University of Florida College of Public Health & Health Professions Syllabus CLP 4420 (Section 5159): Introduction to Neuropsychology (3 credit hours)

Spring Semester, 2023 Period 9 - 11 (4:05 – 7:05) Course Listed on Canvas

Instructor Name: Catherine Price, Ph.D., ABPP/CN

Teaching Assistants: Adrianna Marta Ratajska, M.S., Joshua Henry Owens, M.S.

Room Number: G103 HPNP

Laboratory Phone Number: (352) 273-5929 Email Address: cep23@phhp.ufl.edu

Office Hours: Thursday, 9 am-10 am, https://ufl.zoom.us/my/catherineprice

Preferred Course Communications: email (cep23@phhp.ufl.edu) or text to 352-494-6999

Prerequisites: Introduction to Psychology, Abnormal Psychology

PURPOSE AND OUTCOME

Course Overview. This course introduces the science and practice of neuropsychology, including the anatomic, functional, and cognitive substrates underlying human behavior and neuropsychological disorders.

Relation to Program Outcomes. This course provides didactic instruction and case examples that enable the student to develop beginning knowledge and skills in understanding normal and disordered brain function. It provides information useful for students who aspire to careers in neuroscience, health professions, or rehabilitation.

Course Objectives and/or Goals. Upon successful completion of the course, students will have acquired knowledge and understanding of the concepts and terminology essential to the field of clinical neuropsychology, including:

- the role of neuropsychology in the interdisciplinary study and treatment of clinical disorders of higher cognitive function
- the historical origins and future directions of neuropsychology
- · key methods and major assumptions in neuropsychology research and clinical practice
- functionally relevant neuroanatomy
- primary cognitive domains and related neuropsychological disorders, including their assessment and treatments
- lifespan issues in neuropsychology, including pediatric and geriatric disorders, and the role of neuroplasticity in the brain's response to injury and interventions
- professional issues, including ethical guidelines, training requirements, and career options.

Instructional Methods: Lectures, videos, class group activities, demonstrations

Course Materials and Technology

Recommended textbook: Zillmer, E.A., Spiers, M.V., & Culbertson, W.C. (2007). *Principles of Neuropsychology: 2nd Edition*, Thomson Wadsworth Publishers.

Online Materials: Required readings not found in the textbook will be posted via the University's E-learning system/Canvas at http://elearning.ufl.edu. The course has both in-person and online (Zoom) sections. A Zoom invitation will be sent separately via the e-mail function that can be added to the student's Outlook calendar.

Supplemental and Optional Readings/Resources: Additional articles, videos, and tutorials will also be posted on Canvas. **Course participants are asked to download the sli.do app from an app store near you.**

 NOTE: All readings posted online are for educational purposes only and should not be duplicated or redistributed.

What to Expect

The human brain is arguably the most complex organ of the body; as a result, understanding its function – and dysfunction – can be both fun and challenging. This course is information-intensive. My goal is to provide you with the necessary tools and resources to succeed in this course. Therefore, *you can expect us to:*

- Be passionate about the material and do my best to facilitate interest and learning
- Post PowerPoint files of each lecture on the course website (every effort will be made to post these
 by noon on the day of each class, if not earlier)
- Integrate videos, case studies, and guest presentations into class lectures wherever feasible
- Provide supplemental readings, tutorials, and videos to enhance learning
- Provide study questions that help you organize your learning in preparing for exams
- Be available during weekly office hours
- Provide opportunities to review material before each exam

In return, we expect you to:

- Attend class.
- Participate: In addition to simply attending class, I hope and expect that you will ask questions, respond to questions and polls, make comments, and otherwise contribute in class.
- Read: This course covers a fairly large amount of material, and readings have been carefully selected to help you learn and understand the topics discussed in lecture.
- Be respectful and professional with classmates, instructors, and guest speakers. Professional
 behavior includes arriving on time for class and silencing all cellphones and other personal electronic
 devices. In class, laptops, tablets, etc., should be used for viewing slides and taking notes, NOT for
 surfing the web, altering your fantasy football roster, getting your Instagram account suspended,
 ordering from Amazon, or other non-academic activities.

DESCRIPTION OF COURSE CONTENT 2021

Topical Outline/Course Schedule – expect occasional updates to the schedule as well as the addition of contemporary optional readings of interest.

Classes	1-3: Introduction, Methods, and A	Anatomy
Jan 9: INTRODUCTION AND HISTORY Class 1 Welcome, Course Syllabus Review	Lecture Topics: Neuropsychology and Clinical Neuroscience History of Neuropsychology	Readings: Zillmer, Spiers & Culbertson: Chapter 1: A History of Neuropsychology
Jan 17: No Class - Martin Luthe	r King, Jr. Day	
Jan 23: RESEARCH AND CLINICAL METHODS Class 2	Lecture Topics: Experimental methods in neuropsychology Clinical neuropsychological assessment methods	 Readings: Zillmer, Spiers & Culbertson: Chapter 2: Methods of Investigating the Brain Chapter 3: Neuropsychological Assessment and Diagnosis Howieson, D. (2019). Current limitations of neuropsychological tests and assessment procedures. The Clinical Neuropsychologist, 33, 200-208.

Jan 30: ORGANIZATION O	OF Lecture Topic:		Readings:				
THE BRAIN AND BEHAVIOR	Clinically-releval neuroanatomy: 0 principles and fu		Gaynor & Bauer, 2020 Zillmer, Spiers & Culbertson: Chapter 4: Cells of Thought Chapter 5: Functional Neuroanatomy Chapter 6: Cerebral Specialization (pp. 155-167)				
Feb 6: EXAM 1 (Classes 1	<u>-3)</u> Classes 4-7: Cognitive	Domains and Di	eardare				
Feb 13: LANGUAGE	Lecture Topics:	Readings:	solueis				
AND APHASIA Class 4	Overview of Language Acquired and Developmental Language Disorders	 Kolb & White Language Optional Readi Worrall (20 effective apof people ling Journal of \$438-447. Sacks, O. (patients sur 	19). The seven habits of highly chasia therapists: The perspective ving with aphasia. <i>International Speech-Language Pathology, 21,</i> (2005). Recalled to life: When ffer a loss of language, must they neir sense of self? The New Yorker,				
Feb 20: ATTENTION AND PERCEPTION Class 5	Visuospatial Abilities, Attention, Neglect, Agnosia Key Topics/Disorders: Attentional dysfunction Sensory perception Visuospatial processing Visual Agnosia (object, face agnosia) Hemispatial Neglect Topographical Disorientation	Readings: Bauer, 201 Zillmer, Sp Chapter 9: On the course of the cours	iers, & Culbertson: pp. 240-246 website: Selections from Kolb & E: The Occipital Lobes 323-325 ("Visual Functions Beyond Occipital Lobes") 330-340 (beginning with "Disorders Cortical Function") E: The Parietal Lobes (pp. 345-364) E: The Temporal Lobes (pp. 373-385) (2008), Hemineglect. Scholarpedia,				
Feb 27: MEMORY AND AMNESIA Class 6	Lecture Topic: Overview of memory, Amnesia Episodic and semantic memory disorders	Readings: Online: Kolb & Whishaw: Chapter 18: Memory Bauer, et al, 2019 Optional Reading: Sacks, O. (2007). The abyss: Music and amnesia. The New Yorker, September 24, 100					

March 6th: FRONTAL LOBE AND EXECUTIVE FUNCTIONS Class 7	Lecture Topics: Functional Anatomy of Frontal Lobes Executive function and dysfunction Motor Planning and Intention Personality and Mood Regulation Working Memory	 Farah, M.J. & Grossman, M. (2000). Semantic memory impairments. In M. J. Farah & T. E. Feinberg (Eds.), Patient-based approaches to cognitive neuroscience (pp. 301-305). Cambridge, MA: The MIT Press. Readings: Zillmer, Spiers & Culbertson: Chapter 9: pp. 246-259 Canvas: Kolb & Whishaw: Chapter 16: The Frontal Lobes Chapter 26: Neurological Disorders – TBI section (pp. 702-706) Optional Reading: Damasio, H., Grabowski, T., Frank, R., Galaburda, A. M., & Damasio, A. R. (1994). The return of Phineas Gage: Clues about the brain from the skull of a famous patient. Science, 264, 1102-1105.
March 13th: No Class - S	oring Break	of a famous patient. Science, 204, 1102-1103.
March 20: Exam 2 (Classe	ne 4-7)	
March 27: TRAUMATIC BRAIN INJURY Class 8	Lecture Topics: Overview of traumatic brain injury Functional outcome in head injury Assessment and management of head injury and concussion Rehabilitation	 Readings: Zillmer, Spiers & Culbertson: Chapter 13: Traumatic Head Injury and Rehabilitation (pp. 369-389). McCrea, M., Broshek, D.K. & Barth, J.T. (2015). Sports concussion assessment and management: Future research directions. Brain Injury, 29, 276-282. Optional Reading: Wagner, A.K. (2010). TBI translational rehabilitation research in the 21st century: Exploring a rehabolomics research model. Eur J. Phys Rehabil Med, 46, 549-555. Omalu, B.I. et al (2005). Chronic traumatic encephalopathy in a National Football League
Cla	sees 8-10: Clinical Lifeer	player. <i>Neurosurgery, 57</i> , 128-134.
April 3: PEDIATRIC NEUROPSYCHOLOGY Class 9	Lecture Topics and Disorders: Epilepsy Developmental/Autism Spectrum Disorders Pediatric Neuropsychology Pediatric Neuropsychological Disorders: Pre- and perinatal brain damage Genetic/congenital disorders Learning disabilities Pervasive Developmental Disorders	Readings: Zillmer, Spiers & Culbertson: Chapter 10: Developmental Disorders of Childhood Chapter 11: Learning and Neuropsychiatric Disorders of Childhood Optional Reading: Singh, A., Yeh, C.J., Verma, N., & Das, A.K. (2015). Overview of attention deficit hyperactivity disorder in young children. Health Psychology Research, 3:2115.

	Attention Deficit	
	Hyperactivity Disorder	
April 10: AGING AND	Lecture Topics:	Readings:
DEMENTIA	'	Zillmer, Spiers, & Culbertson:
Class 10	Normal Aging	 Chapter 12: Cerebrovascular Disorders (pp.
Olass 10	Pathological Aging and	339-347; 351-357)
PAPERS DUE BY 5pm	Dementia	Chapter 14: Normal Aging and Dementia: Alzheimer's Disease
	Key disorders:	Chapter 15: Subcortical Dementias
	Mild Cognitive Impairment (MCI)	Optional Readings:
	Degenerative dementia (e.g., Alzheimer's disease, Frontotemporal dementia) Vascular dementia/vascular	 Park, D. C. and P. Reuter-Lorenz (2009). "The adaptive brain: aging and neurocognitive scaffolding." Ann Rev Psychol 60: 173-96 Sperling, R., Mormino, E., & Johnson, K. (2014). The evolution of preclinical Alzheimer's disease: Implications for prevention trials.
	disease/white matter disease	 Neuron, 84, 608-622. Jack, C.R., et al. (2018). NIA-AA Research Framework: Toward a biological definition of Alzheimer's disease. Alzheimer's & Dementia, 14, 535-562.
April 17: PROFESSIONAL ISSUES AND APPLICATIONS Class 11	Lecture Topics: Ethical guidelines and considerations Multicultural issues in Neuropsychology Forensic Neuropsychology Training in Neuropsychology Careers in Neuropsychology	 Readings: Online/Canvas: Craig, P. (2007). Clinical Neuropsychology: Brain-Behavior Relationships. In R. J. Sternberg (Ed.), Career Paths in Psychology: Where Your Degree Can Take You (pp. 161-178). Washington, DC: American Psychological Association. APA Ethical guidelines:
May 1: FINAL EYAM (In C	lace: 67% from Clace 9-1	guidelines.pdf
Way I. FINAL EXAM (IN C	Class; 67% from Class 8-1	1, 33/6 HUIII Earliei

For technical support for this class, please contact the UF Help Desk at:

- http://helpdesk.ufl.edu/
- (352) 392-HELP (4357)

ACADEMIC REQUIREMENTS AND GRADING

Examinations and Assignments: Final grades will be based on participation (5%), one paper assignment (20%), and three in-class examinations (25% each; 75% total).

<u>Attendance/Participation</u>: Attendance and participation will be recorded by the instructor and teaching assistants. Attendance will be randomly acquired throughout the semester. Attendees will receive a "1". Total score is 5% of the total grade.

<u>Paper Assignment</u>: Each student will be expected to complete one paper assignment, which will account for 25% of the final course grade, due April 10, 2023, at 5 pm. The paper will consist of a critique of a research article in neuropsychology. Students will choose one article to critique from a list of articles provided for this purpose. The specific format for subsections of the paper, as well as a scoring rubric, are forthcoming. Papers should be 3-5 typed, double-spaced pages in Arial 11-12 point font with 1" margins. Students will submit the paper electronically to the Canvas website by the due date/time.

<u>Examinations</u> will take place in class on the dates listed in the schedule and the Table below. All examinations are open-book, open-note exams. Examinations will cover material as indicated in the schedule. The examination format will utilize a variety of objective methods (multiple-choice, short answer, true-falls, fill-in-the-blank, etc.). Examinations will cover both reading and lecture material, though materials in lectures will be emphasized. Students will receive study questions in advance of each exam to help them prepare.

Grading

Relevant dates on which points can be earned are listed in this Table. Please mark your calendars.

Requirement	Due date	Points or % of final grade (% must sum to 100%)
Exam 1	February 6, 2023	25%
Exam 2	March 20, 2023	25%
Paper	April 10, 2023	20%
Exam 3	May 1, 2023	25%
Participation	Random dates	5%

Point system used (i.e., how course points translate into letter grades). Exams will each be assigned several points. Earned points based on correct answers will be summed and expressed as a percentage of the total possible points. All grades will be rounded (up or down) to the nearest integer. Grading is based on percentage cut-offs as follows:

Percentage of points earned	93-	90-	87-	83-	80-	77-	73-	70-	67-	63-	60-	Below
	100	92	89	86	82	79	76	72	69	66	62	60
Letter Grade	А	A-	B+	В	B-	C+	С	C-	D+	D	D-	E

Please be aware that the Bachelor of Health Science Program does not use C- grades.

The following table lists the conversion from letter grades to grade points. Letter grade-to-grade point

conversions are fixed by UF and cannot be changed.

Letter Grade	Α	Α-	B+	В	B-	C+	С	C-	D+	D	D-	Е	WF	_	NG	S- U
Grade	4.0	3.67	3.33	3.0	2.67	2.33	2.0	1.67	1.33	1.0	0.67	0.0	0.0	0.0	0.0	0.0
Points																İ

For greater detail on the meaning of letter grades and university policies related to them, see the Registrar's Grade Policy regulations at: http://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

Exam Policy/Policy Related to Make-up Exams or Other Work

Students are expected to attend and be prepared to participate in all class sessions and exams. Personal issues concerning class attendance or fulfillment of course requirements will be handled on an individual basis. Absence from an exam for appropriate professional obligations (e.g., graduate, professional, or medical school interviews) is permissible but should be avoided if possible, and must be pre-approved by the course

instructor. If a make-up exam is required due to professional obligations or health reasons, documentation (e.g., doctor's note, a conference agenda, and some proof of your role as a speaker or attendee) will be required. Approved make-up exams must take place within 7 days of the originally scheduled exam date at a time mutually agreed upon by the instructor and student.

Please note: Any requests for make-ups due to technical issues MUST be accompanied by the ticket number received from LSS when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail me within 24 hours of the technical difficulty if you wish to request a make-up.

Policy Related to Required Class Attendance

Attendance is expected and is required if the student wishes to earn the highest possible number of attendance points.

The UF policy for excused absences is reproduced below:

Students are responsible for satisfying all academic objectives as defined by the instructor. Absences count from the first class meeting.

In general, acceptable reasons for absence from or failure to participate in class include illness, serious family emergencies, special curricular requirements (e.g., judging trips, field trips, and professional conferences), military obligation, severe weather conditions, religious holidays and participation in official university activities such as music performances, athletic competition or debate. Absences from class for court-imposed legal obligations (e.g., jury duty or subpoena) must be excused. Other reasons also may be approved.

You cannot participate in classes unless you are registered officially or approved to audit with evidence of having paid audit fees. The Office of the University Registrar provides official class rolls to instructors.

If you do not participate in at least one of the first two class meetings of a course or laboratory in which you are registered, and you have not contacted the department to indicate your intent, you can be dropped from the course. You must not assume that you will be dropped, however. The department will notify you if you have been dropped from a course or laboratory. You can request reinstatement on a space-available basis if you present documented evidence. For further information regarding the UF Attendance Policy see the Registrar's website for additional details:

https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

STUDENT EXPECTATIONS, ROLES, AND OPPORTUNITIES FOR INPUT

Expectations Regarding Course Behavior

Students are expected to report to class on time, be prepared for the class by having read the assigned material, and to participate in discussions as appropriate. PowerPoint lectures will be available on the Canvas website in advance of each class, so students are encouraged to follow along with the lectures and to take notes by either printing out the PowerPoint or by accessing it via a laptop computer or other electronic device.

Students are asked to silence their cell phones at the beginning of class and to show respect for all other persons while class is in session.

Communication Guidelines

Students are encouraged to ask questions and to respond to instructor queries during class. If students have special questions or concerns they would prefer to discuss privately with the instructor or TA, they are encouraged to attend office hours or to approach the instructor immediately after class.

Professionalism and COVID

As students pursuing a path in the health professions or public health, it is crucial to demonstrate professional behaviors that reflect integrity and commitment to the health of patients, fellow health professionals, and to populations we serve. To accomplish this, strong responsibility for the well-being of others must be evident in our decisions, along with accountability for our actions. Professionalism in the health disciplines requires adherence to high standards of conduct that begin long before graduation. This is particularly true during times of health emergencies such as the COVID pandemic, given our professional habits can have a direct impact on the health of persons entrusted to us.

If you are not vaccinated, get vaccinated. Vaccines are readily available at no cost and have been demonstrated to be safe and effective against the COVID-19 virus. Visit this link for details on where to get your shot, including options that do not require an appointment:

https://coronavirus.ufhealth.org/vaccinations/vaccine-availability/. Students who receive the first dose of the vaccine somewhere off-campus and/or outside of Gainesville can still receive their second dose on campus. In response to COVID-19, the following professional practices are in place to maintain your learning environment, enhance the safety of our in-classroom interactions, and protect the health and safety of ourselves, our patients, our neighbors, and our loved ones.

- You are required to wear approved face coverings at all times while in Health Science Center classrooms and within Health Science Center buildings even if you are vaccinated.
- If you are sick, stay home and self-quarantine. Please visit the UF Health Screen, Test & Protect website about the next steps, retake the questionnaire and schedule your test for no sooner than 24 hours after your symptoms began. Please call your primary care provider if you are ill and need immediate care or the UF Student Health Care Center at 352-392-1161 (or email covid@shcc.ufl.edu) to be evaluated for testing and to receive further instructions about returning to campus. UF Health Screen, Test & Protect offers guidance when you are sick, have been exposed to someone who has tested positive, or have tested positive yourself. Visit the UF Health Screen, Test & Protect website for more information.
- Continue to follow healthy habits, including best practices like frequent hand washing.
- Avoid crowded places (including gatherings/parties with more than 10 people)

Sanitizing supplies are available in the classroom if you wish to wipe down your desks before sitting down and at the end of the class. Hand sanitizing stations will be located in every classroom.

Course materials will be provided to you with an excused absence, and you will be given a reasonable amount of time to make up the work. If you are withheld from campus by the Department of Health through Screen, Test & Protect you are not permitted to use any on-campus facilities. Students attempting to attend campus activities when withheld from campus will be referred to the Dean of Students Office.

Continue to regularly visit coronavirus.UFHealth.org and coronavirus.ufl.edu for up-to-date information about COVID-19 and vaccination.

COVID-19 SYMPTOMS

See https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html for information about COVID-19 symptoms, which may include fever, cough, shortness of breath or difficulty breathing, fatigue, chills, muscle or body aches, headache, sore throat, congestion or runny nose, nausea or vomiting, diarrhea, and loss of taste or smell.

Academic Integrity

Students are expected to act in accordance with the University of Florida policy on academic integrity. As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge:

"We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity."

You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied:

"On my honor, I have neither given nor received unauthorized aid in doing this assignment."

It is your responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For additional information regarding Academic Integrity, please see Student Conduct and Honor Code or the Graduate Student Website for additional details:

https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/

http://gradschool.ufl.edu/students/introduction.html

Please remember cheating, lying, misrepresentation, or plagiarism in any form is unacceptable and inexcusable behavior.

Online Faculty Course Evaluation Process

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at https://evaluations.ufl.edu. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at https://evaluations.ufl.edu/results/.

SUPPORT SERVICES

Accommodations for Students with Disabilities

If you require classroom accommodation because of a disability, you must register with the Dean of Students Office http://www.dso.ufl.edu within the first week of class. The Dean of Students Office will provide documentation of accommodations to you, which you then give to me as the instructor of the course to receive accommodations. Please make sure you provide this letter to me by the end of the second week of the course. The College is committed to providing reasonable accommodations to assist students in their coursework.

Counseling and Student Health

Students sometimes experience stress from academic expectations and/or personal and interpersonal issues that may interfere with their academic performance. If you find yourself facing issues that have the potential to or are already negatively affecting your coursework, you are encouraged to talk with an instructor and/or seek help through University resources available to you.

- The Counseling and Wellness Center 352-392-1575 offers a variety of support services such as
 psychological assessment and intervention and assistance for math and test anxiety. Visit their
 website for more information: http://www.counseling.ufl.edu. Online and in-person assistance is
 available.
- You Matter We Care website: http://www.umatter.ufl.edu/. If you are feeling overwhelmed or stressed, you can reach out for help through the You Matter We Care website, which is staffed by Dean of Students and Counseling Center personnel.
- The Student Health Care Center at Shands is a satellite clinic of the main Student Health Care Center located on Fletcher Drive on campus. Student Health at Shands offers a variety of clinical services. The clinic is located on the second floor of the Dental Tower in the Health Science Center. For more information, check out the website at: https://shcc.ufl.edu/appointments/locations/shcc-shands/
- Crisis intervention is always available 24/7 from the Alachua County Crisis Center at (352) 264-6789 http://www.alachuacounty.us/DEPTS/CSS/CRISISCENTER/Pages/CrisisCenter.aspx

Do not wait until you reach a crisis to come in and talk with us. We have helped many students through stressful situations impacting their academic performance. You are not alone so do not be afraid to ask for assistance.