LING 770 – Research Methods

Basic Course Information

Schedule: Tu 4:30-7:10pm

Location: Krug Hall, Room 19

Professor: Dr. Cynthia Lukyanenko **Email**: clukyane@gmu.edu

Office Hours: Mondays 3-4:30pm

Links

Coming to office hours or a meeting virtually? Use this Zoom link for meeting with Dr. Lukyanenko.

Course Description

This course is designed to give you an introduction to linguistics research from choosing a question, to collecting and analyzing the data, all the way to presenting your results. This will prepare you to conduct your own research and to evaluate others' research. We will focus on quantitative research, especially experimental research, but we will discuss other approaches.

Course Goals

After completing this course, students should be able to responsibly consume and produce research in linguistics. They should be able to make informed decisions about:

- experimental design, stimulus design and creation methods
- organization and quality control methods for data collection and storage
- data analysis techniques and data visualization
- academic writing and research presentation techniques
- ethical considerations at all stages of the research process

Course Format

The goal of this class is to learn to DO things, not just to KNOW things. This and the small class size mean that the course will be very participatory. Expect to work out problems together in class, to discuss readings and assignments, and to have input into what topics get covered in most depth. This is training for your research careers.

The course will take place in-person. However, acknowledging the ongoing pandemic, I will do my best to provide workable virtual attendance options for days when you don't pass the Health Check, but feel well enough to participate.

Textbook

Readings will primarily be drawn from two books, both freely available to you online. Occasional other readings will be posted on Blackboard in PDF format.

Sarnecka, Barbara. (2019). The writing workshop: Write more, write better, be happier in academia. Available in 2 formats (PDF download, read online). You can find links to each format on the author's site.

Winter, Bodo (2020). Statistics for linguists: An introduction using R. This book is freely available as an ebook from the Mason Library for unlimited simultaneous users or as a download. You'll need to log in using your university credentials to access it.

Technology Requirements

This course requires interaction over Blackboard and email. To participate fully and easily, you should have regular, reliable access to a computer that is capable of supporting these applications and a stable internet connection. You are encouraged to have a laptop or tablet with you in class for participating in in-class exercises.

Course Schedule

Wk	Class Date	Topic	Reading S = Sarnecka, W = Winter	Due (Th at noon) (see p. 3 for details)
1	Jan 25	Course Intro, What's Research?	S Intro (+ as much of S1-3 as you find useful)	
2	Feb 1	Designing Experiments & Stimuli	S5	
3	Feb 8	Data: Measures, Management & Summaries	W 1 & 2	
4	Feb 15	Data: Distributions, Models, Simulation & Visualization	W3	
5	Feb 22	Linear Regression	W4, skim W5	Design 1, Open Data 1
6	Mar 1	Multiple Regression, Categorical Predictors	W 6 & 7	
7	Mar 8	Interactions, Counterbalancing	W8	Regression Simulation
8		SPRING BREAK		
9	Mar 22	Inferential Stats	W 9 & 10	Design 2
10	Mar 29	Mixed Effects Models 1	W14	
11	Apr 5	Mixed Effects Models 2	W 15 & 16	Design 3
12	Apr 12	Data Visualization	S5, S7	Open Data 2
13	Apr 19	Academic Writing & Publishing	S5, S8-10	Terrible Graph
14	Apr 26	Research Ethics	Eckert (2013), Belmont Report	Abstract Rewrite, Compare & Contrast, Open Data 3, Choose-a-Chapter
15	May 3	Research Ethics	Aschwanden (2014)	
16		EXAM WEEK		

Note that this schedule is tentative and may change over the course of the semester. Please check Blackboard for the most recent version of the syllabus.

Enrollment

Students are responsible for verifying their enrollment in this class. Schedule adjustments should be made by the deadlines published in the Schedule of Classes.

Important Dates

Last Day to Add	Mon Feb 1
Last Day to Drop	Fri Feb 12 (100% refund), Tues Feb 16 (50% Refund)
Last Day of Class	Fri Apr 30
Exam Week	Mon May 3 – Mon May 10

You can find the full semester calendar at the registrar's website.

Grading and Evaluation

Components

Assignments will be graded on a two-tier scale: Pass or Redo. All assignments will automatically be eligible for one resubmission. If you get a Redo on the resubmission, coming to office hours to discuss your assignment will make you eligible for a second resubmission.

Community Contribution This is a broader way of thinking about and rewarding participation. Community contributions are small actions that contribute to an active, interdependent learning environment, such as contributing to shared class notes, peer review of an assignment with a classmate, setting up a study session, contributing to a class resource page and more. Choose the types of involvement that work best for you.

How I Will Grade

This course is *not* graded on a points-based system, but you should always have enough information to figure out where you stand, and if you ever have questions, just ask!

Here are the criteria for each of the letter grades. To achieve a grade, you must meet the requirements in that row.

Grade	Assignments Passed	Tags with a Pass	Comm. Contributions
A	7 (+) 6	4	15 (+) 14 13 12
B	5 (+) 4	3	11 10 (+) 9 8 7
C	3	2	6

	2		5 4 3 2
F	1 0	1 0	1 0

Plusses I will not be giving minuses. A and B plusses will be given students who complete 3 (extra) Community Contributions and earn 1 (extra) Assignment Pass.

Assignments

See Blackboard for full descriptions and instructions. Remember that you should *not* complete all of these. You should choose the ones that are most relevant for your research, the ones that seem most interesting to you, or the ones you'll learn the most from. You'll need to pass at least one with each tag and 6 total to get an A, but it's your choice which.

Tags: CR = Communicating Research, DS = Data Structure, ED = Experimental Design, QA = Quantitative Analysis

Tags	Assignment Name	Assignment Summary
ED DS	Design 1: Outline a Possible Study	Outline a possible 2-predictor study. Give the research question, the predictor and outcome variables and how they would be operationalized.
ED	Design 2: Counterbalancing	Create a stimulus design and counterbalancing plan for the study you outlined in Design 1.
ED	Design 3: Create Items	Create items that fit the stimulus design you built in Design 2.
DS	Open Data 1: Locate & Describe Dataset	Locate a paper that has publicly available data and describe the properties of the dataset: variables, measures, etc.
QA	Open Data 2: Explain Original Analyses	Summarize and explain the analyses for the paper you located in Open Data 1.
QA	Open Data 3: Replicate Analyses in R	Using R, replicate the analyses you explained in Open Data 2.
QA DS	Regression Simulation	Using R, simulate data with specified properties and run a regression analysis on your simulated data.
CR	Terrible Graph	Based on what we learn about good data visualization, create an absolutely awful graph and explain what makes it terrible.
CR	Compare & Contrast	Find two different papers and compare and contrast them, considering structure and style overall, and level of detail/choice of content in either the methods or results sections.

CR	Abstract Rewrite	Rewrite the given abstract draft into a clear, concise, 150-word final abstract.
flex	Choose-a-Chapter	Choose and read a methods chapter. Create a set of notes that connects the chapter to what we've been learning, and a brief paragraph summarizing your takeaways. Tag depends on chapter choice. Send chapter and proposed tag to CL for approval before beginning.

Other Course Policies

A Selection of Things that are Totally Okay With Me

Attending virtually. Children with you during class or office hours. Stepping out of class when necessary. Food and drink. Working together (individual write-ups, please). Disagreement. Questions (I really like questions).

Absences & Extensions

If you are sick, I expect you to stay home, even if it's just the sniffles. If you're up to it, you should attend virtually. If you're not, rest up and get better. Either way, don't infect your classmates. Try to avoid absences for other reasons. Class is only once a week, so missing a class means missing your best opportunity to engage with a lot of material, as well as discussion time where your presence and thoughts are important to the group. If you are going to miss class or would like to attend virtually, please email me ahead of time, so that I can plan our session accordingly.

I plan to grade weekly on Thursday afternoons. For the most detailed feedback, please turn assignments in before noon on Thursday the week they are listed on the syllabus. You may always turn things in earlier than they are listed on the syllabus. All assignments are automatically eligible for 1 rewrite. To get a second rewrite, come to office hours to discuss.

Communication

There are lots of ways to stay in touch! Your responsibilities are (1) to ask questions and meet with me about assignments and course content *before* they've stressed you out and (2) to check your email at least daily, since I will occasionally send email to your Mason account with important information.

Office Hours These times are set aside for you. If you'd like to meet for any reason (questions, grade concerns, to say hi, etc.) just pop in!

Email I usually respond within a few hours during the workday, but if you email in the evening or on the weekend (which you should feel free to do), I probably won't see it before the next weekday around 11 am.

Access and Accommodations

I am committed to providing an accessible learning context that everyone can participate in. This isn't only for students with disabilities, but also for those with caretaking responsibilities, difficult home contexts, health concerns, or in any other situation that might make class more challenging.

All students should feel free to take breaks during class as needed: to visit the restroom, get some water, or just to refocus. I ask that you minimize distraction and disruption for your classmates by, if possible, leaving and returning quietly, and timing your breaks to coincide with transition points.

Slides will be posted shortly before class, and I will do my best to provide materials in accessible formats. Please let me know if my materials don't work with the tools you use, and I'll see what I can do to adapt!

If there are other specific accommodations you would find helpful, please let me know (before or after class, during office hours, in a private meeting, or by email). Small accommodations (e.g., content warnings, classroom arrangements) will be happily and promptly made. Larger accommodations (e.g., assignments turned in as audio recordings) will also be happily and promptly made to the best of my ability but should be supported by documentation from the Disability Services. They can be reached at (703) 993-2474, ods@gmu.edu or https://ds.gmu.edu. *You do not need to inform me of your disability unless you wish to, only the accommodations you require.*

Any student who experiences barriers to learning in this course is encouraged to contact me.

Language in this section was developed with help from material provided by Project Refocus (http://www.projectshift-refocus.org/syllabus.htm) and Dr. Lydia Brown (https://autistichoya.net/resources/syllabus-language/)

Academic Integrity

It is expected that students will adhere to the George Mason University Honor Code. The Honor Code reads as follows:

To promote a stronger sense of mutual responsibility, respect, trust, and fairness among all members of the George Mason University community and with the desire for greater academic and personal achievement, we, the student members of the university community, have set forth this honor code: Student members of the George Mason University community pledge not to cheat, plagiarize, steal, or lie in matters related to academic work.

The penalties for academic dishonesty are severe and can include a 0 for the assignment, a failing grade in the course, or further disciplinary action. All suspected honor code violations will be reported.

Be especially careful about plagiarism! Acknowledge contributions. You should, for instance, cite ideas you got from the literature (e.g., "children may achieve high accuracy with some morphemes before others (e.g., Brown, 1973)"), and footnote or otherwise credit ideas from classmates (e.g., "The author thanks A. Rodriguez for pointing out this possible interpretation"). If you're not sure what counts as plagiarism, just ask!

More information about the Honor Code, including definitions of cheating, lying, and plagiarism, can be found at the Office of Academic Integrity website at http://oai.gmu.edu.

Diversity and Inclusion

As you know, George Mason University is an incredibly diverse institution. This course will provide an inclusive environment for learning about the science of language. Please show respect for your fellow students and the experiences and identities they bring to our classroom. Many related resources are available for students at Mason, including through the Office of Diversity, Inclusion and Multicultural Education (ODIME), International Programs and Services, Lesbian, Gay, Bisexual, Transgender, Queer, and Questioning Resources, and the Military Alliance Program.

Sexual Harassment, Sexual Misconduct, and Interpersonal Violence

Your education should be free from all forms of interpersonal harassment and violence. If you have been harassed, assaulted, or subjected to sexual misconduct or any other form of interpersonal violence, please seek assistance.

Please note that as a faculty member and designated "Responsible Employee," I am required to report all disclosures of sexual assault, interpersonal violence, and stalking to Mason's Title IX Coordinator per university policy 1412. If you wish to speak with someone confidentially, please contact the Student Support and Advocacy Center (703-380-1434), Counseling and Psychological Services (703-993-2380), Student Health Services, or Mason's Title IX Coordinator (703-993-8730; cde@gmu.edu).

Coronavirus Resources

Mason's website on Coronavirus/COVID-19 is the official source for university updates. It also provides information and resources regarding the university's response for students, faculty and staff. Please check this webpage regularly for updates. If you have individual concerns about the university's response, please contact safety@gmu.edu.