Physiological Psychology (830:313:H6)
Syllabus, Summer 2017
Monday & Wednesday 6:00 – 9:40, SEC-220 (Busch Campus)

Instructor: Sara Norton, Behavioral & Systems Neuroscience Graduate Program
Campus Location: Room 232-h, Psychology Building, Busch Campus
Office Hours: By appointment
Email: san103@scarletmail.rutgers.edu

Textbook
Physiology of Behavior, 11th Edition; Neil R. Carlson; Pearson Publishers (with or without MyPsychLab)

Course Description: This course addresses the biological basis of normal and abnormal behavior. The focus will be on the brain - its structure, chemistry and function. The course will deal with sensation, motivation, cognition, and emotion. We will also discuss psychiatric disease, neurodegenerative disease, and drugs of abuse.

Major Learning Goals

After completing this course, students will know about the following:
1. The anatomical distinctions of the nervous system
2. How neurons release neurotransmitters and respond to chemical information
3. How information is stored and retrieved in the brain (the basis of learning and memory)
4. How the brain controls movement
5. How the brain organizes sensory information into perceptual experience
6. What genetic and biochemical factors determine psychiatric and neurological problems
7. What drives motivational behaviors, such as sex, sleep and food intake
8. How the defensive immunological activities of the body affect brain function

This is a fact-intensive course with an enormous amount of material to learn. It is a serious introduction to the field of Behavioral Neuroscience, and therefore, **a textbook is recommended**. My PowerPoint slides are very detailed, and I will be posting them on Sakai with the expectation that you will be reviewing them on your own time. If you find yourself falling behind, the textbook is an excellent resource. Usually, the textbook is required, but this summer I'm going to see if we can do without it. In addition, the MyPsychLab site run by Pearson is an excellent study environment connected to the book; this site will thoroughly prepare you for exams, provide you with quizzes and assignments, and reinforce your understanding of lecture material and what you read in the textbook. This is why there is an access code associated with the purchase of the book.

You have three main options for obtaining the textbook (through NJ Books or Barnes & Noble)

1. Hardbound copy with access code (to eText and MyPsychLab)
2. Loose-leaf copy with access code (to eText and MyPsychLab)
3. Access code (to eText and MyPsychLab - but no receipt of a physical copy of the book)

A few more options:
4. Rent the book (11th edition)
5. Obtain a used copy of the 11th edition or (only if you are saving huge bucks) a used 10th edition (do not go to the 9th edition)

If you choose options 4 or 5, you will not get the access code to MyPsychLab. An access code (that only gets you to the MyPsychLab site run by Pearson and NOT an eText, will cost $42.50). **This session, you are not required to get access to MyPsychLab**. However, many people find it to be a useful resource.

Lectures and Textbook: Lectures will adhere closely to the general contents of the textbook, which we will follow closely. Some lecture material will not come from the textbook. Therefore, class attendance is important. Lecture notes will be posted online.

Assessment

Exams: (70% of total grade): There will be three exams. Exams 1 and 2 will be a mixture of written and multiple choice questions. The first exam will account for 20% of the total grade. Exam 2 will account for 20% of the total grade. The Final Exam is cumulative will be all multiple choice and worth 30% of the total grade.

Quizzes: (15% of total grade): Quizzes will be set up on the Sakai site. Quiz results will count towards your final grade, but at the same time will serve to keep you up to date with lecture attendance. The quizzes for the week's material will be due at the end of each week (**each Friday at midnight**). You may use your textbook and any notes you have for the quizzes, but they must be completed *on your own* (not with a friend). Your lowest quiz grade will be dropped, so if you miss one there is no need to schedule a makeup.

Presentations: (15% of total grade): There will be one or two presentations during the session. Suggested topics will be posted on Sakai. This is something new I am adding this semester, so I am open to suggestions for how to make this something you'll actually learn from.

Extra Credit: I will offer a variety of extra credit opportunities throughout the session. In the past, extra credit opportunities have included the option to participate in Rutgers University psychology research studies, write a research paper, and Sakai quizzes. I like to play extra credit by ear, so I'll make announcements throughout the session on this topic. It is important to remember that extra credit is not guaranteed, and anyone with very poor attendance will not be allowed to participate in these extra credit opportunities.

Grading System

Students will need to achieve predetermined cut-off points for grades of A, B+, and so on. **Note that cut-off points are different than in many other classes**. Cut-off points will be as follows:

A, 90-100   B+, 87-89.9   B, 76-86.9   C+, 72-75.9   C, 60-71.9   D, 50-59.9   F, <50

Makeup Exams

I verify all excuses for missing an exam. If you know ahead of time that you will be missing an exam (for a legitimate and verifiable reason, of course), you will be asked to take the exam before the exam date. If this is not possible, the makeup must be taken within three weekdays of the scheduled exam date. Makeup exams will NOT be exactly the same as the exams given on the scheduled date.

Rutgers athletic obligations, religious events, weddings etc that are going to interfere with taking the scheduled exams will require that you take the exam earlier than scheduled. It is up to you to anticipate the conflict, and let me know about these upcoming events so I can administer the exam earlier.

Lecture Schedule

Day	Date	Topic	Chapter
Mon	July 10	Neurons & Neurophysiology	2
Wed	July 12	Neuroanatomy	3
Mon	July 17	NTs & Psychopharm	4, 18
Wed	July 19	**Review & Exam 1**	**1, 2, 3, 4, 18**
Mon	July 24	Perception & Motor System	6, 7, 8
Wed	July 26	Neurological Disorders; Sleep	15, 9
Mon	July 31	*TBD + PRESENTATIONS*	
Wed	Aug 2	**Review & Exam 2**	**6, 7, 8, 15, 9**
Mon	Aug 7	Learning & Memory	13
Wed	Aug 9	Reproduction; Emotion	10, 11, 17
Mon	Aug 14	*PRESENTATIONS*	
Wed	Aug 16	**Final Exam**	**all chapters**

Presentation topic ideas:
Optogenetics
Epigenetics
Electrophysiology
Development of the nervous system
Schizophrenia (from a neuroscience perspective)
Autism (from a neuroscience perspective)
Mechanisms of thirst/eating
Aging
History of neuroscience
Case studies in neuroscience