

LING 210
Articulatory and Acoustic Phonetics

Syllabus

Spring 2009
MR 1:10–2:25pm, Bronfman 104

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Course Description

From the course catalog:

In this course, students will learn to recognize, produce, describe, transcribe, and analyze speech sounds from languages all over the world. We will explore the basic physics behind the way we produce speech sounds, the acoustic properties of speech as a sound wave, and how these combine to create common patterns across languages. Throughout the course, students will learn the International Phonetic Alphabet (a standardized system for phonetic transcription) and mathematical and computer techniques for rigorous phonetic analysis. Format: lecture/discussion. Requirements: participation in discussions, ~~weekly homework~~ regular lab assignments, frequent quizzes, a midterm exam, and a final project. No prerequisites.

The course website is located at: <http://wso.williams.edu/~nsanders/LING210/>

Readings

J.C. Catford. 2002. *A practical introduction to phonetics*. 2nd ed. Oxford University Press. ISBN #0199246351. [required]

Peter Ladefoged. 2005. *Vowels and consonants*. 2nd ed. Blackwell. ISBN #1405124598. [required]

You will also need to download computer software for recording and doing phonetic analysis. In class, we will be using Audacity <http://audacity.sourceforge.net/download/> and Praat <http://www.fon.hum.uva.nl/praat/>, both of which are available for Windows, Mac, Unix, and other operating systems. However, if you are more comfortable with other suitable software programs with equivalent functionality, you may use them instead.

Grading

Your grade for the course is calculated as a weighted combination of your class participation (5%), lab average (25%), quiz average (30%), midterm exam score (25%), and final project (write-up and presentation) (15%).

Labs

Note the change from the published course description: there is no weekly homework; instead, there are six lab assignments, roughly two weeks apart. Lab assignments are available from the course website, so missing lecture is not an excuse for skipping a lab. Late lab write-ups cannot be accepted. To compensate for this strict policy, your lowest lab grade is dropped when computing your final grade. Because the labs can be complex and involved, you are strongly encouraged to work together in lab groups, but in accordance with the Williams College Honor Code, every member of the group must contribute roughly equally to the overall product.

Your lab write-ups should be either neatly written or typed in a reasonable font with reasonable spacing and margins for writing comments (e.g., 10–12pt font, double-spaced prose, 1–1.5" margins, using only one side of the page). Please, do not submit spiral-bound paper with ragged edges! Staple (rather than paper clip or fold) multiple pages together.

Quizzes and Midterm Exam

There are about seven quizzes (every week or two) and one midterm exam (just before spring recess). The quizzes cover recently-discussed material and will be announced at least one lecture in advance. They are fairly short, typically taking about 10–15 minutes to complete. The quizzes are closed-book, closed-notes. As with labs, your lowest quiz grade is dropped when computing your grade for the course. The midterm covers material from the first half of the course. It is an in-class exam, designed to take the full class time to complete. The midterm is open-book, open-notes.

In accordance with the Honor Code, you must do your own work on the quizzes and the midterm without the help of any other student. Suspected violations will be pursued to the full extent of College policy!

Final Project

The final project is a phonetic study of a language other than English. More details about the requirements for the write-up and presentation will be given as the course progresses.

Tentative Schedule

Feb.	4	W	PIP:1	VC:1		the vocal tract
	9	M		VC:11		consonant articulation
	12	R		"		consonant articulation (cont'd)
	16	M		VC:3,12		vowel articulation
	19	R		"		vowel articulation (cont'd)
	23	M		VC:7–9	Lab #1 due	sound waves
	26	R		"		sound waves (cont'd), spectrograms
Mar.	2	M		VC:4–5		vowel formants
	5	R		"		vowel formants (cont'd)
	9	M		VC:6	Lab #2 due	consonant acoustics
	12	R		"		consonant acoustics (cont'd)
	16	M			Lab #3 due	review for midterm
	19	R				MIDTERM

—spring recess, no class—

Apr.	6	M	PIP:2–5	VC:13–14		more consonants
	9	R	"	"		more consonants (cont'd)
	13	M	"	"		more consonants (cont'd)
	16	R	"	"		more consonants (cont'd)
	20	M	PIP:7,8	VC:15	Lab #4 due	more vowels
	23	R	"	"		more vowels (cont'd)
	27	M	"	"		more vowels (cont'd)
	30	R	PIP:9	VC:2,16		stress and tone
May	4	M	"	"	Lab #5 due	stress and tone (cont'd)
	7	R		VC:10		perception
	11	M	PIP:10,11			class presentations
	14	R	"		Lab #6 due	class presentations
	22	F				FINAL PROJECT DUE BY 5pm

Readings are chapters from Ladefoged's *Vowels and consonants* (VC) and Catford's *Practical introduction to phonetics* (PIP). They should be read concurrently with the lectures. Note that quizzes will cover material from both lecture and from the readings, and we will not have time in lecture to cover everything in the readings, so be sure to stay current with the readings.