

PSY 0505: Introduction to Biopsychology

Fall, 2016

Tuesdays & Thursdays 9:30 – 10:45 ; 249 Cathedral of Learning

PSY 0505 - 1080, Class# 28383

Professor: Anna L Marsland, Ph.D., RN

Office: 623 Old Engineering Hall

Office hours: **Thursdays 2:30-3:20pm or by arrangement.** Do not hesitate to email or catch me after class to find a time to meet.

Email: marsland@pitt.edu

Office phone: 412.624.2434

Undergraduate Teaching Assistant:

Peter Palmen

Email: pjh45@pitt.edu

Meeting Location: First floor of Union (location to be announced in class)

Office hours: **Wednesdays noon to 1pm or by arrangement.**

Please keep this syllabus handy: you will need to consult it often throughout the semester. When you have questions for us during the semester, please refer to this document before asking your questions.

What is Introduction to Biopsychology?

Have you ever wondered

- ▶ Why we sleep?
- ▶ Why we shiver in the cold?
- ▶ Why people take drugs?
- ▶ Why jet lag is worse when you travel east?
- ▶ What happens to the body when we are stressed out?
- ▶ Where feelings come from?
- ▶ How males and females are different?
- ▶ What causes depression?
- ▶ How we move?
- ▶ What pain is?

Biopsychology is the scientific study of the biology of behavior -- a biological approach to the study of psychology. This course is designed as an introduction to the field. The course will cover a series of topics. The first third of the course will focus on the biological foundations necessary to understand behavior, including the structure and function of the brain and nervous system and an introduction to genetics. The remainder of the course will focus on applying this knowledge to explain a number of behaviors, including pain, movement, language, sexual behavior, sleep, learning and memory, addiction, stress, and physical and mental health.

The course will focus on the application of biopsychological principles to the real world. To aid in comprehension, many everyday and clinical examples will be used. The course will also emphasize scientific methods -- using science to answer questions about daily life. Biopsychology is a huge discipline and we are only able to touch on the surface of this field in this introductory class. The goals of the course are to (1) learn key terms used by scientists in the field; (2) learn basic concepts that support biological

explanations of behavior, and (3) learn how to apply these terms and concepts to an initial understanding of the biology of psychological and behavioral processes.

Prerequisites and a word about being prepared:

The formal prerequisites are: PSY 0010 or 0012 or 0015 or 0101 or 0200. In addition, it will help if you have completed other coursework in the biological and natural sciences. This is because the course will focus on the anatomy, physiology, and neurochemistry of the brain and its related systems. If you have previously taken NROSCI 1000 'Intro to Neuroscience', then this class is probably not appropriate for you, because we will be covering redundant material. Also, *Psychology Majors do not need to take this course in addition to Intro to Neuroscience.*

Office hours: Dr. Marsland: Thursdays 2:30 -3:30pm in 623 Old Engineering hall; Mr. Palmen: Wednesdays noon-1:00pm in on the first floor of the Union

You never need an appointment to see us during office hours. Appointments are on a first come, first served basis. If these times do not work, do not hesitate to catch us after class to schedule a different time to meet.

CourseWeb:

This course has a CourseWeb page. You can access it through the Pitt Portal at my.pitt.edu. After you log in, click on "CourseWeb". This course should be listed under "My courses" if you are registered (allow 24 hrs after registration for the course to appear). Be sure to check CourseWeb regularly throughout the semester for announcements, lecture notes/slides and other important information.

Required textbook and MyPsychLab.com:

Pinel, P. J. (2014). *Biopsychology* (9th Ed.), Pearson. ISBN: 978-0-205-91557-6. You may purchase this text at the Pitt Book Center. I will also make a copy available on 2-hour reserve at the Hillman Library Reserve Desk. **You do not need to bring your book to class.** All assigned readings will be from the 9th edition of the book.

*There is also an online resource option that comes with this book, called **MyPsychLab**.* This is not required, but it does have helpful study material available to you. You can purchase this option at <http://www.mypearsonstore.com>. If you end up using this resource, the ID you will need is: marsland98408.

Attendance and other policies:

This course will be taught in lecture format. Despite this format, I hope you will become involved in class - asking questions and discussing topics. To facilitate this, class notes will be made available to you on the course web page. This is done to encourage class discussion - so that you do not have to frantically take down notes during class. However, please note that viewing on line notes IS NOT an adequate substitute for attending class. The web notes will not provide all of the information delivered in class; they are outlines. You are responsible for all of the information presented in class - including multimedia presentations that many not be reproduced online. Furthermore, although many lecture topics are covered in your text, there will be many details covered in class that are not in the book, and others in the book that will not be discussed in class. Successful completion of this course requires adequate mastery of the terms, concepts and methods that will be presented in class lectures and that are in the text. Coming to class regularly will help you do well. **Students who do not attend a lecture should contact a fellow student to determine missed information.** It is not possible to get all of this information from the TA or

the professor.

Lecture slides will be posted online at the latest by midnight the night before class. **You are encouraged to look at these and bring them as printed copies or in electronic form to class for note taking.** Please note that studies show that we retain more information if we hand write notes during class, rather than take notes electronically.

We understand that students sometimes need to arrive late for class or leave early. Please attempt to do this with minimal disruption for the benefit of your classmates. If you anticipate needing to arrive late or leave early on a regular basis, please inform the professor directly. If late arrivals or early departures begin to cause too much disruption, this policy may be revised. Please do not make noise by packing up before class is over because this is disruptive to your fellow students and to me.

You are encouraged to ask questions during class. Don't be shy to raise your hand!

Please turn off / silence your cell phone before class begins. **Talking, texting, emailing, surfing the web etc. is not permitted. Please be respectful and mindful of the people around you.** Computers may be used to take notes, but not for accessing social media during class.

Please read this syllabus, consult your book, and check the information on the CourseWeb site PRIOR to contacting us with questions. Many of your questions can be answered this way. If you ask a question that can be answered by checking these sources, we will respond to your email by asking you to check one or more of them.

Course Requirements

The purpose of grading is to evaluate your understanding of material presented in classes, movies, demonstrations, and readings. For this kind of class, the most practical way to assess this understanding is with objective, multiple-choice quizzes and exams. These tests will be designed to assess your understanding and your ability to apply concepts (rather than just memorization). Your grade will be based on exam and quiz performance and points earned on extra credit assignments.

Exams: There will be three examinations held during the semester. Each of these exams will cover roughly one third of the material presented in the course. These 3 exams are not cumulative. A fourth exam will be held during the final exam week. **This exam is optional.** This optional exam will be cumulative and integrative and it can be used to replace a lower grade on another exam. Exams will cover material presented in class and assigned readings from the text. The 3 exams that are used towards your final grade will each be worth 25%. You will receive study guides to help prepare for the exam.

All questions on the exams will be based on the "terms and concepts" for each topic that are posted on Courseweb. **PLEASE GET INTO THE PRACTICE OF MAKING YOUR OWN STUDY NOTES AS YOU GO ALONG -- MAKING SURE YOU FULLY COMPREHEND ALL OF THE LISTED TERMS AND CONCEPTS.** Each exam will consist of matching, short answer and multiple-choice questions. Material covered in one exam will not be reexamined in subsequent exams, except at the level of general knowledge. All exams will be closed book and closed notes.

Please make sure that you arrive on time for exams and bring at least 2 #2 pencils and an eraser. If you arrive after any student has completed the exam, you will not be permitted to take the exam.

Quizzes: There will be six SHORT IN-CLASS QUIZZES that take place promptly at the beginning of class and last 10 minutes, finishing at 9:40am. If you arrive late, you will have less time to take the quiz. The quizzes will help you to get an idea of the sort of knowledge you will need to know for the exams. The best 5 of your 6 quiz grades will make up 25% of your final grade (5% each). You may skip or drop one quiz. It is your responsibility to be present and prepared for at least 6 of 7 quizzes.

Makeups: No make-up exams will be given (except for the final exam – and *only* if there are final exam conflicts or in the case of documented illness or emergency). Students who miss one of the 3 exams for any reason will need to use the fourth exam to replace their missing grade. Even if you do not anticipate missing an exam, you should not schedule travel prior to the final exam because that is the only time you may take the final. Policies regarding exam conflicts for student athletes are below (page 9). Adjustments of the final exam time will be given only for students with exam conflicts (more than three exams on the same day during finals week), as requested by university guidelines. The makeup exam will be different from the regular exam and will be given no more than 24 hours from its scheduled time.

If you anticipate a problem being present for the final exam at its assigned time, you forfeit your right to use that exam to replace a prior grade, including a missed exam (see below). No exceptions to this policy will be made.

Extra Credit Assignments: You can earn up to 5% of extra credit over the semester by writing letters to people who are important to you (e.g., a former teacher, coach, or mentor, a friend, your boyfriend/girlfriend, or a relative) describing the way that a topic from class is relevant to this person. If you'd like, you can also write a letter to someone important to you explaining the way a topic is relevant to your own life. You can choose any topic from the class material (chapters and lectures) linked to each exam. Let Dr. G. or the TA know if you have any questions about topics.

Your letters should be in essay form, and they should be carefully edited and spell-checked. Each letter should be minimally 350 words in length. Assignments will be graded based on perceived effort. You can write up to 2 letters worth 2 points each for each block of material we cover prior to each exam. Therefore, you can write up to 6 letters total for the semester.

Once your letters are complete, turn them in to us at turnitin.com. Both letters for each block should be combined into a single document for uploading. You may need to create an account if you don't have one. You must use your Pitt email address to create your turnitin.com account. Otherwise, I can't link you with this specific class. For more information, go to: <http://www.etskb-fac.cidde.pitt.edu/other-applications/turnitin/> Click on the link that says: *Student Accounts for Turnitin*

Then, sign up for this class:

Class ID: 13298152

Password: *Brain*

Assignment name: Extra Credit Essay about INSERT TOPIC NAME and NUMBER HERE (e.g., "Extra Credit Essay about What Biopsychology Means #1", "Extra Credit Essay about Jose and the Bull #2.")

Additional guidelines: These letters must be completed independently and be original. **When you are directly referring to or talking about material from the book, it is important to cite it! Avoid using quotations or direct quotes. Use your own words.** These assignments are optional and **no late**

assignments will be accepted. The more letters you write, the better your grade will be! I will not share templates or examples for this, because I want this work to be original and your own. Be creative. Have fun with this!

Grading

LETTER GRADES for exams and quizzes will be computed in the following manner:

1. The two highest scores from the class will be averaged. This average is considered to be the maximum attainable for this exam (in this sense, the exam is "curved"). For example, if Susan has a 90 and John has a 92 - the maximum attainable score is 91.

2. All scores are represented as a percentage of this maximum. For example, if Drew's score is 76, that is 83.5% of 91.

3. Letter grade estimates are assigned according to a fixed scale as follows

| | |
|----|--------|
| A+ | 98-100 |
| A | 94-97 |
| A- | 90-93 |
| B+ | 87-89 |
| B | 83-86 |
| B- | 80-82 |
| C+ | 77-79 |
| C | 73-76 |
| C- | 70-72 |
| D+ | 67-69 |
| D | 63-66 |
| D- | 60-62 |

F - <59 DANGER -- BE CONCERNED IF YOU GET AN F. Please contact me so that we can find out what is going wrong early.

Grades will be posted on Courseweb as soon as scores are available.

When calculating your final grade, I will use your highest 3 exam results and your highest 5 quiz results.

Academic integrity: Students in this course are expected to comply with the University of Pittsburgh's Policy on Academic Integrity. **CHEATING WILL NOT BE TOLERATED IN THIS COURSE! Cheating includes, but is not limited to: looking at the exam of a fellow student, a text, or a study guide; writing information on note cards, your body, your desk, a cell phone or other devices, or your clothing to look at during an exam. Any student who is found cheating or plagiarizing will receive an F for the course and will be reported to the Dean. Please do not do anything that would make us suspect that you are cheating!**

University's statement on cheating and plagiarism: Cheating/plagiarism will not be tolerated. Students suspected of violating the University of Pittsburgh Policy on Academic Integrity...from the February 1974, Senate Committee on Tenure and Academic Freedom reported to the Senate Council, will be required to participate in the outlined procedural process as initiated by the instructor.

Disabilities: *If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and Disability Resources and Services, 140 William Pitt Union, 412-648-7890 or 412-383-7355 (TTY) as early as possible in the term. DRS will verify your disability and determine reasonable accommodations for this course. Arrangements for disability exams must be made through the DRS office a minimum of one week before the in-class exam date.*

Student assistance and counseling: Everyone feels overwhelmed by the challenges of being a student at times. We are here to help you. If you have any issues that you would like to discuss with the instructor or a TA in confidence, please schedule an appointment. Please note that we are not counselors but can direct you to a place where you can get help. **If you need someone to talk to at any point, there are several on-campus resources.**

One option is the University Counseling Center (a free, confidential service). They can be reached at 412-648-7930, and are located at 334 William Pitt Union.

Another option is the Psychology Department's Clinical Psychology Center (see www.pitt.edu/~clinic/). They can be reached at 412-624-8822, and are located at 3820 Sennott Square.

Sexual assault services are given at the Sexual Assault Services Center, which is located at 334 William Pitt Union (phone: 412-648-7856).

For emergency psychiatric care, please go to the nearest emergency room, or to the Diagnostic Emergency Center at Western Psychiatric Institute and Clinic. The clinic is located at 3811 O'Hara St. (see wpic.upmc.com/Locations.htm). They can be reached at 412-624-2000.

Student Athletes: Please ask your coach or the Athletics Department for the 'instructor's letter' and your sports schedule. Please give me your schedule during the first 2 weeks of class. Check for exam conflicts and notify me ASAP and before the exam conflict date. Please remember that it is your responsibility to contact me to make arrangements in advance of the conflict to make fair accommodations.

The *tentative* class schedule (subject to change—updates will be announced during the semester in class and on the CourseWeb page) is presented at the end of this syllabus. Please make every effort to complete the assigned reading prior to class! Research shows that students understand new information better when they have a framework for understanding. Reading the chapter will provide a good framework for

understanding the information presented during class. If this is not possible, I recommend reading the outline prior to class for the same reason.

Biopsychology 0505 Course Schedule Fall Term 2016

| Date | Chapter | Topic |
|-------|--------------------|--|
| 8/30 | 1 | What is Biopsychology, Anyway? |
| 9/1 | 2 | Evolution and Genetics |
| 9/6 | 2 | The Biology of Behavior |
| 9/8 | 3 (3.1, 3.3 – 3.6) | Quiz # 1(covers 8/30-9/6) The Anatomy of the Nervous System |
| 9/13 | 3 (3.2) | The Anatomy of the Neuron |
| 9/15 | 4 (4.1-4.4) | Quiz # 2 (covers 9/8-9/13) Neural conduction |
| 9/20 | 4 (4.5) | Synaptic Transmission |
| 9/22 | 4 (4.6, 4.7) | Quiz # 3 (covers 9/15 – 9/20) Neurotransmitters and Psychopharmacology |
| 9/27 | 5 | Methods of Studying the Nervous System |
| 9/29 | | EXAM 1 (Extra credit assignments due by midnight) |
| 10/4 | 7 (7.1, 7.3) | Somatosensory System |
| 10/6 | 7 (7.3) | Sensory Systems – What is Pain? |
| 10/11 | 8 | Motor Systems- How you Do What you Do? |
| 10/13 | 16 | Quiz #4 (covers 10/4-10/13) Lateralization and Language |
| 10/18 | | No Class –Fall Break |
| 10/20 | 13 | The Neuroendocrine System – What’s wrong with the MAMAWAWA? |
| 10/25 | 13 | The Effects of Sex Hormones in Puberty and Adulthood |
| 10/27 | 14 | Quiz #5 (covers 10/18-10/25) Arousal and Sleep- Do we need to sleep? |
| 11/1 | 14 | Arousal and Sleep |
| 11/3 | | EXAM 2 (Extra credit assignments due by midnight) |
| 11/8 | 11 | Learning and Memory – How does the brain store information? |
| 11/10 | 11 | Learning and Memory |
| 11/15 | 15 | Addiction – Drugs that can Harm with Pleasure |
| 11/17 | 15 | Addictions |
| 11/22 | 17.1-17.4 | Quiz # 6 (covers 11/8-11/17) Emotions- Why do you Feel? |
| 11/24 | | No Class – Thanksgiving |
| 11/29 | 18.1 | Biopsychology of Clinical Disorders-Schizophrenia |
| 12/1 | 18.2& 18.3 | Biopsychology of Clinical Disorders- Affective Disorders |
| 12/6 | 17.5 | Lifestyle, Stress and Health – Can the end of term affect your health? |
| 12/8 | | EXAM 3 (Extra credit assignments due before midnight) |
| | | OPTIONAL FINAL EXAM (cumulative) See exam schedule |