

# Phonetics

LING 320, Spring 2022, Reed College

<b>Instructor:</b>	Sameer ud Dowla Khan (they/he), skhan@reed.edu
<b>Class meeting:</b>	Tue/Thu 12:00–1:20PM in Library L41 (certain classes at <a href="https://reed-edu.zoom.us/j/97023684967">https://reed-edu.zoom.us/j/97023684967</a> )
<b>Drop-in office hours:</b>	Tue/Wed 4:00–6:00PM in Eliot 101C
<b>Virtual office hours:</b>	Wed 11:00AM–12:30PM at <a href="https://reed-edu.zoom.us/j/97023684967">https://reed-edu.zoom.us/j/97023684967</a>
<b>Distribution group:</b>	Group II
<b>Learning goals:</b>	Evaluate data and/or sources Analyze languages, structures, and processes Think in sophisticated ways about causation and human cognition

## Course description and learning outcomes

This course will introduce you to the study of the physical aspects of speech. You will learn how to produce, perceive, and transcribe the sounds of the world's languages, while learning the acoustic and articulatory properties of each sound. You will also gain practical skills in recording and measuring acoustic data in Praat (a program for acoustic analysis and other phonetic work), transcribing data in the International Phonetic Alphabet (IPA), and producing both familiar and foreign sounds in isolation and in varying contexts. Ultimately, you will apply these skills towards describing a language unknown to you, synthesizing speech, and analyzing research in articulatory, acoustic, and perceptual phonetics.

## Requirements and grading breakdown

<b>Prerequisite:</b>	None
<b>Textbooks:</b>	Ladefoged (2005). <i>A Course in Phonetics</i> , 5 <sup>th</sup> (or 6 <sup>th</sup> ) ed. ( <b>req., on reserve</b> ) Johnson (2012). <i>Acoustic and Auditory Phonetics</i> , 3 <sup>rd</sup> ed. ( <b>req., on reserve, e-book available</b> )
<b>Homework (15%):</b>	Homework assignments will be distributed almost every week, due in class, and will often include transcription of sound files to be downloaded from the course website.
<b>Quizzes (15%):</b>	Quizzes will occur in most classes; not all will be collected. Your lowest score will be dropped.
<b>Exercises (10%):</b>	Each student's skills at accurately producing various speech sounds will be tested during lecture. Full participation in such exercises is part of the course requirements.
<b>Exams (40%):</b>	Two exams will be held during lecture. A third exam will test your production skills, and will be scheduled individually for each student during the final exam period.
<b>Project (20%):</b>	You will find a speaker of a language you do not know, and based on data you collect from the speaker, you will write a paper describing the language's phonetics.

## Policies

<b>Misconduct:</b>	You are very much encouraged to work together, but your submissions must reflect your own judgments, findings, and analyses. Varying from this can be considered academic misconduct.
<b>Late work:</b>	Two 12-hr extensions can be applied to one HW assignment (24 hrs) or two (12 hrs each). No other extensions will be accepted, aside from those identified by DAR accommodations.
<b>Accommodations:</b>	If you need accommodations for this class, contact DAR at dar@reed.edu and meet with me in person or over Zoom to work out the details of your DAR letter.

## Class schedule

**H:** homework assignment due, **R:** reading due, **P:** project component due

Week	Day	Date	In class	Due before class
1	Tue	25 Jan	English consonants	<b>R:</b> LadefogedCP §1–3
	Thu	27 Jan	English vowels	<b>R:</b> LadefogedCP §4
2	Tue	1 Feb	English phonology	
	Thu	3 Feb	Project intro: proposal Nonpulmonic sounds	<b>R:</b> LadefogedCP §6
3	Tue	8 Feb	States of the glottis	<b>H1:</b> Basic IPA, English sounds
	Thu	10 Feb	Project intro: long and short wordlists Coronals and palatals <b>Demo:</b> Marathi	<b>P1:</b> Project proposal <b>R:</b> LadefogedCP §7
4	Tue	15 Feb	Dorsals and the throat	<b>H2:</b> Airstreams, glottal states
	Thu	17 Feb	Vowels, glides, nasalization <b>Demo:</b> Turkish	<b>R:</b> LadefogedCP §9
5	Tue	22 Feb	Tones and pitch accent	<b>R:</b> LadefogedCP §10 <b>H3:</b> Coronals and dorsals
	Thu	24 Feb	Project intro: recording Complex tones and register <b>Demo:</b> Vietnamese	<b>P2:</b> Long and short wordlists
6	Tue	1 Mar	Labials and laterals	<b>H4:</b> Vocoids, labials, laterals, rhotics, and tones (Wed)
	Thu	3 Mar	Practice non-English transcription	<b>H5:</b> All consonants (Fri)
7	Tue	8 Mar	<b>EXAM I:</b> Non-English phonetics	
	Thu	10 Mar	Basic acoustics; segmentation	<b>R:</b> Johnson §1
8	Tue	15 Mar	Source-filter theory	<b>R:</b> Johnson §2
	Thu	17 Mar	Tube models; vowel acoustics	<b>R:</b> Johnson §6 <b>H6:</b> Segmentation
Break	Tue	22 Mar	<b>NO CLASS:</b> Spring Break	
	Thu	24 Mar		
9	Tue	29 Mar	Project intro: final submission Vowel acoustics (cont.)	<b>P3:</b> Recording
	Thu	31 Mar	Discussion: Vowel acoustics	<b>R:</b> Hillenbrand et al. 1995
10	Tue	5 Apr	Fricative acoustics	<b>R:</b> Johnson §7 <b>H7:</b> Vowel acoustics
	Thu	7 Apr	Stop consonant acoustics	<b>R:</b> Johnson §8
11	Tue	12 Apr	Glide acoustics, perturbation theory <b>Demo:</b> Synthesis	<b>R:</b> Johnson §6.2 (reread)
	Thu	14 Apr	Liquid acoustics	<b>H8:</b> Obstruent acoustics
12	Tue	19 Apr	Nasal acoustics Nasalized vowel acoustics	<b>R:</b> Johnson §9
	Thu	21 Apr	<b>EXAM II:</b> Acoustic phonetics	
13	Tue	26 Apr	Discussion: Tonogenesis	<b>R:</b> Kingston 2011 <b>H9:</b> Synthesis
	Thu	28 Apr	Discussion: Phonetics in phonology Wrap up phonetics, practice production	
Exam	Wed	11 May	<b>EXAM III:</b> Production (individual) <b>Language project due</b>	<b>P4:</b> Final submission