

Psyc 438

Research Topics in the Psychology of Language: Prediction and Learning in Language Comprehension

Instructor: Dr. Jennifer Arnold

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11:00-12:15 Tuesday/Thursday, Dey Hall - Rm 0304

Human communication is an everyday occurrence, yet it is one of our most complex cognitive achievements. This upper-level course examines current research on how people manage to understand language successfully, despite uncertainty, ambiguity, and noisy environments. Our special focus for this semester is **prediction and learning**, and how these processes guide understanding. The first goal is to become familiar with current findings and theoretical debates, through readings, writing assignments, and in-class discussion. This conceptual development sets the stage for the major goal of this course, which is to learn research techniques in experimental psychology. Students will develop a novel research question and learn how to set up an experiment, collect data, analyze it, and present the results in both spoken and written format.

Course Objectives

- o gain expertise in one area of research in cognition and language use
- o learn how to read primary articles and critically evaluate scientific reports
- o develop critical thinking skills
- o learn how to participate actively in group discussions
- o practice writing about scientific issues
- o learn how to make effective Powerpoint slides
- o learn how to give effective oral presentations
- o learn how to evaluate scientific work critically

Course Grade

Your course grade will be based on performance in six categories. In each category, you must complete ALL activities to get any credit for that section. In each category, the assignment scores will be averaged. In each category, the assignment scores will be averaged. If changes are made to the number of assignments in any category, the total percentage allotted to that category will remain the same.

The activities in this course build on each other, leading up to the capstone research project. It is important to do every assignment on time.

o 15% -- Participation. This is a nontraditional, active learning course. This requires you to be present physically and mentally in all classes, and participate in all discussions and activities. Attendance will be taken. Two tardies count as one missed class.

o 10% -- Experiment participation and quizzes.

Cloze experiment	Completion credit
prediction exp.	Completion credit
Story-experiment	Completion credit
CITI training	Completion credit – certificate required
Sedivy 7.0-7.3 quiz	Accuracy
APA style quiz	Accuracy
Sedivy 8.0-8.4 quiz	Accuracy
Plagiarism quiz	Accuracy
Quiz on Latin Square design	Accuracy
Quiz on t-test	Accuracy

o 25% -- Literature questionnaires / summaries and idea papers

Nappa & Arnold qaire
Nappa & Arnold summary
Arnold et al. qaire
Arnold et al. summary
Free choice 1 summary
Free choice 2 summary
Free choice 3 summary
Idea Paper 1
Idea Paper 2
Idea paper 3

o 20% Research project assignments

Some of these activities may be done as a group, but each one must be submitted individually.

Groups, topics, and readings assignment
Final design; include timeline for specific projects.
Materials for experiment
check of groupmate’s materials and revision of all materials
Qualtrics questionnaires

Organized data 1
Organized data 2
Coded data

- o 20% -- Paper based on Research results. You will write up the research project in a 10-page term paper (6 content pages, plus graphs, references, abstract, title page). You are expected to do your own work on this part of the project. This grade will be given individually.
- o 10% -- Group presentation based on Research results. (Final Exam)

Exams

This is a project-based learning course. There are no traditional exams.

Group work policy

Much of the work for this class is done as a part of a group. You are expected to maintain a high level of professionalism and responsibility throughout all projects. This includes maintaining good communication with your group-mates about who is responsible for what, keeping good documentation of your work, and showing up to group meetings and class on time and ready to work. If you know that you will be late to class or miss class, you should inform your group mates.

Late work policy

Graded work -- Late work is penalized 10% (out of the assignment total) for every calendar day that it is late, unless an extension was granted ahead of time.

Completion work – late work is given half credit, up until the final due date allowed (see sakai).

If you have a serious emergency, contact the professor as soon as possible by email (jarnold@email.unc.edu) or phone (919-843-5737) or by sending a note with a friend. If you believe you have a reason for excused late work, you must clear it with the professor in advance.

How will I know how I'm doing in the course?

Grades will be given numerically, out of 100. Your final grade is the average of each course component, based on the following scale (note that the A's are divided differently than the other letter grades):

A = 94-100

A- = 90-93

B+ = 87-89

B = 83-86

B- = 80-82

C+ = 77-79

C = 73-76

C- = 70-72

Etc.

I will try to give you updates about your grades throughout the semester. If you are concerned, please feel free to make an appointment to discuss your participation in the course.

Office hours

I will be in my office on Wednesday afternoons from 2-3; feel free to stop by if you would like to discuss anything. You are also encouraged to set up a meeting at another time if you cannot make my office hour, or to come to class a bit early and talk to me then.

Research in this course

In this research-exposure course, you will be working with a Graduate Research Consultant, Elyce Williams (elyceely@live.unc.edu), who will assist you in the research project. The GRC Program is sponsored by the Office for Undergraduate Research (www.unc.edu/depts/our). I encourage you to visit the OUR website to learn about how you might engage in research, scholarship and creative performance while you are at Carolina.

Research Expo

Students have the option of presenting their findings at UNC's QEP research Expo. This is an out-of-class event:

EVENT: UNC-Chapel Hill Fall Research and Making Expo
DATE: Tuesday, December 3, 2019
TIME: 3:00-5:00PM
LOCATION: Blue Zone, Kenan Memorial Stadium

Resources and guidelines;

<https://www.youtube.com/watch?v=ffsd0J0aQAw>

or

https://players.brightcove.net/53038991001/Byx2STOH0_default/index.html?videoId=5715110116001

EXPO GUIDELINES:

- Online registration for the event will be available for your students in early November.
- Poster size recommendation (width x height): 24"x36" or 36"x48"
- Details and costs at this website, under the Posters tab: <https://enterprises.unc.edu/printing/print-services/>

Honor Code

The Honor code is, as always, in effect in this course. *The Instrument of Student Judicial Governance* requires that you sign a pledge on all written work that says "On my honor, I have neither given nor received unauthorized aid on this assignment." This includes all reading notes, presentations, and projects. The first time you hand in an assignment, I expect you to write out the pledge in full. After that, you may simply write "pledge" and sign your name. Your written assignment will be based on an experiment that you have carried out and discussed with other class members. You are also free to discuss the project with others outside the class. However, the written work you hand in must be yours alone. If you use someone else's ideas, you must provide a citation. If you aren't clear about any of this, ask questions.

Schedule of topics, readings, and assignments

(note – this may change during the semester; updates will be announced by email)

Date	What	Due
Aug. 20	Introduction	
Aug. 22	Introduction to language processing	Do Cloze experiment Do prediction exp. Do story-experiment Do CITI training
Aug. 27	What is prediction and how does it affect language processing?	Read Read Sedivy 7.0-7.3 Do quiz Do APA style quiz
Aug. 29	Context, frequency, and expertise effects on sentence understanding	Do quiz Do plagiarism quiz

Sept. 3 Last day to drop	Learning and prediction	Read Nappa & Arnold (2014) Write questionnaire on exp. 1
Sept. 5	Prediction and pronoun comprehension – introduce individual differences, go over Nappa & Arnold	write summary paper of Nappa & Arnold
Sept. 10	Workshop: Mturk demo (design and data management)	Read Arnold et al. 2004 - disfluency write questionnaire
Sept. 12	How to design a study	Write summary paper Arnold et al.
Sept. 17	Workshop: Mturk demo (data and analysis on demo results)	Write Experiment Idea 1 paper Quiz on Latin Square design
Sept. 19	Discussion : project ideas	Write: Exp. idea 2 paper
Sept. 24	How to use Qualtrics	Write Experiment idea 3 paper
Sept. 26	PROJECT PITCH DAY	Read Free choice paper 1 Write lit summary
Oct. 1	Discussion: finalize project ideas	Write: Groups, topics, and readings assignment
Oct. 3	Workshop: experiment design	Write: Final design; include timeline for specific projects and a description of part 1 and part 2 of data
Oct. 8	Ethics in research	Turn in: Materials for experiment
Oct. 10	The value of a model: identifying alternate models to explain a process	Turn in: check of groupmate's materials and revision of all materials
Oct. 15	Discussion: background article findings	Turn in: Qualtrics questionnaires
Oct. 17	FALL BREAK	

Oct. 22	Workshop: Excel techniques for organizing and coding data	Read Free choice 2 Write: Research background paper lit summary 2
Oct. 24	Workshop: Data management and coding	Read Free choice 3 Write: Research background paper lit summary 3
Oct. 29	Workshop: Data management and coding	Turn in: Organized data from first half of lists due
Oct. 31	How to write an introduction	Turn in: Organized data from second half of lists due
Nov. 5	Workshop: How to do statistics in Excel (t-test, chi-square, correlations)	
Nov. 7	Writing workshop	Turn in: Coded/organized data due Quiz on t-test
Nov. 12	Workshop: Data Analysis	Write: Introduction due
Nov. 14	Workshop: Data Analysis	Write: Methods due
Nov. 19	In-class conferences	Write: Results due Do: Peer evaluations due
Nov. 21	In-class conferences	Introductions returned
Nov. 26	How to give a good presentation	Write: Final Paper due
Nov. 27,28,29 - THANKSGIVING		
Dec. 3	Workshop: presentations	
Dec. 3	RESEARCH EXPO 3pm	
FINAL EXAM Dec. 12; 12pm	Group presentations In classroom	