

LIN4790 Brain & Language  
T | Period 7 (1:55 PM - 2:45 PM)  
R | Period 7 - 8 (1:55 PM - 3:50 PM)  
TUR 2350

### INSTRUCTOR INFORMATION

**Instructor:** Megan Nakamura

**Email:** [mnakamura@ufl.edu](mailto:mnakamura@ufl.edu)

**Instructor email, office hours, and zoom links are available in Canvas**

### Course Goal and Objectives

In this course, we will introduce major issues and terminology in brain and language research. Topics addressed include: brain imaging techniques i.e. EEG and ERPs, (f)MRI, lesion studies, auditory perception, categorization in the brain, localizationist versus generalist approaches, symbolist versus connectionist approaches, modularity, innateness, critical period, lateralization, plasticity, and hemispheric differences. Students will be familiarized with important controversies related to these issues, and will learn to evaluate data from brain imaging research via reading relevant empirical peer reviewed articles. Students will be expected to complete in-class exercises and other assignments, and will have the opportunity to focus in on a particular research topic as part of the final project.

Course Objectives:

- To learn about central issues and terminology in brain and language research
- To learn to evaluate data from neurolinguistic and brain imaging studies
- To improve written and oral presentation skills

Course Modality: In-person unless otherwise stated (see the course calendar)

Prerequisite: LIN3010 or SPA4004

### STATEMENT ON Covid-19

**In response to COVID-19, the following practices are in place to maintain your learning environment, to enhance the safety of our in-classroom interactions, and to further the health and safety of ourselves, our neighbors, and our loved ones.**

- **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.uflhealth.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.**

- You are expected to wear approved face coverings at all times during class and within buildings even if you are vaccinated. Please continue to follow healthy habits, including best practices like frequent hand washing. Following these practices is our responsibility as Gators.
  - Sanitizing supplies are available in the classroom if you wish to wipe down your desks prior to sitting down and at the end of the class.
  - Hand sanitizing stations will be located in every classroom.
- If you are sick, stay home and self-quarantine. Please visit the UF Health Screen, Test & Protect website about 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](mailto: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.
  - Course materials will be provided to you with an excused absence, and you will be given a reasonable amount of time to make up work. See: <https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/#illnesspolicytext>
  - 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](https://coronavirus.UFHealth.org) and [coronavirus.ufl.edu](https://coronavirus.ufl.edu) for up-to-date information about COVID-19 and vaccination.

#### SETUP RECOMMENDATIONS AND TECH ISSUES FOR ZOOM MEETINGS

If the class meets via Zoom, students are encouraged to have their cameras on from start to finish during our classes on Zoom. A default setting for our sessions in Zoom is that participants will be muted when they enter, so you will unmute yourself when you comment orally during our whole-group conversations and when you are in small groups. Your instructor may also ask students to reply in the chat box for specific activities. Oral comments on camera and written comments in the chat box are considered activities for participation. If you have **technical issues**, please immediately consult UF IT Help to resolve them and/or get a case number and then contact your instructor.

Note: On Days we have Guest Lectures class will be held virtually via zoom (see the calendar for tentative dates)

## STATEMENT ON Canvas

Current deadlines and grades will be posted on canvas. You are responsible for checking the site regularly and for letting the instructor know promptly if anything is unclear, or if your grade has been entered incorrectly. Homework that has not been handed in will be graded as "0".

## COURSE MATERIALS

- **Laptop / e-mail account:** **You are required to BRING YOUR LAPTOP TO CLASS.** In-class assignments and all in-class quizzes will be submitted online, we may also do group activities in which case it may be necessary to have a way to connect with classmates virtually.
- **I will email you via your ufl address, if this email changes you must notify me.**

### Readings

- **Required:** David Kemmerer: Cognitive neuroscience of language. 2015.
- **Required Articles:** Articles to be read in class will be available on canvas (note these are subject to change)
- **Optional** companion websites:  
<https://routledge-textbooks.com/textbooks/9781848726215/student.php>  
<https://www.med.harvard.edu/aanlib/home.html>

## Grade Scale and Policies

Percent		
	66.0 - 68.9	D+
	63.0 - 65.9	D
90.0 - 100.0	60.0 - 62.9	D-
87.0 - 89.9	0 - 59.9	E
84.0 - 86.9		
81.0 - 83.9		
78.0 - 80.9		
75.0 - 79.9		
72.0 - 74.9		
69.0 - 71.9		

NOTE: A grade of C- will not be a qualifying grade for major, minor, Gen Ed, Gordon Rule or Basic Distribution Credit courses. information regarding passing grades and grade point equivalents, please refer to the Undergraduate Catalog at [catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/](https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/).

## Grade Course Components

- Quizzes : 6 quizzes 20%
- Exams: 2 Non-cumulative 20%
- Homework: 10 assignments 20%
  - 5 article summary 10%
  - 5 discussion posts 10%
- Group Presentation: 1 10%
- In-Class assignments: 5 20%
- Attendance and Participation: 10%

## PUNCTUALITY and ATTENDANCE

Arriving on time to class is paramount. Attendance will be taken within the first 5 minutes of class. Entering the class after that time or leaving early will be considered late and may affect the attendance and participation grade for that day. Tardiness on test or presentational dates will not be permitted unless an excuse is provided.

If you are absent for more than one class, or miss more than 15 minutes of more than three 50-minute class periods without a documented medical or academic excuse, one point will be deducted from your final attendance score for each additional time you are absent, leave early, or come late. Excused absences must be consistent with university policies in the Graduate Catalog (<http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#attendance>) and require appropriate documentation. Additional information can be found here: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

## HOMEWORK

Homework and other assignments will be considered late if they are not submitted by the deadline. For all homework assignments that are submitted electronically the instructor will use the time of delivery contained on Canvas as the point of reference. As always it is a good idea not to wait until the last minute. Homework will be graded according to the given instructions in each case. If homework is not timely submitted on Canvas it will not be accepted unless an excuse it is provided. In addition to the grade, the homework may have personal comment from the instructor to help you improve.

**Article Summaries:** Students are expected to pick five papers over the course of the semester related to a specific topic (TBD) and write a summary 1-2 double-spaced pages long (no reference page required). The papers should be peer-reviewed journal articles that report an original study related to the group's topic of interest, and that elaborates upon what has been addressed in class. These papers should not be overview papers, unpublished materials, or theses, or any discussion papers already listed for the course. These articles should be somewhat coordinated with your presentation group.

**Discussion Posts:** All students are to post their article summary to their presentation group's discussion thread and are expected to read their groupmates posts. Your **assignment** is to respond at least 1 discussion question on the group thread before the deadline.

**Article Reviews:** On the Thursdays we will read an article in class (these articles will be available on canvas) your homework assignment will be to answer a short set of multiple choice questions about the article. This assignment will be made available before class and can be submitted early but must be submitted by the following Sunday by 11:59.

## GROUP PROJECT

At the beginning of the semester we will form groups of 3-4 persons. Each group will develop a research project proposal/idea related to Language and the Brain. Over the course of the semester each person will submit article summaries as well as discussion posts in a group discussion thread, which will serve as a base for a literature review on the certain topic. At the end of the semester each group will present the research topic and propose an investigation idea i.e. a research proposal. More details will be provided during the semester.

Project format: PowerPoint or equivalent

## QUIZZES AND EXAMS

Quizzes **may take place** at the beginning of class on Thursdays, unless otherwise indicated. **Arriving late could result in a missed quiz for which there is no make-up unless a valid excuse is provided.** (Please see university sanctioned policies). Quizzes may cover the material from chapters read until the end of the prior class. More details will be provided throughout the semester.

Exams may take place on the specified date provided on the course calendar. The exams will be non-cumulative and may contain multiple choice and short answer responses. You will be provided with a study guide prior to each exam.

## EXTRA WORK / MAKE UP WORK

No extra work or make up work will be given unless the student provides a medical excuse or there are other extenuating circumstances as contemplated by university guidelines (see attendance and make-ups under University Policies and Resources).

## CALENDAR

The calendar will be posted and updated on Canvas. **A general outline** is provided below. During the semester changes might occur for pedagogical or logistical motivations. To the extent possible, students will be notified in advance of any such changes.

LIN 4790: Brain and Language		
Drop/Add (at or after assigned start time) August 23h – August 27th (11:59 pm of last day)		
Week/Module	Dates	
	Tuesday	Thursday
1	<b>24 Aug</b>	<b>26 Aug</b>
	Introduction Syllabus <b>Homework: Getting to know you</b>	Lecture Chapter 1 and Intro to Chapter 2

2	<b>31 Aug</b>	<b>2 Sep</b>
	Lecture Chapter 2	In Class Quiz #1 Quiz discussion Article 1 <b>Article Review 1</b> (submitted by Sunday 11:59 PM)
3	<b>7 Sep</b>	<b>9 Sep</b>
	Lecture Chapter 3 <b>Article Summary 1</b> due before class on Thursday	Lecture Chapter 3 Group Project <b>Discussion 1</b> (by Sunday 11:59 PM)
4	<b>14 Sep</b>	<b>16 Sep</b>
	Chapter 3 Lecture	In Class Quiz #2 -Quiz discussion Article 2 <b>Article Review 2</b> (submitted by Sunday 11:59 PM)
5	<b>21 Sep</b>	<b>23 Sep</b>
	Chapter 4 Lecture <b>Article Summary 2</b> due before class on Thursday	Chapter 4 Lecture Group Project <b>Discussion 2</b> by Sunday 11:59 PM
6	<b>28 Sep</b>	<b>30 Sep</b>
	Review for Exam 1 (chapters 1-4) Study guide available on canvas	In Class Quiz #3 -Quiz discussion In class study guide session
7	<b>5 Oct</b>	<b>7 Oct</b>
	Exam 1	CLASS ONLINE Exam review (VIRTUAL via Zoom) Guest lecture Participation 1 Posted
8	<b>12 Oct</b>	<b>14 Oct</b>
	Chapter 5 <b>Homework 5: Article Summary 3</b> due before class on Thursday	Chapter 5 Lecture Group Project <b>Homework 6: Discussion 3</b> by Sunday 11:59 PM

	<b>19 Oct</b>	<b>21 Oct</b>
9	Chapter 6	In Class Quiz #4 -Quiz discussion Article 3 Article Review 13(submitted by Sunday 11:59 PM)
	<b>26 Oct</b>	<b>28 Oct</b>
X	Chapter 6 Homework: Article Summary 4 due before class on Thursday	Chapter 7 Lecture Group Project Homework: submit discussion 4 by Sunday 11:59 PM
	<b>2 Nov</b>	<b>4 Nov</b>
XI	Chapter 7	In Class Quiz #5 -Quiz discussion Article 4 Article Review 4 (submitted by Sunday 11:59 PM)
	<b>9 Nov</b>	<b>11 Nov</b>
XII	Chapter 8	Veteranas Day NO CLASS
	<b>16 Nov</b>	<b>18 Nov</b>
XIII	Chapter 8 Homework: Article Summary 5 due before class on Thursday	In Class Quiz #6 -quiz discuccion Group Project Homework: submit discussion 5 by Sunday 11:59 PM
	<b>23 Nov</b>	<b>25 Nov</b>
XIV	CLASS ONLINE (VIRTUAL via Zoom) Guest lecture	(Thanksgiving break) NO CLASS
	<b>30 Nov</b>	<b>2 Dec</b>
XV	Review for Exam (Chapters 5-8) In class Study guide session	Presentations
	<b>7 Dec</b>	<b>9 Dec</b>
XVI	Exam 2	Reading day NO CLASS Participation 2 Posted

## UNIVERSITY POLICIES AND RESOURCES

### Attendance and make-ups

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found in the online catalog at: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.

### Accommodations

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center by visiting <https://disability.ufl.edu/students/get-started>. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

### Course Evaluations

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results>.

**Policy on working together:** You are welcome to work together on homework assignments and in-class assignments and projects, but you should write up your answers independently from each other, unless indicated otherwise. No collaboration of any kind is allowed on any test. Remember you are bound by the UF honor 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 by abiding by the Honor Code. On all work submitted for credit by students 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 expected that all students will adhere to the full Honor code and academic honesty guidelines available at <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>

### Academic Integrity

Suggested wording: “UF students are bound by The Honor Pledge which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students 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.” The Honor Code (<http://www.dso.ufl.edu/sccr/process/student-conduct-honorcode/>) specifies a number of behaviors that are in violation of this code and the possible



sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

### **In-Class Recording**

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A “class lecture” is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To “publish” means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another

student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student.

### **Resources Available to Students**

#### ***Health and Wellness***

- *U Matter, We Care*: [umatter@ufl.edu](mailto:umatter@ufl.edu); 392-1575
- *Counseling and Wellness Center*: <http://www.counseling.ufl.edu/cwc/Default.aspx>; 392-1575
- *Sexual Assault Recovery Services (SARS)*: Student Health Care Center; 392-1161
- *University Police Department*: <http://www.police.ufl.edu/>; 392-1111 (911 for emergencies)

#### ***Academic Resources***

- *E-learning technical support*: [Learningsupport@ufl.edu](mailto:Learningsupport@ufl.edu); <https://lss.at.ufl.edu/help.shtml>; 352-392-4357 (opt. 2)

- *Career Resource Center*: Reitz Union; <http://www.crc.ufl.edu/>; 392-1601
- *Library Support*: <http://cms.uflib.ufl.edu/ask>
- *Teaching Center*: Broward Hall; 392-2010 or 392-6420
- *Writing Studio*: 302 Tigert Hall; <http://writing.ufl.edu/writing-studio/>; 846-1138

### **Procedure for Conflict Resolution**

Any classroom issues, disagreements or grade disputes should be discussed first between the instructor and the student. If the problem cannot be resolved, please contact the Undergraduate Coordinator or the Department Chair. Be prepared to provide documentation of the problem, as well as all graded materials for the semester. Issues that cannot be resolved departmentally will be referred to the University Ombuds Office (<http://www.ombuds.ufl.edu>; 392-1308) or the Dean of Students Office (<http://www.dso.ufl.edu>; 392-1261). For further information refer to [https://www.dso.ufl.edu/documents/UF\\_Complaints\\_policy.pdf](https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf) (for residential classes) or <http://www.distance.ufl.edu/student-complaintprocess> (for online classes).