# If the brain were so simple that we could understand it, we would be so simple that we couldn't." Lyle Watson

INTRODUCTION TO PHYSIOLOGICAL PSYCHOLOGY PSYCHOLOGY 202A TIME: 11:30 AM, Monday and Wednesday, (5 credits) INSTRUCTOR: VIRGINIA BRIDWELL OFFICE: D110 OFFICE HOUR: 1:30 – 2:20 Mon. and Wed. 11:30 – 12:30 Tues., Thurs., and Fri. (online) PHONE: (425) 564-2198 E-MAIL: vbridwel@bcc.ctc.edu SPRING QUARTER 2009

**<u>REQUIRED TEXT</u>**: James W. Kalat; <u>Biological Psychology</u>, ninth edition, Thomson/Wadsworth, Publisher.

# **COURSE DESCRIPTION:**

Psychology is the scientific study of behavior, thought and emotion. This course will introduce terminology, methodology, concepts and theories of the biological aspects of behavior. This course will examine the structures and functions of the brain, sensory systems, and endocrine system on a molecular, cellular and organ level as they are integrated to process information and perform behaviors.

# COURSE OBJECTIVES:

Upon completion of this course, the successful student will:

- 1. Identify the components of the nervous system, endocrine system, and immune system and describe their functions.
- 2. Describe the chemical influences on behavior at the cellular level, the neural level and at the level of the organism.
- 3. Describe applications of the scientific method to the study of behavior and mental processes.
- 4. Distinguish between the various methods and technologies employed in studying the brain.
- 5. Demonstrate an appropriate use of terms and theories related to physiological psychology.
- 6. Identify the prominent theorists in the field of physiological psychology and discuss their contributions to the field.
- 7. Discuss the dynamic relationship between evolution, genetics and the environment as it influences physiology and behavior.
- 8. Be able to critically analyze claims that are made about behavior in a number of forums, from media to academia.

# **GENERAL EDUCATION OUTCOMES:**

- 1. Critical Thinking, Creativity and Problem Solving. (2)
- 2. The Nature of Science (3)
- 3. Science and the Natural World (3)
- 4. Technology and Society (2)

# **GRADING AND EXAMS:**

In conformity with BCC's grading policy the grades will be assigned as follows:

| А  | 100 - 95   | 4.0 |
|----|------------|-----|
| A- | 94 - 90    | 3.7 |
| B+ | 89 - 86    | 3.3 |
| В  | 85 - 83    | 3.0 |
| B- | 82 - 80    | 2.7 |
| C+ | 79 - 75    | 2.3 |
| С  | 74 - 70    | 2.0 |
| C- | 69 - 60    | 1.7 |
| D+ | 59 - 55    | 1.3 |
| D  | 54 - 50    | 1.0 |
| F  | 49 - BELOW | 0.0 |
|    |            |     |

Your final grade will be based on a potential total of 500 points. They are broken down as follows:

# EXAMS: (400 points)

There will be five exams, each worth 100 points. Your final grade will be calculated on the basis of your best four scores. Each exam will cover information from the text, lectures and class discussions. The test format will contain multiple choice and essay questions. You may expect your exams to be returned to you within three days (depending on the number of essay questions in the exam). You will need to bring a **scantron sheet and a number two pencil** to each exam. Paper for the essay questions will be provided. If after the final exam you wish to receive your results prior to receiving your transcript, you may bring a self-addressed, stamped envelope to the final exam and your exam will be mailed to you.

#### MAKE - UP EXAM POLICY:

**There will be no make - up exams**. No Exceptions. If you are unable to attend class on the day of an exam, you may arrange to take it before the scheduled date. Otherwise, since it is my policy to drop the lowest exam score, your missed exam will count as your lowest score.

#### **DISABLED STUDENTS:**

If you require accommodation based on a documented disability, have emergency medical information to share, or need special arrangements in case of emergency evacuation; please make an appointment with me as soon as possible.

# RECIPROCAL PEER TUTORING ASSIGNMENT: (100 points)

**Objective:** This is a challenging course that requires systematic and rigorous study to master the concepts and theories presented. Research and anecdotal experience from tutors has shown that tutors achieve relatively greater understanding of academic information than their students. (Fantuzzo and Riggio, 1990)

**Assignment description:** To ensure your successful mastery of the course material, you will be randomly assigned to a study partner with whom you will be both student and tutor for the duration of the quarter. The course is divided into five units. Each unit culminates with an exam. You will be required to **meet** with your study partner for a **minimum of one hour each week**. In preparation for these meetings, each student must create the following:

1. An original multiple choice or short answer practice exam to be administered to the partner during the meeting. There should be a minimum of 20 questions per chapter.

- 2. A set of answers for each test item with a brief explanation of why the answer was the correct one.
- 3. Two **original** essay-type questions covering unit material with an outline of the answers.
- 4. Students will be prepared to discuss the questions and compare answers with their partner.
- 5. Taped sessions of the discussions will be randomly sampled of each study partner group at least two times per quarter taped sessions are to be brought to class each Monday and will be called for by the instructor at the beginning of the hour.

Study group materials will be turned in on the day of the exam. Late material will not be accepted. No exceptions. Study materials that plagiarize the study guide materials that accompany your text will not be accepted and will be treated with the consequences stipulated by the college and social sciences policies regarding plagiarism. (See attached policies handout)

(Adapted from <u>Reciprocal Peer Tutoring</u> by Fantuzzo and Ron Riggio, Ph.D. (1990) Presented to the Terman Teaching Conference of Western Psychological Association Convention, 2006)

# Class Conduct:

While it is my hope that you will come to view your time in class as yours to use as best meets your needs, it is important to keep in mind that you are sharing this time with at least 41 other students who may have needs that differ from your own. In as much as all of you have paid dearly for the information that you need from this course, it is important to make sure that the classroom environment is as conducive to scholarship as possible. Therefore, a few courtesies are required and will be enforced by me:

# Attendance:

As adult students, you are expected to be able to manage your own time and priorities. Therefore, with the exception of days when demonstrations, exams and activities are scheduled, daily attendance will not be taken. This is college. Courses of this caliber are based on the assumption that you will be attending class regularly. If you need to be absent, you **are** responsible for obtaining lecture notes from your peer tutor and obtain information regarding announcements or changes is schedule that you may have missed. Studies have shown that the students who attend class regularly also achieve better grades and comprehension. They are also the students who enrich the class with their participation. Consequently, I will reward attendance with extra credit points by taking attendance randomly throughout the quarter (usually on days when attendance is low). These points will be logged in my grade book and assessed when your grade appears to be on the borderline between grades and I need to justify rounding your grade up to the higher grade.

# **Punctuality :**

Please **be on time** for class. Late arrivals result in loss of important information and distract from students' opportunity to hear announcements and clarify information from previous class discussions and readings. If circumstances prevent you from arriving on time, please take a seat **closer to the door** to reduce the number of students that are distracted by your late arrival. Once class has commenced, **do not leave before the end of the hour**. Students sometimes encounter circumstances in which they have to leave class before the end of the hour. Once again, this creates a distraction for others. If you should have to leave early, **please arrange to sit close to the door** and **do not reenter the room once you have left**.

# **Class Participation:**

You are encouraged to participate in discussions of the theories and concepts that I will be presenting to the class. This has the effect of expanding your comprehension of the material and enriching the learning experience for yourself and your fellow students. Many of the theories may

seem counter-intuitive and will provoke much reaction. You are encouraged to share your reactions with the class as long as they pertain to the material. However, **side comments directed to fellow students contribute to distractions, not to learning, and will not be tolerated**. **Students caught distracting from the lecture will be asked to remove themselves from the classroom.** 

# Discussion Expectations:

Class discussions, while enriching can also be challenging and disturbing. You may find that your fellow students may hold beliefs and opinions that conflict with your own. This is an opportunity to exercise your listening skills, perfect your critical reasoning skills and learn to examine claims based on supporting evidence. It is imperative that this learning environment be safe and open for all students regardless of age, sexual orientation, race, religion, gender, or perspective. Therefore, we will observe the following rules for discussion:

- 1. We are not here to persuade the other to our point of view; rather to examine the merits of each position, based on evidence.
- 2. We can respect the person even if we don't share his/her opinions.
- 3. We will give each participant their time to express their views without interruption, argumentation, or disrespectful gestures, laughter, or facial expressions, etc.
- 4. We will question the evidence or the claim; not the person.
- 5. We will remain open to corrective feedback as to our views and/or the impact of our communication style.
- 6. We will remain aware of the time and seek to not dominate the discussion. No more than two comments before yielding the time to others.
- 7. We will avoid phrases such as: "People like that..."
  - "Well, you're just..."

"That's a stupid question....idea....etc."

# Cell Phones:

Cell phones are a convenience, not a right. They create a distraction for your fellow students. Cell phones are to be turned off while in a classroom. Students who neglect to turn off their phones before class will be excused from class for the hour if their phones ring during class time.

# **Disabled Students:**

If you require accommodation based on a documented disability, emergency medical information to share, or need special arrangements in case of emergency evacuation, please make an appointment with me as soon as possible so that timely arrangements can be made.

# Proposed Class Schedule\*

| Week of: | Chapters: | Readings:                      |
|----------|-----------|--------------------------------|
| 4/1      | Chapter 1 | Genetics of Behavior           |
| 4/6      | Chapter 2 | Nerve Cells and Nerve Impulses |

| 4/13         | Chapter 3  | Synapses  |
|--------------|------------|---|
| <u>4/20</u>  | EXAMI      | CHAPTERS 1, 2 and 3                                   |
| 4/20**       | Chapter 4  | Anatomy of the Nervous System<br>And Research Methods |
| 4/27         | Chapter 5  | Development and Plasticity of the Brain               |
| <u>5/6</u>   | EXAM II    | CHAPTERS 4 AND 5                                      |
| <u>-</u> 5/6 | Chapter 6  | Vision  |
| 5/11         | Chapter 7  | The Other Sensory Systems                             |
| <u>5/20</u>  | EXAM III   | CHAPTERS 6 and 7                                      |
| 5/20         | Chapter 8  | Movement  |
| 5/27         | Chapter 13 | The Biology of Learning and Memory                    |
| <u>6/3</u>   | EXAM IV    | CHAPTERS 8 and 13                                     |
| 6/3          | Chapter 9  | Wakefulness and Sleep                                 |
| 6/8          | Chapter 10 | Internal Regulation                                   |
| 6/10         | Chapter 11 | Reproductive Behaviors                                |

Final Exam:

# 6/17 11:30 - 1:20 EXAM V CHAPTERS 9, 10, and 11

\*This schedule is an estimation of the time required to cover the material. It is subject to change. It is essential that you attend class daily to obtain announcements of changes in the schedule.

\*\*Non-Instructional Days: 4/22