

LING 333: RESEARCH METHODS FOR LINGUISTICS

Days: Mon, Wed, Fri | Time: 10:00 am–10:50 am

ACKNOWLEDGEMENT

We acknowledge that the University of British Columbia is located on the traditional, ancestral and unceded territories of the x^wməθk^wəy'əm, Skwxwú7mesh, Səlílwətał Nations (Vancouver campuses) and the Syilx peoples (Okanagan campus). We at UBC Linguistics consider this land acknowledgment to be an opportunity to show our commitment towards reconciliation and the recognition of Indigenous peoples and languages. Please visit native-land.ca or <https://maps.fpcc.ca/> to learn more about these places, peoples and languages.

PREREQUISITES

LING 200 and LING 201

COREQUISITES

None.

CONTACTS

Course Instructors	Contact Details	Office Hours info
Jahurul Islam	<i>Email:</i> jahurul.islam@ubc.ca <i>Typical response time:</i> 24-48 hrs (excluding weekends and holidays)	See under Canvas → Zoom
Ella Hannon (TA)	<i>Email:</i> ella.hannon@ubc.ca <i>Typical response time:</i> 24-48 hrs (excluding weekends and holidays)	See under Canvas → Zoom

Communication procedure:

Canvas Course Q&A: You are strongly encouraged to ask your questions (and maybe answer others' if you already know the answers), especially the logistic ones, on the Course Q&A forum (accessible from [Homepage](#) >> [Discussions](#) >> [Course Q&A](#)). If we function as a community, finding help is much easier.

Virtual office hours: My office hours in this course are going held online via Zoom (links under [Canvas Homepage](#) >> [Zoom](#)). I'd strongly encourage you to come to the office hours to get your questions answered or even just to say "Hi..."

Emailing: Please use email to contact me for urgent and/or personal academic matters only. Anything that involves general matters of the course should be asked on the Q&A thread first. Please include the prefix "LING XXX:" to the subject lines in all your emails; also, CC me when emailing the TAs whenever feasible.

COURSE INTRO

Welcome to LING 333! I am Jahurul Islam, and I am delighted to be your instructor for the upcoming Fall semester of 2024. In LING 333, we will embark on a journey to explore the fundamental methods of conducting research in linguistics, with a specific focus on speech and auditory data collection and analysis. The course will encourage a hands-on approach to learning. Throughout our journey, we will become acquainted with various tools including Praat, forced-alignment, and PsyToolkit. A significant segment of the course will be dedicated to the essentials of quantitative data analysis using the R statistical program. Fear not if you're new to R – no prior experience is assumed, and we will build our understanding from the ground up. Our exploration will encompass the art of designing empirical studies, honing the skill of formulating, testing, and meticulously evaluating scientific hypotheses.

COURSE FORMAT

The classes in the course will be held **in-person synchronously** on the university campus. You are expected to remain physically present in the classes, and participate in the class activities.

LEARNING OUTCOMES

By the end of the course, students will be able to:

- identify and evaluate the major ethical considerations of linguistic research (including differences of practice between sub-fields)
- understand the basic methods linguists use to test hypotheses about language
- read linguistic research articles of various types (e.g. based on fieldwork, laboratory experiments, etc.), identify the main features of the study design, summarize the conclusions, and critically evaluate the methodology
- understand how the scientific method applies to various types of linguistic investigation
- collaborate with others to design a study to test linguistic hypotheses
- demonstrate competence in oral presentation, academic writing, group collaboration, peer evaluation, and creation and synthesis of multiple ideas

LEARNING ACTIVITIES

Typical class activities will include:

- lectures by me reviewing/explaining concepts based on the learning materials
- active discussion in break-out groups on the day's readings (summarizing take-away points and critical evaluations)
- question/answer sessions to clarify concepts concerned
- participating in quizzes and polls
- hands-on problem-solving with topics in statistics and speech acoustics

LEARNING MATERIALS

Required textbook

There's no required textbook for this course; all the materials will be provided via Canvas course page.

Software

Praat: We will use Praat to explore and analyze the acoustic properties of speech sounds in some class sessions. Familiarity with the basic interface of Praat is preferred for the course. Praat can be downloaded for free from www.praat.org.

PsyToolkit: We will use PsyToolkit to write and deploy simple perception experiments. No software installation is necessary; we'll work on the web interface here: <https://us.psyt toolkit.org/c/3.4.4/login>.

R: We will use R (<https://cloud.r-project.org/>) to perform basic descriptive and inferential statistics including hypothesis testing. The course will not assume any prior knowledge of R. Detailed instructions on R installation will be provided later in the term.

ASSESSMENT

Course assessment will consist of the following components:

Weekly in-person quizzes	20%
Midterm	30%
Final exam	40%
TCPS 2: CORE tutorial	1%
LOC	2%
Participation	7%

1. In-class quizzes:

- In most weeks, there will be a quiz covering the contents between quizzes.
- You must be physically present in the class to be able to attempt the quizzes.
- The lowest grade will be dropped from final grades calculation.
- If you are registered with the Center for Accessibility, please please reach out to me about your accommodations; you may not need to book the quizzes with the Center.

2. Midterm:

- There will be an in-person midterm exam around the middle of the term.
- If you are registered with the Center for Accessibility, please book your exam through the Center.

3. Final exam:

- There will be an in-person Final exam during the final exam period.
- If you are registered with the Center for Accessibility, please book your exam through the Center.
- Please wait until the university enrollment services provide the final exam date and time before making any travel arrangements around that time.

4. TCPS 2: CORE

You are required to complete the Tri-Council Policy Statement (TCPS 2) Online Tutorial. This tutorial is included in this course because it is a requirement for all researchers, graduate students, and staff working on UBC research projects. It consists of eight modules focusing on the guidance in TCPS 2 that applies to all research regardless of discipline or methodology.

Here's the direct link to the tutorial: <http://tcps2core.ca/welcome>. You'll need to upload your electronic certificate (as PDF file) of completion to Canvas (see under "Assignments").

NOTE: If you have already completed the tutorial before (doesn't matter how long ago), you won't need to re-do it; just submit your existing certificate.

5. Participation

- Your presence in class is greatly appreciated, and to encourage your active participation, I will offer incentives for engaging in class activities. Your active involvement is essential for effective learning, as it allows you to ask questions and clarify concepts in real-time. Additionally, many of our classes will involve discussions and hands-on data analysis, so please ensure that you come prepared to collaborate in small groups.
- ***I will keep a record of your participation*** in the class (primarily in the form of your participation in the polls we conduct) throughout the term. These data will be used to determine the participation points at the end of the term.
- However, everyone will get some leeway here: participation in at least 80% of the polls would entail full 7 points; 70% would be 5.5 points, 60% would be 4 points, 50% would be 2.5 points, less than 50% would be 0 (zero) points.

6. Linguistics Outside the Classroom (LOC):

- Participation in Linguistics Outside the Classroom (LOC) is required for this course. This is a means of increasing your involvement in learning about linguistics outside of regular classroom instruction. There are two ways of satisfying this requirement.
- You'll need to earn **2 LOC points** for this course.
 - (1) One way is by participating in **2 points** worth of experiments being run by researchers in the Department of Linguistics. Experiments typically take anywhere from 15 minutes to 1 hour and offer the opportunity to contribute to and learn about linguistics research first hand. Due to COVID-19, all experiments will be conducted online this term. Your participation in research is always voluntary.
 - (2) A second way of completing this requirement is by attending one online Linguistics research seminar or colloquium and writing a one-paragraph summary of the talk, which you submit online within one week of attending. All research seminars and colloquia will be held online. There will also be a colloquium geared towards LOC students near the end term, which will be available both synchronously and asynchronously (for students in different time zones).
- To sign up for eligible experiments and live or pre-recorded talks, please visit <https://linguistics.ubc.ca/undergraduate/advising/linguistics-outside-the-classroom/>. You can also satisfy this requirement by participating in an appropriate combination of experiments and talks. The credits associated with experiments vary according to their duration. Attending a talk and writing a summary constitutes 2 LOC points.
- **LOC contact:** The LOC is an independent system and the course instructor does not manage it. If you have any queries about the LOC, first check <https://linguistics.ubc.ca/undergraduate/advising/linguistics-outside-the-classroom/>; if you cannot find the relevant information, please reach out to the LOC Chair Dr. Ryan Bochnak (ryan.bochnak@ubc.ca).

COURSE POLICIES

Missed quizzes/exams and concessions:

- If you **have to** miss an assessment component for a **credible reason** (e.g., documented illness, etc.), please email me a completed "Student Self-Declaration - Academic Concession" form (available HERE: <https://www.arts.ubc.ca/wp-content/uploads/sites/24/2019/10/Student-Self-Declaration-Form-1.6-Arts.pdf>).
 - The form must be sent to ME within a reasonable delay.
 - The approval of concessions applied for will be considered on a case by case basis and not taken for granted by default.

- We are not able to offer a make up exam for the midterm or the final exam (primarily due to the limited capacity of the teaching team). In case you have to miss any of them, be sure to let me know as soon as possible to discuss your options.
- Please do NOT apply for concessions for class participation unless you suspect that you have missed more than 20% of the classes for credible circumstances; the course policies already allow you to missed up to 20% of the class polls without any penalties.
- Please ensure that you follow effective data backup procedures. Opting for continuous data backup on cloud storage could be a beneficial choice. Please note that extension requests due to last-minute data loss or crashes may not be accommodated. It is highly recommended that you aim to submit your work well in advance of the deadline rather than waiting until the last moment.

Re-grades and appeals:

Marks/grades are not subject to negotiation. However, we are more than willing to rectify any marking errors (due to miscalculations, systematic errors, etc.) that are brought to our attention within 7 days of the return of materials.

Should you wish to pursue a re-evaluation of your assessment, kindly submit a written request (in the form of a PDF email attachment) within 7 days of receiving your materials.

Here are the key points to include in your request:

- A detailed explanation of the discrepancies identified in the current evaluation, with specific and relevant information provided.
- Please be aware of the following:
 - A re-grade entails a complete re-evaluation of the entire assignment. It's important to note that a higher or unchanged score is not guaranteed. In other words, if we identify points that were erroneously awarded, your overall score might decrease after re-evaluation, as the corrected score will be upheld.
- A second review of a re-graded assignment will not be conducted.

Scaling:

Course grades may be scaled in order to maintain equity among sections and conformity to university, faculty, department, or school norms. An unofficial grade given by the instructor or appearing on the course website may always change. Grades are not official until they appear on the student's academic record.

SET UP YOUR iClicker Cloud ACCOUNT

We will use iClicker Cloud to run polls during classes. Please set up your iClicker Cloud account following instructions at <https://lthub.ubc.ca/guides/iclicker-cloud-student-guide/>; it will guide you on how to create an iClicker Cloud account and then add the current course from Canvas. After creating an account, please go to Canvas and click "iClicker Sync" in the left menu bar and follow instructions.

Please note that physical clickers are no longer supported by the University. We will not be able to use them in class.

ACADEMIC INTEGRITY

The academic enterprise is founded on honesty, civility, and integrity. As members of this enterprise, all students are expected to know, understand, and follow the codes of conduct regarding academic integrity. At the most basic level, this means submitting only original work done by you and acknowledging all sources of information or ideas and attributing them to others as required. This also means you should not cheat, copy, or mislead others about what is your work. Violations of academic integrity (i.e., misconduct) lead to

the breakdown of the academic enterprise, and therefore serious consequences arise and harsh sanctions are imposed. For example, incidences of plagiarism or cheating may result in a mark of zero on the assignment or exam and more serious consequences may apply when the matter is referred to the Office of the Dean. Careful records are kept in order to monitor and prevent recurrences. A more detailed description of academic integrity, including the University's policies and procedures, may be found in the UBC Calendar: Student Conduct and Discipline (<http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,54,0,0>).

EQUITY AND ACCESSIBILITY

I consider this classroom to be a place where you will be treated with respect, and I welcome individuals of all ages, backgrounds, beliefs, ethnicities, genders, gender identities, gender expressions, national origins, religious affiliations, sexual orientations, abilities - and other visible and non-visible differences. All members of this class are expected to contribute to a respectful, welcoming and inclusive environment for every other member of the class.

Academic Accommodation for Students with Disabilities: Academic accommodations help students with a disability or ongoing medical condition overcome challenges that may affect their academic success. Students requiring academic accommodations must register with the Centre for Accessibility (previously known as Access & Diversity). The Centre will determine that student's eligibility for accommodations in accordance with Policy LR7: Academic Accommodation for Students with Disabilities (https://universitycounsel-2015.sites.olt.ubc.ca/files/2019/08/Disability-Accommodation-Policy_LR7.pdf?file=2019/02/policy73.pdf). The instructor may consult with the Centre for Accessibility should the accommodations affect the essential learning outcomes of a course.

Respectful environment and student code of conduct: It is very important that we foster an environment that is respectful of all participants in the course, no matter what their background. Students, faculty, and staff should be aware of the UBC president's Statement on Respectful Environment and related university policies. See this website for more information: <http://www.hr.ubc.ca/respectful-environment/>

All students are also bound by UBC's Student Code of Conduct: <http://students.ubc.ca/campus-life/student-code-conduct>.

Well-being: Being a university student can sometimes be stressful. If you are experiencing any sort of personal, psychological, medical or financial difficulties, I strongly encourage you to seek help at an early stage. There are many resources for students available on campus. The following page is a very useful guide for a wide variety of services related to your well-being: <http://students.ubc.ca/livewell>. If someone you know is in distress, here is a place where you can find ways to help them: <http://students.ubc.ca/livewell/concerned-about-student/how-help-other-students>.

UNIVERSITY POLICIES AND RESOURCES

UBC provides resources to support student learning and to maintain healthy lifestyles but recognizes that sometimes crises arise and so there are additional resources to access including those for survivors of sexual violence. UBC values respect for the person and ideas of all members of the academic community. Harassment and discrimination are not tolerated nor is suppression of academic freedom. UBC provides appropriate accommodation for students with disabilities and for religious observances. UBC values academic honesty and students are expected to acknowledge the ideas generated by others and to uphold the highest academic standards in all of their actions.

Details of the policies and how to access support are available on the UBC Senate website: <https://senate.ubc.ca/policies-resources-support-student-success>.

LEARNING ANALYTICS

Learning analytics includes the collection and analysis of data about learners to improve teaching and learning. This course will be using Canvas which usually capture data about your activity and provide

information that can be used to improve the quality of teaching and learning. In this course, I plan to use analytics data to: (Example data uses:)

- View overall class progress
- Track your progress in order to provide you with personalized feedback
- Review statistics on course content being accessed to support improvements in the course
- Track participation in discussion forums
- Assess your participation in the course

COPYRIGHT

All materials of this course (lecture videos, course handouts, lecture slides, assessments, course readings, etc.) are the intellectual property of the Course Instructor or licensed to be used in this course by the copyright owner. Redistribution of these materials by any means without permission of the copyright holder(s) constitutes a breach of copyright and may lead to academic discipline. Ask prior permission if you want to record (audio/video) classes.

SCHEDULE OF TOPICS

(Please note that this schedule is subject to change at instructor's discretion.)

Week	Date	Topic	Readings	Due
1	Sep. 04	Course Intro	Syllabus	
	Sep. 06	Ethics in linguistic research	P&S. Ch. 2	
2	Sep. 09	Population samples	P&S. Ch. 5	
	Sep. 11	Experimental design	R&R	
	Sep. 13	Experimental design	R&R	Quiz
3	Sep. 16	Audio data collection	P&S. Ch. 9 (§ 2)	
	Sep. 18	Audio data transcription		
	Sep. 20	Audio data transcription		Quiz
4	Sep. 23	Forced-alignment	DARLA	
	Sep. 25	Vowel acoustics	Z. Ch. 7 (§7.3-7.5)	
	Sep. 27	Vowel acoustics	Z. Ch. 7 (§7.3-7.5)	Quiz
5	Sep. 30	Holiday: Truth and rec. day		
	Oct. 02	Consonant acoustics		
	Oct. 04	Consonant acoustics		Quiz
6	Oct. 07	Acoustics lab		
	Oct. 09	Perception data		
	Oct. 11	Perception data collection	PsyToolkit	Quiz
7	Oct. 14	Holiday: Thanksgiving		
	Oct. 16	Perception data collection	PsyToolkit	
	Oct. 18	Midterm review		Quiz
8	Oct. 21	Midterm exam		
	Oct. 23	R intro		
	Oct. 25	TBD		
9	Oct. 28	R intro		
	Oct. 30	R intro		
	Nov. 01	TBD		Quiz
10	Nov. 04	Summarizing/Visualizing data	P&S. Ch. 15	
	Nov. 06	Descriptive stats	P&S. Ch. 14	
	Nov. 08	Descriptive stats	P&S. Ch. 14	Quiz
11	Nov. 11	Midterm break: No class		
	Nov. 13	Midterm break: No class		
	Nov. 15	Descriptive stats	P&S. Ch. 14	
12	Nov. 18	Significance testing	P&S. Ch. 15	
	Nov. 20	Significance testing	P&S. Ch. 15	
	Nov. 22	Significance testing	P&S. Ch. 15	Quiz
13	Nov. 25	ANOVA/Correlation	Handout(s)	
	Nov. 27	TBD		
	Nov. 29	Regression	W. (2013)	Quiz
14	Dec. 02	Regression	W. (2013)	
	Dec. 04	Regression	W. (2013)	
	Dec. 06	Review and wrap-up		
	TBD	Final exam		Final exam

P&S.	Podesva, R. J., & Sharma, D. (Eds.). (2014). Research methods in linguistics. CUP.
R&R.	Rogers, J., & Revesz, A. (2020). Experimental and quasi-experimental designs. In The Routledge handbook of research methods in applied linguistics (pp. 133-143). Routledge.
W.	Winter, B. (2013). Linear models and linear mixed effects models in R with linguistic applications. arXiv:1308.5499. [http://arxiv.org/pdf/1308.5499.pdf]
PsyToolkit	https://www.psyt toolkit.org/lessons/#_introduction