

## **SLPA 981: Seminar Course - Brain**

**Spring semester 2017**  
**Time: 3:00-4:40 p.m. Weds**

**Instructor: Dr. Yingying Wang**  
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**Location: Barkley Center, #302**  
**Office hours: by appointment, schedule via email.**

### **Course Description**

This is a research seminar course and is designed to explore special topics in neuroscience, clinical therapeutics, and brain-behavior. Based on the interests of enrolled students, past and current research projects of interests will be discussed in the class.

### **Course Prerequisites**

None.

### **Course Objectives**

This course will cover a variety of topics related to brain research in the field of speech language pathology (SLP). The goal is to broaden SLP graduate students' interest in brain research and encourage students to pursue a doctorate degree in SLP. In addition, this course aims to connect brain research with the current clinical practice in the field of SLP.

At the end of the course, it is anticipated that students will be able to understand core concepts, research and clinical issues related to SLP.

- Learn different types of brain imaging tools and how they can be used in research.
- Learn the connection between basic research and clinical practice.
- Compare and summarize research findings from different articles and resources.
- Interpret research data and statistical analyses from results section of published articles.
- Demonstrate critical thinking about research questions and findings in the literature.

### **Online Resources**

Canvas course website at <http://canvas.unl.edu> for announcements, course materials, and online forums.

### **Recommended Professional Journals**

Journal of Adolescent & Adult Literacy, International Literacy Association (ILA)  
Journal of Research in Reading, United Kingdom Literacy Association (UKLA)  
Journal of Speech, Language, and Hearing Research, American Speech-Language Hearing Association (ASHA)  
Language, Speech, and Hearing Services in Schools, ASHA  
Perspectives, International Dyslexia Association (IDA)  
Reading and Writing, Springer  
The Reading Teacher, ILA  
Reading Research Quarterly, ILA  
Scientific Studies of Reading, Society for the Scientific Study of Reading (SSSR)  
Brain Research  
Brain

## **Course Requirements**

Details regarding each assignment will be distributed in a separate correspondence.

1. Class presentation (points: 40 points)  
You will present the evidence base to support (or refute) a research topic of your interest.
2. Final project (points: 50 points)  
You will be given 10 research articles to review and write a summary to demonstrate your critical thinking.
3. Classroom participation (points: 10 points)  
Classroom participation is not only encouraged, it is required. 10 points are explicitly assigned for classroom participation. Students are expected to attend all classes. Attendance will be taken each week, and attendance records will be considered when assigning a final course grade. Perfect attendance and active participating in class discussion will get 5 points. Absence without 24-hour advance written notice will result in point deduction.

## **Class Expectations**

1. Students are responsible for all information presented in class as well as independent analysis of information from the readings directly.
2. Students with disabilities are encouraged to contact the professor for a confidential discussion of their individual needs for academic accommodation. It is the policy of the University of Nebraska-Lincoln to provide flexible and individualized accommodation to students with documented disabilities that may affect their ability to fully participate in course activities or to meet course requirements. To receive accommodation services, students must be registered with the Services for Students with Disabilities (SSD) office, 132 Canfield Administration, 472-3787 voice or TTY.
3. Learning outside the classroom is essential to enhance your in-class learning experience. Plan to work one to three hours per week outside of class to review various literature. You are encouraged to meet with fellow classmates outside of class to study lecture notes, discuss readings, and work on written assignments. However, all assignments must be the work of an individual. *DO NOT TURN IN DUPLICATE ANSWERS.*
4. All written assignments will follow the guidelines contained in the publication manual of the American Psychological Association (APA). This book may be found at the following link: <http://www.apa.org/books/4200061.html>
5. If you need extra help communicating your thoughts in the written form (i.e, writing a paper) you may wish to consult the writing center on campus. The University of Nebraska-Lincoln Writing Center can provide you with meaningful support as you write for this class as well as for every course in which you enroll. Trained peer consultants are available to talk with you as you plan, draft, and revise your writing. Please check the Writing Center website for locations, hours, and information about scheduling appointments. [www.unl.edu/writing](http://www.unl.edu/writing)
6. Please place all cell phones and pages on silent or vibration during class. If you must take a call for emergency purposes, please leave the room to answer your phone.
7. Assignments turned in late will have points deducted for tardiness. Five percent of the total points will be taken off of the total points for each day that the assignment is late. Failure to turn in the correct number of copies of a writing assignment is considered a late assignment. Assignment due dates will be made clear when detailed assignment instructions are handed to you (or posted on Blackboard).
8. Cheating or plagiarism (intentional or accidental) are not tolerated and will result in zero points on an assignment. Plagiarism includes the use (exact use or revised) of any materials or ideas that did not originate with the student. Plagiarism may be avoided by properly citing

the source of any such material or ideas that are not the original thoughts or work of the student. The instructor has the right to use web-based anti-plagiarism search tools.

9. Readings will not always be discussed in class. However, you are responsible for knowing information contained in the readings and class lectures. The lecture power point presentation and other course related materials will be in electronic form on blackboard.
10. All students are expected to know and abide by the Code of Academic Integrity. The complete code can be found at [http://www.unl.edu/ous/academic\\_tips/integrity.shtml](http://www.unl.edu/ous/academic_tips/integrity.shtml). All credit will be forfeited for any academic work completed for this class that violates the code.

### **Course Grading**

The grade for the course will be based on class participation, presentation, assignments and examinations.

Total points possible: 100

Grades will be assigned as follows:

97 – 100	A+	94 - 96	A	90 – 93	A-
87 - 89	B+	84 - 86	B	80 – 83	B-
77 - 79	C+	74 - 76	C	70 - 73	C-
67 - 69	D+	64 - 66	D	60 – 63	D-
< 60	F				

If your level of achievement during this course is falling short of your goal, you are strongly encouraged to consult with the instructor to improve your quality of learning of course materials.

### **Class Schedule of Topics (subject to minor revision)**

#	DATE	TOPIC	READINGS
1	Jan. 11:	Introduction & Discussion	Syllabus
2	Jan. 18:	Dr. Stefan Van der Stigchel and tour CB3 <i>“Visual stability across saccades”, CB3 B60</i>	Assigned readings
3	Jan. 25:	Thoughts about Dr. Van der Stigchel’s talk, MRI, fMRI and their applications	Assigned readings
4	Feb. 01:	EEG, MEG and their applications	Assigned readings
5	Feb. 08:	fNIRS, its application and demo <i>Location CB3 C56</i>	Assigned readings
6	Feb. 15:	Neuroimaging techniques review	Assigned readings
7	Feb. 22:	EEG, its application and demo <i>Location CB3 C56</i>	Assigned readings
8	Mar. 01:	TBI basics	Assigned readings
9	Mar. 08:	TBI research	Assigned readings
10	Mar. 15:	TBI intervention	Assigned readings
	Mar. 22:	No class during spring break	
11	Mar. 29:	Scientific presentation and ratings (40 points)	
12	Apr. 05:	Brain development through the lifespan	Assigned readings
13	Apr. 12:	Brain research – infancy, early childhood	Assigned readings
14	Apr. 19:	Brain research – adulthood, older age	Assigned readings
15	Apr. 26:	Overall summary, discussion, Q & A session	
	May. 03:	No class during final exam week <i>*Final project (50 points) is due by 9 p.m.</i>	