

LING 113 – Experimental Phonetics
Spring 2015

MWF 9:00a-10:00a
259 Dwinelle and occasionally 52 Dwinelle

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or by appointment

Units: 3

Prerequisite(s): LING 110

Course Description: Practical training in experimental phonetics; acoustic, physiological, and perceptual analysis of speech.

Course Requirements: Each student taking the course for credit is required to fulfill the following requirements.

- Active participation in discussions
- Complete assigned readings and consider content in relation to study questions
- Homework assignments (4 total), which will consist of summarizing the methods and conclusions from assigned readings and attempting to reproduce the results
- Lab reports (4 total), which will consist of participating in data collection for and analysis of a class-wide short project
- A term project, which will be a short experiment or an analysis of pre-existing data, unique to each student
- A writeup of the term project
- A 10-minute conference-style presentation on the contents of the term project

Point Distribution:

Homework assignments (4)	20
Lab reports (4)	40
Project writeup	25
Presentation	5
Participation	10

Letter Grade Distribution:

≥ 93.00	A	73.00 - 76.99	C
90.00 - 92.99	A-	70.00 - 72.99	C-
87.00 - 89.99	B+	67.00 - 69.99	D+
83.00 - 86.99	B	63.00 - 66.99	D
80.00 - 82.99	B-	60.00 - 62.99	D-
77.00 - 79.99	C+	≤ 59.99	F

Class schedule (subject to change depending on global interest)**Unit 1** (1/21 – 2/13): Acoustics

- recording speech in the lab
- measuring temporal and spectral qualities of speech
- using automated tools for speech alignment and acoustic analysis

Unit 2 (2/18 – 3/13): Perception

- using the Klatt synthesizer
- designing perception tasks – types, stimuli choice and creation
- understanding and interpreting perception data

Unit 3 (3/16 – 4/17): Articulation

- collecting and interpreting aerodynamic data
- collecting and interpreting ultrasound data

Lab time (4/16 – 4/24): time set aside for data collection, analysis, and presentation preparation

Presentations (4/27 – 5/1)

Project writeup due: 5/13

Each unit will follow roughly the following schedule:

- Week 1 – Read. Read and discuss one or two papers using the techniques targeted in the unit
- Week 2 – Replicate. Learn and use techniques targeted in the unit to (attempt to) replicate the paper(s) read. Write a brief summary of the paper, including results from the replication.
- Week 3-4 – Expand. Working together with your classmates, apply the techniques learned (or similar techniques) to a novel question, and write up your findings in a short lab report.