SPRING SYLLABUS

PSY 5324.251: Biological Bases of Behavior

Tuesday/Thursday, 12:30-1:50

UAC 206

**Instructor info:**

Dr. Reiko Graham, PhD.

Office: UAC 265, Phone: 512-245-6806

Email: rg30@txstate.edu

Office hours: by appointment

**Course description:**

Biological psychology is the study of the physiology that underlies different behaviors and how this physiology changes due to genetic factors and develops due to experience. As such, the aim of biological psychology is to provide a description about how physiological events give rise to psychological events, blending biology with behavioral psychology (i.e., behavioral descriptions of psychological phenomena such as memory or emotion). This course is designed to provide you with background in nervous system structure and function appropriate to the field of Psychology and an appreciation of the biological determinants of behavior.

**Required reading:**

Watson, N.V. & Breedlove, S.M. (2016). The Mind’s Machine: Foundations of Brain and Behavior (2nd Ed.). Sunderland, MA: Sinauer Associates Inc.

<http://www.sinauer.com/the-mind-s-machine-801.html>

+ Selected readings (to be posted on TRACS)

**Course requirements and attendance policy:**

Attendance is expected; however, in the event of an absence, students are responsible for acquiring materials and information supplied in class on their own. Final grades will depend on performance on different class elements, which are listed below. Details regarding these elements are available on TRACS:

Attendance 10%

Midterm 1 20%

Midterm 2 20%

Oral presentation 20%

**TBD**

Final paper 30%

**Due Friday May 8th by 11:59 pm**

**EXTENSIONS/DEFERRALS:** Exam and paper deferrals will be made by the instructor only under extenuating circumstances on a case by case basis. If you are planning to request a deferral, it must be done either before the due date of the paper/exam, or within 48 hours after the paper/exam due date. The discretion of the instructor is final.

**Academic Honesty:**  Examples of academic dishonesty include cheating on a test, collusion to evade academic rules, and plagiarism—i.e., turning in work that is in any way not your own. Any cases of academic dishonesty will result in a failing grade for the course and will lead to additional disciplinary actions.

**Special Needs:** Students who require accommodations for the completion of this course must notify the Office of Disability Services and the instructor in the first week of the semester.

**Learning Outcomes:** The Department of Psychology has adopted expected student learning outcomes for the undergraduate major, the graduate major, and for PSY 1300, a general education course meeting a requirement for the social and behavioral science component. These expected student learning outcomes are available for your review at the following website: <http://www.psych.txstate.edu/assessment/>.

**Lecture schedule (also available on TRACS):**

Jan. 21 Introduction/Getting organized/Structure and function of the neuron Chapter 2

Jan. 23 Structure and function of the neuron/Synaptic transmission Chapters 2-3

Jan. 28 Neurotransmitters/Mechanisms of drug action Chapter 4

Jan. 30 Long-term potentiation, memory Chapter 13

Feb. 4 Development across the lifespan Chapter 13

Feb. 6 Neuroplasticity/recovery from injury Chapter 15, part III, supplemental readings

Feb. 11 Brain anatomy Chapter 2

Feb. 13 Methods in neuroscience Chapter 2, supplemental readings

Feb. 18 Catch-up/review

Feb. 20 **Midterm 1 (UAC 008)**

Feb. 25 Emotion 1: Fear/Anxiety Chapter 11

Feb. 27 Emotion 2: Disgust/Happiness Chapter 11, supplemental readings

Mar. 3 The immune system/microbiome Supplemental readings

Mar. 5 Psychopathology – Affective disorders Chapter 12, supplemental readings

Mar. 10 Psychopathology – Schizophrenia Chapter 12, supplemental readings

Mar. 12 Personality disorders/Emotion regulation supplemental readings

Mar. 17 SPRING BREAK no class

Mar. 29 SPRING BREAK no class

Mar. 24 Music Supplemental readings

Mar. 26 Circadian rhythms and sleep Chapter 10

Mar. 31 Review

Apr. 2 **Midterm 2 (UAC 008)**

Apr. 7 Love and sex (Michaela); social media and oxytocin (Cara) Supplemental readings

Apr. 9 Attentional biases and food (Kathrin); Critical thinking (Myra) Supplemental readings

Apr. 14 Aggression (Yoshua); Pain (Taylor) Supplemental readings

Apr. 16 Yoga/exercise (Madiha);

Apr. 21 Stress and decision-making (Breanna); Post partum depression (Becca) Supplemental readings

Apr. 23 Head injury (Kennedy); Alzheimer’s/dementia (Kristin) Supplemental readings

Apr. 28 Resilience/Neurotheology Supplemental readings

Apr. 30 Canine cognition/neurocognition Supplemental readings

**Friday, May 8th Final Paper due by 11:59 pm (Dropbox or email to rg30@txstate.edu)**