

NEUROPSYCHOLOGY PSY 37300 - B Fall 2014

Instructor

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Contact Information

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What, Where, and When?

Lectures: Mondays and Wednesdays 9:30 – 10:45 am, NAC, 6/325

Office Hour: Wednesday, 11 am – 12 pm, NAC, 7/114B

Prerequisites

1. PSY 10101, 10200 OR 10299
2. PSY 25400 OR 25300

Course Description

An introduction to the scientific field of neuropsychology – the study of the relation between the brain and behavior.

Learning Objectives

1. Knowledge:

- Broad overview of the development of neuropsychology
- Introduction to the central and peripheral nervous systems' structure, organization, and function
- Have an understanding of the purpose of and techniques used in assessment of neuropsychological functions.
- Introduction to some of the clinical presentations/disorders associated with damage to different brain regions

2. Analytical:

- Be able to consider the limitations of current neuropsychological assessment practices
- Critical review of primary source materials

3. Practical: Apply neuropsychological concepts, principles and research findings to understanding typical and abnormal behavior.

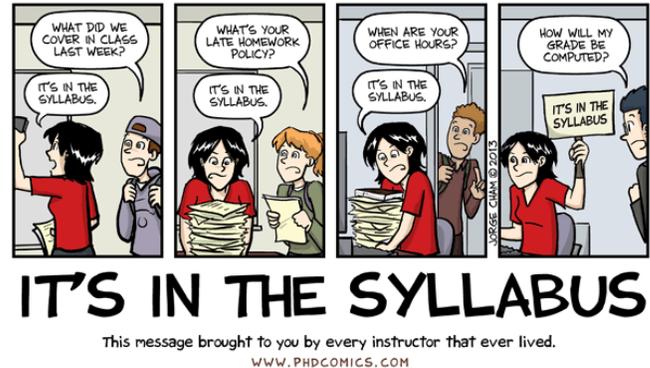
4. Research Methods: Become familiar with some of the methods used in neuropsychology research.

5. Communication Skills:

- Be able to communicate effectively in oral and written formats
- Be able to organize thoughts and ideas

6. Integrity

- Have an awareness of ethical issues in the field of neuropsychology
- Engage in ethical practices in the academic setting



Readings

Textbook:

Kolb, B. & Wishaw, I. Q. (2009). *Fundamentals of Human Neuropsychology*, (6th ed.). New York, NY: Worth Publishers. ISBN-13: 978-0-7167-9586-5.

Please buy a second-hand copy if you can as a new edition of this book is due to come out in Dec 2014.

Selected readings provided by instructor will be posted on Blackboard.

Additional Assigned Readings (on Blackboard)

- Wk 1 9/03: http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=11113472
- Wk 2 9/10: American Psychological Association's (APA) Ethical Principles of Psychologists and Code of Conduct.
- Wk 5 9/29: Volkow, N. D. et al. (2012). Addiction circuitry in the human brain. *Annual Review of Pharmacology and Toxicology*, 52, 321-336. DOI: 10.1146/annurev-pharmtox-010611-134625
- Wk 9 10/29: Diamond, A., Barnett, W. S., Thomas, J., & Munro, S. (2007). Preschool program improves cognitive control. *Science*, 318, 1387-1388.
- Wk 12 11/17: Maguire, E., Gadian, D. G., Johnsrude, I. S., Good, C. D., Ashburner, J., Frackowiak, R. S. J., & Frith, C. D. (2000). Navigation-related structural change in the hippocampi of taxi drivers. *Proceedings of the National Academy of Sciences of the USA*, 97, 4398-4403.
- Wk 13 11/24: de Vries, M. & Geurts, H. (2012). Cognitive flexibility in ASD; Task switching with emotional faces. *Journal of Autism and Developmental Disorders*, 42, 2558-2568.
- Wk 13 11/26: Halperin, J. M., Marks, D. J., Bedard, A-C., Chacko, A., Curchack, J. T., Yoon, C. A., & Healey, D. M. (2012). Training executive, attention, and motor skills: A proof-of-concept study in preschool children with ADHD. *Journal of Attention Disorders*, epub ahead of print. doi: 10.1177/1087054711435681.
- Wk 14 12/03: Frisina et al. (2008). Depression in Parkinson's disease: Health risks, etiology, and treatment options. *Neuropsychiatric Disease and Treatment*, 4, 81-91.

Clicker: *Turning Technologies* clickers are needed for this course. These are available for rental from the CCNY bookstore. We will register your clicker in week two (i.e., **09/08/14 and 9/10/14**).

Expectations and How to Succeed in Class

1. Be Prepared, Turn Up to Class, and Participate! (i.e., the Attendance Policy)

This is a senior undergraduate course. I expect you to attend all classes, and to turn up to those classes on time. When you are in class I expect you to participate. Moreover, I prepare the lectures on the assumption that you have done the work required before you come to class. In order to be able to obtain maximum benefit from the lectures and to fully participate in class discussion you must have done readings. If I find that people are not participating, or that it is the same individuals who participate week after week, I will call on people to offer their thoughts/comments. Although attendance is not mandatory, **YOU ARE STRONGLY ENCOURAGED TO ATTEND ALL CLASSES**. This is a tough course and your understanding of the material will be greatly enhanced if you are present for lectures, ask questions, and participate in class discussion.

2. Be Professional!

When emailing me, please be professional. State my name, your name, and politely outline your issue. I will not answer disrespectful emails. For in-class discussions, please be respectful of your peers. Offensive language and aggressive comments will not be tolerated. Basically, disagreement with your colleagues is absolutely fine - just be polite!

3. Class Conduct

You are NOT allowed to have your cell phones out in class. Each time I see you with a cell phone in class you will lose all points gained from one of the 15 quizzes that count towards your final grade. For example, if you are asked on one occasion to put away your telephone, the best 14 quizzes will count towards your grade. If you are called on three occasions, you will only be able to count 12 quizzes towards your grade.

I will also announce publically in class each time I see someone with a cell phone. They are disruptive to me and to your class mates so please be courteous and keep them in your bags.

If you are expecting an urgent call (e.g., family member is having surgery; partner is going into labor) please let me know about the issue before the class starts and we can make arrangements.

If you bring a laptop to class, limit it to class relevant use (e.g., typing notes, viewing assigned articles).

4. Academic Integrity

Plagiarism and cheating will not be tolerated. Any instances of plagiarism and/or cheating will be dealt with as per CUNY policy. Penalties for academic dishonesty include academic sanctions, such as failing or otherwise reduced grades, and/or disciplinary sanctions, including suspension or expulsion. Make sure that you are familiar with the University's published policy on academic dishonesty, cheating and plagiarism. You can find this policy at:

<http://www.ccny.cuny.edu/about/integrity.cfm>

5. Check Blackboard!

Everything that you need to know about the course will be posted on Blackboard. Emails will be sent to class distribution lists through Blackboard. So, if you most commonly check an account such as gmail or yahoo, make sure that you forward your emails from your citymail account to your personal account. Make sure that you check it regularly!

Disability

The AccessAbility Center
Office: NAC 1/218
T. (212) 650-5913

In compliance with CCNY policy and equal access laws, appropriate academic accommodations are offered for students with disabilities. Students must register with the AccessAbility Center for reasonable academic accommodations.

Under the Americans with Disability Act, an individual with a disability is a person who has a physical or mental impairment that substantially limits one or more major life activities. If you have any such issues, I encourage you to visit the AccessAbility Center to determine which services may be appropriate for you.

The Writing Center

Office: Samuel Rudin Academic Response Center
Where: Upper NAC Plaza at 136th and Amsterdam (enter from Amsterdam)
T. (212) 650-8104

The writing center has trained tutors who are available for one-on-one consultation to help you with your writing assignments. If you are struggling with your writing, please schedule an appointment with them.

Course Grading

Grades will be calculated based on CCNY classification:

A+	97-100	B+	87-89	C+	77-79	D	60-69
A	93-96	B	83-86	C	73-76	F	≤59
A	90-92	B-	80-82	C-	70-72	WU	Insufficient coursework

Course Assessment

Assessment	Percentage of Overall Grade	Date(s)
In class quizzes	Best 15/18 attempts 15 x 1% each = 15%	See Course Calendar below
Test 1 (wks 1-5)	20%	10/01/14
Test 2 (wks 6-10)	20%	11/05/14
Article Review	25%	11/19/14
Final Exam (wks 11-16)	20%	12/16/14 – 12/23/14
Extra Credit paper	+3	12/01/14

NOTE: YOU MUST COMPLETE BOTH TESTS, THE ARTICLE REVIEW, AND TAKE THE FINAL EXAM IN ORDER TO BE ASSIGNED A GRADE. FAILURE TO COMPLETE ANY ONE (OR MORE) OF THESE PIECES OF WORK WILL RESULT IN YOU BEING ASSIGNED A “WU” GRADE.

Quizzes

To ensure that you are reading the assigned chapters, are paying attention to, and understand the material presented in each lecture, a quiz of multiple-choice questions will be given in lecture (see calendar below for the dates of these quizzes). All of the questions will be drawn from the reading material assigned for the week and the lecture. Quizzes are open book and open notes, but you cannot work with other class members. You will need to bring your clicker to each class to take the quiz. If you forget your clicker, you will not be able to take the quiz and you will receive a grade of zero for that quiz. Be sure that your clicker is in working order!

There are no make-ups for quizzes that you miss because you do not attend a lecture or because you forget your clicker. There are 18 quizzes in total; your best 15 scores will count towards your final grade (1% for each quiz to give a total of 15% of your grade). Results of each quiz will be posted on Blackboard within a week of you taking it. Please get into the habit of checking Blackboard regularly.

Tests/Exam

You are expected to attend all tests/final exam at scheduled times. **There are no make-up tests.** In the case of **extraordinary** circumstances (e.g., serious illness) you must **notify me PRIOR to the test taking place AND provide a medical certificate.** In such cases you will write a make-up paper.

You may be examined on all material covered in lectures and assigned readings. Test and the final exam are closed book. The tests and the final are not cumulative. You may not drop any of your test scores or your final exam score.

You may not leave a test or final exam within the first 30 minutes of the official start time. You may not enter a test or exam AFTER 30 minutes from the official start time. If you arrive more than 30 minutes after the start time, you will not be allowed to take the test/exam and you will receive zero.

Article Review

The objective of this paper is for you to gain experience reading and critiquing primary source materials.

The article you will summarize and critique, which is saved on Blackboard, is: Randoph, C., Karantzoulis, S. & Guskiewicz, K. (2013). Prevalence and characterization of mild cognitive impairment in retired national football league players. *Journal of the International Neuropsychological Society*, 19, 873-880.

There are two parts to the review:

1. Summarize the article
2. Critique the article.

Article Summary: In **no more than 500 words** you will summarize the article (make sure to include a brief background, what were the aims and hypotheses, what did the authors do, what did the authors find, and what do these findings mean?) This is worth 10% of your final grade

Article Critique: In **no more than 750 words** you will critique the article as if you were a reviewer for a journal – basically this means identify the flaws with the paper. This is worth 15% of your final grade.

- Maximum word limits are listed above. If you exceed the stated word limits you will receive a 5% penalty (i.e., 5% deduction in your grade for that particular section).
- The due date of the assignment is Wednesday 19 November. You will hand in the assignment to me during class in hardcopy. You must also submit an electronic copy before class begins through Blackboard. You must submit BOTH the hard copy and the electronic copy in order to receive credit.
- Late policy:
 - If you submit the papers within 1 hour past due date, you will lose 25% of the grade
 - If you submit the papers between 1 hour late and the end of the day on which it is due, you will lose 50% of the final grade
 - If you submit the papers the following day or later, you will receive zero.
- **ABSOLUTELY NO EXTENSIONS WILL BE GIVEN.**

Extra Credit Paper

You will write up one of the case studies from Sacks (1985) that have been posted on Blackboard. Your paper must include the following points:

- a) Briefly describe the patient (5 points)
 - b) A description of the core features of the patient's disorder (10 points)
Make sure you cover all the important aspects such as motor function, co-ordination/gait, sensation, and cognition
 - c) Describe the link between the patient's behavior and what is happening in the brain (15 points)
 - d) Describe ONE test that we can administer to assess the impact of this particular disorder on an aspect of the person's neuropsychological functioning. Make sure you not only name the test, but talk about what the person is asked to do, what it measures, and how reliable/valid this test is (10 points)
 - e) In-text citations and referencing must be in APA style (5 points)
<http://owl.english.purdue.edu/owl/resource/560/03/>
 - f) Clarity of writing, including grammar, spelling, organization (5 points).
- Maximum word limit for the paper is 1500 words. If you exceed this word limit you will receive a 5% penalty (i.e., 5% deduction in your grade).
 - This extra-credit paper may add up to an additional 3 points to your final grade.

The due date for the assignment is 12/01/14. You will hand in the assignment to me during class in hardcopy. You must also submit an electronic copy before class begins through Blackboard. You must submit BOTH the hard copy and the electronic copy in order to receive credit. LATE PAPERS WILL NOT BE GRADED UNDER ANY CIRCUMSTANCES.

- ABSOLUTELY NO EXTENSIONS WILL BE GIVEN.

Tracking your Progress in the Course:

Please be responsible for keeping abreast of your grades throughout the semester. I encourage you to check Blackboard regularly to monitor your progress in the class. Bring any grade problems to my attention immediately. Please do not wait until the final grades have been set to deal with grade problems, for it is much more difficult (and often impossible) to change grades after they have been sent to the registrar.

COURSE CALENDAR (Subject to Change)

WEEK	DATE	TOPIC	READINGS	ASSESSMENT
1	9/1	NO CLASS: LABOR DAY		
	9/3	Course introduction.	http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=11113472	
2	9/08	Development of Neuropsychology	K&W Ch. 1	Clicker Registration
	9/10	Ethics: Frontal Labotomy	K&W p. 562-563 http://www.apa.org/ethics/code/index.aspx?item=1	Clicker Registration
3	9/15	Organization of the Nervous System	K&W Ch. 3	Practice with clickers 1
	9/17	Neurons	K&W Ch. 4-5	Practice with clickers 2
4	9/22	Drugs, Hormones and Behavior I	K&W Ch. 7	Quiz 1
	9/24	NO CLASS SCHEDULED		
5	9/29	Drugs, Hormones and Behavior II: Addiction	K&W Ch. 7 Volkow et al. 2012	Quiz 2
	10/01	TEST 1		TEST 1
6	10/06	Organization of the Sensory System	K&W Ch. 8	Quiz 3
	10/08	Organization of the Motor System	K&W Ch. 9	Quiz 4
7	10/13	NO CLASS: COLUMBUS DAY		
	10/15	The Occipital Lobes	K&W Ch. 13	Quiz 5

8	10/20	The Parietal Lobes	K&W Ch. 14	Quiz 6
	10/22	The Temporal Lobes	K&W Ch. 15	Quiz 7
9	10/27	The Frontal Lobes	K&W Ch. 16	Quiz 8
	10/29	Executive Functions	Diamond et al. (2007). Science.	Quiz 9
10	11/03	Learning and Memory	K&W Ch. 18	Quiz 10
	11/05	TEST 2		TEST 2
	11/06	<i>Last day to drop with a grade of 'W'</i>		
11	11/10	Language	K&W Ch. 19	Quiz 11
	11/12	Emotion	K&W Ch. 20	Quiz 12
12	11/17	Spatial Behavior	K&W Ch. 21 Maguire et al. (2007). PNAS.	Quiz 13
	11/19	Attention and Consciousness	K&W Ch. 22	Article Review Due
13	11/24	Developmental Disorders I	K&W Ch. 24 De Vries & Geurts (2012)	Quiz 14
	11/26	Developmental Disorders II	Halperin et al. (2012). Journal of Attention Disorders. Epub.	Quiz 15
	11/27	<i>Thanksgiving</i>		
14	12/01	Neurological Disorders	K&W Ch. 26	Extra credit paper due
	12/03	Aging	K&W Ch. 27 Frisina et al. (2008)	Quiz 16
15	12/08	Psychiatric and Related Disorders	K&W Ch. 27	Quiz 17
	12/10	Neuropsychological Assessment	K&W Ch. 28	Quiz 18
16	12/15	Review		
	12/16-12/23	<i>Final Exams</i>		