Fall 2015

Syllabus

LC 679
Methods of Experimental Research in Linguistics
Armory 102A
TTh 10:30 am - 11:45 am

Instructor: Olga Dmitrieva
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Office Hours: Thu 3 pm – 5 pm

Course Description
The course is an overview of experimental methods used in linguistic research. The goal of the course is to introduce basic concepts, terminology, and procedures associated with experimental research in general, and to survey the types of experiments typically conducted in several major subfields of linguistics, including the associated experiment design and data analysis considerations. The course will focus mainly on designing and conducting the experiment, rather than on data analysis, although the data analysis techniques appropriate to the types of data will be briefly discussed whenever possible. The course will also touch on topics from a more global realm of academic research activity, including ethics of experimental research and submitting an IRB protocol; doing background research, getting funding, choosing the right conference, writing a conference abstract, creating and delivering a conference presentation/poster, and writing up the results for publication.

Aims and Objectives
- To develop understanding of the specifics of experimental research and its applications in the field of linguistics
- To learn to determine the appropriate type of experiment for answering a given research question and to select the appropriate type of data analysis
- To become familiar with the practical considerations of implementing an experimental study, including the associated paperwork, identifying and recruiting the appropriate pool of participants, necessary equipment, software, and facilities, funding and participant reimbursement
- To develop ability to carry out an original experimental study independently from start to finish
- To perfect ability to summarize and presents experimental results effectively both orally and in writing

Class Format
This course will combine lectures/tutorials, student presentations, and joint discussions. The goal is for all class participants to share knowledge and experience as well as receive it.

Required Text
There is no single required text for this course. Required reading will be drawn from a variety of sources and made available to class. The sources include:

Ambridge, B., & Rowland, C. F. (2013). Experimental methods in studying child language acquisition. *Wiley Interdisciplinary Reviews: Cognitive Science, 4(2),* 149-168.
Blom, E., & Unsworth, Sh. (2010). *Experimental Methods in Language Acquisition Research*. John Benjamins. (B&U).
Clopper, C. (2013). Experiments. In *Data collection in sociolinguistics: methods and applications*. C. Mallinson, B. Childs, & G. Van Herk (Eds.) Routledge.

Demolin, D. (2012). Experimental methods in phonology. *TIPA: Travaux interdisciplinaires sur la parole et le langage*, 28.
Drager, K. (2013). *Experimental methods in sociolinguistics.* In Research Methods in Sociolinguistics: A Practical Guide. Janet Holmes, Kirk Hazen (Eds.) John Wiley & Sons.
Field, A. & Hole, G. (2003). *How to design and report experiments*. SAGE Publications. (F&H)
Heiner, B. & Narrog, H., Eds. (2015). *The Oxford Handbook of Linguistic Analysis*. Oxford University Press. (H&N)
Lin, Chien-Jer Charles. (2012). Distinguishing grammatical and processing explanations of syntactic acceptability. In James Myers (Ed.) *In Search of Grammar: Experimental and Corpus-Based Studies* (pp.119-137). Language and Linguistics Monograph Series 48. Academia Sinica, Taipei.
Luck, S. J. (2014). *An Introduction to the Event-Related Potential Technique*. MIT Press.
Matlock, T., & Winter, B. (2013). *Experimental semantics*. In Heiner, B. & Narrog, H. (Eds.) Oxford Handbook of Linguistic Analysis. Oxford University Press.
Macaulay, M. (2011). *Surviving Linguistics: A Guide for Graduate Students*. Second Edition. Cascadilla Press. (M)
MacKey, A. & Gass, S. (Eds.) (2012*). Research Methods in Second Language Acquisition: A Practical Guide.* Wiley-Blackwell. (M&G)
MacKey, A. & Gass, S. (2005). *Second Language Research: Methodology and Design*. Routledge. (M&G2)
McDaniel, D., McKee, C., & Cairns, H.S., (Eds.) (1996). *Methods for Assessing Children's Syntax*. MIT Press.
Ohala, J. J. (1995). *Experimental phonology*. In John A. Goldsmith (ed.), A Handbook of Phonological Theory. Oxford: Blackwell. 713-722.
Podesva, R. & Sharma, D., Eds. (2014). *Research methods in linguistics*. Cambridge University Press. (D&Sh)
Sekerina, I. A., Fernández, E. M. & Clahsen, H. (Eds.) (2008). *Developmental psycholinguistics: On-line methods in children's language processing.* Amsterdam & Philadelphia: John Benjamins. (SF&C)
Solé, M-J., Beddor, P., & Ohala, M., Eds. (2007). *Experimental approaches to phonology*. Oxford University Press. (SB&O)
Thomas, E. (2002). *Sociophonetic application of speech perception experiments*. American Speech 77(2), 115-147.
Wei, L. & Moyer, M.G. (Eds.) (2008). *The Blackwell guide to research methods in bilingualism and multilingualism.* Blackwell. (W&M)
Gonzalez-Marquez, M., Mittelberg, I, Coulson, S., & Spivey, M.J. (2009) *Methods in Cognitive Linguistics.* John Benjamins. (GMC&S)

Course Requirements
There will be 5 homework assignments, which include completion of the CITI training (pass-fail, for those who do not have this certification yet) and writing a conference abstract, a midterm exam, and a final project. Each student will present a critical analysis of experimental methods in one research paper and results of their final project. Each student will also assist a classmate with the abstract writing and chair one final project presentation. All reading assignments for a given day should be completed before you come to class on that day.

COURSE POLICIES
Students with Disabilities: If you believe you have a disability, medical condition or other special circumstances that may affect your participation in this course please contact the Dean of Students Office (Schleman 207, 4-1747) so that suitable arrangements can be made.

Attendance: Students are expected to attend all class meetings. If you must be absent you are still responsible for all of the material covered during that lecture. I recommend you make arrangements with your colleagues to borrow their notes and find out about the assignments if you miss class. You are expected to know and understand all material covered in the course, whether it is presented in class or assigned readings.

Reading assignments: All reading assignments for a given day should be completed before you come to class on that day. Readings will follow the attached schedule unless stated otherwise in class.

Presentation assignments: Starting approximately from week 6, lectures and readings will be arranged into sections built around linguistics subfields. Each student is asked to select a published article in one of the subfields and present it to class, offering a critical analysis of the experimental methods used in the study. The article may be chosen based on the excellence or originality of its methodology, but also if the methodology is flawed and could be used to highlight common methodological mistakes. It is also acceptable to choose a paper that is of a particular significance to the student's field of study and research interests. The selected paper should be made available to the class at least a week in advance for everyone to have a chance to read it. All the students are to complete all the readings (i.e. the fact that you are presenting a particular paper does not mean that you are the only student to read it). All students should be prepared to participate in the discussion of paper's experimental methods and ask questions.

Experimental project, presentation, and paper: As part of the course requirements, you will conduct an original experimental study on the topic of your selection. The actual collected dataset can be very small (1-3 participants), however the experimental design needs to be fully developed and easily expanded for full data collection. You are asked to consult with me concerning the topic of your final project no later than September 30. Experiment design and most of data collection needs to be completed by mid-November, by which time I would like to have a second meeting with you to check on the final project progress.

Abstract: As part of your work on final projects, you will prepare an abstract for feedback from classmates and the instructor. Your abstract must include an introduction to the study, a concise yet representative review of relevant literature, details of the methods, the expected (or observed) outcomes, and, desired but not required, implications for the important questions in the field. You are limited to a maximum of 1 page (times new roman, size 12 font, single space), plus an optional second page for figures and/or references. You will discuss your abstracts with at least one classmate (or a group of classmates) in class on November 19th (please, agree on who is going to be your 'abstract buddy' in advance), and will turn the original abstract, colleagues' feedback, and your improved draft to me on November 24th.

Presentation: During the last two weeks of classes, students will present the results of their projects to their classmates and the instructor. The presentations will be set up as conference talks: Each presenter will have 20 minutes for the presentation and 5 minutes for questions. Presentations should be accompanied by a visual aid (slides). One of the non-presenting students will act as a "session chair" for each presenter – they will introduce the paper, keep track of time, and manage the questions. Keep in mind that a chair must always have a question ready if the audience does not have one!

Paper write-up: Your final paper must include the following components: abstract, introduction to the problem and background (i.e., a lit review that leads to and ends with explicitly stated research questions and hypotheses); method(s) (including a discussion of your independent variables and dependent variables, participants, materials, e.g., stimuli, procedures, including the instruments used, and methods of statistical analysis; results or preliminary results, discussion,

conclusion, and references. The body of your paper must not exceed 7000 words (plus references and appendices). Follow APA style.*

Plagiarism, which includes failure to cite appropriately or adequately, is considered a serious offense, and the strictest possible consequences allowable under university policy will be pursued. (see Academic Misconduct)

*For students interested in preparing a manuscript for submission to a journal, the requirements of the paper (including but not limited to length, organization, and formatting) can be adapted to that specific journal. Students must inform the instructor about the journal they are targeting.

Exceptional circumstances: Exceptional circumstances include religious obligations, serious personal illness or injury, sudden hospitalization or death of an immediate family member, and illness requiring home-stay of a dependent. If the absence can be anticipated (e.g. religious obligation), you must notify me at least one week prior to the date of absence. Unanticipated absences may be excused only within 1 week following the date of the absence and upon presentation of verifiable written documentation. If you have questions about this policy, please ask. You may also refer to the website
http://www.purdue.edu/studentregulations/regulations_procedures/classes.html

Grading: Course grade will be based on the performance on the homework assignments, the midterm, the methodology-based paper presentations, final project presentations and write-ups, and class participation. Class participation includes participation in discussing instructor's and other students' presentations, abstract evaluations, session chairing, and timely meetings with the instructor to discuss final projects. Final grades will be weighted as follows:

Grading
Homework assignments ---------- 20%
(Includes CITI training and abstract writing)
Paper presentations ----------15%
Midterm exam ----------15%
Final project presentation ---------- 15%
Final paper ---------- 25%
Participation ---------- 10%

Group work: Group work is encouraged in this course. You are welcome to discuss the assigned readings, you are welcome also to discuss your final projects, although, needless to say, the analysis and final write-up must be your own.

Student Academic Misconduct: **Do not present the work of others as your own.** Please review carefully the brochure "Academic Integrity: A Guide for Students" available at the Dean of Students Office (Schleman 207) or online at:
https://www.purdue.edu/odos/osrr/academic-integrity-brochure/

Student Rights and Complaints: The official policies of the University concerning student rights and complaints, honesty and academic misconduct can be found in the *Academic Procedure Manual*, and in *University Regulations*, available from the Office of the Dean of Students or at:
http://www.purdue.edu/studentregulations/student_conduct/studentrights.html

Any concerns about grades given on a particular assignment must be put in writing and given to the course instructor along with a copy (or the original) of the graded assignment. Your written statement should include a description of why you believe the grade to be incorrect, and what you

believe the grade should be. The course instructor is the final arbiter on all such decisions. The only exception to this rule is obvious errors in arithmetic, which may be brought to the instructor's attention directly.

Campus Emergency: In the event of a major campus emergency, course requirements, deadlines and grading percentages are subject to changes that may be necessitated by a revised semester calendar or other circumstances. Here are ways to get information about changes in this course: Blackboard web page and my email address: odmitrie@purdue.edu.

EMERGENCY NOTIFICATION PROCEDURES are based on a simple concept – if you hear a fire alarm inside, proceed outside. If you hear a siren outside, proceed inside.

- **Indoor Fire Alarms** mean to stop class or research and immediately **evacuate** the building.
  - Proceed to your Emergency Assembly Area away from building doors. **Remain outside** until police, fire, or other emergency response personnel provide additional guidance or tell you it is safe to leave.
- **All Hazards Outdoor Emergency Warning Sirens** mean to immediately seek shelter (**Shelter in Place**) in a safe location within the closest building.
  - "Shelter in place" means seeking immediate shelter inside a building or University residence. This course of action may need to be taken during a tornado, a civil disturbance including a shooting or release of hazardous materials in the outside air. Once safely inside, find out more details about the emergency*. **Remain in place** until police, fire, or other emergency response personnel provide additional guidance or tell you it is safe to leave.

**In both cases, you should seek additional clarifying information by all means possible…Purdue Emergency Status page, text message, email alert, TV, radio, etc…review the Purdue Emergency Warning Notification System multi-communication layers at http://www.purdue.edu/ehps/emergency_preparedness/warning-system.html*

EMERGENCY RESPONSE PROCEDURES:

- Review the **Emergency Procedures Guidelines** https://www.purdue.edu/emergency_preparedness/flipchart/index.html
- Review the **Building Emergency Plan** (available on the Emergency Preparedness website or from the building deputy) for:
  - evacuation routes, exit points, and emergency assembly area
  - when and how to evacuate the building.
  - shelter in place procedures and locations
  - additional building specific procedures and requirements.

EMERGENCY PREPAREDNESS AWARENESS VIDEOS

- "Shots Fired on Campus: When Lightning Strikes," is a 20-minute active shooter awareness video that illustrates what to look for and how to prepare and react to this type of incident. See: http://www.purdue.edu/securePurdue/news/2010/emergency-preparedness-shots-fired-on-campus-video.cfm (Link is also located on the EP website)

MORE INFORMATION

Reference the Emergency Preparedness web site for additional information: https://www.purdue.edu/ehps/emergency_preparedness/

Tentative Course Timetable
(Dates are approximate and are subject to change!)

Week	Date	Topic	Reading/ Assignment
1	Aug 25, 27	Introductions, syllabus, course objectives What is experimental research Variables and Measurements	F&H Ch1 *HW 1*
2	Sep 1, 3	Preparing an experiment: Background research Choosing variables, materials, foreseeing data analysis	F&H Ch2 *HW 2*
3	Sep 8, 10	Reliability, validity, and importance Experimental design	F&H Ch3, P&Sh Ch7 *HW 3*
4	Sep 15, 17	Ethical considerations Institutional Review Board Training and Preparing a protocol	F&H pp. 98-101 P&Sh Ch2 *HW4: Complete CITI training*
5	Sep 22, 24	Funding your research, spill over, review **Sep 24 – in-class MIDTERM**	M Ch. 7
6	Sep 29, Oct 1	Experimental Phonetics *Student paper discussion 1:*	Beddor (2015) (in H&N) Additional: P&Sh Ch9,17 McGuire (2010) *Talk to me about final project ideas*
7	Oct 6, 8	Experimental Phonology *Student paper discussion 2:*	Ohala (1995) Additional: SB&O Ch 19, Demolin (2012)
8	Oct 13 Oct 15	***October break, no class*** Sociolinguistics *Student paper discussion 3:*	Drager (2013), Clopper (2013) Additional: Thomas (2002), P&Sh Ch20
9	Oct 20, 22	Psycholinguistics *Student paper discussion 4*	P&Sh Ch8 Luck(2014) Ch1
10	Oct 27, 29	First language acquisition *Student paper discussion 5:*	Ambridge&Rowland (2013) Additional: B&U Ch4, 13 Clahsen (2008) (Ch1 in SF&C)
11	Nov 3, 5	Experimental syntax & semantics *Student paper discussion 6:*	P&Sh Ch3 Matlock&Winter (2013) Lin(2012)
12	Nov 10, 12	Bilingualism and Second language acquisition *Student paper discussion 7:*	W&M Ch6 McDonough & Trofimovich (2012) (Ch 7 in M&G) *Report on the final project progress*
13	Nov 17, 19	Writing a conference abstract, creating a	M&W Ch21, M Ch6

		conference presentation/poster	*HW5: Abstract practice*
14	Nov 24 Nov 26	Writing up an experimental study Publication options and procedures ***Thanksgiving vacation – no class on Thursday***	M&G2 Ch10, Gonzalez-Marquez, Becker, & Cutting (2007) (In GMC&S, p. 54-58) Additional: M Ch4-5, 7
15	Dec 1, 3	Final project presentations	
16	Dec 8, 10	Final project presentations	
17	**Exam week**	***Final project is due on Tue December 15***	