

Human Neuropsychology Lab (Psych 116B)

Syllabus Spring 2021

Resources for distressed students:

<https://ceils.ucla.edu/resources-for-your-students/>

Science is done by people and people come from different races, genders, backgrounds, socioeconomic statuses, and ethnicities. In order for us to accomplish the objectives of this course, we will treat each other as equal colleagues.

1/2 point credit for showing your ACTUAL face for the duration of lab—let's build some community!

Learning goals:

- (1) Students will understand design considerations in behavioral neuroscience experiments.
- (2) Students will be better able to analyze and understand data.
- (3) Students will be able to write so that a reader can understand the questions addressed, the analyses of the data, and the interpretations that follow from the data.
- (4) Students will be able to identify external and internal features of the CNS, how these features are connected, and deduce the effects that would be expected if these various features were damaged.

Lecture-lab 10:00-11:50 T&TH

We are trying a new structure to a lab course. Lecture and lab will be intermixed. This course was designed to be fully digital at the outset. We will endeavor to bring you an active-learning laboratory experience. We will have prelabs to help you keep your writing on track. We will have quizzes and worksheets in the neuroanatomy unit so that you don't get slammed with trying to learn all of the material for one high-stakes exam. Hopefully, spreading it out will also result in better retention.

Hardware/software for all modules

- 1) Get a gmail account—we will combine data, which works better if you have a gmail or .g account. **If you are in a part of the world that doesn't allow gmail accounts, use UCLA's VPN client to log in.**
- 2) Computer—a pad *might* work, phone would be very awkward.

Vote!!—on values for prelabs and worksheets

Unit 1 Stuttering unit

Stuff you will need for Unit 1

Earphones/earbuds

Chrome browser—**DOWNLOAD**

DOWNLOAD JASP—statistical analysis package-- <https://jasp-stats.org/>

Access Stutterbox website site: <https://www.stutterbox.co.uk/> --only runs on Chrome

Access Equal Loudness Website: <https://newt.phys.unsw.edu.au/jw/hearing.html>

Read from U of T textbook <https://nba.uth.tmc.edu/neuroscience/s2/chapter12.html>

March 30 & April 1	Week 1	<p>March 30 Stutterbox session—find thresholds with modified Method of Constant Stimuli —Exit ticket: data in Google doc spreadsheet—</p> <p>April 1— Intro to stuttering Equal loudness test of hearing Exit ticket—equal loudness plot for self vs lab</p>	<p>See week 1—for Stutterbox Instructions</p> <p>Readings</p> <p>Equal Loudness Instructions</p>
April 6 & 8	Week 2	<p>May 6 Methods & Results Exit ticket –analyzed data with graphs April 7 9:00 AM Intro & Methods draft due 8 points</p> <p>April 8 Discussion of Discussion, abstract, references</p> <p>Feedback on Intro & Methods Exit ticket—getting feedback on Intro & Methods</p>	<p>http://onlinestatbook.com/2/index.html</p>

Unit 2 Neuroanatomy

Stuff you need before Neuroanatomy unit

Stuff to BUY

Goldberg, S. (Various editions) Clinical Neuroanatomy Made Ridiculously Simple.

MedMaster, Incorporated—this can be found used online for very small amount of \$

(Try the below URL, they support world literacy)

<https://www.betterworldbooks.com/search/results?q=clinical%20neuroanatomy%20made%20>

Online Neuroscience Textbook From U of Texas

<https://nba.uth.tmc.edu/neuroscience/toc.htm>

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<p>April 13 & 15</p>	<p>Week 3</p>	<p>April 13 Stutterbox writeup due 11:59 PM 92 pts Start neuroanatomy Overall Brain organization, ventricular system, & meninges Spinal cord April 1 Neuroanatomy Blood supply, stroke, cortical regions Worksheet for week due April 15 11:59 PM 8 points</p>	<p>Ch 1, 2, 3, & 8 Goldberg Slides!! i. Go watch planes of dissection video in Week 1 folder—course website. ii. Watch Getting started video course website</p> <p>UBC https://www.neuroanatomy.ca/regions/spinalcord.html https://www.youtube.com/watch?v=Mkj78h8w4a8 to minute 8 & https://www.neuroanatomy.ca/stroke.html</p>
<p>April 20 & 22</p>	<p>Week 4</p>	<p>April 20 Quiz #1 25 pts Long tracts & cortex—spinal cord Pain lesions UMN & LMN lesions</p> <p>April 22 Extra-pyramidal motor systems & diseases Worksheet for week due April 22 11:59 PM 8 points</p>	<p>Ch 2, 3, 7, & 8 Goldberg Slides!! https://nba.uth.tmc.edu/neuroscience/s2/chapter06.html UBC https://www.neuroanatomy.ca/regions/basalganglia.html & https://www.neuroanatomy.ca/regions/cerebellum.html</p>

April 27 & 29	Week 5	April 27 Quiz #2 25 pts Vision Vision Lab April 15: Cranial Nerve Lab Worksheet for week due April 29 11:59 PM 8 points	
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UNIT 3-- Structural MRI of ADHD prelabs worth 8 points other assignments also

Stuff you will need for Unit 2

- 1) Bioimage suite: <https://bioimagesuiteweb.github.io/webapp/index.html>
- 2) DOWNLOAD JASP—statistical analysis package-- <https://jasp-stats.org/>
- 3) DOWNLOAD Brain Explorer 2 <https://human.brain-map.org/static/brainexplorer>

Unit #2	Weeks	ACTIVITY	RESOURCES
May 4 & 6	6	May 4 Quiz #3 25 Start Structural MRI of ADHD Introduction—setting up your Intro Exit ticket Data collection: gray and white matter volume, total brain volume; cerebellar volume. April 4 Short discussion of cerebellum and cerebellar vermis and data collection on vermis. Exit ticket —Vermis measures in Googledocs	i. Get readings on course website Week 5 ii. Go watch planes of dissection video in Week 5 folder—course website. iii. Watch Getting started video course website, week 5
May 11 & 13	7	May 10 Lecture on Methods section Gathering vermis data Submit a prelab (draft of intro) by 11:59 PM May 10 8 points May 12 more data collection (Possibly septal nuclei) OR fornix —exit ticket: measures and getting prelab checked	See course website for readings germane to Methods section.

May 18 & 20	8	May 18—Submit Methods as prelab by 11:59 PM May 17 8 points Data analyses & Graphs & Setting up your Results section --exit ticket getting Methods section checked May 20—Discussion of Discussion abstract, References addenda—	See course webpage for SOME readings course website for resources/readings/slides. http://onlinestatbook.com/2/index.html
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Unit #4	Weeks	Activity: Testing and Neuropsychology of Dementia	RESOURCES
May 25 & 27	9	May 25—Total MRI Write-up due 1 11:59 PM 84 points Introduction to testing—testing in Neuropsychology. Learning and multitasking in distracted undergraduates; Taking the Grisham battery of mental abilities test (Gribmat) May 27—Analyzing data –Limbic system & hypothalamus neuroanatomy	See course website, Week 9 UBC on limbic system and hypothalamus: https://www.neuroanatomy.ca/regions/limbicsystem.html
June 1 & 3	10	June 1 Neurobiology of dementia June 3 Testing and dementia	

Final June 7		Final Quiz 50 pts Memo on Gribmat data 50 pts—due at START of final Monday, June 7, 2021 3:00 PM - 6:00 PM	
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Instructors

Dr. Bill Grisham wgrisham@g.ucla.edu
 Phone: (310) 825-7990

Please post questions to the course website—**PLEASE DO NOT email questions** directly to me—my email is a hopeless mess and you'll get an answer on the course website.

TAs

Michael Seay mikejseay@gmail.com
Adam Gold agold10@ucla.edu

LAs

Gorety Nguyen GORETYNGUYENN@GMAIL.COM
Inci Erke incieceerke@g.ucla.edu

Office Hours: Monday 1:30 PM

Helpful Web Sites

UBC Functional Neuroanatomy Course: <http://www.neuroanatomy.ca/>

Human Brain:

<http://library.med.utah.edu/WebPath/HISTHTML/NEURANAT/NEURANCA.html>

3D Brain App:

<http://www.g2online.org/> (also available in mobile versions for free)

Brain Quiz:

<http://library.med.utah.edu/kw/hyperbrain/animations/pathways/index.html>

APA Style:

<https://owl.english.purdue.edu/owl/resource/560/01/>

Writing in General:

See course website. Also see.

<http://www.bartleby.com/141/>

Policies

This is a lab class and participation is mandatory. Failure to participate in any given lab will result in a 33% grade penalty for that module. Work must be turned in via Turnitin. There will be a late penalty of 10% of total possible points for each day late—exceptions only for illness WITH DOCUMENTATION, or death in immediate family WITH DOCUMENTATION. The full late penalty will be assessed 10 minutes after the start of class. Penalty will go to 20% after 8 hours late and an additional 10% will be subtracted for each additional day. Assignments are due at the start of lab period unless otherwise designated. All assignments must be typed and partial assignments will not be accepted. Dr. Grisham will handle re-grades. If a student requests a re-grade, their entire assignment will be re-graded, and the student's grade can go up, GO DOWN,

or stay the same. Students have one week after receiving their paper back to request a re-grade, after one week, requests will not be considered.

Plagiarism and Cheating

We will use TURNITIN. All work MUST be the student's own individual work. Collaborative efforts (explicit or implicit) will not be acceptable. Do NOT work together on any assignment. Sharing your work on a paper or take-home exam will be considered the same as sharing an answer in an in-class exam. Using papers from previous terms is plagiarism. Do not use templates from previous courses. You have an obligation to behave in an ethically responsible manner. We have a ZERO TOLERANCE for plagiarism and cheating in this course. Cheaters and plagiarists will be referred to the Dean of Students. Students found guilty of cheating, plagiarizing, or collaborating will be assigned a grade of zero on that assignment.

Academic Integrity

Cheating including plagiarism: <https://www.registrar.ucla.edu/Registration-Classes/Enrollment-Policies/Class-Policies/Plagiarism-and-Student-Copyright>

Grading

Grading will be straight scaled. You alone determine your grade. Grades will be earned and not negotiated. **Modules will be weighted according to the number of weeks spent on them.** Two weeks = 20% of course; 3 weeks 30% of course.

Grading scale:

97-100	A+
93-96	A
90-92	A-
87-89	B+
83-86	B
80-82	B-
77-79	C+
73-76	C
70-72	C-
67-69	D+
63-66	D
60-62	D-
BELOW 60	F