

LINGUISTICS 20
EXPERIMENTAL PHONETICS

3 REED HALL (Phonetics lab)
MWF 10

IOANA CHITORAN
308 REED HALL
6-3403
OFFICE HOURS: MONDAY 4 – 5

COURSE DESCRIPTION

This course is about *the structure of speech*, and how it is linguistically relevant. The articulatory and acoustic properties of speech combine to form a large diversity of sound systems in the languages of the world.

Our study will include:

- basic elements of speech physiology, articulation, and acoustic analysis of speech;
- experimental techniques for investigating speech production – data collection and recording, techniques for measuring speech acoustics, data interpretation;
- gaining practical experience in perceiving, producing, and transcribing speech patterns of different languages.

For acoustic analysis we will be using the free software “Praat” (the Dutch word for *language*). Both Apple and Windows versions can be downloaded from: <http://www.fon.hum.uva.nl/praat/>

COURSE WORK

- assigned readings
- exercises from the CD
- 4 laboratory projects
- final exam
- final project

GRADE BREAKDOWN

assignments	10%
4 projects	60%
final project	15%
final exam	15%

- LABORATORY PROJECTS:
1. Segmenting speech based on waveforms
 2. Measuring formant frequencies of American-English vowels
 3. The acoustics of consonant place of articulation
 4. Measuring fundamental frequency (F0) contours

FINAL PROJECT: Recording a speaker of a language other than English and not commonly studied at Dartmouth. Use acoustic analysis to produce a phonetic description.

BOOKS

required

Ladefoged, P. (2006) *A Course in Phonetics* (5th edition) Boston, MA: Thomson-Wadsworth

Additional readings from Ladefoged and Maddieson (1996) *The Sounds of the World's Languages* will be made available to you ... somehow TBA

SYLLABUS

March 26	Intro class	
March 28	Introduction to speech articulation and acoustics	L ch. 1
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March 31	Speech articulation and acoustics	
April 2	Phonology and phonetic transcription	L ch. 2
April 4	Consonants	L ch. 3 - to p. 68 L ch. 8 (191-197)
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April 7	Consonants – <i>hand out project 1</i>	<i>L&M ch. 2</i>
April 9	Vowels	L ch. 4 - to p. 98
April 11	Vowels	L ch. 8 (181-191)
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April 14	Vowels	<i>L&M 9 (281-298)</i>
April 16	Overlapping gestures – Allophones	L 3 (68 – 76)
April 18	“Open class” for questions that may come up, preferences, special requests, etc.	
	PROJECT 1 DUE TODAY	
	<i>Hand out project 2</i>	
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April 21	<i>Guest lecture</i>	
April 23	Airstream mechanisms and phonation types	L 6
April 25	Airstream mechanisms	<i>L&M 3 (77-90)</i>
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April 28	Data elicitation sessions	
	PROJECT 2 DUE TODAY	
	<i>Hand out project 3</i>	
April 30	Data elicitation	
May 2	Data elicitation	
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May 5	Phonological sketch of Turkish; Phonetics	
May 7	Consonantal gestures	L 7
May 9	Vowels and vowel-like articulations	L 9
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May 12	Connected speech	L 5
	PROJECT 3 DUE TODAY.	
	<i>Hand out project 4</i>	
May 14	Suprasegmentals	L 10, 8 (197-208)
May 16	<i>Guest lecture</i>	
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May 19	Approximants	TBA
May 21	Rhotics	TBA
May 23	PROJECT 4 DUE TODAY	
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<i>May 26 – no class</i>		
May 28	Preparing for the final project	