be submitted online via Canvas.

**Make-up Assignments:** The assignment due dates in this syllabus are non-negotiable. If you have a conflict with one or more of the assignment deadlines due to personal commitments, you should consider dropping the class. Accommodation for missed assignments or a make-up assignment may be offered but **only** for UNIVERSITY APPROVED EXCUSES:

- (1) Medical emergency (verified by a medical professional)
- (2) Family emergency (verified by the Dean of Students Office)

Other serious emergencies should be presented to the Dean of Students Office who will determine the course to follow with regards to missed assignments. Family holiday, friend/relative wedding, etc. – are NOT approved excuses. Any assignment missed for reasons other than the two university approved excuses or without consultation with the Dean of Students Office or other support services on campus will result in an assignment grade of zero.

Western encourages students to seek assistance and support at the onset of an illness, difficulty, or crisis.

- a medical concern or question, contact the Health Center: 650-3400 or visit **Student Health**.
- an emotional or psychological concern or question, please contact the **Counseling Center**: 650-3400 or visit the WWU Counseling Services webpage.
- a health and safety concern, please contact the **University Police**: 650-3555 or visit the Police.
- In the case of a family or personal crisis or emergency, please contact the **Dean of Students**: 650-3450 or visit Dean of Students.
- To seek confidential support related to sexual violence, please contact CASAS (650-3700), the Student Health Center, and/or the Counseling Center. To report sexual violence, please contact University Police, Bellingham Police, and/ or the Title IX Coordinator in Western's Equal Opportunity Office (650-3307). Faculty are responsible employees who are required to report sex discrimination, including sexual violence that they learn about to the Title IX Coordinator.

### **Equal Opportunity in Educational Context:**

I, and Western, are committed to an environment free of discrimination and harassment. Federal and State laws, as well as University policies, protect students, faculty and staff against discrimination based on the following legally protected characteristics: Race, Color, Creed, Religion, National Origin, Sex, (including pregnancy and parenting status), Age, Disability, Marital Status, Sexual Orientation, Gender Identity and Expression, Genetic Information and Veteran Status. For more information, see the **WWU Equal Opportunity Office** website and Western's Policies on Providing Equal Opportunity and Nondiscrimination and Preventing Sexual Harassment.

## **Integrity and Academic Honesty:**

**A Note on Plagiarism:** Learning to write a research paper is one of the primary goals of this course. One of the cardinal sins in writing a research paper is to plagiarize. Please review course catalog Appendix D. **These policies and procedures on academic dishonesty apply to this course.** Pay particular attention to the definition of plagiarism, which is reproduced below:

Plagiarism, which is presenting as one's own in whole or in part the argument, language, creations, conclusions, or scientific data of another without explicit acknowledgement. Examples include, but are not limited to:

- (1) Using another person's written or spoken words without complete and proper citation.
- (2) Using information from a World Wide Web site, CD-ROM or other electronic source without complete and proper citation.
- (3) Using statistics, graphs, charts and facts without acknowledging their source.
- (4) Submitting a paper purchased from a term-paper service.
- (5) Paraphrasing, which is imitating someone else's argument using other words without acknowledging the source.
- (6) Claiming credit for someone else's artistic work, such as a drawing, script, musical composition or arrangement.
- (7) Using someone else's lab report as a source of data or results.
- (8) Using one's own or substantially similar work, produced in connection with one course, to fulfill a requirement in another course without prior permission. A student may use the same or substantially the same work for assignments in two or more courses only with written permission from the instructors of all the classes involved.

If you have questions about plagiarism, please ask Dr. Rose or view the WWU Academic Honesty Policy and Procedure at <http://catalog.wvu.edu/content.php?catoid=12&navoid=2373> Better to be safe than sorry!

**If you are caught plagiarizing, you will receive a grade of "F" for the entire course.  
If in doubt, ask your TA to look at your work and the sources that you are citing from before you hand in an assignment.**