

# Neuropsychology

01:830:310:01:13409 MW 1:40-3:00pm LCB-110 Fall-2008

**Prof. Leonard W. Hamilton**  
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## Office Hours

Vary from week to week. See: <http://www.psychology.rutgers.edu/undergrad/advising.php>

## Required Textbooks

Zillmer, E. A., et al *Principles of Neuropsychology* (2nd Ed). Thomson-Wadsworth, 2008. ISBN: 10: 0-495-00376-X

Sacks, O. *Musicophilia*. Knopf, 2007. ISBN: 978-1-4000-4081-0

Sacks, O. *The Man Who Mistook His Wife for a Hat*. Touchstone, 1998. ISBN: 0-684-85394-9

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## About the Course

**Overview.** Neuropsychology is the study of the relationship between the brain and behavior—especially human behavior. I may be biased, but I think it is impossible to be a well-educated person without some general knowledge of the biological origins of our behavior! Although this course will deal with many principles of biology, a background in the biological sciences is *not* a prerequisite-- I am more interested in your understanding of the general concepts and how the principles of brain organization can lead to such varied conditions as Tourette's syndrome, Parkinson's Disease, memory loss, and musical talent. The Psychology Department has a variety of courses that are aimed toward more detailed biological approaches to understanding the brain (e.g., *Physiological Psychology*, *Behavioral Pharmacology*, *Neuropsychopharmacology*.)

The brain and behavior in all of their variations of excesses, losses, individual differences and changes over time do not submit to easy description. The subject matter is inherently non-linear and my approach to the course will be deliberately non-linear. There is no attempt to move from simple to complex, from analysis to synthesis, or even from Chapter 1 to Chapter 5. So, if you try to match the lecture material to the outline of a specific chapter in the textbook, it will only frustrate you. This doesn't mean that the course has no structure—once you have gone through all of the readings and lecture notes for Unit I, you will find that you own a palpable chunk of knowledge that will get you through that first exam.

So how should you study? Non-linearly. I would recommend reading (or at least skimming) all three books in their entirety during the first week or two of the semester. You will read some things that will knock your socks off! Then go back and delve into the specific reading assignments to get more detail.

I encourage your cooperation with fellow students (up to, but not during, the exams.) I *strongly* recommend the formation of study groups. In previous classes, the students who have done this were routinely among the top students in the course. You may also need a study partner to pick up homework assignments that are passed out in class if you are absent.

I have two goals for the course: I want all of you to learn a lot of stuff about the brain and behavior. And I want a bunch of you to end up thinking this is the best course you ever had. We'll see.

## Some Contractual Obligations

**Examinations.** The examinations will be all or in part standard multiple-choice format with electronic scoring. You must *bring your own #2 pencil* to all exams.

**Exercises and Extra Credit.** In-class exercises and homework assignments will be presented on a regular basis to assist you in studying for the examinations and to help you to better understand some of the concepts in the course material. Occasional opportunities to earn bonus points will be given.

I never allow extra credit work at the end of the semester to improve the course grade.

Any course work turned in to my mailbox (PSY 207) *must* be initialed and dated by one of the secretaries. Staff office hours are 8:30-12:00 and 1:00-4:30.

**Grading.** There is no predetermined scale (i.e., 90 = A; 80 = B; etc. will not apply; that is so high school!) for the assignment of grades. The cut-off points for course grades will be determined by the statistical distribution of scores for

each exam. Once these cut-offs have been determined, your extra credit and bonus points will be added, allowing you the opportunity to boost your grade a notch or two above your exam performance. The typical distribution of grades results in about 10-15% A's, 20-25% B's and B+'s, 40-50% C's and C+'s, 15-20% D's, with F's being reserved for those who never successfully connected with the course material.

Course grades will be based on the following:

Exam 1	06OCT	75 pts (in-class)
Exam 2	12NOV	75 pts (in-class)
Final Exam	17DEC	100 pts (8-11 am)

In-Class & Homework 20 pts (approx)

T O T A L ..... 275 pts

Grades, study guides, practice exams, and other course information will be posted on the course Sakai website:

<https://sakai.rutgers.edu/portal>

**Attendance.** You should attend all classes and examinations (for this course and all your courses). Negotiating with students about the reasons for absences makes me grumpy. In an attempt to avoid grumpiness, I have strict policies on absences:

In-class exercises will be a regular part of the lecture and there is no formal procedure for making up in-class exercises or past-due homework. At the end of the semester, I discard the two lowest in-class exercises, allowing you to miss two assignments without penalty. This allows you to be ill, participate in athletic programs, and so forth without being penalized.

Absence from an hourly examination should occur only under the most serious circumstances. If you must miss an examination, there is no need to call me. When you appear for the make-up exam, you must submit a **written** reason for the absence, accompanied by the appropriate documentation (e.g., medical record, accident report, newspaper account of your arrest, etc.). Having multiple examinations scheduled during the same day or week does not constitute an excuse except as defined by university regulations for final examinations:

<http://sasundergrad.rutgers.edu/academics/forms/exam.pdf>

Make-up examinations, when necessary, will be administered in special group sections by the Psychology Department (time and location to be announced later).

You **must** take the make-up examination to avoid receiving a zero, but you will not necessarily receive full credit without an impeccable excuse. (Weddings, car problems, oversleeping, arguments with your roommate, and other minor disasters typically result in a 20-40% reduction of points earned on the make-up exam.)

### Academic Integrity

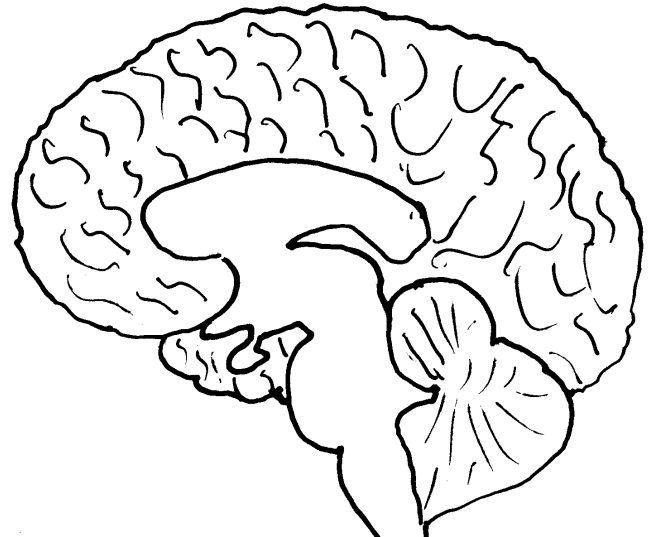
You are expected to be honest with yourself and fair to your fellow students. I am especially concerned about cheating on

examinations. I will enforce the University's regulations on academic integrity, and ask your assistance in reporting any suspected violations to me or to the office of your college dean. The University's *Policy on Academic Integrity* lists four levels of violations, and I will aggressively prosecute anybody suspected of cheating (*especially* levels 3 and 4).

Please familiarize yourself with these policies for this and all your courses:

<http://academicintegrity.rutgers.edu/integrity.shtml>

*All materials from the lecture and course web site are the intellectual property of the instructor and for your personal use only. I consider the distribution or sale of these materials to third parties to be a violation of copyright.*



DATE	TOPIC	Readings <sup>1</sup>	
<b>UNIT 1: Origins of Brain and Behavior</b>			
03SEP	Origins of Behavior	Hat: 21,24	Read Part I of <i>Musicophilia</i>
08SEP	Our Biological Heritage - I	PN: Chap. 1	
10SEP	Our Biological Heritage - II		
15SEP	Milestones of Discovery - I	PN: Chap. 2	
17SEP	Milestones of Discovery - II	PN: Chap. 4	
22SEP	The Path Last Taken		
24SEP	Ready, Set, Why Can't I Go? .....	PN: Pages 189-197; 424-434	
29SEP	Phantoms, Mirrors, & Obsessions	Hat: 3,4,5,6	
01OCT	Twitch & Shout	PN: Chap. 11; Hat: 10,14	
<b>06OCT</b>	<b>EXAM 1: 75 pts on Unit 1</b>		
08OCT	Online Assignment (5 points; not on Exam)	PN: Chap. 3 & 12	
<b>UNIT 2: Data In; Data Out; File Structures – But It's Not a Computer</b>			
13OCT	Vision is More Than Meets the Eye	PN: Chap. 8; Hat: 1,7,8	Read Parts II & III of <i>Musicophilia</i>
15OCT	What You See Isn't Always What You Get	Hat: 1,7,8	
20OCT	Hearing the Bell Toll	PN: Chap. 7	
22OCT	Olfaction	Online assignment	
27OCT	Language I	Hat: 9	
29OCT	Language - II	Hat: 15, 16,22	
03NOV	Memory	PN: Chap. 9	
05NOV	Forgetting	Hat: 2,12,19,22	
10NOV	Sleep	PN: Chap 16	
<b>12NOV</b>	<b>EXAM 2: 75 pts on Unit 2</b>		
<b>UNIT 3: Some Global Considerations</b>			
17NOV	The Emergence of Structure and Function - I	PN: Chap. 5 & 6	Read Part IV of <i>Musicophilia</i>
19NOV	The Emergence of Structure and Function - I	PN: Chap. 10	
24NOV	Brain Damage.....	PN: Chap. 13	
26NOV	RU: Wed = Fri Happy Thanksgiving!		
01DEC	Then What?		
03DEC	Emotion	PN: Chap. 9	
08DEC	Down Bound Train		
10DEC	Madness & Mayhem		
<b>17DEC</b>	<b>FINAL EXAM: 75 pts on Unit 3 plus 25 pts. Review from Units 1 &amp; 2 (WED 17DEC 8-11am in regular classroom)</b>		

<sup>1</sup> PN: *Principles of Neuropsychology*  
Hat: *The Man Who Mistook His Wife for a Hat*