

Cognitive Neuroscience of Language

LIN6796-15901

Class Periods: T8 - 9 (3:00 PM - 4:55 PM); R9 (4:05 PM - 4:55 PM)

Location: MAT 118

Academic Term: Spring 2019

Instructor:

Edith Kaan

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Office Hours: M7 (1:55 PM - 2:45 PM); R8 (3:00 PM - 3:50 PM), TUR 4127 and by appointment

Course Description

Overview and critical evaluation of brain imaging techniques and issues in language and brain research, covering speech perception, word recognition, reading, syntax, discourse processing, production, language acquisition, and bilingualism. This is a 3-credit course.

Course Pre-Requisites / Co-Requisites

LIN graduate core course, or equivalent in other disciplines. Please contact the instructor for permission.

Course Objectives

- To learn how brain imaging techniques can be applied to psycholinguistic research, and the potential pitfalls of doing so (reading and discussing original research articles, writing a research proposal)
- To learn to evaluate brain imaging studies of language in terms of their scientific and methodological aspects (reading and discussing original research articles, debate, writing summaries and a literature review)
- To improve oral presentation skills (oral summaries of papers, classroom discussions)

Course Assignments

- **Discussions:** All students are expected to read the discussion papers and to post at least 1 discussion question on the course website before the deadline posted. Students are also expected to actively participate in in-class discussions.
- **Paper summaries:** Students are expected to pick three papers over the course of the semester related to a specific topic (TBA) and write a summary of 2-4 double-spaced pages long, excluding references. The papers should be peer-reviewed journal articles that report an **original study** related to the topic, and that elaborates upon what has been addressed in class. These papers should **not** be overview papers, unpublished materials, or theses, or any of discussion papers listed on the reading list.
- **Debate:** Students will be required to participate in a debate. Specific details will be provided on Canvas and discussed in class.
- **Conference highlights:** Sections of an abstract book from a recent conference will be provided. Students will be asked to form groups and assess the abstracts quantitatively (e.g. what are the questions/areas getting the most attention?), and qualitatively (e.g. which abstracts appear the most interesting to you and why? Are any of them especially relevant to the current unit?) Groups will present and discuss their finding in class, and each student will submit an individual paper (250-500 words) that summarizes their findings.
- **Research paper:** Students are expected to write a literature review and a short research proposal on a selected topic related to cognitive neuroscience of language. The report should be about 15 pages long, double spaced, including references. Over the course of the semester students will be asked to

hand in a topic, and outline and the paper itself. Students will receive feedback on the paper and will need to respond to each comment as if they were revising a journal article. The revised version of the paper and the response to the comments need to be handed in at the end of the semester. In addition students are expected to present their ideas in class.

Course Schedule and Readings

See last pages of this syllabus. Readings can be obtained from the UF library website (e-journals). Where indicated, the reading is available through the course website. In some cases, a hardcopy will be made available for you to xerox. Background readings pertain to the lecture and are optional; Discussion readings are required.

Attendance Policy, Class Expectations, and Make-Up Policy

- Students are required to hand in all assignments and tests before the class period they are due. Please contact the instructor in advance if you need to skip a class, or cannot make a deadline. Please also make sure you have at least one external backup of the assignments you make for this class. Computer problems will not be considered a valid excuse for missing deadlines.
- There will be no make-up exams or assignments without a documented excuse.
- 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 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>

Evaluation of Grades

Assignment	Total Points	Percentage of Final Grade
Paper presentations (1-2)	100 each	20%
Critical summaries (3)	100 each	20%
Debate	100	10%
Conference highlights (2)	100 each	10%
Final written assignment	100	35%
Active participation and timely posting of discussion items	100	5%

Grading Policy

Percent	Grade	Grade Points
90.0 - 100.0	A	4.00
87.0 - 89.9	A-	3.67
84.0 - 86.9	B+	3.33
81.0 - 83.9	B	3.00
78.0 - 80.9	B-	2.67
75.0 - 79.9	C+	2.33
72.0 - 74.9	C	2.00
69.0 - 71.9	C-	1.67

66.0 - 68.9	D+	1.33
63.0 - 65.9	D	1.00
60.0 - 62.9	D-	0.67
0 - 59.9	E	0.00

More information on UF grading policy may be found at:
<http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#grades>
<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Students Requiring Accommodations

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, <https://www.dso.ufl.edu/drc>) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Course Evaluation

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu/evals>. 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/>.

University Honesty Policy

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 (<https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>) 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.

Software Use

All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Student Privacy

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see: <http://registrar.ufl.edu/catalog0910/policies/regulationferpa.html>

Campus Resources:

Health and Wellness

U Matter, We Care:

If you or a friend is in distress, please contact umatter@ufl.edu or 352 392-1575 so that a team member can reach out to the student.

Counseling and Wellness Center: <http://www.counseling.ufl.edu/cwc>, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Assault Recovery Services (SARS)

Student Health Care Center, 392-1161.

University Police Department at 392-1111 (or 9-1-1 for emergencies), or
<http://www.police.ufl.edu/>.

Academic Resources

E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu.
<https://lss.at.ufl.edu/help.shtml>.

Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling.
<https://www.crc.ufl.edu/>.

Library Support, <http://cms.uflib.ufl.edu/ask>. Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring.
<https://teachingcenter.ufl.edu/>.

Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers.
<https://writing.ufl.edu/writing-studio/>.

Student Complaints Campus: https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf.

On-Line Students Complaints: <http://www.distance.ufl.edu/student-complaint-process>.

Overview of the course (subject to change!!!)

Date	Topic	Assignments	Discussions and required readings	Background readings
METHODS AND SEMANTIC REPRESENTATIONS				
(1) Jan 8/10	Introduction to brain and methods of cognitive neuroscience		Syllabus	Ward (2006, 2010, 2015) chapters 1-5 (hardcopy available for xeroxing)
(2) Jan 15/17	Electrophysiology	Sign up for presentations Jan 17: Candidate's talk	0. Kutas & Hillyard (1980). 0. Hald, Bastiaansen, & Hagoort (2006)	Kaan (2007)
(3) Jan 22/24	Hemodynamic and lesion techniques; Tips for presenting; Semantics in the brain		1. Lau, Phillips & Poeppel (2008)	
SPEECH PERCEPTION AND PRODUCTION				
(4) Jan 29/31	Speech perception	Summary I due	2. Näätänen et al. (1997) 3. Mesgarani et al. (2014)	
(5) Feb 5/7	Speech perception in Language development		4. Imada, et al. (2006).	Dehaene-Lambertz (2017)

(6)Feb 12/14	Motor theory		5. Meister et al. (2007) 6. Pulvermüller, et al. (2006)	Venezia & Hickok (2009)
(7)Feb 19/21	Language production	Conference-highlights activity related to production Prepare for debate	7. Rodriguez-Fornells, et al. (2005). 8. Strijkers et al. (2011)	Ganushchak et al. (2011)
READING				
(8)Feb 26/27	Visual word form area	Debate: Is there a VWFA? Topic of research paper due		
Mar 5/7			SPRING BREAK; NO CLASS	
SYNTAX AND MORPHOLOGY				
(10)Mar 12/14	Syntax	Summary II due Outline of research paper due	9. Brennan et al. (2016)	Brennan (2016)
(11) Mar 19/21	morphology	Conference-highlights activity related to syntax and morphology	10. Devlin et al. (2004) 11. Bozic et al. (2007)	Ullman (2001)
LANGUAGE LEARNING AND BILINGUALISM				
(12) Mar 26/28	Learning		12. Morgan-Short et al. (2012). 00. Rossi et al. (2017)	
(13) Apr 2/4	Cognitive control and language processing		13. Grant, et al. (2015) 14. January et al. (2009)	Key-Delyria & Altmann (2016) Bialystok et al. (2012). Harvais-Adelman, et al. (2011)
(14) Apr 9/11	TBA	Research paper due		
(15) Apr 16/18	Wrap-up	Project presentations		
(16) Apr 23		Project presentations; Summary III due		
Apr 30	Revision of research paper due			

