

Introduction to Linguistic Phonetics

1 Course description

This class is an introduction to the linguistic phonetics of spoken languages. Topics include acoustics, articulatory phonetics, and phonology (phonemes and allophones).

2 Prerequisite

for 450 and 550A students: an introductory course in linguistics (LING 200 or equivalent)

3 Learning goals

By the end of this course, students should demonstrate the ability to:

- correctly describe the anatomy of the vocal tract
- use correct terminology describe speech articulations
- transcribe sounds using the symbols of the International Phonetic Alphabet (IPA)
- produce or recognize many of the sounds of the world's languages
- articulate basic acoustic theory as it relates to speech sounds
- use software to analyze acoustic properties of speech sounds
- articulate ways in which "the same" speech sound can vary across languages
- perform phonemic analysis, and understand some of the nuances in doing so
- succinctly and coherently describe the sounds of one of the world's languages

In addition, students who successfully complete this course will meet the prerequisites for other courses in linguistics which require basic competence in phonetics and phonology (experimental phonetics, LING 453; phonology 1, LING 451; morphology, LING 481).

4 Writing credit

Because there is a written project of sufficient length, with comment and revision built in, this course meets the criteria for a W-course at UW. W credit will be awarded to students who pass the course when final grades are turned in.

5 Teaching team

| | |
|--------------|--|
| professor | Sharon Hargus |
| office | 415J Guggenheim |
| office phone | 206 685-4263 |
| e-mail | sharon@uw.edu |
| web site | http://faculty.washington.edu/sharon/ |
| office hours | Tu 2:45-4:45 (Zoom by request). By appointment at other times. During finals week, only by appointment. |

My office is located in a suite of offices which is locked until about 8 am and after 5 pm. You can leave voicemail on my office phone but e-mail is the best way to get in touch with me. I have a mailbox in the Department of Linguistics main office in 414 GUG, which is the best way to leave hard copy materials for me (or vice versa).

| | |
|--------------------|---|
| TA | Ella De Falco |
| office | 407 GUG |
| e-mail | edefalco@uw.edu |
| web site | https://linguistics.washington.edu/people/ella-de-falco |
| section (optional) | Mon 12-1 (via Zoom) |
| office hours | Wed 1-2, Fri 2:30-3:30 |

407 GUG is a suite which is always locked.

6 Department of Linguistics information

The main office (414 GUG) is normally open 8 am-5 pm daily, but sometimes closed for short times during the day. The Department of Linguistics staff are:

| | | |
|---------------------|--------------------|----------------|
| Program Coordinator | Anna Schnell | linguw@uw.edu |
| Academic Counselor | Chris Shaeffer | phoneme@uw.edu |
| Administrator | Karoliina Kuismans | lingadm@uw.edu |

The Linguistics Department web site is: <http://depts.washington.edu/lingweb/>

7 Assignments and grade calculation

Your course grade will be based on the following:

| | mystery lg project option | descriptive and contrastive analysis options (550 only) |
|------------------|---------------------------|---|
| survey | .5% | .5% |
| homework | 17.5% | 17.5% |
| quizzes | 15% | 15% |
| labs | 17.5% | 17.5% |
| critique | 4.75% | 4.75% |
| critique sign-up | .25% | .25% |
| term project | 24.5% | 24.5% |
| prospectus | (not applicable) | |
| vowels | 7% | |
| consonants | 7% | |
| final draft | 10.5% | |
| final exam | 20% | 20% |

7.1 *Assignments*

7.1.1 **Homework**

The ten homework assignments are multiple choice Canvas quizzes. These assignments do not have a time limit: once you start, you can save your progress and return later to finish them. Be sure to click “submit all and finish” when you are satisfied with your work.

Each homework exercise will be open from the beginning of the course, but will close on the dates shown in §13 of this document 15 minutes before each class starts unless otherwise noted. You must remember to submit and save your homework by the due date and time.

The homework assignments vary in number of questions. Each homework exercise will contribute an equal amount to the homework portion of your final grade, regardless of how many questions it contains. For example, one homework might contain 10 questions, another 12 questions, but each of the ten homework scores will be worth one-tenth of the total homework score.

The lowest homework score will be dropped from the homework average.

7.1.2 **Quizzes**

There will be three quizzes. Like the homework, each quiz will contribute an equal amount to the quiz portion of your final grade, regardless of how many questions each quiz contains.

Unlike the homework, all quiz scores will be counted towards the final grade (**the lowest quiz score will not be dropped**).

7.1.2.1 Local students

Quizzes for local students are short-answer or similar questions, closed book and note. Each quiz will be administered in-person, on paper (closed book and closed note) during the last 20 minutes of class on the quiz days.

7.1.2.2 Distance learning (DL) students

Quizzes for distance learning students are multiple choice questions available in Canvas. Each quiz will open at the end of class on quiz days and close 15 minutes before the next class. During the time window for taking a quiz, once you begin work on a quiz you will have 30 minutes to finish it (the opening page of each quiz will remind you of this). Quizzes allow only one attempt and cannot be retaken.

7.1.3 **Labs**

These two assignments are designed to give you practical experience measuring acoustic properties of speech sounds using Praat, as well as practice in interpreting, explaining, and presenting your results. You are encouraged to work together on the measurements and talk to each other about your findings, but you should answer the Canvas questions individually.

7.1.4 Final exam

The final exam will cover the entire course. The final exam will be on paper, closed book and closed note.

7.1.4.1 Local students

The final exam will take place in person in our normal classroom at the time set for the exam by UW time scheduling.

7.1.4.2 Distance learning students

DL students are encouraged to attend class on the day of the final exam and take the exam with the local students, if possible.

Otherwise, DL students must identify someone who is willing to download, print out, and proctor the final exam, which will include playing some sound files to be transcribed during the exam. A proctor can be a colleague but not a close friend or family member. The proctor will monitor the exam process and make sure it is completed within the same time limit and other restrictions that local students have. During the exam, the DL student must write out (not type) answers on the exam. The proctor will then scan and upload the exam, and e-mail it to the teaching staff.

DL students will fill out a final exam survey indicating whether they will take the exam locally or will have a proctor, and if so, must provide that information to the teaching staff by the date shown in §13.

7.1.5 Critique

This is a reading and writing assignment designed to familiarize you with what should be included in a modern description of the phonetics and phonology of a particular language. This assignment is intended to help you with your term project assignment (7.1.6). More information will be provided in a separate document.

7.1.6 Term project

The purpose of this assignment is for you to practice transcribing and to learn more about the phonetic and phonological properties of a mystery language. Other project options are available to 550 students. More information about the options will be provided in a separate document.

The project will have intermediate deadlines. You will receive feedback on the section drafts submitted at the intermediate dates.

7.2 *Final grade calculation*

Showing up for class every day and participating in class activities are a good start. But your final grade is based on achievement: your scores on the various assignments.

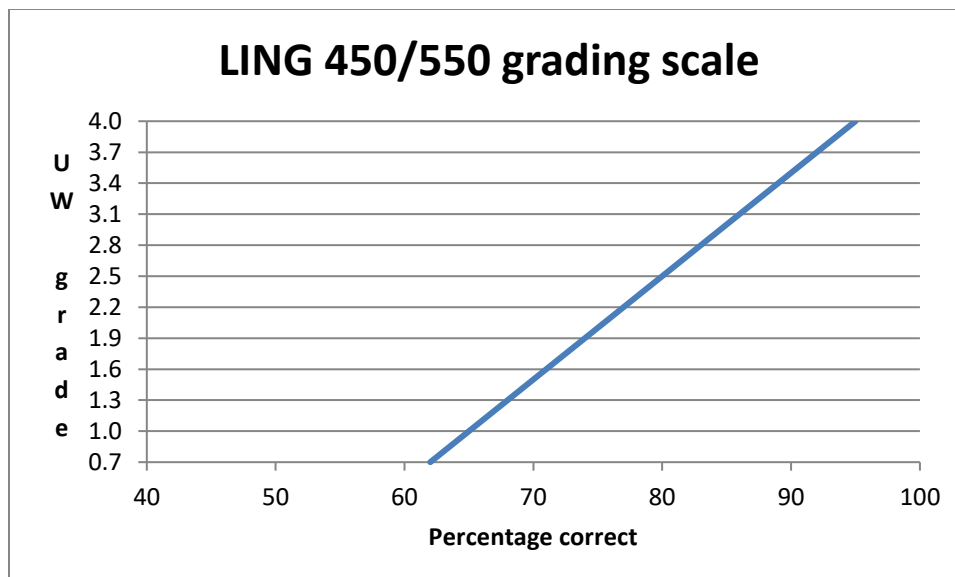
Each assignment will be worth a certain number of points. The Grades page of Canvas will contain your scores for each assignment as they are scored by Canvas, your TA, or by me.

In calculating final grades, I use Excel to reweight assignments as needed. For example, the final exam may be worth 100 points, but it is worth 25% of the final grade. So the final exam test score (out of 100) becomes the equivalent score out of 25. Then I will calculate a final percentage for the course which I will post in an Actual Final Percentage column of your Canvas gradesheet. Important: Actual Final Percentage will be slightly different from (higher than) the percentage calculated for the course by Canvas (posted in the column Total in Canvas). It's different because Canvas doesn't know how to drop the lowest homework grade. Note: Actual Final Percentage will not be calculated or recalculated by dropping a grade that a student is not happy with, for whatever reason.

In calculating final grades, Actual Final Percentage will be converted to a UW grade via the following linear scale.

| | |
|--------------|--------------|
| Above 94% | 4.0 |
| 63-94% | interpolated |
| 62% | 0.7 |
| 61% or lower | 0.0 |

i.e. UW grade = (Actual Final Percentage * .1)-5.5



According to this system, every student could in principle receive a 4.0 in this class. (Note that this is not “grading on a curve”.)

The minimum passing grade for 450 students is 0.7 and for 550 students (including CLMS students) 2.7. Correspondingly, the lowest passing percentage for 450 students is 62% and for 550, 82%.

8 Accommodations

8.1 Disability accommodations

To request academic accommodations due to a disability, please contact Disabled Resources for Students, 448 Schmitz, 206-543-8924 (V/TTY). If you think I have already received a message about you from DRS, please check in with me in person near the beginning of the quarter.

8.2 Religious accommodations

Washington state law requires that UW develop a policy for accommodation of student absences or significant hardship due to reasons of faith or conscience, or for organized religious activities. The UW's policy, including more information about how to request an accommodation, is available at [Religious Accommodations Policy \(https://registrar.washington.edu/staffandfaculty/religious-accommodations-policy/\)](https://registrar.washington.edu/staffandfaculty/religious-accommodations-policy/). Accommodations must be requested within the first two weeks of this course using the [Religious Accommodations Request form \(https://registrar.washington.edu/students/religious-accommodations-request/\)](https://registrar.washington.edu/students/religious-accommodations-request/).

9 Class policies

9.1 Individual effort

All work on quizzes, exams, problem sets, term project, etc., which constitute the basis for determining your final grade, whether in-class or take-home, should be individual efforts. Unauthorized collaboration will be considered cheating and will result in a score of zero on any assessment devices.

9.2 Academic Integrity

You are responsible for following the rules outlined in the UW Student Conduct Code. In particular, plagiarism will not be tolerated. Some resources to help you avoid plagiarism are linked to the class web site.

9.3 Grading disputes

If you want to dispute a score you received on an assignment, you must make an appointment to see me (do not ask me about grades before or after class).

9.4 Late assignments

Canvas will penalize late assignments 10% per day turned in late. Lowest possible grade is set to 40%.

9.5 Reopening assignments or forgiving the late penalty

The quizzes, homework, labs and other assignments whose due date has passed will only be reopened for students with medical or serious life issues. They will not be reopened for reasons such as the following: being behind on work in another class,

forgetting about due date, erroneous recall of due date or due time, confusion about time zone, confusion about daylight savings time, unhappiness with score, taking the wrong quiz or homework, or internet access issues (unless affecting the whole class). Likewise, the late penalty will not be lifted for similar reasons.

If you have a medical problem or anticipate a conflict with the due date for an assignment, you need to let the TA or me know before the due date, not after.

9.6 *E-mail*

The TA and I will send all correspondence to your UW e-mail address. If that is not your preferred address, please either start checking it regularly or configure it to forward messages to your preferred address. Forwarding instructions are linked to the class website.

We also request that you write to us from your UW e-mail address.

9.7 *Electronic devices*

Electronic devices (phones, tablets, laptops) should be used in class only for the purposes of note-taking or looking at web sites relevant to the class (when directed to do so).

9.8 *Lectures and class time*

Attending a lecture in person is not like watching TV, where you can do essentially anything while you watch and the TV does not know or care. I can tell when you are looking down at the phone you are holding in your lap, even when you are sitting in the back row! I consider certain kinds of activities during class lectures rude and disrespectful. The following are examples of unacceptable and acceptable activities during class lectures:

| <i>acceptable</i> | <i>unacceptable</i> |
|---|--|
| taking notes | passing notes |
| eating quietly | eating noisily (or noisily preparing to eat) |
| talking to neighbor (during group activity) | talking to neighbor (during lecture) |
| using electronic device when instructed to do so | using electronic device for e-mail, Facebook, tweeting, surfing, texting, working on assignments for this or another class, etc. |
| knitting quietly | reading a book or newspaper |
| walking out during the break or middle of lecture, with advance warning | walking out during the break or middle of lecture without advance warning |
| wearing earrings | wearing headphones in ears |

This is not an exhaustive list, but since you are enrolled in a 400-level college course, you are expected to be able to generalize from these examples. If in doubt, ask.

Also, while you are encouraged to contribute to class discussion, this does not mean you should ask an open-ended, deeply philosophical question every 5 minutes. If your questions are disruptive to the class, I may tell you to hold your questions during lecture.

10 Recommended resources

10.1 Software

You will be required to complete the labs using Praat, a free acoustic analysis program. Most students like to download and install it on their personal computer.

Other recommended software for the course includes:

- audio playback software
 - ❖ free: Audacity
 - ❖ commercial: SoundForge
- bibliography management software
 - ❖ free: Zotero, RefWorks (not as recommended as Zotero); BibTeX
 - ❖ commercial: Endnote (from Thomson ResearchSoft) (what I use)
- Excel (for the labs you will be provided with an Excel template)

For students who need access to computing services, the Language Learning Center has a drop-in computer lab with Praat installed. Check the LLC website.

10.2 Recommended hardware

Headphones are recommended for listening to sound files, especially in public.

A computer mouse is recommended for making measurements in Praat. It is much easier to be precise with a mouse than using a touch pad.

10.3 Books/Ebooks

Some dictionaries include International Phonetic Association transcriptions of headwords. Three for English are:

- *Oxford English Dictionary* (Oxford University Press 2000-)
- *Longman Pronunciation Dictionary* (Wells 2008)
- *Cambridge English Pronouncing Dictionary* (Jones 2011)

The first two are available through the UW library. The *OED* is online; the *Longman* dictionary is print.

11 Readings

Our textbooks are Ladefoged and Johnson 2015 (LJ) and Hayes 2009. These have been placed on reserve in Odegaard.

You will read nearly all of Ladefoged and Johnson 2015, which is out of print but still widely available.

You will read only two and a half chapters of Hayes 2009 in this course, but you will read most of the rest of the book if you take LING 451/551. This book is available through UW Libraries as an ebook.

The assigned reading should be done before that day's class, with the exception of LJ chs. 6, 7, and 8, which can be read over several days (up until the next reading assignment from the textbook).

12 Writing

Some of the class readings are handouts on writing conventions in linguistics, written by your professor.

- 'Citation and reference in linguistics'
- 'The organization of linguistic writing'
- 'Presenting data in linguistics papers'

You are expected to read these, and apply this information to your writing for this class. We will also spend some time in class reviewing these handouts.

13 Schedule

| week | date | featured topic | reading | due/closes |
|------|--------|--|---|--|
| 1 | Apr 1 | syllabus, web sites; phonetics and phonology (review) | LJ ch. 1 Articulation and Acoustics: Places of articulatory gestures | |
| 1 | Apr 3 | project options; IPA and transcription; phonemes and allophones (review) | LJ ch. 2 Phonology and phonetic transcription, LJ ch. 11 Linguistic Phonetics: The International Phonetic Alphabet, Hayes ch. 2 | -HW 1: Vocal tract anatomy |
| 2 | Apr 8 | acoustics 1: waves; consonants and consonant charts | LJ ch. 8 Acoustic Phonetics (read over several days); LJ ch. 3 The Consonants of English | -HW 2: Phonemic analysis |
| 2 | Apr 10 | acoustics 2: complex waves; affricates and the sequence-segment problem; vowels and vowel charts | 'Citation and reference in linguistics' | -HW 3: IPA (English Cs-articulation) -Beginning of quarter survey |
| 3 | Apr 15 | acoustics 3: resonance, source-filter theory, spectrograms; more on vowels | LJ ch. 4 English Vowels; 'The organization of linguistic writing' | -Critique sign-up |
| 3 | Apr 17 | vowel plots; English stress and vowel quality | LJ ch. 5 English Words and Sentences: Stress, Degrees of Stress | -(550) message if non-mystery project selection |
| 4 | Apr 22 | vowel system parameters; English secondary stress | LJ ch. 9 Vowels and Vowel-Like Articulations | -Critique |
| 4 | Apr 24 | acoustic properties of English consonants | | -HW 4: Acoustics -(550, if applicable) Project prospectus |

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|----|--------|---|---|---|
| 5 | Apr 29 | stress typology; tone | LJ ch. 10 Syllables and Suprasegmental Features: Intonation and Tone; Stress, Tone and Pitch Accent Languages | -HW 5: IPA (English word transcriptions) |
| 5 | May 1 | pitch accent and intonation | Hayes ch. 15 (pp. 291-310) | -quiz 1 (local students) |
| 6 | May 6 | voicing and VOT; vowel inventory typology | LJ ch. 6 Airstream Mechanisms and Phonation Types (except velaric airstream mechanism) 'Presenting data in linguistic writing' | -quiz 1 (DL students) -HW 6: IPA (All vowels-articulation) |
| 6 | May 8 | voice quality | | -Project: Vowels and suprasegmentals |
| 7 | May 13 | glottalic airstream mechanism | | -HW 7: Tone, pitch accent and intonation |
| 7 | May 15 | stops and nasals | LJ ch. 7 Consonantal Gestures (read over several days) | -Lab 1 |
| 8 | May 20 | anterior place of articulation; fricatives | | -Lab 1 -quiz 2 (local students) |
| 8 | May 22 | C inventory typology; posterior places; phonologization | | -quiz 2 (DL students) -HW 8: Obstruent dynamics |
| 9 | May 27 | laterals, rhotics | Hayes ch. 3 | -HW 9: Spectrogram reading -550 (DL): Final exam survey |
| 9 | May 29 | C length; secondary articulations | | -Lab 2 |
| 10 | Jun 3 | contour segments and multiply articulated segments | | -Project: Consonants |
| 10 | Jun 5 | velaric airstream mechanism; summary and review | LJ ch. 6 clicks (in 'Airstream Mechanisms') | -quiz 3 (local students) |
| F | Jun 10 | | | -quiz 3 (DL students) |

| | | | | |
|--|--------|-------------------|--|---|
| | | | | -HW 10: IPA (all Cs) -Final exam (10:30-12:20) |
| | Jun 11 | due time 5 pm PST | | -Project: Final draft |

14 References

- Hayes, Bruce. 2009. *Introductory Phonology*. Oxford: Wiley-Blackwell.
- Jones, Daniel, ed. 2011. *Cambridge English Pronouncing Dictionary*. Edited by J. Setter and J. Esling rev. P. Roach. 18th ed, *Cambridge English Pronouncing Dictionary* Cambridge: Cambridge University Press.
- Ladefoged, Peter, and Keith Johnson. 2015. *A Course in Phonetics*. Stamford: Cengage Learning. 7th ed.
- Oxford University Press. 2000-. *Oxford English Dictionary*. Oxford University Press: Oxford.
- Wells, J.C., ed. 2008. *Longman Pronunciation Dictionary*. Harlow: Pearson Education.