

Linguistics 500:
Introduction to Phonetics
Winter 2006

Class Information:

Time: MW, 11:30-1:18; F, 2:00-3:00
Location: Derby Hall 029
Website: www.ling.osu.edu/~pwong/ling500
Textbooks: 1. Ladefoged, Peter (2006). *A Course in Phonetics* (5th ed.). Thomson Wadsworth. (referred to as CP)
2. Ladefoged, Peter (2005). *Vowels and Consonants* (2nd edition). Blackwell Publishing. (optional; we will distribute copies of relevant materials; referred to as VC)
Materials of the books can be found at <http://phonetics.ucla.edu/>
Office Hours: Fridays, 11:30 AM – 1:00 PM, Oxley 024

Instructor Information:

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Course Description and Objectives

This is an introduction to the study of phonetics, looking at the speech sounds of the languages of the world. In this course, we will look at how human speech sounds are produced, how to describe speech sounds, how speech sounds relate to other fields of linguistics, and how to go about investigating all of these topics experimentally. Means of describing speech sounds include using speech analysis tools and phonetic transcription, which we will cover in the course. Readings and homework assignments will be assigned to give you a broader view of the field and to help make sure you understand the topic under discussion. Lab recitation each week provides hands-on application of the topics discussed in class.

Practical training in phonetics is particularly valuable for professions in language education – whether foreign language education, English education, or ESL. Phonetic training also benefits students who are interested in human/computer interface technology, and students in training for certification as speech pathologists or audiologists. And of course, students who are interested in linguistics in general should take phonetics.

Elements of the class:

This course is divided into five two-week modules. For each of the first four modules, there will be one homework assignment and one lab report. There will also be a couple of articles to read and summarize (one each for modules 1 and 3). For the fifth module, there will be a final project consisting of four parts as described below. Discussions among students about the assignments are encouraged, but write-ups need to be your own work.

Modules:

Module 1: Introduction to Phonetics
 Module 2: Pitch, Fundamental Frequency, Stress, Tone
 Module 3: Vowels
 Module 4: Consonants
 Module 5: Laryngeal Mechanisms

Homeworks:

HW1: Using Praat
 HW2: Pitch, fundamental frequency & loudness
 HW3: Spectrogram reading part 1 (Vowels)
 HW4: Spectrogram reading part 2 (Vowels and Consonants)

Articles for Selected Modules:

AM1: McGurk, H., & MacDonald, J. (1976). Hearing lips and seeing voices. *Nature*, 264, 746-748.
 AM3: Peterson, G. E., & Barney, H. L. (1952). Control methods used in a study of the vowels. *Journal of the Acoustical Society of America*, 24, 175-184.
 AM5: Davis, Katharine (1994). Stop voicing in Hindi. *Journal of Phonetics* 22, 177-93.

Labs:

LAB1: Using Praat – Drawing Pictures and Sound Editing
 LAB2: Fundamental frequency and the vocal tract
 LAB3: Charting the vowel space
 LAB4: Investigating consonantal features using videos, X-rays, ultrasound, static palatography

Final Project:

Part (a): Measuring English VOT
 Part (b): Measuring Hindi VOT
 Part (c): Perception of VOT
 Part (d): Summary of Davis (1994)

Grading:

1.	Homework assignments	20%	4 at 5% each
2.	Reading summaries	20%	2 at 10% each
3.	Lab reports	40%	4 at 10% each
4.	Final project	20%	4 parts at 5% each

Grading Scale:

A	93-100	B+	87-89	C+	77-79	D+	67-69	E	< 60
A-	90-92	B	83-86	C	73-76	D	63-66		
		B-	80-82	C-	70-72	D-	60-62		

Policies:

Computers: You will need to have access to a computer outside of class to do some of the homeworks and labs. If you don't have one yourself or want to use the regular computer labs on campus, you are welcome to use the PCs in the Linguistics Department at Oxley Hall. You can log into them by using the name "ling500" and the password "phonetics." Make sure you bring your own floppy disk or jump drive, etc., so that you can store any files you want to keep. Also, you will have noticed that our classroom, Derby 29, is a computer classroom. You are welcome to use the computers for class purposes (exercises, note-taking, etc.) but we ask that you not use them for personal use during class time, as this can be distracting to other students.

Accommodations: If you feel you may need an accommodation based on the impact of a disability, please contact the instructors privately to discuss your specific needs. Please also contact the Office of Disability Services, who will help coordinate reasonable accommodations for students with documented disabilities, at (614) 292-3307 or in person in 150 Pomerene Hall.

Conduct: We're all adults. We will treat you with respect, and you will treat us and each other with respect. Academic misconduct will not be tolerated by anybody, and we will follow University Rule 3335-31-02, which requires that "each instructor shall report to the committee on academic misconduct all instances of what he or she believes may be academic misconduct." The most common form of misconduct is plagiarism. Remember that any time you use the ideas or the statements of someone else, you must explicitly acknowledge the source in a citation. This includes material that you found on the Web. The university provides thoughtful guidelines for research on the Web at <http://gateway.lib.ohio-state.edu/tutor>.

Concerns: If you have any concerns about this course that you do not feel comfortable discussing with us, please contact Hope Dawson, the Linguistics Department TA coordinator, at hdawson@ling.osu.edu.

Tentative Schedule of Events:

Wk	Date			Topic	Readings	Due
1	1/4	W	KCH	Intro to course Assign HW1: Using Praat		
	1/6	F	PW	Learning how to use Praat Distribute AM1 (McGurk and MacDonald 1976)		HW1
2	1/9	M	PW	Anatomy, physiology, & acoustics of speech production	CP p.1-22 CP p.133-143	
	1/11	W	KCH	Describing & measuring speech sounds Discussion of Article 1	CP p.181-205	AM1
	1/13	F	KCH	Lab1: Using Praat – Drawing Pictures and Sound Editing		
3	1/16	M		<i>No Class</i>		
	1/18	W	PW	Larynx & vocal folds; calculating periodicity Assign HW2: Pitch, fundamental freq. & loudness Discuss results of Lab1	VC p.6-25 CP p.22-24 CP p.247-254	Lab1
	1/20	F	PW	Lab2: Fundamental frequency and the vocal tract		HW2
4	1/23	M	KCH	English stress & intonation Discussion of HW2 & Lab2 results	CP p.247-254	
	1/25	W	PW	Tones and tone languages Prepare for Lab 2	CP p.110-128	
	1/27	F	KCH	Lab2: Fundamental frequency and the vocal tract		
5	1/30	M	PW	Vowels: features, articulation, anatomy Assign HW3: Spectrogram Reading part 1	CP p.83-100	Lab2
	2/1	W	KCH	Vowels: acoustics; secondary characteristics	CP p.18-22 CP p.211-231	
	2/3	F	KCH	Lab 3: Charting the vowel space Distribute AM3: (Peterson and Barney 1952)		HW3
6	2/6	M	PW	Vowels: acoustics Discussion of HW3 & Lab 3 results		
	2/8	W	KCH	Discussion of Article 3		AM3
	2/10	F	PW	Lab 3: Charting the vowel space		
7	2/13	M	PW	Consonants: features, articulation, anatomy Assign HW4: Spectrogram Reading part 2	CP p.55-76	Lab3
	2/15	W	KCH	Consonants: acoustics & reading spectrograms	CP p. 197-205	
	2/17	F	PW	Lab 4: Investigating consonantal features using videos, X-rays, ultrasound, static palatography		HW4
8	2/20	M	PW	Consonants: acoustics Discussion of Homework 4 and Lab 4 results	CP p. 191-197	
	2/22	W	KCH	More on consonants Prepare for Lab 4	VC p. 154-173	
	2/24	F	KCH	Lab4: Investigating consonantal features using videos, X-rays, ultrasound, static palatography		
9	2/27	M	PW	Laryngeal Mechanisms: Voice Onset Time Assign final project (a): Measuring English VOT	CP p.107-128	Lab4
	3/1	W	KCH	More on Vowels and Consonants		
	3/3	F	PW	Final project (b): Measuring Hindi VOT Distribute final article (Davis 1994)		
10	3/6	M	PW	More on Laryngeal Mechanisms Discussion of results from Final project (a, b)		

	3/8	W	KCH	Discussion of AM 5 Preparation for Final project (c)		
	3/10	F	KCH	Final project (c): Perception of VOT		
11	3/13	M		Turn in project reports by 5:00 PM		