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LIN 427: Laboratory Phonetics  
LIN 827: Phonetics I  
Spring 2022

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**Instructor**

Karthik Durvasula  
Office: B463 Wells Hall  
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**Office hours**

Tue, 2:15 - 4:00pm  
on the class Zoom link for the first three weeks  
And in my office, once classes are in-person.

**Class Schedule**

Tuesday/Thursday      12:40 - 2:00pm

**Class Location**

For the first 3 weeks: <https://msu.zoom.us/j/97515569662> (p/w Phon)  
Rest of the semester: Wells Hall B-129

**Note 1:** It's best to email me a day or two BEFORE you plan to be there during my office hours, so that I can let you know if I am free at the time you plan to come.

**Course Goals**

This course is intended to introduce students to the basic concepts, principles and methods of modern Phonetics. You will gain an understanding of what human speech is and how it works. By the end of the course, you will be able to reflect on your own speech and the speech of those around you, and you will be able to analyze what you observe and discuss it in a meaningful way.

**Recommended Text**

- Johnson, Keith. (2012). *Acoustic and Auditory Phonetics*. Wiley-Blackwell.
- Materials may be
  - (a) distributed in class.
  - (b) posted on the course website (D2L).
  - (c) placed on reserve in the library.

**Note 2:** You are responsible for all material in the assigned chapters and supplemental readings, even if we do not discuss it in class (unless you are given information to the contrary). You are also responsible for all material covered that is not in the book (unless you are given information to the contrary).

## Course Requirements

### Lectures & Attendance (lectures will be posted on D2L)

Students are expected to attend all classes. It is important to attend all classes since materials that are not covered in the textbook may be presented. Please be sure to get the notes from any class you miss. Materials may be sent via email and uploaded to D2L, but you should also check with me or a classmate regarding material you may have missed.

### Readings (will be posted on D2L)

Students are expected to do all the assigned readings. It is most helpful to do the readings for a given topic BEFORE the class dealing with that topic. This will make the lectures easier to follow, and you will be in a better position to ask questions about things that might not be clear to you.

A part of your labwork (see below) will be based on your readings. The relevant readings will be uploaded along with the corresponding lab. Therefore, you should expect a reading along with each lab.

### Labwork (will be posted on D2L)

Labwork must be typed and uploaded to D2L *before* the beginning of class on the day that the lab is due. If you are not able to turn in your labwork on time, you must contact me by the day the lab is due to figure out an alternate date of submission (typically, within a week of the original deadline); if you do not do this, you will automatically receive 0% for the assignment.

### Final Project

There are no quizzes, and tests in this class. However, there is a Final Presentation and a Final Project. Any issues about grading must be addressed *within 1 week* of the date when the graded work was returned.

Grading Weight		Grading Scale	
		4.0	93% or higher
		3.5	85% - 92.9%
		3.0	77% - 84.9%
		2.5	69% - 76.9%
		2.0	61% - 68.9%
		1.5	53% - 60.9%
		1.0	45% - 52.9%
		0.0	44.9% or lower
Lab Work	80%		
Final Presentation	3%		
Final Project	17%		
Total	100%		

## Spartan Code of Honor Academic Pledge

*As a Spartan, I will strive to uphold values of the highest ethical standard. I will practice honesty in my work, foster honesty in my peers, and take pride in knowing that honor is worth more than grades. I will carry these values beyond my time as a student at Michigan State University, continuing the endeavor to build personal integrity in all that I do.*

## Course Schedule

This schedule is subject to slight variation, so if you miss a class, be sure to check with me or a classmate. [**Note:** we might have presentations during finals week, if there are too many papers]

Wk	Date (Tuesday)	Lecture Topic (Tuesday)	Lab Topic (Thursday)
1	January 11, 2022	Course organisation	Intro. Articulatory Phonetics: Consonant & Vowels Lab 0 - Transcriptions
2	January 18, 2022	More on Consonants & Vowels	Lab 0: due Introduction to Praat Lab 1: Stress, Pitch & Vowel Length
3	January 25, 2022	Sound & $F_0$	Lab 1: due Lab 2: Voicing and Vowel Duration
4	February 1, 2022	Acoustic Theory of Sp. Prod. I	Lab 2: due Lab 3: Vowel Formants
5	February 8, 2022	Acoustic Theory of Sp. Prod. II	Lab 3: due Lab 4: Consonants and the larynx
6	February 15, 2022	Perturbation Theory	Lab 4: due Lab 5: Aspiration and Voicing
7	February 22, 2022	The Sounds of Consonants	Lab 5: due Lab 6: Stop and Fricative POA
8	March 1, 2022	The Sounds of Consonants II	Lab 6: due <b>Discussion of final projects</b>
9	March 8, 2022	<b>Spring Break</b>	
10	March 15, 2022	Co-articulation <b>Discussion of final projects</b>	Lab 7: Nasals and liquids
11	March 22, 2022	Co-articulation II	Lab 7: due Lab 8: DSP lab
12	March 29, 2022	Basic Digital Signal Processing <b>Discussion of final projects</b>	Lab 8: due Lab 9a: Praat Scripting
13	April 5, 2022	Introduction to the Ear	Lab 9a: due Lab 9b: More Praat Scripting

14	April 12, 2022	Speech Perception I	<b>Discussion of final projects</b> Lab 9b: due Lab 10: Perception experiment
15	April 19, 2022	Speech Perception II	Lab 10: due <b>Discussion of final projects</b>
16	April 26, 2022	Final Project Presentations	Final Project Presentations
Exam Week	TBD	<b>Final Papers due</b>	