Psychology 201: Mind and Brain

Spring term, 1997

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General Description

This course provides a general introduction to aspects of psychology dealing with the nature of the human mind and their biological basis-- aspects such as perception, attention, and memory. The course has three components-- book, lectures, and laboratory. Each component serves rather different purposes. The book by Zimbardo & Gerrig, et al., entitled *Psychology and Life*, broadly surveys the field, introducing students to a large variety of concepts, topics, and modes of thought in psychology. The same text is used this year in Psych 202. Both the book and the accompanying *study guide* are required.

Lectures will provide detailed case studies of how psychologists think about particular modern issues. A number of psychologists from the Oregon department will present lectures. Psychologists in this department are world leaders in their disciplines, all working at the frontiers of their specialities. They are in unique position to describe some of the exciting things that are happening right at the present in psychology, providing a sense of where the field is going and how psychologists think about problems when they are working at the frontier. A major research university like Oregon provides a kind of education that is less available at colleges where the teachers are not immersed in research. We at a research university try to teach students not just the established ideas, as are so often presented in textbooks, but how to think in a scientific way. This kind of teaching will become especially valuable to students as we are move into a world more dominated by the necessity for scientific thinking. The lecturers do not attempt to explain material in the book. Book reading is the responsibility of the student alone. The study guide is an invaluable aid in reading the book, and it should be purchased as well. Moreover, much of each exam will be taken from the study guide.

While lectures help students learn how to think in scientific terms, laboratories provide hands-on experience with the workings of research. The laboratories bear modest relationship to the lectures. While it is not possible in introductory laboratories to provide the technology and sophistication of modern scientific studies, it is possible to give a flavor of how hypotheses are generated and how experimental work can be used to evaluate the hypotheses.

Exams and Grading Policy

The grading for the course will be based both on points from exams and points from laboratories. The exams will have only multiple-choice questions and will cover both readings and lectures. There will be three exams. The first exam will cover chapters 1, 2, and 3 of the Zimbardo & Gerrig book and lectures up until the time of the exam. The second exam will cover chapters 4, 7, and 8, pages 387-403 of Chapter 11 and lectures between the first and second exams. The third exam will cover chapters 9, 10, and 11, plus pages 169 to 179 of Chapter 5. Note that a section of chapter 11 will be covered in two different exams, because it is relevant at two points of the course. Exam 3 also will cover lectures between exams 2 and 3.

The first exam will have 30 questions based on the book; exams 2 and 3 will have 35 questions based on the book. Of those book questions, 10 on each exam will be selected from the study guide. The study guide has answers for those questions. and this plays a factor in the grading criterion. It is expected that students will use the study guides, and in so doing they should be more or less perfectly prepared for some questions. The first exam will have 6 questions based on lectures, and the second and third exams will each have 10 questions based on lectures. The questions based on the lectures will have double credit, to provide greater reward for attending class. Thus, in total the exams will be worth 152 points, 100 based on the book and 52 based on lectures. The final grade will depend on the total number of points from exams and from the labs as shown in the table below.

In addition to the final grade schedule, a minimum number of 14 points must be achieved on the book-based questions from the first exam and 17 points on the book-based questions on the second exam. No matter how well a person does on subsequent sections of the course, a failing grade for the course as a whole will be assessed unless the minimum standard is met for those first two sections. If the minimum standard is not met, a student will have one opportunity for a makeup exam. Also, if a student is not satisfied with the initial score or misses the initial exam, the makeup may be taken. The score on the makeup will replace the initial score regardless of whether it is better or worse. Note that the first makeup will have only 30 questions and the second only 35, all based on the book. A makeup for the lectures is not feasible because it is difficult to return and review them, given that lectures are not repeated.

To do well in the course, it will be necessary to attend the lectures, because questions will be based on them, and the questions cover double credit. This course does *not* make available Student Footnotes.

The laboratory component of the course has four major exercises. These will be explained in more detail by the lab instructor at the appropriate time. However, each of the four exercises can yield a maximum of 15 points. In calculating your final points for the laboratory component, the lowest of laboratory scores will be omitted. Thus, the maximum lab score is 60 points. If you must miss your scheduled laboratory session, it is possible to make it up by going to another laboratory section. You must, however, get advance permission to do so from your lab instructor. If you miss an entire lab (which usually is spread over two weeks), you may be able to work out in consultation with your lab instruction an optional assignment to compensate for the lost points. The instructor may decline such an arrangement, however, unless there is a valid and written excuse for missing the sections. Note that there will be no laboratory sections in the first week of the course, and the Tu-Fri sections will not meet

the last week. The Monday section will meet the last week to make up for missing Memorial Day Holiday.

Total points available in the course are 212. The minimum number of points needed for each grade is as follows:

Grade Scheme

A B C D F

Points 179 156 123 106 <106

Plusses and minusses will be appended to grades within two points of a cutoff. For example, 179 and 180 would yield an A-; 177 and 178 would yield a B+. Recall that to obtain a passing grade the minimum standard of 14 points and 17 points must be met on the book portions of each of the first two exams.

Research Participation Requirement

The department requires that students in each introductory psychology course participate in three experiments, or as an option, produce a short paper. One reason is to provide experience in real research. A second reason involves a kind of social contract. The vast bulk of psychological research is done with human subjects, much of that with students. Were this not done, there would be substantially less known in the field of psychology. Thus, to engage in the learning process invokes an obligation to participate in the knowledge production process.

The experiments are all ones that have been approved by the Psychology Department's Human Subjects committee.

If you choose to write a 1-2 page paper instead of participating in experiments, it must be based on library or other scientific sources and related to topics covered in Psych 201. The topic must be approved in advance by your lab instructor.

Failure to participate in one experiment (or write the paper) will result in a loss of 4 points in your total for the course. Failure to participate in two experiments will result in another loss of 4. Failure to participate in any will result in an incomplete in the course.

Further details on research participation will be provided at the first class meeting. Note particularly that if you sign up for an experiment and then fail to attend, you must not only make up the missed experiment but one additional to get full credit. The reason is that missed appointments are both costly in terms of money and cause difficulties for the researcher. Of course, if you know ahead of time that you cannot make an appointment, procedures are available for alteration.

Calendar of Lectures and Exams

Monday, March 31 Keele: Introduction to the course

Wedn, April 2 Marvin Gordon-Lickey: Introduction to the nervous system. *It* would be useful to read Chapter 3 as early as possible, as it will be relevant to the first five lectures.

Marvin Gordon-Lickey: continued Friday, April 4

Marrocco: Neurotransmitters Monday, April 7

Barbara Gordon-Lickey: Nervous system plasticity of the newborn Wedn, April 9

Friday, April 11 Barbara Gordon-Lickey: continued

Monday, April 14 Exam 1: Chapters 1, 2, 3

Keele: codes (It would be useful to read pages 387-403 of Wedn. April 16

Chapter 11 for the lectures by Keele and by Neville).

Keele Friday, April 18

Monday, April 21 Keele

Exam 1 makeup (book portion only) Wedn., April 23

Friday, April 25 Keele

Marrocco: Hemispheric organization of the brain Monday, April 28

Neville: Plasticity & Language Wedn., April 30

Neville Friday, May 2

Monday, May 5 Exam 2: Chapters 4, 7, 8, pages 387-403 of Chapter 11

Wedn., May 7 Sereno: Perception

Friday, May 9 Sereno

Monday, May 12 Sereno

Wedn., May 14 Exam 2 makeup (book portion only)

Friday, May 16 Marrocco: Color vision

(Last Day to Drop Classes with W) Friday, May 16

Keele: memory (It would be useful to read chapter 10 for the Monday, May 19 lectures by Keele).

Keele Wedn., May 21

Keele Friday, May 23

Monday, May 26 Holiday

Wedn., May 28 Keele

Friday, May 30 Baldwin (It would be useful to read pages 169-174 of Chapter 5 for the lectures by Baldwin).

Monday, June 2 Baldwin

Wedn., June 4 Study prep. or adjustment of schedule

Friday, June 6 Exam 3 (no makeup exam will be given; there is no final exam)

Laboratory Schedule

March 31-April 4: No labs

April 7-18: Basic Research Concepts (two weeks): Read Chapt. 2

April 21-May 2: Two-point threshold and relationship to issues of plasticity

(two weeks) Indirectly related to lectures by Dr.s Barbara Gordon-

Lickey and Helen Neville.

May 5-9: Levels of Processing (data acquisition, 1 week): related to lectures

on memory by Keele

May 12-23: Decision Making: Read pp. 416-426 of Chapter 11.

May 27-June 2: Levels of Processing continued (note: no labs on Memorial Day,

May 26. Monday lab will meet June 2. No labs after June 2.