

LING 314: INSTRUMENTAL PHONETICS

Days: Mon, Wed, Fri | Time: 02:00 pm–02:50 pm

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ACKNOWLEDGMENT

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

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 Canvas Home
Chenxi Xu (TA)	<i>Email:</i> xcx23xcx@mail.ubc.ca <i>Typical response time:</i> 24–48 hrs (excluding weekends and holidays)	See Canvas Home

Communication procedure:

Canvas Course Q&A: You are 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...". If you, however, cannot make it to the office hours for any reason, email us to schedule a meeting at other times.

Emailing: For any private or urgent matters, please email. I'll respond to emails on priority basis; please allow me 48 hours before you send me a follow up email. If you are emailing the TA, CC me as well, whenever feasible, for faster response/solutions.

COURSE INTRO

Welcome to LING 314! I am Jahurul Islam, and I am delighted to be your instructor for the upcoming Spring of 2025.

This course will provide a short, nontechnical introduction to articulatory phonetics. It will explore concepts tied to speech production, from neural processes to articulation. Students will learn to apply anatomical knowledge to understand the basics of speech production, analyze the roles of respiration and muscles, and explore laryngeal anatomy and phonation. The course also covers the articulation of various speech sounds and the use of measurement tools to analyze articulator movements, equipping students with both theoretical insights and practical skills in the field of phonetics.

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:

- understand speech production by comprehending the process from the nervous system to articulation.
- apply anatomy to articulatory phonetics by using anatomical knowledge to explain speech production basics.
- analyze respiratory and muscular contributions by evaluating the role of respiration and muscles in speech.
- explore laryngeal anatomy and phonation by investigating laryngeal anatomy and variations in phonation.
- examine articulation of vowels, consonants, and labial sounds by exploring the articulation of different speech sounds.
- utilize measurement tools for articulator movements by applying various tools to analyze articulator movements.

LEARNING ACTIVITIES

Typical class activities will include:

- lectures by me reviewing/explaining concepts based on the learning materials
- active discussion in groups on the day's readings
- question/answer sessions to clarify concepts concerned
- participating in quizzes and polls
- hands-on problem-solving, etc.

LEARNING MATERIALS

Required textbook

Gick, Wilson & Derrick, *Articulatory Phonetics*, Wiley Blackwell, 2013.

We'll closely follow the book throughout the term; so, it is strongly suggested that you get your copy as early as possible.

Additional readings relevant may be announced, as deemed useful.

ASSESSMENT

Course assessment will consist of the following components:

In-person quizzes	15%
Assignments	15%
Midterm	25%
Final exam	35%
Participation	8%
LOC	2%

1. **In-class quizzes:**

- Most Monday's will start with an in-person quiz.
- You must be physically present in the class to be able to attempt the quizzes.

2. **Assignments (group + individual):**

- There will be two types of assignments in this course
- *Group assignments:*
 - you'll be working in groups of **three**
 - the groups will be assigned randomly via Canvas
 - you'll submit a single report as a group and everyone in the group will receive the same grade.
- *Individual assignments:*
 - there will be two arts and crafts assignments that you'll need to complete individually

3. **Midterm:**

- There will be a midterm covering all the contents covered up to that point during the term.

4. **Final exam:**

- A final exam will be administered at the end of the exam.
- The exam will be cumulative with approximately 25–30% contents from before the midterm.

5. **Participation**

- Your presence in class is greatly appreciated. To encourage your active participation, I will offer incentives for engaging in class activities.
- I will run iClicker polls through the term and will pull the records of your participation at the end of the term.
- However, everyone will get some leeway here: participation in at least 80% of the polls would entail full 8 points; 70% would be 6 points, 60% would be 4 points, 50% would be 2 points, less than 50% would be 0 (zero) points.
- **Note:** A 20% leeway is already provided to account for unforeseen events that may prevent you from participating in some polls (e.g., absences, technical issues). No additional concessions will be granted for missed polls unless in extreme cases. Please refrain from emailing me about missing a poll for specific reasons, as the 20% leeway is designed to cover such situations.
- **Advanced clarification:** Your iClicker account/dashboard does NOT show the number of polls run through the term and I will NOT use any of those metrics shown on the account to calculate the participation points; instead, I will collect the backend data from iClicker and calculate the percentage of polls you participated through the term. So, do NOT confuse yourself with those info. If you have questions ask early.

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.
 - (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

Late/Missed exams:

- For the assignments, all late submissions will see an automatic penalty of 10% for each day; submissions can be made up to 48 hours after the deadline.
- The quizzes, midterm, and the final exam will be held in person.
- Given the limited strength of the teaching team, we won't be able to offer any make up quizzes or exams.
- If you happen to miss a quiz or the midterm to a credible reason, you must reach out to the instructor as soon as possible to discuss your options. For **each** occurrence, email me a completed "Student Self-Declaration - Academic Concession" PDF form (available here: <https://www.arts.ubc.ca/wp-content/uploads/sites/24/2019/10/Student-Self-Declaration-Form-1.6-Arts.pdf>).
- If you happen to miss the final exam, you should reach out to the Academic Advising to obtain a Standing Deferral.

Re-grades and appeals:

Marks/grades are not subject to negotiation. However, we are happy to rectify any marking errors (limited to miscalculations) 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/fresh 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 re-graded assignment will be considered final (with no further reviews).

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.

Evaluation of the participation in group assignments/projects:

Collaboration is a crucial life skill, and it is expected that each team member actively contributes to group assignments. However, there may be instances where the collaboration process encounters challenges. In such situations, the following policies will be followed:

- All marks for the group assignments will be **tentative and placeholders**.
- I will run two iPeer polls through the term where each group member will evaluate others in terms of their contributions to the group assignments.
- The quantitative feedback will be used to determine your final marks on the assignments.
- The marks you **earn** on group assignments will follow this scheme:

Peer Rating	Earned Marks from Tentative Points
90%–100%	100%
80%–89%	80%
70%–79%	70%
60%–69%	60%
50%–59%	50%
0%–49%	20%

SET UP YOUR iClicker Cloud ACCOUNT

We will use iClicker Cloud to run polls, etc. during classes. Please set up your iClicker Cloud account following instructions at <https://1thub.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

(Note: This schedule is tentative; changes can be made as we go.)

Week	Date	Topic	Due
1	Jan. 06	Course intro; Syllabus	
	Jan. 08	Ch 1: Speech chain	
	Jan. 10	Ch 1: Speech chain	
2	Jan. 13	Ch 2: CNS	In-class Quiz
	Jan. 15	Ch 2: CNS	
	Jan. 17	EEG	
3	Jan. 20	Ch 3: PNS	
	Jan. 22	Ch 3: PNS	In-class Quiz
	Jan. 24	EMG	Assignment
4	Jan. 27	Ch 4: Respiration	In-class Quiz
	Jan. 29	Ch 4: Respiration	
	Jan. 31	TBD	Assignment
5	Feb. 3	Ch 5: Larynx (Intrinsic)	In-class Quiz
	Feb. 5	Ch 5: Larynx (Intrinsic)	
	Feb. 7	EGG	Assignment
6	Feb. 10	Ch 6: Laryngeal sounds	In-class Quiz
	Feb. 12	Ch 6: Laryngeal sounds	
	Feb. 14	TBD	Assignment
7	Feb. 17	<i>Midterm Break</i>	
	Feb. 19	<i>Midterm Break</i>	
	Feb. 21	<i>Midterm Break</i>	
8	Feb. 24	Mid-term review	
	Feb. 26	Mid-term	Mid-term
	Feb. 28	TBD	
9	Mar. 3	Ch 7: Velic sounds	In-class Quiz
	Mar. 5	Ch 7: Velic sounds	
	Mar. 7	X-ray; MRI	Assignment
10	Mar. 10	Ch 8: Vowels	In-class Quiz
	Mar. 12	Ch 8: Vowels	
	Mar. 14	Ultrasound	Assignment
11	Mar. 17	Ch 9: Lingual consonants	In-class Quiz
	Mar. 19	Ch 9: Lingual consonants	
	Mar. 21	Palatography	Assignment
12	Mar. 24	Ch 10: Labial sounds	In-class Quiz
	Mar. 26	Ch 10: Labial sounds	
	Mar. 28	OpenFace	Assignment
13	Mar. 31	Ch 11: Putting articulations together	In-class Quiz
	Apr. 2	Ch 11: Putting articulations together	
	Apr. 4	Tomography	
14	Apr. 7	Review and wrap-up	
TBD			Final exam