Principles of Neuroscience (with Laboratory), PSY 443
Meeting Time: 10:00-10:50, Monday, Wednesday & Friday, Lab 10:00-10:50, Thursday
Western Illinois University
Matt Blankenship, Ph.D.
Office: Room 108, Waggoner Hall
E-mail: MR-Blankenship@wiu.edu
Office Hours: ...or by appointment
Office Phone: 298-1290

Required text:

Course Prerequisites: PSY 343 and BIO 330 or BIO 340 or ZOO 430 or CHEM 330 or CHEM 331 or PE 290 or permission of the instructor.

In accordance with University policy and the Americans with Disabilities Act (ADA), academic accommodations may be made for any student who notifies the instructor of the need for an accommodation. It is imperative that you take the initiative to bring such needs to the instructor’s attention, as he/she is not legally permitted to inquire about such particular needs of students. Students who may require special assistance in emergency evacuations (i.e. fire, tornado, etc.) should contact the instructor as to the most appropriate procedures to follow in such an emergency. Contact Disability Support Services at 298-2512 for additional services.

Please be aware of your rights and responsibilities as a student. The Student Rights and Responsibilities webpage describes university policy concerning topics such as academic dishonesty. Please familiarize yourself with this information.

Course Description & Policies:

Goals: 1) Students will demonstrate a broad appreciation of neuroscience concepts and research by studying the anatomy and function of the mammalian nervous system from multiple perspectives, 2) students will be able to synthesize the concepts of basic nervous system function with behavior and cognition and 3) students will develop an appreciation for and an understanding of basic neuroscience concepts through direct experiences, such as hands-on neuroanatomy study, electrophysiological measurement of brain activity and the correlation of brain system manipulations with resultant behavior. 4) Finally, as a capstone experience in the study of neuroscience, students will demonstrate scholarly achievement by writing a review paper concerning a current area of research which emphasizes the integrative, multidisciplinary approach of neuroscience.

For students pursuing the neuroscience minor, this course serves as a
culminating experience. This course (as noted above in goal 1) will emphasize the synthesis of multiple disciplines (psychology, biology, chemistry, etc.). Therefore, it is recommended that this course is taken near the end of the 19 semester hour minor track, as it will draw upon experiences in those other disciplines.

Assignments:

The assignments that determine your performance in this class are as follows:

4 Exams, 100pts each for 400pts
3 Lab Reports, 50 pts each for 150pts.
1 Term Paper, 100pts

Your grade will be calculated out of a 650pt total

The exams are mostly multiple choice (about 80%) with some short answer questions (the remaining 20%). The exams will make up the largest portion of your grade so make sure you are prepared for these exams. The daily readings, the lectures and the lab exercises will be the most helpful resources for test preparation in addition to REGULAR CLASS ATTENDANCE and NOTE-TAKING.

The next most significant determinant of your grade will be the lab reports that accompany each of the 3 labs we will complete. There will be a neuroanatomy lab during which we will perform sheep brain dissection. The lab assignment will involve identification of gross anatomical features as well as microanatomical features. The second lab report will involve experimentation with (virtual or realistic) neuron physiology. And finally the last lab exercise will involve behavioral measures following manipulation of nervous system function. The lab reports will centered around a set of research questions or demonstration goals. The reports will not follow formal report styles that are typical in other disciplines. Each lab will use a different pedagogical approach, for example the neuroanatomy lab will be descriptive in nature and the neurophysiology lab will be more explanatory in nature, therefore the format of the lab report will vary from lab to lab. The lab requirements (questions and goals) will be provided in a "manual" that will be distributed before each lab begins.

The term paper is a research paper on a topic from the list provided at the main webpage ("Term Paper Topics" link). I encourage you to pick a topic that is of particular interest to you. The scope of the paper is a review of neuroscience literature that addresses a certain conflict in neuroscience theory. The list of topics will be helpful in getting a starting idea for your paper’s thesis, however you may propose other topics with my permission. The paper is to be no more than 6 typewritten pages long, and I am not picky about format (but if you know APA format please use it). The paper must also include a "Reference" section in which you cite the sources used for your research. Please ask for additional details if you need them.

ATTENDANCE

THIS IS THE ATTENDANCE POLICY, PLEASE DO NOT ASK TO MAKE EXCEPTIONS TO THE RULE.
Attendance in this class is mandatory. I will not record attendance, however your performance on exams will reflect poor attendance. THIS WILL BE A DIFFICULT CLASS IF YOU HAVE POOR ATTENDANCE HABITS. If you cannot make class due to a SCHEDULED OR EXCUSED absence you may make up an assignment at a later date of your convenience as long as it is taken care of within 5 class days (meaning a day that classes meet at WIU). So, for example, if you miss a quiz on a Friday and it is excused by either rule 1 or rule 2 (below) it can be made up on the following Monday through Friday. If you happen to miss a quiz the Friday before spring break, and it is excused according to the rules, you would not be expected to make it up over break, you would have the Monday through Friday after we return in order to make it up. If you miss a class assignment for any other reason you will receive a zero for that assignment. If you miss a class assignment for any other reason you will receive a zero for that assignment. (This sentence is repeated for emphasis!) The only acceptable reasons for missing class are as follows:

1) SCHEDULED absences require notifying me BEFORE class that you will not be able to attend for some VALID reason (you may notify me via e-mail, phone or written note).

2) EXCUSED absences require an official written excuse (i.e. health center visit).

I appreciate your efforts to observe these two rules concerning attendance and missed assignments.

CHEATING

Cheating WILL NOT be tolerated if you are found plagiarizing or misrepresenting your work according to WIU's student handbook you will receive a zero on that particular assignment (see "Undergraduate Academic Dishonesty Policy, pp. 54-55 of the student handbook).

GRADING SCALE

The percentages for the corresponding letter grades are as follows:

- 90.0% and above: A
- 80.0% up to 90.0: B
- 70.0% up to 80.0: C
- 60.0% up to 70.0: D
- below 60.0: F

These represent the HIGHEST possible cutoffs for each of the letter grades. I may, however, lower the grade criteria as I see fit based on the class's overall performance.