

**Psychology 372- Fall, 2006**  
**Section 1, MWF, 10:30-11:20**

**INSTRUCTOR:** Dr. Linda Chrosniak

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**Office hours:** **Monday:** 1:30-2:30, **Friday,** 12:30-1:30 and by appointment.

**TEXT:** Kalat, J. W. (2007). *Biological Psychology (Ninth Edition)*, Belmont, CA: Thompson Wadsworth. (Required)

**Course Goals**

Every aspect of the field of psychology has been influenced by advances in other disciplines such as biology and has resulted in the boundaries becoming less defined. Particularly in neuroscience many dramatic new developments have changed current thinking in many traditional areas of psychology. Biological psychology seeks to explain behavior in terms of its underlying physiology, its development and function.

Psychology 372 is intended to provide a basic understanding of the biology, chemistry, anatomy and physiology of the brain as it applies to both normal and abnormal human behavior. The goal of this course is to provide you with a solid foundation for understanding the relationship between brain and behavior. We will cover such topics as neuroanatomy, synaptic transmissions, psychopharmacology, visual processing, neurological disorders, sleep and wakefulness, learning and memory, language, reproductive behavior and mental illness. I think you will find the course content absolutely fascinating and extraordinarily helpful in understanding many aspects of human behavior!

The format for this course is primarily lecture with discussion as time permits. Questions are welcome and encouraged at any time throughout the lecture as time permits.

**COURSE REQUIREMENTS:**

- Keep up with the reading assignments.
- Many materials such as study outlines, assignments and other notices will be distributed via e-mail. Please be sure your GMU e-mail account is active. If you have your e-mail forwarded please be sure it is not "over quota." This seems to be the main reason that e-mails are not received from the instructor.
- **Please note that Psychology 372 is a required course for psychology majors, and a grade of "C" or better is required for graduation. Currently, a grade of C- will be considered a passing grade.**

**Grading:**

**Grades are calculated based on the following:**

1. Four in-class exams based on readings and lectures (multiple choice, fill-in-the-blank, short answer and essay). Each exam will be worth between 100-115 points.
2. There will be one in-class quiz on neuroanatomy (multiple choice) that will be worth 30 points. There may be other quizzes that will be announced ahead of time in class. Additional quizzes, if given, will be worth 20 points each. **No make-up quizzes will be given. No exceptions!** All quizzes will be administered during the first 15 minutes of class so it is essential that students arrive on time.
3. In addition to the exams and quizzes one journal critique will be required. This assignment will be worth 35 points. An optional critique will also be allowed and it will be worth 20 points. The guidelines and due dates are attached to the syllabus. Due dates are also on the course schedule. **No late assignments will be accepted. NO EXCEPTIONS!**

**Policy regarding missed exams, quizzes, and assignments:**

1. If a student misses an exam he/she may make up the missed exam immediately following the 4th exam on December 13<sup>th</sup> during the final exam period. The make-up exam will be compressive and be composed of 25 multiple choice questions on material from the full semester.
2. Students are welcome to take the make-up exam to improve a grade from an earlier exam. This opportunity will only be used to improve a grade.
3. **If a student misses more than one exam at the scheduled time, no additional make-up exams will be given.**
4. No make-up quizzes will be given. **NO EXCEPTIONS!**
5. **No late assignments are accepted. NO EXCEPTIONS!**
6. In the case of borderline grades, consistency and direction of change may be taken into account.

**Final Grades:**

Final grades are based on the total number of points accumulated by the student during the semester. The university has a grading system that allows students to receive +s or -s. For example, in this class, if there are 500 possible points and you earn 450 points (90%) you will likely receive a grade of A-. If you earn 350 (70%) you will receive a grade of C in the course. Accumulated points below 70% of the possible points will constitute a grade of D. Accumulated points below 60% of the possible points will constitute a grade of F.

**ATTENDANCE:**

Class attendance is essential as course material will cover both the required readings and additional material presented in the lectures that may not be covered in your text. In this course, it has been my experience that individuals who attend class regularly will, in general, earn higher grades. It is in your best interest to attend class regularly.

**Honor Code:**

All exams, homework assignments, quizzes and extra credit must follow the guidelines of the GMU Honor Code as described in the GMU catalog. Students may use books, notes, and other sources in preparing for exams and quizzes. Other students may be consulted prior to exams or quizzes. However, when taking exams, no books, notes or student interaction will be allowed. . Cheating or plagiarism will not be tolerated in this course for any assignment or exam.

Please be sure that you are familiar with the GMU Honor Code as described in the catalog.

**INCOMPLETES:**

A grade of "Incomplete" may be assigned if the student is passing the course and is unable to complete the scheduled coursework for a cause that is beyond reasonable control. In such a case the instructor may assign a grade of "Incomplete" (IN). If a grade of "Incomplete" is assigned, the rule for completing course work is as follows:

"The student must complete all the requirements by the end of the **ninth week** of the next semester, and the instructor must turn in the regular grade by the end of the tenth week... If the student fails to meet the foregoing schedule, the registrar changes the mark of IN to an F.... The student is responsible for submitting work to the instructor with sufficient time for evaluation."

It is the student's responsibility to contact the instructor regarding requirements for removing an "Incomplete" and for determining the specific date by which the required assignments must be completed.

<b>Last Day to Add (Full Semester Course)</b>	<b>September 12, 2006</b>
<b>Last Day to Drop (Full Semester Course)</b>	<b>September 29, 2006</b>
<b>Elective Withdrawal Period (Full Semester Course)</b>	<b>Sept. 30 - Oct. 27, 2006</b>

**Additional Information:**

If you are a student with a documented disability and require some academic accommodation, please see me and contact the Disability Resource Center (DRC) at (703)993-2474. All academic accommodations must be arranged through that office.

<b>Course Outline *</b>		
<b>DATE</b>	<b>TOPIC</b>	<b>READINGS</b>
Aug. 28	Major Issues in Biological Psychology	Ch. 1
Aug 30	Cells of the Nervous System	Ch. 2 (pp.30-37)
Sept 1	Nerve impulses (within-cell communication)	Ch. 2 (pp. 39-47)
Sept 4	<b>Labor Day Holiday-No Class</b>	
Sept 6-8	Nerve impulses continued & Synapses Begin Chemical transmissions	Ch. 2 (pp. 52-56) Ch. 3 (pp. 58-68)
Sept. 11-13	Chemical events & neurotransmitters	Ch. 3 (pp.58-68)
Sept 15-18	Drugs and synapses	Ch. 3 (pp. 70-77)
Sept. 20	Catch-up and Review (as time permits)	
Sept 22	<b>EXAM 1 (In-Class)</b>	
Sept. 25-27	Neuroanatomy	Ch. 4
Sept 29	Begin Vision	Ch. 6 (pp.151-182)
Oct 2	<b>Quiz (Neuroanatomy) (In-Class)</b>	
Oct. 2-4	Continue Vision	
Oct 6	Movement	Ch. 8
Oct 9	<b>Columbus Day Break (No Class)</b>	
<b>Oct 10</b>	Movement continued <b>(Note: This is a Tuesday class meeting as the University schedule considers this as a Monday.)</b>	
Oct 11	Finish Movement	Ch. 8
Oct.13	Catch-up and Review (As time permits)	
Oct. 16-20	Emotional Behaviors	Ch. 12
<b>Oct. 16<sup>th</sup></b>	<b>Journal Critique Due (Required)**</b>	
<b>Oct. 23</b>	<b>EXAM 2 (In-Class)</b>	
Oct. 25-30	Sleep and Wakefulness	Ch. 9
Nov. 1-6	Biology of learning and Memory	Ch. 13
Nov. 8-13	Cognitive Functioning	Ch. 14 (pp. 416-427) (pp. 442-446)
Nov. 15	Catch-up and Review (As time permits)	
<b>Nov. 17</b>	<b>EXAM 3 (IN-Class)</b>	
Nov. 20	Begin Affective Disorders	Ch 15 (pp. 459-468)

Nov 22-24	<b>No class - Thanksgiving Break</b>	
Nov 27	Finish Affective Disorders	
Nov 29- Dec. 4	Schizophrenia	Ch. 15 (pp. 470-480)
<b>Dec. 4</b>	<b>Journal Critique Due (Optional)</b>	
Dec. 6-8	Substance Abuse and Addictions	Ch. 15
Dec. 13	<b>Exam 4 (Wednesday: 10:30 a.m.-1:15 p.m.) Make-up Exam (Immediately following Exam 4)</b>	

**\*Any**

**schedule changes (or changes in assignments) will be announced in class in advance. After an absence, students are responsible for contacting the instructor to obtain accurate information.**

#### **Journal Critique Assignment\*\***

**For this assignment you are required to read and critique one article from a professional journal. You may do a second critique for extra credit. As mentioned, the required assignment is worth 35 points and the optional critique is worth 20 points. The guidelines are as follows:**

- You should choose an article that is directly related to biological psychology. The article must come from a peer-reviewed, scientific journal, and not from a magazine or newspaper (e.g., Time Magazine). You should choose a recent (since 1997) empirical article rather than a review article (i.e., one that describes many experiments). Please have your article approved by your instructor before beginning your critique.
- Your paper should be a maximum of three pages, **typed and double-spaced**. Come as close as possible to this restriction. If your paper is too short, your grade will probably suffer. If the critique exceeds the page restriction by more than a paragraph I will not read all of it and your grade will likely suffer as well.
- In general, the first two pages of your critique should summarize the research in some detail in terms of the participants, general methodology, general findings (not the statistics per se) and the authors' conclusions about the research. The last page should discuss the strengths and weaknesses of the article as you see them. Alternatively, you can describe some of the things that you learned from reading and assessing the article. For example, if the article is on neuroimaging, you might discuss the parts of the brain that are involved in a particular task and how that might be relevant to topics we are studying. Or, as another example, you might describe how the findings are consistent or inconsistent with what you might have seen in a relative who has a disease such as Alzheimer's disease.
- **Grammar and spelling will count as part of your grade!**
- **You must minimize quoting and summarize in your own words. Too much quoting (i.e., beyond a few sentences in the whole paper) will result in a loss of 5 points.**
- **Attach a copy of the article with your paper or you will lose 5 points.**
- **The required critique is due on October 18<sup>th</sup> at the beginning of class and the optional critique is due on December 4<sup>th</sup> at the beginning of class. (NO LATE PAPERS WILL BE ACCEPTED. NO EXCEPTIONS!)**

Below is a list of acceptable journals.

Neuropsychology	Brain
Neuropsychologia	Science
Behavioral Neuroscience	Nature Neuroscience
Journal of Neuroscience	Nature
Journal of Cognitive Neuroscience	Annals of Neurology
American Journal of Psychiatry	Cortex
Archives of General Psychiatry	Brain Research
Behavioural Brain Research	Neuron