

Psychology 421, Spring 2017
Seminar: Learning

T/R 2 – 3:50 PM
AH 017

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Prerequisites:

Psychology 303 and 321

Course Readings:

Allport, S. (1986). Explorers of the Black Box: The Search for the Cellular Basis of Memory. W.W. Norton Co.: New York, NY. - **Provided**

Recommended Readings:

Domjan, M. (2010) Principles of Learning and Behavior (7th Ed.). Wadsworth: Belmont, CA.

Kolb, B & Whishaw, I (2013) Introduction to Brain and Behavior (4th Ed.). Worth Pub.

Primary literature will be posted on Canvas.

Goals. The central theme of this course is to discuss the topic of learning and how learning is central to changes in behavior. At the core, the focus will be to explore how learning has been studied in the past and how this has set the foundation for our current understanding of conditioning and plasticity. This knowledge will be applied to devise an experimental protocol to collect data and demonstrate a change in behavior. The results of this experiment will comprise the final research paper. Finally, current topics in the field of learning and plasticity will be introduced and discussed in reference to previous studies. Modes of discourse will include oral presentations and written commentaries and critiques to engage students in interpreting and extending their understanding of the processes of learning. This will culminate in the design and implementation of a self-directed learning experiment, the results of which will comprise the final research poster presentation.

Seminar Format. Through interactive discussion, topics will be expanded upon to explore the implications of learning research and theories to a variety of circumstances. Some class times will be comprised of student oral presentations (see below), the purpose of which are to expand upon topic material by discussing results from primary literature. Students are responsible for finding the research article for their oral presentation. Research papers for presentations should be posted to Canvas one week prior to the presentation date to allow time for other students to prepare questions and comments to post to Canvas for discussion.

Punctual attendance is expected. The most effective learning occurs in an interactive environment, so speak up at any point if something is unclear or if you have a comment relevant to the topic at hand. Also, discussions sometimes lead to questions that no one in the room knows the immediate answer, so bring laptops or smart phones to access the internet to be used **ONLY TO SUPPORT ONGOING DISCUSSION.**

For missed classes, it is the student's responsibility to get any important information from another student.

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:

Book Review:

Explorers of the Black Box Commentaries (10)	10%	(see class schedule for dates)
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Oral Presentations:

Primary Literature	25%	April 20 th – May 11 th
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Research Project:

Initial Research Project Proposal Presentation	5%	April 13 th
Behavior Modification Experiment Proposal	10%	April 27 th , 2 PM
Research Project Results Presentation	10%	May 30 th

Final Research Project Paper	20%	June 5 th , 1PM
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Discussion Participation:	20%	ongoing
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Oral Presentations. Students are expected to lead one class introducing new concepts in Learning research by discussing experiments and results of a recently published research article (within the last 5 years). Students are responsible for finding the article for their presentation and class discussion. Papers must focus on some aspect of learning and address some mechanism of learning. Students must post the article they have selected to discuss to a Canvas Discussion board one week prior to presentation. Students not presenting that day will post questions to the discussion board at least one day in advance of the presentation. For presentations, students should remember to introduce the necessary background to facilitate discussion as well as to describe the methods and results of the article. Further, presenters should prepare 3 or 4 discussion points. Finally, students should relate the reported finding to general learning processes/mechanisms.

In the event that a student cannot deliver their scheduled oral presentation on a particular date, presentation dates can be “traded” between students at the discretion of the students. Individuals who do not present, will receive zero for the missed presentation (see *Missed Assignments* below).

Discussion Participation. Students who are not presenting are expected to put an effort into discussing the results and implications of this presented research during the question period following. To encourage discussion, there is a grade associated with discussion participation for each assignment and class.

Question Submission. For primary literature oral presentations, students who are not presenting will submit questions at least one day in advance of the presentation by posting the questions to the presenter’s discussion forum on Canvas. As stated earlier, presenters will post the article they will be presenting to a discussion forum on Canvas one week ahead of their presentation date. Other students must post their questions to the Canvas Discussion Board at least one day prior to the presentation date. If questions come up during the presentation and there is not sufficient time to allow for the question, students can post their additional questions to the Discussion Board for up to 24 hours following the presentation. These contributions will be included in the participation grade.

‘Explorers of the Black Box’ Commentaries. Over the quarter, we will be reading the classic book ‘Explorers of the Black Box’ that describes the nature of early research investigating Learning mechanisms in model systems. This book also details the disagreement(s) between two notable Learning researchers at the height of their controversy. For each chapter, students must submit a one-page (single-spaced) commentary. Students must summarize the chapter in the initial paragraph and provide

their opinions/commentary on the information provided in this chapter in the following paragraphs. Commentaries are to be posted to the appropriate Discussion Board and can be viewed by other members of the class. Two separate class times will be dedicated to discussing the issues and intrigues described in the book; check Canvas for dates and chapters.

Research Project. Students will design a learning experiment with the goal of changing some aspect of behavior. The behavior to be modified will be identified and selected by the student. This project comprises a major portion of the course assessment and has been divided into two parts:

- 1) **Initial Research Project Proposal:** students will deliver a 10-minute oral presentation that should include: the behavior that will be modified, the experimental design including rationale for employing the chosen design, the expected outcome and how results will be documented. **Discussion Participation:** it is expected students will provide feedback with regards to the experimental design during the short discussion period following each presentation. Following feedback, students will submit their formal **Behavior Modification Experiment Proposal**
- 2) **Research Project Results Presentation:** students must present their research project data in class (20 minutes max.). Final papers are due to be uploaded to Canvas by 1PM Monday, June 1st.

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-	

Missed Presentations: A make-up date for presentations may be offered but **only** if the student has demonstrated a significant effort to reschedule their presentation and **only** for UNIVERSITY APPROVED EXCUSES:

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

Make-up presentation times will only be scheduled once I have received a medical note provided by your doctor or healthcare professional, or I have received notice from the Dean of Students Office.

Other reasons for a missed presentation – family holiday, friend/relative wedding, etc. – are NOT approved excuses.

**** A Note on Plagiarism:**

Please review Appendix D of the WWU Bulletin.

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 another WWU resource, such as the Writing Center (CH 9, 650-3219, www.acadweb.wwu.edu/writingcenter). 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.

Similarly, if you are caught cheating on an exam, you will receive a grade of "F" for the entire course.

Tentative Class Schedule

Class Meeting:	Topic:	Recommended Readings:
T, March 28 th	Course Intro. Presentation sign-up	
R, March 30 th	Re-visit 321 'Addiction is Learned' debate	321 materials (Canvas)
T, April 4 th	Re-visit 321 'Synapse vs Nucleus' Debate	321 materials (Canvas)
R, April 6 th	Re-visit 321 'Reconsolidation Memory Deletion' Debate	321 materials (Canvas)
T, April 11th	NO CLASS	
R, April 13 th	Initial Research Project Proposal presentations	
T, April 18 th	Dr. Rose – First Primary Literature Presentation EBB Chapter 1 Commentary due on Canvas	Res Paper (Canvas)
R, April 20 th	Student Primary Literature Presentation EBB Chapter 2 Commentary due on Canvas	Res. Papers (Canvas)
T, April 25 th	Student Primary Literature Presentation EBB Chapter 3 Commentary due on Canvas	Res. Papers (Canvas)
R, April 27 th	Student Primary Literature Presentation EBB Chapter 4 Commentary due on Canvas Behavior Modification Experiment Proposal Due	Res. Papers (Canvas)
T, May 2 nd	NO CLASS – Attorney General Presentation EBB Chapter 5 Commentary due on Canvas	
R, May 4 th	EBB Discussion (Chapters 1 – 5)	Chapters 1-5, Explorers
T, May 9 th	Student Primary Literature Presentation EBB Chapter 6 Commentary due on Canvas	Res. Papers (Canvas)
R, May 11 th	Student Primary Literature Presentation EBB Chapter 7 Commentary due on Canvas	Res. Papers (Canvas)
T, May 16 th	NO CLASS – EBB Chapter 8 Commentary due on Canvas	Res. Papers (Canvas)
R, May 18 th	Student Primary Literature Presentation EBB Chapter 9 Commentary due on Canvas	Res. Papers (Canvas)
T, May 23 rd	Animal Research Experience II EBB Chapter 10 Commentary due on Canvas	
R, May 25 th	EBB Discussion (Chapters 6 – 10)	Chapters 6-10, Explorers
T, May 30 th	Research Project Results Presentation	
R, June 1st	NO CLASS – Optional class trip to Seattle Worm Meeting at University of Washington	
M, June 5 th (1PM)	Final Paper Due	