

## INTRODUCTION TO PSY 201

**Instructor:** Barbara Gordon-Lickey, 64904, bgl@uoneuro.uoregon.edu, Office hours: Fri. 1-3 or by appointment, 229 Huestis

**TAs:** will post their name and info on web page.

**Course web page:** <http://darkwing.uoregon.edu/~barbgl/psy201/> There will also be a link from psychology dept to course web page.

You will be responsible for all material on web page. Check it at least twice a week.

The course is called "Mind and Brain" for two reasons. First it deals with the behavior of individuals, rather than behavior that results directly from the interactions among people. Behavior that results directly from the interactions among people is emphasized in Psy 202, "Mind and Society". Don't push me too hard on this one; I would be the first to admit that all behavior depends on both the individual and society. The distinction is a matter of degree; it is not absolute.

More importantly, this course emphasizes how the biology of behavior. Whenever possible, we will discuss biological mechanisms underlying the behaviors that we study. For example, when we discuss hunger, we will discuss the signals that the stomach, liver and other organs send to brain with information about hunger and satiety.

This course also has a less factual purpose. It is about evidence and superstition. A scientist must continually ask: how might I be wrong? What are the alternative explanations for my observations. Probably because of space limitations, the text often does not suggest alternative explanations for the experiments it presents. I will often ask you what the alternatives are and how you could rule them out. For example: Chinese kids count at an earlier age than do English speaking kids. The text suggests that this related to the structure of the Chinese and English languages. What experiments would you have to do to find out? Another example: apes have been reported to communicate in American Sign Language. What evidence would you want to see before you believed this?

I hope that some of you will come to see me in office hours, not just to get help (although I am happy to help you) but also to discuss things you find interesting. The course is more interesting for me to teach if I get to know at least a few of you.

## COURSE REQUIREMENTS AND INFORMATION

This course is a four-unit course. The classic rule-of-thumb says that, for an average student to get an average grade, he or she should spend 3 hours per unit per week on a course, and thus 12 hours per week on this course. You are expected to attend lecture and lab, which together are 4 hours a week. That leaves 8 hours per week for reading and studying. **You must sign up for a lab section.**

### Readings:

**Textbook.** *PSYCHOLOGY (3rd ed)* by Peter Gray, Worth Publishers, New York, 1999. A CD ROM accompanies the text. You are responsible for the assigned material on the CD ROM.

No text provides the best coverage of all topics. Therefore, there are two packets of required readings available at the bookstore. I will put two copies of the Sacks book on reserve, so you may not have to buy that one.

**Other things you will need:**

If you plan to use the CD ROM in the library, you will need earphones as most of the files have audio components.

Be sure to bring a #2 pencil to all exams.

Bring a #2 pencil, a pen and a ruler to all lab sessions.

**Class periods:**

The lectures will not cover all the assigned material from the book. Similarly, the book does not cover all the material in the lectures. The class periods will sometimes include videotapes.

If you miss a lecture, please get notes and announcements from a classmate. Remember that students have a responsibility to attend class. There will be in class exercises that must be handed in at the end of class. These exercises count a total of 10 per cent of your grade. There will be no makeups for these exercises, but you will get full credit for this portion of the course if you hand in all but two of these exercises.

**Labs:**

Attendance at labs is required and 20% of your grade will be based on lab assignments. You must attend the lab you signed up for unless you have the written permission of your TA and the TA whose lab you are attending. TAs may authorize makeups for assignments, but they may refuse to do so at their discretion.

**Exams:**

There will be two midterms and a final; these will be multiple choice. Because this is my first time teaching the course, I cannot provide you with past exams. Review sessions in the laboratory sessions should help.

Make-up exams will be given only in exceptional cases and will be essay exams. Makeups will be given in the case of your illness or a serious illness in your immediate family. A physician's verification on professional stationery is required. If you cannot attend any scheduled exam for any reason, you must make an arrangement with me by Oct. 11. I will be the sole arbiter of whether your problem merits a makeup. As a general guideline, arrangements are made for University activities. Family vacations in Hawaii or plane tickets home for winter break do not merit makeups. TAs are not authorized to arrange makeups for exams.

Everyone is concerned about what will be on the exams. The exams will cover both the lectures and the reading. I will try to indicate what important concepts are in the reading that we do not have time for in class, but no promises. A warning: for some of you, some of the exam questions may seem to be quite detailed e.g. the conditions of an experiment, an assumption of a particular theory. However, if you have really learned and understood the implications of (as opposed to just "read" or "listened to") the important material from this course, you will almost certainly have picked up many of those details. At least you will remember the details for the time being. Furthermore, many of the "details" are actually useful facts in their own right. However, the best way to study in general (even if test grades were the only thing you cared about in this course) is not to try to memorize details. Rather you should try actively to form a coherent story in your mind, a framework into which the details fit. One of the best ways to do this is to ask yourself questions constantly -- don't just accept each sentence as it goes by. Then the "story" in your mind will be one annotated with questions, some of which are answered and some not. The process of asking questions is one of the best ways of learning and thinking. Further, asking questions is a very important function of educated and responsible persons. (Some memorization, e.g. of a few technical terms, may be useful particularly when beginning a new unit. The flashcards on

the CD ROM can help you with this.) On pg 327, Gray gives you some suggestions for studying. Throw away those yellow underliners.

### **Research Participation Requirement:**

You will be required to participate in several hours of psychology experiments during the term. This requirement is established by the psychology department, not by individual instructors. Failure to complete this requirement will result in an incomplete. If you object to this requirement, I am authorized to give you an alternate assignment. If you want an alternate assignment, you must arrange it with me by Oct. 11 and you must turn in the assignment prior to the final. I will not arrange alternate assignments after Oct. 11.

### **Grading:**

The final letter grades in this class will be assigned "on a curve". The average of the 3 highest grades will be used as a standard. Everyone obtaining at least 90% of this standard will receive A's (A+, A, or A-). Everyone obtaining 80-89% of this standard will receive B's (B+, B, or B-). Everyone obtaining 70-79% of this standard will receive Cs as long as their total class score is 50% or greater. Those with less than 70% of this standard or with total scores of less than 50% will fail.

Points will be assigned as follows:

- 20% for first midterm
- 20% for second midterm
- 30% for final
- 20% for laboratory exercises
- 10% for in lecture exercises
- 2% for each laboratory missed

I hope you know and assume that cheating will not be tolerated. And I hope none occurs. If you have any suspicion of cheating, please tell me. Since grading is on a curve, you protect yourself by preventing cheating. Exams can be made more cheat proof than they normally are, but there is a cost. The atmosphere becomes less friendly to all. So I hope that Draconian methods to prevent cheating will not be necessary. Any evidence of cheating will be reported to the student conduct

Syllabus Psy 201, Fall 1999 (subject to change)

Text: Gray, Peter, Psychology, Third edition, Worth Publishers. A CD-ROM is available to the class at no extra charge. The syllabus contains assignments from this CD-ROM. Some of these files link to the internet. If you do not have internet access, you can use the computers at the library, but you have to bring earphones.

Packet #1: a few pages from another text by Drew Westen. Overall, I prefer Gray, but a few topics are covered better by Westen. You should buy this packet.

Packet #2. A few chapters from *The man who mistook his wife for a hat* by Oliver Sacks. I will put two copies on reserve so you may not need to purchase the packet if you don't want to. The readings are, however, required.

9/27 Brief history of ideas about relation between mind, brain and behavior-

Gray pp3-10-17

9/29 Evidence and superstition: How you know the difference?

Gray pp.29-49

10/1 Evolution of behavior.

Gray pp 53-77, 89-90

10/4 Understanding the brain. First we will examine the brain as a whole. Then we will examine the workings of individual neurons.

Gray pp 143-156

CD rom file act05b: This shows brain regions

10/6 Communication within neurons: action potentials

Gray pp 165-168

CD rom file act05a: neurons

10/8 Communication between neurons: synaptic transmission

Gray pp 168-177

CD rom file act05d: synapses

10/11 How drugs affect the brain.

Gray pp 177-181, 624-627

CD rom file vid07: Discovery of endogenous opiates.

10/13 split brain as an example of cortical asymmetry

Gray pp 160-165

video on web <http://www.worthpublishers.com/gray/> This address will link to the video. If time permits, we will show a similar video in class.

10/15 reflexes and anatomy of movement

Gray 156-159, review pp 143-156

10/18 neurological diseases and lesions:

Read the following chapters in Sacks, O. *The Man who Mistook his Wife for a Hat* (in your packet)

Chapter 3. The disembodied lady

Chapter 8. Eyes Right

Chapter 6. Phantoms

10/20 catchup

**10/22 MIDTERM**

10/25 Vision

Gray: pp 229-234; 240-257

Westen pp. 143-154 (in your packet)

CD rom file act05c: visual pathways

CD rom file act07c optics of eye

10/27 Vision: the effect of lesions

Read in Sacks, O. *The Man who Mistook his Wife for a Hat*. Chapter 1: The Man who Mistook his Wife for a Hat. (in your packet)

10/29 visual perception:

Gray 275-302

CD rom file vid08: Effect of common movement of visual stimuli

11/1 Pain

Gray 257-262

review CD rom file vid07: heroin and endorphins

CD rom file act07d pain pathways

11/3 Principles of sensory coding

Gray 262-271

11/5 learning

Gray pp 99-138; 224-226

CD rom file vid04: classical conditioning

CD rom file focus04: maze learning join the rat race.

11/8 learning continued

11/10 developmental plasticity (if we have time), otherwise catchup

### **11/12 MIDTERM**

11/15 memory

Gray pp 315-351

CD rom file vid04a: amnesia

CD rom file focus09: implicit memory- priming

11/17 memory continued

CD rom file vid04: Hill and Thomas

CD rom file vid10: cultural differences in memory

recovered memory: Westen pp 288-291 (in packet)

11/19 language and the brain

Gray 162-165.

Westen pp330-338 (in your packet)

video on web <http://www.worthpublishers.com/gray/> This address will link to the video.

11/22 hunger and eating disorders

Gray pp 185-197

CD rom file act06a: hunger cues

CD rom file act06b: diagram of hypothalamus.

11/24 hormones

Review Gray pp 174-177

11/26 Thanksgiving break

11/29 hormones and sexual behavior

Gray pp 197-206

12/1 schizophrenia and its treatment

Gray pp 630-638; pp 652-657

CD rom file vid16: man with schizophrenia

12/3 affective disorder and treatment

Gray 614-620

CD rom file act17: How do SSRIs work?

**FINAL EXAM Wed. Dec. 8, 10:15**