SPRING SYLLABUS

PSY 5324: Biological Bases of Behavior

Tuesday/Thursday, 11:00 – 12:20, UAC 206

**Instructor info:**

Dr. Reiko Graham, PhD.

Office: UAC 253E, Phone: 512-245-6806

Email: rg30@txstate.edu

Office hours: T, Th 9:00 - 11:00 am, 3:30pm to 4:30pm, or 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. (2012). The mind’s machine: Foundations of brain and behavior. Sunderland, MA: Sinauer Associates Inc.

<http://www.sinauer.com/the-mind-s-machine-foundations-of-brain-and-behavior.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:

Class participation 10%

Midterm1 20%

Midterm 2 20%

Oral presentation 20%

**TBA**

Final paper 30%

**Due Thursday May 7 by 9 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. 20 Introduction/Getting organized/Structure and function of the neuron Chapter 2

Jan. 22 Structure and function of the neuron/Synaptic transmission Chapters 2-3

Jan. 27 Neurotransmitters/Mechanisms of drug action Chapter 4

Jan. 29 Long-term potentiation, memory Chapter 13

Feb. 3 Development across the lifespan Chapter 13

Feb. 5 Neuroplasticity/recovery from injury Chapter 15, part III, supplemental readings

Feb. 10 Brain anatomy Chapter 2, supplemental readings

Feb. 12 Methods in neuroscience Chapter 2, supplemental readings

Feb. 17 Catch-up/review

Feb. 19 Midterm 1

Feb. 24 Emotions (Fear) Chapter 11

Feb. 26 Anxiety disorders Chapters 11 and 12

Mar. 3 Personality disorders Chapter 12

Mar. 5 Circadian rhythms Chapter 10

Mar. 10 Sleep Chapter 10

Mar. 12 Overview of the neuroendocrine and immune systems Chapter 8, supplemental reading

Mar. 17 SPRING BREAK no class

Mar. 19 SPRING BREAK no class

Mar. 24 Genetics and behavior Supplemental readings

Mar. 26 Music and the brain Supplemental readings

Mar. 31 Cognitive Neuroscience Annual Meeting no class

Apr. 2 Midterm 2

Apr. 7 Consequences of TBI (Rachel)/Chronic pain (Briana) Supplemental readings

Apr. 9Depression (Jaime)/Stress and the ANS (Avia) Supplemental readings

Apr. 14 Biofeedback (Morgan)/Hallucinogens (Stephen) Supplemental readings

Apr. 16 Aggression and development (Martin)/ PTSD (Julia) Supplemental readings

Apr. 21 Human/dog bonding (Andrew)/Pet therapy (Danielle) Supplemental readings

Apr. 23 Attraction and love/bonding (Shally/Haleigh) Supplemental readings

Apr. 28 Perception (Candice)/Attention (Frank) Supplemental readings

Apr. 30 Novelty (Bryant)/Wrap-up Supplemental readings

Thursday,

May 7 **Final Paper due by 9 pm**