

PSYC 7140. LEARNING AND CONDITIONING

COURSE SYLLABUS

Christopher Newland, Ph.D.
(Fall, 2007)

Course:	PSYCH 7140. Learning and Conditioning
Prerequisites:	Graduate Standing or permission of instructor..
Meeting Times:	Room 202 Thach Hall MW 1500 – 1615.
Text:	Catania, A.C. (2007). <i>Learning</i> . Sloan Publishing. Fourth Interim Edition. The fourth edition (1998), which is available as a used text, is also acceptable, but get "addenda" from classmates. Additional Readings.
Instructor:	M. Christopher Newland, Ph.D.
GTA:	Josh Johnson. 844-3295. johnsi8@auburn.edu
Office Hours:	M W 1:00-3:00 or by appointment.
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Overview and Course Objectives. We will examine the roles that the consequences of behavior, and the context in which behavior occurs, play in its acquisition, maintenance, and structure. We will cover basic principles of operant and respondent conditioning and how they play out in forming the behavior of human and non-human species. Topics will include response differentiation and induction, discrimination, generalization, the formation of complex response units, stimulus equivalence, choice, molecular determinants of behavior, the dynamics of behavior during transition states, some mathematical models of behavior, and verbal behavior. By the end of the course I expect you to have an understanding of the fundamentals of operant and respondent behavior, to appreciate how basic research in the laboratory contributes to this understanding, and to identify these processes in behavior.

Course Structure. We will cover Chapters 1-15 and Chapter 21 of Cantania's text. In addition there will be readings drawn from the primary and secondary literature to supplement and update the material in the in the text. These readings will be available on Blackboard.

Course Correspondence: The best way to contact me is through e-mail. From time to time, I will correspond with the class via e-mail. Auburn University recognizes e-mail as an official communication tool within the university. Therefore, students are responsible for checking their university e-mail accounts on a regular basis and for any information communicated through this medium.

Evaluation. Course grade will be a simple average of all the exams. The final exam will not be comprehensive, but will cover the last portion of the course. cipation. Up to three points on the final grade.

--submit examples. This will be done on an ad-hoc basis. Each example will count as 0.25 points toward your final grade.

Class Attendance: You are expected to attend class, participate, and ask questions.

Academic Dishonesty: Academic dishonesty of any kind will not be tolerated. This includes, but is not limited to, copying answers from someone else's work. All incidents of academic

dishonesty will be dealt with according to the rules outlined in the Tiger Cub (see <http://web6.duc.auburn.edu/tigercub/rules/section4.pdf>). ***If you have any question as to whether an activity constitutes academic dishonesty, please discuss it with me immediately.***

Make-Up Policy: Make-up work will be administered according to the policy outlined in the Tiger Cub and articulated below. Contact Erin Pesek for arrangements. This policy pertains to exams and any other work missed due to a *university-approved* absence:

“Arrangement to make up missed major examinations (e.g. hour exams, mid-term exams) due to properly authorized excused absences shall be initiated by the student within one week from the end of the period of the excused absence. Normally, a make-up exam shall occur within two weeks from the time that the student initiates arrangements for it. Instructors are encouraged to refrain from giving make-up examinations during the last three days prior to the first day of final examinations. The format of make-up exams and opportunities for students to make up work other than major examinations are at the discretion of the instructor whose make-up policies should be stated in writing at the beginning of the term.”

This policy, along with a list of university-approved absences, is provided in the online version of the Tiger Cub at <http://web6.duc.auburn.edu/tigercub/rules/section1.pdf>.

Make-ups for non-university-approved absences will be given at the discretion of the instructor. Work made up under these circumstances will automatically lose 20% of the total number of points available for the activity. If you fail to show up for **ANY** scheduled make-up activity without notifying me in advance (including make-ups due to university-approved absences), you will receive zero points for that assignment.

You must provide a written, signed excuse for missing class if you want to make up missed work for full credit. This excuse must be turned in to Erin Pesek before you will be allowed to make up any missed assignments.

Students with Disabilities. Students with a disability documented by Auburn's Program for Students with Disabilities should schedule a meeting with me early in the term. I will work with the student to meet the accommodations recommended by the Program for Students with Disabilities.

PG 636 BEHAVIOR AND ITS CONSEQUENCES				
Weekly Schedule. Fall, 2007				
Week of	Week Number	Topic	Chapter	Additional Assignment
20 Aug 07	1	Learning and behavior A behavior Taxonomy	1, 2	(submit examples)
27 Aug 07	2	Evolution and behavior Elicited and emitted behavior Consequences of responding: Reinforcement	3, 4,5	(submit examples)
3 Sep 07	3	No class on Monday. Labor Day. Consequences of responding: Aversive control.	5 6	[1] [2]
10 Sep 07	4	Aversive control, con't.		[3]
17 Sep 07	5	Exam 1. Chapter 7. Operants: Selection of behavior.	7	[4]
24 Sep 07	6	Operants, continued		(submit examples) [5, 6]
1 Oct 07	7	Discriminated operants, Stimulus control. Conditional discrimination, stimulus equivalence.	8, 9	[7] [8] [9]
8 Oct 07	8	Discriminated operants, con't Exam 2.		
15 Oct 07	9	Schedules of reinforcement Schedule combinations.	10 11	[10, 11]
22 Oct 07	10	Behavioral momentum Matching and choice		[12, 13] [14] [15]

29 Oct 07	11	Matching and choice (Con't)		[16] [17] [18]
5 Nov 07	12	Behavioral economics. Respondent conditioning	12	[19] [20]
12 Nov 07	13	<i>Neurotox conference.</i> Respondent conditioning (con't) EXAM		[21]
19 Nov 07	14	Thanksgiving.		
26 Nov 07	15	Verbal behavior	14, 15	
3 Dec 07	16	Acquisition of choice. Ideal Free distribution.	Time permitting.	[22] [23]
12 Dec 07		Final Exam, 11:00.		

1. McSweeney, F. K., & Murphy, E. S. (2000). Criticisms of the satiety hypothesis as an explanation for within-session decreases in responding. *Journal of the Experimental Analysis of Behavior*, 74, 347-361.
2. Perone, M., & Galizio, M. (1987). Variable-interval schedules of timeout from avoidance. *JEAB*, 47, 97-113.
3. Galbicka, G., & Platt, J. R. (1984). Interresponse-time punishment: A basis of shock-maintained behavior. *JEAB*, 41, 291-308.
4. Lamb, R. J., Morral, A. R., Galbicka, G., Kirby, K. C., & Iguchi, M. Y. (2005). Shaping reduced smoking in smokers without cessation plans. *Experimental and Clinical Psychopharmacology*, 13, 83-92.
5. Page, S., & Neuringer, A. (1985). Variability is an operant. *Journal of Experimental Psychology: Animal Behavior Processes*, 11, 429-452.
6. Neuringer, A. (2002). Operant variability: Evidence, functions, and theory. *Psychonomic Bulletin & Review*, 9, 672-705.
7. Herrnstein, R. J. (1979). Acquisition, generalization, and discrimination reversal of a natural concept. *Journal of Experimental Psychology: Animal Behavior Processes*, 5, 116-129.
8. Sidman, M., Wynne, C. K., Maguire, R. W., & Barnes, T. (1989). Functional classes and equivalence relations. *Journal of the Experimental Analysis of Behavior*, 52, 261-274.
9. DeGrandpre, R. J., Bickel, W. K., & Higgins, S. T. (1992). Emergent equivalence relations between interoceptive (drug) and exteroceptive (visual) stimuli. *Journal of the Experimental Analysis of Behavior*, 58, 9-18.
10. Shull, R. L. G., Scott T; Grimes, Julie A. (2001). Response rate viewed as engagement bouts: Effects of relative reinforcement and schedule type. *Journal of the Experimental Analysis of Behavior*, 75, 247-274.
11. Shull, R. L. (2005). The sensitivity of response rate to rate of variable-interval reinforcement for pigeons and rats: A review. *Journal of the Experimental Analysis of*

- Behavior*, 84, 99-109.
12. Nevin, J. A. (1988). Behavioral momentum and the partial reinforcement effect. *Psychological Bulletin*, 103, 44-56.
 13. Nevin, J. A., Mandell, C., & Atak, J. R. (1983). The analysis of behavioral momentum. *Journal of the Experimental Analysis of Behavior*, 39, 49-59.
 14. Herrnstein, R. J. (1970). On the law of effect. *JEAB*, 13, 243-266.
 15. Baum, W. M. (1974). On two types of deviation from the matching law: Bias and undermatching. *Journal of the Experimental Analysis of Behavior*, 22, 231-242.
 16. Kollins, S. H., Newland, M. C., & Critchfield, T. S. (1997). Human sensitivity to reinforcement in operant choice: How much do consequences matter? *Psychonomic Bulletin and Review*, 4, 208-220.
 17. Magoon, M. A., & Critchfield, T. S. (2007). The discriminative law of effect: Rethinking the concept of contingency. *European Journal of Behavior Analysis*, 7, xx-xx.
 18. Madden, G. J. (2000). A behavioral economics primer. In W. K. Bickel & R. E. Vuchinich (Eds.), *Reframing health behavior change with behavioral economics* (pp. 3-26). Mahwah, NJ: Erlbaum.
 19. Hursh, S. R. (2000). Behavioral economic concepts and methods for studying health behavior. In W. K. Bickel & R. E. Vuchinich (Eds.), *Reframing health behavior change with behavioral economics* (pp. 27-62). Mahwah, NJ: Erlbaum.
 20. Logue, A. W. (2000). Self-control and health behavior. In W. K. Bickel & R. E. Vuchinich (Eds.), *Reframing health behavior with behavioral economics* (pp. 167-192). Mahwah, NJ: Lawrence Erlbaum.
 21. Rizley, R. C., & Rescorla, R. A. (1972). Associations in second-order conditioning and sensory preconditioning. *Journal of Comparative & Physiological Psychology*, 81, 1-11.
 22. Davison, M., & Baum, W. M. (2000). Choice in a variable environment: Every reinforcer counts. *Journal of the Experimental Analysis of Behavior*, 74, 1-24.
 23. Baum, W. M., & Kraft, J. R. (1998). Group choice: Competition, travel, and the ideal free distribution. *JEAB*, 69, 227-245.