BBB 469, Stress Neuroscience
Syllabus for Spring 2020

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Office Location: 122 Levin
Office Hours: Tuesdays 10-11am or by appointment

DATE	TOPIC
Jan. 21	The Stress Response: SNS and HPA axis
Jan. 28	CNS Regions and Neural Pathways Involved in the Stress Response
Feb. 4	Effects of Stress on the Prefrontal Cortex: Memory and Attention
Feb. 11	Effects of Stress on the Hippocampus: Memory
Feb. 18	Midterm exam, CWiC Presentation
Feb. 25	Effects of Stress on the Hippocampus: Depression
Mar. 3	Effects of Control on the Stress Response Journal Article Presentations
Mar. 17	Effects of Stress on the Amygdala: Memory Journal Article Presentations
Mar. 24	Effects of Stress on the Amygdala: Anxiety Journal Article Presentations
Mar. 31	PTSD Journal Article Presentations
Apr. 7	Transgenerational Effects of Stress Journal Article Presentations
Apr. 14	Effects of Early Life Stress Journal Article Presentations Final Paper Topic Due
Apr. 21	Sex Differences in the Stress Response Journal Article Presentations Final Paper References Due
Apr. 28	The Effects of Stress on Feeding Behavior Journal Article Presentations
May 5	Stress and the Immune System Journal Article Presentations

May 12 Therapeutic Interventions in Stress-Related Mood Disorders
Journal Article Presentations
Final Paper Due

Stress Neuroscience is a seminar course designed to familiarize students with current research in the field. After surveying introductory material, primary journal articles will be discussed each week. Each student will be assigned to lead the discussion of a specific research article but the journal club format requires that all students contribute to the discussion each week.

The articles to be discussed will be available on the course Canvas. Please visit: https://upenn.instructure.com/ to access the course site. Course grades will be based on one midterm exam (25%), an oral presentation of a journal article (30%), a final paper (35%) and class participation and attendance (10%).

Midterm Exam:
The exam will consist of multiple-choice and essay questions that correspond to the topics and techniques discussed in class. Because of the large amount of cross-talk between the systems that will be covered, students should be able to apply and extend ideas from one system to other areas.

Exam must be taken on the scheduled date. No make-up exams will be given. If an exam is submitted for a re-grade, it must be done in writing within *one week* of receiving the graded exam. All submitted exams will be re-graded in their entirety and the resulting score may higher or lower than the original grade. A fraction of exams are photocopied before being returned to the students. If an exam is found to have been altered before submission for re-grading, the student will be reported to the Office for Student Conduct.

Final Paper:
The final paper will be on a topic related to stress neuroscience chosen by the student and approved by the instructor. Students will use primary literature to gain a deeper understanding of an area of interest in the field of stress neuroscience. Papers are expected to be 4-5 pages in length, 12-point Times font, double-spaced. Articles discussed as evidence in the paper must be cited and a list of references is required in addition to the 4-5 page essay. The information must be accurately presented in an organized fashion.

It is the student's responsibility to ensure that his or her work is backed up electronically and that the correct file is uploaded on the course Canvas site. It is recommended that the paper be submitted before the deadline to provide time for any electronic difficulties. The paper is due by the beginning of the last class meeting but may be submitted earlier. Essays submitted up to 24 hours after the deadline will be penalized 10 points and an additional 10 points will be deducted for each additional 24-hour delay.

Journal Article Presentation:
Presentations should be approximately 35 minutes in length to allow 5-10 minutes for discussion. Presentations are generally given in PowerPoint format, but other mediums may be used with prior instructor approval. Presentations should include: an introduction to the area of research, a discussion of the methods, results and conclusions of the paper(s) and a general conclusion incorporating the results of all the material presented. Students are required to meet with a speaking advisor from Communication Within the Curriculum (CWiC) with their completed

presentation at least 2 days prior to their in-class presentation. Due to the structure of the class, all presentations must be given on the assigned date.

Students should be prepared to lead in-depth discussions of the articles to which they are assigned. This includes not only understanding of the background and methods used but also the implications of the research. Students must read the articles critically and be prepared to defend the methodology and conclusions or to suggest alternative explanations or directions for future work that could elucidate mechanisms of action.

Class Participation and Attendance:
Students are expected to read all journal articles before coming to class. Students should be prepared to participate in discussions following presentations. Students who do not participate in discussions can expect their grade to be lowered.

Students are expected to attend all class meetings. All absences must be reported through the Course Absence Report System. Students can submit a Course Absence Report through Penn InTouch. Repeated tardiness will be counted towards an absence. Students are responsible for making up any work assigned during an absence and for understanding the material presented in their absence. If an absence is for more than a week's worth of classes, the College Office must be contacted for assistance.