PSYC/NRSC 340-LEARNING
Fall, 2017-Psychology 338, 12:45-2:00

INSTRUCTOR: Dr. Grau; ILSB 3149A
Office hours: Tues./Thurs., 2:00-3:30 (ILSB 3149A)

TA: Gizelle Fauss; ILSB 3149 (gnkleal at email.tamu.edu)
Office hours: Mon., 12-2; Tues., 10-12 (ILSB 3149)

PREREQUISITES: PSYC 107 or INST 301; PSYC 203 and 204 or junior/senior classification

TEXT (required): Domjan, M. (2015). *The principles of learning and behavior* (7th Edition). Wadsworth. (In addition to new copies, the book can be obtained in an alternative format [e-book or rental], see bookspice.com.)

COURSE OBJECTIVES: To introduce the basic principles of learning and the biological processes that facilitate adaptation to one's environment. Students will gain an understanding of the historical/philosophical foundations for the study of learning, will review current empirical work on the underlying behavioral and neurobiological mechanisms (based largely on work using animal subjects), and will be introduced to alternative theories and approaches to the study of learning. Across topics, there will be an emphasis on experimental design and analysis. By the end of the semester, students should have a deeper understanding of:

1. Why the study of learning is important;
2. How the process of learning can be studied;
3. How behavioral procedures can be used to probe brain function;
4. How some simple forms of learning can be modeled;
5. The relevance of learning to clinical phenomena;
6. The neurobiological mechanisms that underlie learning and memory.

EXAMS: Exams: 9/19, 10/5, 10/26, and 11/16 (100 points each)

FINAL: 12/13, 8:00-10:00 AM (160 points; 80 on new material, 80 on old material)

GRADING POLICY: A: 90-100%; B: 80-89.9%; C: 70-79.9%; D: 60-69.9%; F: < 60%.

ATTENDANCE: In the past, students that regularly attend class and take good notes have done far better on the exams. The University attendance policy can be found at: http://student-rules.tamu.edu/rule07.

CELL PHONES/SOCIAL MEDIA: Please silence your phones and do not txt during class. If your computer is open, it is expected that you are using it to take notes (and not to surf the net or post on your Facebook page).

EXTRA CREDIT OPPORTUNITY: Across the course of the semester, there will be 5 opportunities to earn extra points in class. I will not announce when these special opportunities will occur, but it is reasonable to expect one between each exam. Each "opportunity" will be worth 6 points. At the end of the semester, we will add your four best scores to your course total. These opportunities are considered extra-credit. There will be no make-ups.

Notice that 4 perfect scores on these extra opportunities would earn you 24 points that would be added to your course total. Through these extra points, you could transform a 75.7% average to an 80% average (424 [75.7%] + 24 = 448 [80%]). For those of you who end up on the borderline, these extra-points could raise you to the next letter grade. You should also know that I will not necessarily "round-up" when I compute your final grade. For example, if the B/C cut-off is set at 448 points (80%), an individual with 447 points (79.8%) should expect a 'C'.

There are no other ways to earn extra credit points in this class.

Approaches to Learning

8/29: The nature of learning

8/31-9/5: Historical precedents (Readings: Domjan, c. 1)

9/7: Learning after Watson (Reading: Domjan 59-62, 121-130, 155-165)

Stimulus Preexposure Effects

9/12: Phenomena, inference and mechanisms (Readings: Domjan, c. 2)

9/14: Theory

9/19: EXAM 1

9/21: Learning from an invertebrate

9/26: Plasticity within the spinal cord

Learning About S-S Relations

9/28: Phenomena and inference (Readings: Domjan, 62-86)

10/3: Mechanisms (Reading: Domjan, c. 4)

10/5: EXAM 2

10/10-10/12: Theories

10/17: Neurobiological mechanisms

Encoding Complex Stimulus Relations

10/19: Phenomena and mechanisms (Domjan, c. 8)

10/24: Neurobiological mechanisms

10/26: EXAM 3

When the R-O Relation Matters

10/31: Phenomena (Readings: Domjan, 130-154)

11/2: Mechanisms (Readings: Domjan, c. 6)

11/7: Theories of reinforcement (Readings: Domjan 165-183, c. 7)

11/9: Neurobiological mechanisms

When Both the S and the R-O Relation Matter

11/14: Phenomena and Mechanisms (Readings: Domjan, c. 10)

11/16: EXAM 4

11/21: Neural basis of drug addiction

Extinction and Forgetting

11/28: Extinction (Readings: Domjan, c. 9)

Rule Governed Behavior

11/30: Reasoning and inference (Reading: Domjan, c. 11)

12/5: Language (Reading: Domjan, c. 12)

12/13 Final (8:00-10:00 AM [Note the final will not be administered early-NO EXCEPTIONS])

American with Disabilities Act (ADA) Policy Statement:

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, currently located in the Disability Services building at the Student Services at White Creek complex on west campus or call 979-845-1637. For additional information, visit http://disability.tamu.edu.

Learning Outcomes:

Texas A&M University has identified student learning outcomes that describe our institutional commitment to your educational goals. These include the ability to demonstrate critical thinking, effective communication, and social, cultural, and global competence. Please see: http://provost.tamu.edu/essentials/pdfs/copy_of_UndergraduateLearningOutcomesFinal.pdf

Academic Integrity Statements:

Aggie Honor Code: "An Aggie does not lie, cheat, or steal or tolerate those who do."

Upon accepting admission to Texas A&M University, a student immediately assumes a commitment to uphold the Honor Code, to accept responsibility for learning, and to follow the philosophy and rules of the Honor System. Students will be required to state their commitment on examinations, research papers, and other academic work. Ignorance of the rules does not exclude any member of the TAMU community from the requirements or the processes of the Honor System.

To make this environment comfortable for everyone, please remember that there are many students with different experiences and needs in one room. This class does not tolerate remarks that are sexist, racist, homophobic, or otherwise ridicule people.