

University of Florida at Gainesville
Department of Linguistics
4131 Turlington Hall
LIN 6226
Advanced Phonetics

T 8-9th period (3:00-4:55)
R 9th period (4:05-4:55)

MAT0102 (Matherly Hall)
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Professor: Rtree Wayland

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Turlington 4131E

Phone: (352) 294-7450

Office Hours: R (1:55-2:45 PM), and by appointment (please email to schedule)

Course materials on Canvas: <http://elearning.ufl.edu> log in and find Lin3201

Technical Issues? Contact the UF Computing Help Desk: helpdesk@ufl.edu or call (352) 392-4357.

Overview:

The goal of this course is to introduce students to acoustic analysis techniques, theoretical issues in phonetics, and experimental phonetic research design. Experimental phonetic studies particularly those pertaining to an investigation into second language acquisition (production and perception) in general and on linguistic prosody in particular will read and discussed.

Prerequisite: LIN 4205 (Fundamental Phonetics)
LIN 6208 (Phonetics for Linguists)

Objectives: On completion of this course, students should be able to:

- perform acoustic analysis on various acoustic characteristics of speech signals
- design experimental phonetic research to answer specific research questions
- be familiar with general theoretical issues in phonetics
- be informed of current trend in experimental phonetics research

Assessment	% of course grade
Class participation and exhibition of having read reading assignments	20%
Midterm exam	20%
Home work (5)	25%
Presentation of selected papers	10%
Final project	25%

Grading Scale

93–100% = A	90-92.9% = A-	87-89.9% = B+
83-86.9% = B	80.0-82.9% = B-	77-79.9% = C+

73-76.9% = C	70.0-72.9% = C-	67-69.9% = D+
63-66.9% = D	60.0-62.9% = D-	Below 60% = E

Information on current UF grading policies for assigning grade points can be found here.
<http://www.registrar.ufl.edu/catalog/policies/regulationgrades.html>.

Late Policy: 10% penalty per day up to 3 days unless you receive permission before the due date. Let us know as soon as you realize you will be unable to meet a deadline. Assignments are collected at the beginning of class on the date they are due.

Textbooks

Required:

Wayland, R. Phonetics: A Practical Introduction. Cambridge University Press

Recommended:

1. Reetz, Henning and Jongman, Allard. Phonetics: Transcription, Production, Acoustics, and Perception. Wiley-Blackwell Publisher, 2009
- 2.
3. Rosen, S. and Howell, P. (1991). Signals and systems for speech hearing. Academic Press
4. Kent, R. and Read, C. (1992). The Acoustic analysis of speech. Singular Publishing Group, Inc.
5. Borden, G., Harris, K., and Raphael, L. (1994). Speech Science Primer. Latest Edition.
6. Johnson, Keith. (2012). Acoustic and Auditory Phonetics. Blackwell Publishers, Inc. 3rd Edition.
7. Stevens, K. (1999). Acoustics Phonetics. The MIT Press.

Course Outline

Lectures will follow the outline below. This outline is tentative and may be updated as we go.

Week	Date	Topic	Reading Assignments	HWs & Exams
1	1/6/2022	Intro & Review Basic Acoustics: Wave Loudness, pitch, Quality, resonance Auditory scales	Wayland Chapter 6	
2	1/11/2022	Speech analysis I: - Recording - Interpreting spectrograms - Temporal measurement - Amplitude measurement - Pitch measurement	Wayland Chapter 7 Sawusch 2005	
3	1/18/22	Speech analysis II: - LPC - FFT - etc.	Wayland Chapter 8	HW1

4	1/25/2022	Acoustic characteristics of segments	Wayland Chapter 9	
5	2/1/2022	Acoustic characteristics of suprasegments (stress, tone, rhythm, etc.)	Wayland Chapter 2	HW2
6	2/8/2022	Prosody		
7	2/15/2022	Prosody		HW3
8	2/22/2022	Automatic acoustic feature extraction		
9	3/1/2022	Speech perception -acoustic invariance -consonant perception -vowel perception -effects of contexts & rate - etc.	Raphael 2005 Johnson 2005 Steven & Blumestein 1978	Mid-term
10	3/5/2022	SPRING BREAK!	NO CLASS!	
11.	3/15/2022	Neural coding of speech -duplex perception -McGurk effects -non-speech analog	McGurk 1976 Whalen & Liberman 1987	
12.	3/22/2022	Speech perception theories/models -Motor theory -Direct realist -Psychoacoustic	Wayland Chapter 10, 11 Liberman et al 1985	HW4
13.	3/29/2022	Speech perception development	Kuhl et al. 2000 Houston 2005 Maye et al. 2002	
14.	4/5/2022	Speech production and Perception relationship	Fowler et al. 2005	HW5

15.	4/12/2022	L1-L2 perception theories and models -NLM -SLM -PAM etc.	Flege & Bohn 2021_A Flege & Bohn 2021_B Iverson & Kuhl 1995 Best,1995	
16.	4/19/2022	Presentation		

Accommodations for students with disabilities: Students requesting classroom accommodation must first register with the Dean of Students Office <http://www.dso.ufl.edu/drp/>. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation.

Academic honesty: It is expected that all students will adhere to the University of Florida Honor Code And the academic honesty guidelines available at:
<http://www.dso.ufl.edu/judicial/procedures/honestybrochure.php>.

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A “class lecture” is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To “publish” means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally,

a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.