

V89.0025

Introduction to Cognitive Neuroscience

The aims of the course are to provide students with a broad understanding of the foundations of Cognitive Neuroscience including dominant theories of the neural underpinnings of a variety of cognitive processes and the research that has led to those theories. In doing so, students will also learn about the goals of Cognitive Neuroscience research and the methods that are being employed to reach these goals.



Time: Monday and Wednesday 3:30 pm - 4:45 pm
Place: 19 West 4th Street, Room 101

Instructor: Clayton Curtis, Ph.D.
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Phone: (212) 998-3730
Email: clayton.curtis@nyu.edu
Office Hours: Wednesday 5:00 –6:00 pm (+appointments by email)

Recitation Sections:

V89.0025.002 M 11:00-12:15 Waverly Bld, Room 366
V89.0025.003 W 11:00-12:15 Silver Bld, Room 718
V89.0025.004 T 11:00-12:15 Silver Bld, Room 515
V89.0025.005 R 11:00-12:15 Waverly Bld, Room 435

TA:	Candace Raio	Michael Grubb
Office:	890C Meyer	957 Meyer
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Email:	cmr385@nyu.edu	mag607@nyu.edu
Office Hours:	Tuesday 1:00-2:00pm	Thursday 2:00-3:00pm

Textbook: Gazzaniga, Ivry, and Mangun (2008)
Cognitive Neuroscience: The Biology of the Mind, 3rd Edition
Available at Bookstore, 18 Washington Pl, (212) 998-4667

Reader: Electronic downloads of articles for recitation section will be available from the Blackboard class website.

Important dates:

Quiz 1: Wednesday February 2nd in class
Quiz 2: Wednesday April 4th in class
Quiz 3: Wednesday May 4th in class
Literature Critique Due: Monday May 9th hard copy due in class
Final Exam: Wednesday May 11th 4-5:50pm 19W4, Room 101

Course grading:

The exams and paper will be weighted as follows:

Best 2 of 3 Quizzes:	25% each (50% total)
Recitation Participation:	05%
Literature Critique:	15%
Final Exam:	30%

Grades will be adjusted to be a percentage of the average of the top 3 scorers in the class (e.g., B-minus = 80.00-82.99% of AvgTop3). Under no circumstances will grades be curved down.

Exams:

There will be three in-class quizzes. Each quiz will be composed of three parts: 1) multiple choice; 2) short identifications; 3) one essay. There will sometimes be a choice for both the identifications and essays (e.g., answer 1 of the 2 essays). Your worst quiz score of the 3 will be dropped. There will be a final exam that will be cumulative and similar in structure to the quizzes.

Make-up quizzes and exams are not given except under emergency situations. In such circumstances, the student is responsible for notifying the instructor prior to the quiz or exam. I will not offer make-ups under any circumstances; in almost all cases the missed quiz will count as your worst quiz and will be dropped. Use your drop however you like, eg, if you are sick or if you want to go snowboarding. There will be no make-up final exam; an incomplete will be given.

Literature Critique:

The goal of the critique is to get students to read original research articles with a focus on the methods used to investigate the question under consideration. Students must review two articles that address a common topic, but use two different methods (e.g., patient study and functional imaging study; single cell recording and patient study). The paper will be a maximum of 3-pages (double-spaced); I will stop reading at the end of page 3. Late papers will be penalized. A detailed description of the assignment will be provided later in the semester. It is highly recommended that students discuss their planned topic with the instructor or teaching assistant weeks prior to the due date.

Recitations:

The recitation sections provide an opportunity to discuss the readings as well as review material presented in class. The main point is to introduce students to reading and criticizing empirical research papers. Students will be expected to read the article that will be discussed in their section *before* they go to section. This will facilitate a discussion of the research in the context of the lectures and book materials.

Research Requirement:

This is a Core A class and has a research requirement that you participate in 2 hours of experiments for this course. No extra credit will be given for extra hours. Alternatively, you can write a paper. See the class webpage on Blackboard under "Course Information" for links to important documentation. *You will receive an incomplete if you do not fulfill this requirement.*

Lectures, Recitations, and Readings

Wk	Date	Lect	Topic	Reading
1	01.24.11	1	What is Cognitive Neuroscience?	GAZ 1
1	01.26.11	2	History and Principles of Neuroscience	GAZ 2
			<i>No Recit</i>	
2	01.31.11	3	Gross Functional Neuroanatomy	GAZ 3
2	02.02.11	4	Methods 1: Lesion	GAZ 4
			<i>Recit 1 Anatomy</i>	
3	02.07.11	5	Methods 2: Physiology	GAZ 4
3	02.09.11	6	Perception	GAZ 5
			<i>Recit 2 Methods</i>	
4	02.14.11	7	Perception	GAZ 5
4	02.16.11	8	Perception	
			<i>Recit 3 Perception</i>	
5	02.21.11		<i>President's Day - No Class</i>	
5	02.23.11	9	Recognition	GAZ 6
			<i>Recit 4 Recognition</i>	
6	02.28.11	10	Recognition	GAZ 6
			<i>No Recit</i>	
6	03.02.11		QUIZ 1	
7	03.07.11	11	Learning & Memory	GAZ 8
7	03.09.11	12	Learning & Memory	GAZ 8
			<i>Recit 5 Memory</i>	
			<i>SPRING BREAK 03.14 & 03.16</i>	
8	03.21.11	13	Attention	GAZ 12
8	03.23.11	14	Attention	GAZ 12
			<i>Recit 6 Attention</i>	
9	03.28.11	15	Working Memory	GAZ 13: 555-571
9	03.30.11	16	Working Memory	GAZ 13: 555-571
			<i>Recit 7 Working Memory</i>	
10	04.04.11		QUIZ 2	
11	04.06.11	17	Motor control	GAZ 7
			<i>No Recit</i>	
12	04.11.11	18	Motor control	GAZ 7
13	04.13.11	19	Hemispheric Asymmetry	GAZ 11
			<i>Recit 9 Motor control</i>	
11	04.18.11	20	Reward & Decision Making	GAZ 14: 623-633
11	04.20.11	21	Reward & Decision Making	GAZ 14: 623-633
			<i>Recit 8 Decision Making</i>	
13	04.25.11	22	Emotion	GAZ 9
14	04.27.11	23	Language	GAZ 10
			<i>Recit 10 Emotion</i>	
14	05.02.11	24	Cognitive Control	GAZ 13: 571-598
15	05.04.11		QUIZ 3	
15	05.09.11	25	<i>Review for Final Exam & Papers due</i>	
16	05.11.11		FINAL EXAM- 4:00-5:50pm	

