

**Faculty of Science Course Syllabus (Section A)  
Department of *Psychology and Neuroscience***

*PSYO and NESC 3227*

*Principles of Human Neuropsychology*

*2024Winter*

***Dalhousie University is located in Mi'kma'ki, the ancestral and unceded territory of the Mi'kmaq. We are all Treaty people.***

***We acknowledge the histories, contributions, and legacies of the African Nova Scotian people and communities who have been here for over 400 years.***

Instructor: Kim Good [Kim.Good@dal.ca](mailto:Kim.Good@dal.ca) Office hours by appointment or Mondays 12-2pm Room LSC 4316A

Teaching Assistant: Momina Raja. [momina.raja@dal.ca](mailto:momina.raja@dal.ca)

Office hours: by appointment

**Lectures:** *Monday and Wednesday-- 2:35-3:55 LSC C240*

**Course delivery:** *In-person*

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### **Course Description**

Clinical neuropsychologists study the organization of cognitive, emotional, and social functions in the brain to understand how brain damage alters human behaviour across the lifespan. The knowledge content of the course addresses how clinicians diagnose and rehabilitate persons with brain diseases and disorders. Each experience in the course is designed to enhance the learner's scientific and critical thinking skills.

### **Course Prerequisites**

NESC 2470/PSYO 2470 or PSYO 2770 or PHYL 2041, NESC/PSYO 2130 is recommended

### **Learning Objectives**

At the end of this course, we expect students will be able to do the following:

- (a) Demonstrate an integrated understanding of the facts and theories in human neuropsychology and how these are applied in practice.
- (b) Demonstrate an understanding of how to effectively organize and develop a group that communicates clearly to classmates meaningful scientific knowledge or advancements in clinical practice.
- (c) Demonstrate through oral communication that critical thinking skills were used to evaluate the scientific merit of a recent empirical publication
- (d) Demonstrate an ability to apply consistent standards of critical thinking to the quality of one's own work and of other group presentations.

### Course Materials

Fundamentals of Human Neuropsychology by Kolb, B. and Wishaw, I. Publisher: Worth Edition/Year: 8th Edition (2021) Chapters 11 to 28 are required readings.

Paper copies of the textbook will be on sale at the University Bookstore (limited copies). A link to the textbook will be available in the Brightspace page. This will allow you to 'rent' the textbook for any time you wish. More information will follow.

As this is a third-year course, other readings may be assigned, and you will be expected to integrate these readings with the required chapters.

### Course Assessment

Assessment	Weight (% of final grade)	Date
Midterms	Best one of two grades Module 1 test Jan 31, 2024 Module 2 test March 4, 2024	25%
Final Exam	Scheduled by registrar	30%
Group presentation	When assigned	25%
Quizzes	Throughout the term	5%
Class participation/Peer evaluations	Throughout the term	7%
Group self-evaluation	Post presentation discussion	3%
Neuropsychological test bank quiz	During Module 3	5%

### Conversion of numerical grades to Final Letter Grades follows the Dalhousie Common Grade Scale

A+ (90-100)	B+ (77-79)	C+ (65-69)	D	(50-54)
A (85-89)	B (73-76)	C (60-64)	F	(<50)
A- (80-84)	B- (70-72)	C- (55-59)		

### *Midterms /Exams Integrating the knowledge base through applied thinking (55%)*

- There are 3 tests that contain applied multiple-choice and True/False questions. The final exam may also include short answer and long answer questions. Each test covers a section of the course. Test 3 (final exam) expects you to be able to integrate prior topics and apply basic concepts in clinical neuropsychology. Each midterm is worth 25% while the final exam is worth 30%. **As you may drop the mark of one of your midterms, there are no make-up tests in this course.** As such, there is no need to submit a Declaration of Absence form if you wish to miss a midterm.
- For each midterm and exam, I will be allowing students to bring in one 8.5X11" 'cheatsheet' with them to assist with learning. This sheet may be handwritten, typed or

'cut and paste'. This supplementary sheet must have the student's name, Banner number be signed by you, the student who made it. It will be passed in with the midterm/exam.

- **Missing two midterms or the final exam will lead to a grade of F for the course.**
- **Module 1 Test Jan 31, 2024**
- **Module 2 Test March 4, 2024**
- **Module 3 Final Exam As per the posted exam schedule**

*Group presentation (25%)*

- Join a presentation group in the first week of the course by selecting a date and topic that coincides with the assigned chapter/topic (**Deadline Jan 15**). Contact your team members immediately (Via Teams). Demonstrate your critical thinking skills by selecting an empirical article that links conceptually to the textbook, is clear in content, is empirically sound, and contributes important new knowledge. Be sure that the paper chosen is recent (2019 or later) AND contains data (**human subjects**) that will enhance the lectures presented. **One member of the team must download the 'paper checklist', add the information and email the Course instructor and TA for approval of the paper.** The presentation may not be longer than 15 minutes. Each person in the group must speak.
- Designate one person to present for each section of the paper (Intro, methods, results and discussion) and one person to be the spokesperson (see below)
- The presentation must be videotaped and uploaded to Brightspace by the date specified. As well, the journal article that is being presented must also be uploaded into Brightspace.
- The assignment includes the generation of **5 excellent multiple-choice questions** that tap critical thinking from the audience (or as many as there are group members). **Each member must submit their own MCQ.** Consult with the recorded session regarding developing MCQs on Brightspace to ensure that your questions are well-designed.
- It is not the professor's responsibility to make sure that the groups are contacting each other prior to the deadline. Each group will be put into a Teams team (e.g., P1: will be put into Group P1 on Teams). Be sure you are clear about which week you are signed up for!
- Designate a spokesperson who will provide an overview of the paper in class. The spokesperson must provide a succinct description of the paper, but also to indicate how the paper increases our knowledge of the topic (from the textbook or what was discussed in class). All group members must attend the class when their group's presentation is discussed. One question for each section of the paper will be asked by the course instructor or the TA to the spokesperson. If the spokesperson is unable to answer the question, the person who was responsible for that section may answer, but no other member. If you do not show up in class for the Q and A, your grade on the that section will be 0/6.

### *Formative Quizzes (5%)*

Understanding of the chapters presented will be evaluated.

The purpose of taking a fact-based quizzes each week is to prepare you to write the Module midterms. QUIZZES for Chapters 11 to 28 appear on Brightspace. These are CLOSED book quizzes. You may take the quizzes as many times as you wish. Your best grade on these quizzes will count.

Quizzes are time-linked to the topic and will only be open for the length of the module (see schedule). Once you open the quiz, the timer begins. You only have **15 minutes** to complete each quiz.

### *Peer Evaluations (7%)*

- Learning to evaluate your peers is a useful exercise.
- Each student applies standards of critical thinking and offers constructive criticism on how to improve group presentations by handing in an evaluation of their peer's work. Students must use the survey to evaluate their peers for **18 (~0.33 marks each)** of the presentations in order to obtain full participation marks.
- You may NOT evaluate your own group (see Group Self-Evaluation below)!
- Presentation Feedback form is found at the end of this document. You must ACTUALLY watch the presentation prior to your assessment.
- Presentations must be evaluated within a module (prior to the module midterm) as the presentation will not be available after the module ends.

### *Group Self-Evaluation (3%)*

After your group presentation has been completed, you will be asked to fill out a questionnaire regarding how well the group worked together. Your responses will help to determine whether the grade should be proportional or disproportional. Group Self Evaluation Form is found at the end of this document. Your own self-evaluation is due one week after the due date (Saturday of the next week).

### *Neuropsychological Test Bank Quiz (5%)*

During Module 3, a quiz will be available for you to test your knowledge on the neuropsychological tests presented across the term. The videos for this quiz can be found on Brightspace

### **Course Policies on Missed or Late Assignments/Presentations**

- Late presentation: Minus 10% per day late. This includes weekends.
- Missed presentation is graded as 0

### **Course Policies on Storm days or School disruptions**

- Should Dalhousie have a storm day or school disruption where our class is impacted, the lecture videos will be put online. You will be responsible for that topic/chapter for the exam.



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- Presentations will be moved to the next available class

**Course Policies related to Academic Integrity**

Students are encouraged to study together, but to write their quizzes alone. The group presentations require all students within each group to work together. Any student who appears to have not collaborated with their group members will have their grade adjusted downward accordingly.

**Course Content**

<b>Module 1: Localization of Function (January 8-31, 2024)</b>				
<b>Date</b>	<b>Topics Covered (lectures)</b>	<b>Presentations</b>	<b>Extra resources</b>	<b>Evaluation</b>
Jan 8	Objectives: familiarize with the course content, format, assignments, marking scheme, professor's expectations, and Brightspace (D2L) resources			
January 10	Chapter 11 <u>Cerebral Asymmetry</u>	Mock Presentation	V1: The Wada Test	Quiz 1 (ch 11) <b>Due Jan 30, 2024</b>
January 15	Chapter 12: <u>Individual Differences in Cerebral Organization</u>		<b>Sign up for presentation</b>	Quiz 2 (ch 12) <b>Due Jan 30, 2024</b>
January 17	Chapter 13: <u>The Occipital Lobes and Networks</u>	P1: Visual agnosia <b>Due Jan 13, 2024</b>	V2: The Stranger in the Mirror	Quiz 3 (ch 13) <b>Due Jan 30, 2024</b>
January 22	Chapter 14: <u>The Parietal Lobes and Networks</u>	P2: Visuospatial neglect P3: Ideomotor apraxia <b>Due Jan 20, 2024</b>	V3: Barley the Dog V4 Apraxia	Quiz 4 (ch 14) <b>Due Jan 30, 2024</b>
January 24	Chapter 15: <u>The Temporal Lobes and Networks</u>	P4: Olfaction and TL P5: Memory and TL <b>Due Jan 20, 2024</b>		Quiz 5 (ch 15) <b>Due Jan 30, 2024</b>
January 29	Chapter 16: <u>The Frontal Lobes and Networks</u>	P6: Dorsolateral prefrontal lesions <b>Due Jan 27 2024</b>	Review Session	Quiz 6 (ch 16) <b>Due Jan 30, 2024</b>
<b>Jan 31, 2024</b>	<b>Module TEST 1</b> Chapters 11,12, 13, 14, 15, 16. V1, V2,V3,V4			



<b>Module 2: Networks and Systems (February 1 to March 4, 2024)</b>				
	<b>Topics Covered</b>	<b>Presentations</b>	<b>Extra resources</b>	<b>Evaluation</b>
Feb 5	<u>Chapter 17: Cortical Networks and Disconnection Syndromes</u>	P7: Myelin disorders P8: resting state Functional connectivity  <b>Due Feb 3, 2024</b>	V5: Cortical Organisation	Quiz 7 (ch 17) <b>Due Mar 3, 2024</b>
Feb 7	<u>Chapter 18: Learning and Memory</u>	P9: Amnesia P10: Functional connectivity of the hippocampus and memory  <b>Due Feb 3, 2024</b>	V6 : Clive Wearing	Quiz 8 (ch 18) <b>Due Mar 3, 2024</b>
Feb 12	<u>Chapter 19: Language</u>	P11: Aphasia P12: Sign language and imaging  <b>Due Feb 10, 2024</b>	V7: Broca’s aphasia V8: Wernicke’s aphasia V9: Global aphasia	Quiz 9-(ch 19) <b>Due Mar 3, 2024</b>
Feb 14	<u>Chapter 20 Emotion and the Social Brain</u>	P13: Emotion and amygdala  <b>Due Feb 10, 2024</b>		Quiz 10 (ch 20) <b>Due Mar 3, 2024</b>
Feb 19-23	<b>Winter Break</b>			
Feb 26	<u>Chapter 21: Spatial Behavior</u>	P14: Spatial Perception and laterality <b>Due Feb 25, 2024*</b>		Quiz 11 (ch 21) <b>Due Mar 3, 2024</b>
Feb 28	<u>Chapter 22: Attention and Consciousness</u>	P15: Attention networks  <b>Due Feb 25, 2024*</b>	Review session	Quiz 12 (ch 22) <b>Due Mar 3, 2024</b>
<b>March 4, 2024</b>	<b>Module 2 TEST</b> Chapters 17,18,19,20,21,22 V5, V6,V7, V8,V9			

\*note that the deadline for submission is Sunday night, rather than Saturday

**Faculty of Science Course Syllabus (Section B)**

<b>Module 3: Neurological and Psychiatric Disorders (March 5 to April 3, 2024)</b>				
<b>Date</b>	<b>Topics Covered (lectures)</b>	<b>Presentations</b>	<b>Extra resources</b>	<b>Evaluation</b>
March 6	<u>Chapters 23 Brain Development and Plasticity</u> <u>Chapter 24 Neurodevelopmental Disorders AND</u> Chapter 26.3 (Epilepsy) Chapter 26.4 (Tumours)	P16: Epilepsy P17: Tumour  <b>Due March 2, 2024</b>		Quiz 13 (ch 23)  Quiz 14 (ch 24)  <b>Due April 9, 2024</b>
March 11	Chapter <u>25 Adult Rehabilitation</u>	P18: Memory Rehabilitation <b>Due March 9, 2024</b>		Quiz 15 (ch 25) <b>Due April 9, 2024</b>
March 13	Chapter 26.4: <u>Neurological Disorders (Concussion, CTE, headache and infections)</u>	P19: Concussion P20: Chronic Traumatic Encephalopathy <b>Due March 9, 2024</b>		Quiz 16 (ch 26)  <b>Due April 9, 2024</b>
March 18	Chapter 26: <u>Neurological Disorders: Stroke</u>	P21: Stroke <b>Due March 16, 2024</b>		
March 20	Chapter 26: <u>Neurological Disorders: Dementia</u>	P22: Major Neurocognitive Disorder <b>Due March 16, 2024</b>		
March 25	Chapter 27: <u>Depression</u>	P23: Major Depressive Disorder and cognition <b>Due March 23, 2024</b>		Quiz 17 (ch 27)  <b>Due April 9, 2024</b>
March 27	Chapter 27: <u>Psychosis</u>	P24: Psychosis and cognition <b>Due March 23, 2024</b>		
April 1	Chapter 28: <u>Neuropsychological Assessment</u>	P25: overflow P26: overflow <b>Due March 30, 2024</b>		Quiz 18 (Ch 28)  <b>Due April 9, 2024</b>
<b>April 3</b>	<b>Review for Module TEST 3</b> and in class video  Chapters 23,24, 25, 26, 27, 28. V10		V10: Brain Damaj'd Take II	



**Fall/Winter 2022-23**

*PSYO/NESC 3227*

*Principles of Human Neuropsychology*

## **University Policies and Statements**

**This course is governed by the academic rules and regulations set forth in the University Calendar and by Senate**

### **Academic Integrity**

At Dalhousie University, we are guided in all of our work by the values of academic integrity: honesty, trust, fairness, responsibility and respect (The Center for Academic Integrity, Duke University, 1999). As a student, you are required to demonstrate these values in all of the work you do. The University provides policies and procedures that every member of the university community is required to follow to ensure academic integrity.

**Information:** [https://www.dal.ca/dept/university\\_secretariat/academic-integrity.html](https://www.dal.ca/dept/university_secretariat/academic-integrity.html)

### **Accessibility**

The Advising and Access Services Centre is Dalhousie's centre of expertise for student accessibility and accommodation. The advising team works with students who request accommodation as a result of a disability, religious obligation, or any barrier related to any other characteristic protected under Human Rights legislation (Canada and Nova Scotia).

**Information:** [https://www.dal.ca/campus\\_life/academic-support/accessibility.html](https://www.dal.ca/campus_life/academic-support/accessibility.html)

### **Student Code of Conduct**

Everyone at Dalhousie is expected to treat others with dignity and respect. The Code of Student Conduct allows Dalhousie to take disciplinary action if students don't follow this community expectation. When appropriate, violations of the code can be resolved in a reasonable and informal manner—perhaps through a restorative justice process. If an informal resolution can't be reached, or would be inappropriate, procedures exist for formal dispute resolution.

**Code:** [https://www.dal.ca/dept/university\\_secretariat/policies/student-life/code-of-student-conduct.html](https://www.dal.ca/dept/university_secretariat/policies/student-life/code-of-student-conduct.html)

### **Diversity and Inclusion – Culture of Respect**

Every person at Dalhousie has a right to be respected and safe. We believe inclusiveness is fundamental to education. We stand for equality. Dalhousie is strengthened in our diversity. We are a respectful and inclusive community. We are committed to being a place where everyone feels welcome and supported, which is why our Strategic Direction prioritizes fostering a culture of diversity and inclusiveness

**Statement:** <http://www.dal.ca/cultureofrespect.html>

### **Recognition of Mi'kmaq Territory**

Dalhousie University would like to acknowledge that the University is on Traditional Mi'kmaq Territory. The Elders in Residence program provides students with access to First Nations elders for guidance, counsel and support. Visit or e-mail the Indigenous Student Centre (1321 Edward St) ([elders@dal.ca](mailto:elders@dal.ca)).

**Information:** [https://www.dal.ca/campus\\_life/communities/indigenous.html](https://www.dal.ca/campus_life/communities/indigenous.html)

### **Important Dates in the Academic Year (including add/drop dates)**

<https://academiccalendar.dal.ca/Catalog/ViewCatalog.aspx?pageid=viewcatalog&catalogid=117&chapterid=-1&topicgroupid=31821&loaduseredits=False>

### **University Grading Practices**

[https://www.dal.ca/dept/university\\_secretariat/policies/academic/grading-practices-policy.html](https://www.dal.ca/dept/university_secretariat/policies/academic/grading-practices-policy.html)

**Faculty of Science Course Syllabus (Section C)  
Fall/Winter 2022-23**

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*Principles of Human Neuropsychology*

**Student Resources and Support**

**Advising**

**General Advising** [https://www.dal.ca/campus\\_life/academic-support/advising.html](https://www.dal.ca/campus_life/academic-support/advising.html)

**Science Program Advisors:** <https://www.dal.ca/faculty/science/current-students/undergrad-students/degree-planning.html>

**Indigenous Student Centre:** [https://www.dal.ca/campus\\_life/communities/indigenous.html](https://www.dal.ca/campus_life/communities/indigenous.html)

**Black Students Advising Centre:** [https://www.dal.ca/campus\\_life/communities/black-student-advising.html](https://www.dal.ca/campus_life/communities/black-student-advising.html)

**International Centre:** [https://www.dal.ca/campus\\_life/international-centre/current-students.html](https://www.dal.ca/campus_life/international-centre/current-students.html)

**Academic supports**

**Library:** <https://libraries.dal.ca/>

**Writing Centre:** [https://www.dal.ca/campus\\_life/academic-support/writing-and-study-skills.html](https://www.dal.ca/campus_life/academic-support/writing-and-study-skills.html)

**Studying for Success:** [https://www.dal.ca/campus\\_life/academic-support/study-skills-and-tutoring.html](https://www.dal.ca/campus_life/academic-support/study-skills-and-tutoring.html)

**Copyright Office:** <https://libraries.dal.ca/services/copyright-office.html>

**Fair Dealing Guidelines** <https://libraries.dal.ca/services/copyright-office/fair-dealing.html>

**Other supports and services**

**Student Health & Wellness Centre:** [https://www.dal.ca/campus\\_life/health-and-wellness.html](https://www.dal.ca/campus_life/health-and-wellness.html)

**Student Advocacy:** <https://dsu.ca/dsas>

**Ombudsperson:** [https://www.dal.ca/campus\\_life/safety-respect/student-rights-and-responsibilities/where-to-get-help/ombudsperson.html](https://www.dal.ca/campus_life/safety-respect/student-rights-and-responsibilities/where-to-get-help/ombudsperson.html)

**Safety**

**Biosafety:** <https://www.dal.ca/dept/safety/programs-services/biosafety.html>

**Chemical Safety:** <https://www.dal.ca/dept/safety/programs-services/chemical-safety.html>

**Radiation Safety:** <https://www.dal.ca/dept/safety/programs-services/radiation-safety.html>

**Scent-Free Program:** <https://www.dal.ca/dept/safety/programs-services/occupational-safety/scent-free.html>

**Dalhousie COVID-19 information and updates:** <https://www.dal.ca/covid-19-information-and-updates.html>