

General Information

Instructor: Steve Winters
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Office Hours: Tue. & Thu. 11:00-12:00, and by appointment.

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Lectures: TTh 2:00-3:15 Science Theater 061

This course continues the introduction to phonetic study that began in linguistics 341. In this course, students will hone their transcription skills through a small, phonetic field study on an unfamiliar language, develop laboratory skills for the acquisition of experimental phonetic data, acquire in-depth knowledge of the mechanisms involved in the production, perception and acoustics of speech, and become familiar with the primary theories in the field of phonetics. Upon conclusion of the course, students should be prepared to conduct an honors-level research project in phonetics.

Practical training in phonetics is particularly valuable for professions in language education – whether foreign language education, English education, or ESL. Phonetic training also benefits students who are interested in human/computer interface technology, and students are in training for certification as speech pathologists or audiologists. Of course, students who major in linguistics should take phonetics.

Note on departmental grade requirement: a student may not register in any linguistics course unless a grade of at least C- has been achieved in each prerequisite for that course. The prerequisite for this course is linguistics 341.

Course Web Page:

https://webdisk.ucalgary.ca/~swinters/public_html/ling441/index.html

All lecture notes, handouts and homework exercises—along with updated versions of this syllabus—will be posted to the course website. Please check it on a regular basis if you are interested in having access to these materials.

Textbook

Keith Johnson (2003) *Acoustic & Auditory Phonetics*, 2nd ed. Malden, MA: Blackwell.

Lawrence J. Raphael, Gloria J. Borden and Katherine S. Harris (2007) *Speech Science Primer: Physiology, Acoustics and Perception of Speech*. 5th ed. Philadelphia: Lippincott Williams & Wilkins.

These textbooks are required for this course. Any further readings will be announced and made available during the course of the semester.

Grading

The course grade will be based on your performance on homework (lab) exercises, a semester-long course project, quizzes, a midterm exam and a final exam.

Homework will consist primarily of laboratory exercises that are designed to improve your skills in collecting and working with phonetic data. We will go over, in detail, the requisite tools and skills necessary to complete these exercises during the course of the semester.

Late homeworks will only be accepted in cases of documented medical or family emergencies.

Course Project. Your primary responsibility in this course will be the execution of a small, phonetic field study involving a native speaker of an unfamiliar language. Your goal in this project is to learn how to identify and transcribe the sounds of the unfamiliar language, primarily through data that you have elicited from the native consultant. You will present the results of your work to the class at the end of the semester, and also produce a final term paper, detailing the phonetic characteristics of the language you have chosen to study. More detail on this project is provided in an additional handout.

I am happy to entertain alternative ideas for course projects. Please come talk to me as soon as possible if you have an idea for another project that you would like to work on over the course of the semester.

Exams. The final exam will be cumulative. Make-up exams will not be given except in the case of dire, documented medical emergencies.

Your final grade will be based on:

| | |
|---------------------|-----|
| Homework exercises: | 20% |
| Course Project: | 30% |
| Midterm exam: | 25% |
| Final exam: | 25% |

The grading scale for the course will be as follows:

| | | | |
|-------------------|-------------------|---|------|
| 98% \leq A+ | 78 \leq C+ < 80 | F | < 60 |
| 92 \leq A < 98 | 72 \leq C < 78 | | |
| 90 \leq A- < 92 | 70 \leq C- < 72 | | |
| 88 \leq B+ < 90 | 68 \leq D+ < 70 | | |
| 82 \leq B < 88 | 62 \leq D < 68 | | |
| 80 \leq B- < 82 | 60 \leq D- < 62 | | |

Please note that I do not round up in calculating final grades.

Resources

1. The Department of Linguistics Phonetics Lab is located in Education 258 (phone: 220-3598). Please get in touch with me if you would like to set up a time to use the lab.
2. Doulos SIL is a freely available phonetics font for your computer. You may download it from this weblink:

http://scripts.sil.org/cms/scripts/page.php?site_id=nrsi&id=DoulosSILfont

Although it is not necessary to do so, you are encouraged to use your computer—and this font—in writing up homework assignments for this class.

3. Praat is a great, freely available software package for phonetic analysis. Among (many) other things, you may use Praat to record, edit and play sound files on your computer. Praat is available for download at:

<http://www.fon.hum.uva.nl/praat/>

4. A great website for looking up background information on the languages of the world is SIL's Ethnologue site:

<http://www.ethnologue.com>

Books on reserve in the main library

I will be putting the following books on reserve for this class (listed under Linguistics 441) in the main library.

Ethnologue

- Ladefoged, Peter (1964) *Elements of Acoustic Phonetics*, 2nd ed. [QP306.L33]
- Ladefoged, P. & Maddieson, I. (1995) *Sounds of the World's Languages* [P221.L315 1995]

Plagiarism and Academic Misconduct

Plagiarism involves submitting or presenting work in a course as if it were the student's own work done expressly for that particular course, when, in fact, it is not. Most commonly plagiarism exists when:

- a) the work submitted or presented was done, in whole or in part, by an individual other than the one submitting or presenting the work (this includes having another impersonate the student or otherwise substituting the work of another for one's own in an examination or test),
- b) parts of the work are taken from another source without reference to the original author,
- c) the whole work (e.g., an essay) is copied from another source, and/or
- d) a student submits or presents work in one course which has also been submitted in another course (although it may be completely original with that student) without the knowledge of or prior agreement of the instructor involved.

While it is recognized that scholarly work often involves reference to the ideas, data and conclusions of other scholars, intellectual honesty requires that such references be explicitly and clearly noted. Some course assignments call for students to work in groups. Unless noted otherwise in writing, students must write up their own answers for submission of the assignment. Failure to do so constitutes plagiarism.

Plagiarism is an extremely serious academic offense. Possible penalties for plagiarism include: failing the assignment, failing the course, disciplinary probation, suspension, or expulsion.

Any student who voluntarily and consciously aids another student in the commission of plagiarism is also guilty of academic misconduct.

UNDERGRADUATE ADVISORS:

Suzanne Curtin, A 260, 220-7670, scurtin@ucalgary.ca

Disability Accommodation

It is the student's responsibility to request academic accommodations. If you are a student with a documented disability who may require academic accommodation and have not registered with the Disability Resource Centre, please contact their office at 220-8237. Students who have not registered with the Disability Resource Centre are not eligible for formal academic accommodation. You are also required to discuss your needs with your instructor no later than fourteen (14) days after the start of this course.

Course Schedule

Please note that this schedule is meant to provide an *ideal* course of future action and is therefore likely to change before the end of the semester. New course schedules will be issued if and when those changes occur.

| Wk | Date | Day | Lecture Topic | Reading | Course Project |
|----|--------------|----------|--|--|---------------------------|
| 1 | 1/13 1/15 | Tu Th | Introduction + Overview Basic Acoustics + Digital Signal Processing | AAP 3-33 | |
| 2 | 1/20 1/22 | Tu Th | Pitch Tracking + Prosody ToBI: Basics | AAP 33-36 | |
| 3 | 1/27 1/29 | Tu Th | ToBI: Boundary Tone combos ToBI: Bi-Tonal Pitch Accents | | 1. Intro |
| 4 | 2/3 2/5 | Tu Th | ToBI: Downstepping ToBI: Intermediate Phrases | | |
| 5 | 2/10 2/12 | Tu Th | Respiration + Vocal Fold Physiology Voice Quality | SSP 70-100 AAP 126-130 | 2. Suprasegmentals |
| 6 | 2/17 2/19 | Tu Th | Reading Week: No Classes Reading Week: No Classes | | |
| 7 | 2/24 2/26 | Tu Th | Spectral Analysis Lab: Korean Stops | | |
| 8 | 3/3 3/5 | Tu Th | MID-TERM EXAM Fourier Analysis + Spectrograms | AAP 32-45 | |
| 9 | 3/10 3/12 | Tu Th | Formants + Resonance Vowels: Perturbation Theory | AAP Ch. 5 AAP Ch. 6.2; SSP 113-130 | 3. Stops + Phonation |
| 10 | 3/17 3/19 | Tu Th | Vowels II: Tube Models Vowels III | AAP Ch. 6.1 | |
| 11 | 3/24 3/26 | Tu Th | Sonorant Acoustics Transitions + Perception | AAP Ch. 9 SSP: 237-253, 258-264 | 4. Vowels |
| 12 | 3/31 4/2 | Tu Th | Obstruent Acoustics Vocal Tract Physiology + Static Palatography | AAP Ch. 8 SSP: 105-110 | |
| 13 | 4/7 4/9 | Tu Th | Audition Auditory Perception | SSP: 201-211 AAP Ch. 4; SSP 264-268 | 5. Fricatives + Sonorants |
| 14 | 4/14 4/16 | Tu Th | Speech Synthesis Time for catch-up and review | | |
| 15 | | | FINAL EXAM Time and Place TBA | | |

