

Linguistics 105/205 – Phonetics

Course Syllabus, Fall 2005

Class: TTh 12:15 – 2:05 in 60-62C

Instructor: Rebecca Scarborough

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Office hours: Mon 11-12, Tues 2:15-3:15, or by appt.

Phonetics Lab: 420-067

Lab RA: Yuan Zhao, yuanzhao@stanford.edu, office: 460-119

Course webpage: <http://www.stanford.edu/class/linguist205>

Course description

We will be considering three fundamental questions:

How do we produce speech?

How do we perceive speech?

How does the nature of these processes influence the sound patterns of languages?

We will also be learning experimental and analytical techniques that enable us to address these (and other) questions.

Prerequisites

This course will assume a basic knowledge of articulatory phonetic description, transcription, and phonological theory, topics covered in Linguistics 110 (Introduction to Phonetics and Phonology). Students who do not have this background should consider waiting to take Linguistics 105/205 and should in any case consult the instructor before enrolling.

Requirements

- Course readings and class discussions
- 4 lab assignments
- 2 other short assignments
- term paper/project

Course text

Johnson, Keith (2003) *Acoustic and Auditory Phonetics*, 2nd edition. Blackwell Publ. (required)

P. Ladefoged (1996) *Elements of Acoustic Phonetics*, 2nd ed. U. Chicago Press. (recommended)

Additional readings, which you may photocopy, will be placed in a box by the graduate student mailboxes in the linguistics department.

Supplemental readings (not required)

G. Borden, et al. (2003) *Speech Science Primer*, 4th edition. Lippincott Williams & Wilkins.

P. Denes and E. Pinson (1993) *The Speech Chain*, 2nd edition. W. H. Freeman.

K. Stevens (1999) *Acoustic Phonetics*. MIT Press.

P. Ladefoged (2001) *A Course in Phonetics*, 4th edition. Harcourt-Brace. (for review)

Tentative Schedule

week 1	9/27 – 9/29	<ul style="list-style-type: none">• introduction, the speech chain• basic acoustics and spectrograms
week 2	10/4 – 10/6	<ul style="list-style-type: none">• segmentation, digital speech, introduction to Praat DURATION ASSIGNMENT given out (due 10/13)• Experimental methods, basic statistics
week 3	10/11 – 10/13	<ul style="list-style-type: none">• Source-filter theory and tube models• more tubes, perturbation theory ACOUSTICS ASSIGNMENT given out (due 10/25)
week 4	10/18 – 10/20 no class 10/20	<ul style="list-style-type: none">• spectral analysis, measuring formants (spectrogram reading) FORMANT ASSIGNMENT given out (due 11/3)
week 5	10/25 – 10/27	<ul style="list-style-type: none">• Quantal theory & Adaptive dispersion• data analysis & ANOVAs
week 6	11/1 – 11/3	<ul style="list-style-type: none">• source-filter theory for consonants• more consonant acoustics, spectrogram reading PROJECT PROPOSAL (due 11/10)
week 7	11/8 – 11/10	<ul style="list-style-type: none">• Suprasegmentals F0 ASSIGNMENT given out (due 11/15)• audition
week 8	11/15 – 11/17	<ul style="list-style-type: none">• speech perception - cues and categorical perception PERCEPTION ASSIGNMENT given out (due 11/29)• theories of speech perception and lexical recognition
		THANKSGIVING BREAK
week 9	11/29 – 12/1	<ul style="list-style-type: none">• speech production• coarticulation - articulatory phonology and windows
week 10	12/6 – 12/8	<ul style="list-style-type: none">• phonetics in the grammar• PROJECT PRESENTATIONS
finals wk	12/12 – 12/16	FINAL PROJECT due 12/15 (Thurs)