

LING 313: INTRODUCTION TO LINGUISTIC PHONETICS AND SPEECH SCIENCE

Days: Mon, Wed, Fri | Time: 02:00 pm – 03:00 pm

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 Syilk 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

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)	Hours: See Canvas Homepage

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

This course is about the acoustic and articulatory properties of speech production and perception, including practice in phonetic transcription, instrumental recording, and the analysis of speech. The purpose of this course is to equip students with practical and conceptual skills for the study of linguistic phonetics and phonology. Students will receive training in the perception, production, and transcription of the sounds of the world's languages. The acoustic theory of speech production will be discussed in detail, as well as current theories of speech perception.

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:

- transcribe speech from familiar and unfamiliar languages using the IPA.
- analyze the acoustic features of speech using standard speech analysis software (Praat).
- classify speech sounds in terms of their acoustic properties, and identify the ways in which they differ across speakers, dialects, and languages.

LEARNING ACTIVITIES

Typical class activities will include:

- Lectures given by the instructor(s)
- Small group discussions
- Think-pair-share activities
- Responding to iClicker questions

LEARNING MATERIALS

Required textbook

We will use the following book as the primary textbook for the course. Materials outside the book will be made available on Canvas.

Johnson, Keith. (2012) Acoustic and Auditory Phonetics, 3rd Edition. Blackwell Publishing.

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.

ASSESSMENT

Course assessment will consist of the following components:

Quizzes (in-person)	15%
Lab reports (online)	10%
Midterm (in-person)	28%
Final exam (in-person)	35%
Production exam	5%
LOC	2%
Participation	5%

1. Quizzes:

- In most weeks, there will be a quiz covering the contents between quizzes (see the last page for specific dates).
- 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. Lab reports:

- Most weeks, we'll have labs (NO LAB in the first week), you will be submitting a lab report online through Canvas at the end of the lab day.
- Collaboration of up to three persons are encouraged for the lab reports.

3. 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.

4. 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.

5. Production exam

- A production exam will take place to evaluate your ability to read and produce the symbols of the IPA.

6. 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 5 points; 70% would be 4 points, 60% would be 3 points, 50% would be 2 points, less than 50% would be 0 (zero) points.

7. 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.
 - (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://ubclinguistics.sona-systems.com>. 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.

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 some 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

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SCHEDULE OF TOPICS

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

Week	Date	Topic	Readings	Due	Labs
1	Sep. 04	Course Intro	Syllabus		
	Sep. 06	The vocal tract	Z. ch. 1		
2	Sep. 09	Articulation, IPA	Z. ch. 2		Lab 1
	Sep. 11	Transcription			
	Sep. 13	Consonants	Z. ch. 3 (sec. 3.2)	Quiz	
3	Sep. 16	Consonants			Lab 2
	Sep. 18	Consonants	Z. ch. 3 (sec. 3.3)		
	Sep. 20	Vowels	Z. ch. 4	Quiz	
4	Sep. 23	Airstream mechanism	C. ch. 3 (p. 25-30)		Lab 3
	Sep. 25	Airstream mechanism	C. ch. 3 (p. 25-30)		
	Sep. 27	Voicing process		Quiz	
5	Sep. 30	Holiday: Truth and rec. day			No labs
	Oct. 02	Basic acoustics	J. ch. 1		No labs
	Oct. 04	Visualizing sound		Quiz	
6	Oct. 07	Digital signal processing	J. ch. 3 (p. 49-58)		Lab 4
	Oct. 09	Digital signal processing	J. ch. 3 (p. 49-58)		
	Oct. 11	Source-filter theory	J. ch. 2	Quiz	
7	Oct. 14	Holiday: Thanksgiving			No labs
	Oct. 16	Midterm review			No labs
	Oct. 18	Midterm	J. ch. 6		
8	Oct. 21	Vowel acoustics			Lab 5
	Oct. 23	Vowel acoustics			
	Oct. 25	TBD		Quiz	
9	Oct. 28	Fricative acoustics	J. ch. 7		Lab 6
	Oct. 30	Fricative acoustics	C. ch. 3, 7, 8		
	Nov. 01	Fricative acoustics	C. ch. 3, 7, 8	Quiz	
10	Nov. 04	Production exam			No labs
	Nov. 06	Basics of audition	J. ch. 4		No labs
	Nov. 08	Speech perception	J. ch. 5	Quiz	
11	Nov. 11	Term break			
	Nov. 13	Term break			
	Nov. 15	TBD			
12	Nov. 18	Perception experiments	M. (2010)		Lab 7
	Nov. 20	Perception experiments	M. (2010)		
	Nov. 22	TBD		Quiz	
13	Nov. 25	Oral stop acoustics	J. ch. 8		Lab 8
	Nov. 27	Voice quality			
	Nov. 29	Nasal acoustics	J. ch. 9	Quiz	
14	Dec. 02	Pulmonic consonant acoustics			Lab 9
	Dec. 04	Suprasegmentals			
	Dec. 06	Review and wrap up			
TBD		Final exam		Final exam	

- C. Catford, J. C. (1977) *Fundamental Problems in Phonetics*, Bloomington, London: Indiana University Press
- Cr. (2010) Cieri, C. (2010). Making a field recording. In Di Paolo & Yaeger-Dror (eds). *Sociophonetics: A Student's Guide*. p. 24-35.
- M. (2010) McGuire, G. (2010). A brief primer on experimental designs for speech perception research. *Laboratory Report*, 77(1), 2-19.
- J. Johnson, K. (2012). *Acoustic and auditory phonetics*. Third edition. Wiley-Blackwell.

- Z. Zsiga, E. C. (2012). *The sounds of language: An introduction to phonetics and phonology*. Wiley-Blackwell.