Brigham Young University
Department of Audiology & Speech-Language Pathology
ASLP 321 Speech Science – Winter 2004

Instructor

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Blackboard

This semester the web-based Blackboard application will be a required component of the course. To access it you will need a computer and a current web browser. All campus computer labs provide this level of technology. Blackboard will allow you to take quizzes, review lecture materials, post information about yourself, learn about other students in the class, participate in discussion groups, and more. You can access this by logging in to Route Y.

Prerequisites

A good understanding of the material from ASLP 320 (speech anatomy and physiology) and Physics 167 (acoustics of music and speech) is absolutely necessary to your success in this course. If you did not take these prerequisites, please drop this class and take them before registering for this course next year. This semester's work will build on the foundation provided by the prerequisite courses and will not involve re-teaching of what you should already know.

Course Objectives

The goal of this course is to familiarize you with ways of objectively measuring clinically relevant parameters of speech and voice. Speech-language pathologists can serve their clients better and provide quantitative evidence of the effectiveness of their treatment if they are competent in applying modern technology in a clinical setting. Computers are all around us, and it is in your personal and professional interest to learn to use them effectively. The material in this course will cover more advanced research instrumentation as well as the more basic clinical tools so that you will be better able to understand the papers published in our professional journals.

Required Text

Clinical Measurement of Speech and Voice. Second Edition (2000) R.J. Baken & R.F. Orlikoff. Singular – Thomson Learning.

Do not be alarmed by the size and complexity of this text! We will focus in class on the most salient sections.

Examinations and Quizzes
The two mid-term exams will cover material presented in the first and second portions of the course respectively. Exam 1 is available at the Testing Center on February 2nd, 3rd, and 4th (ending at noon on the 4th). Exam 2 will be March 3rd, 4th, and 5th (ending at noon on the 5th). The final will be cumulative, although the focus will be more on material from the latter part of the semester. All examinations will be taken in the Testing Center.

Ten open-book quizzes will be given throughout the semester, and will allow you to gauge how well you are progressing with this material. They will cover material from the textbook that we will not have time to cover in detail in class. These quizzes will be administered using the Blackboard system, allowing you to take them on-line. If you fail to take one by the due date, it will no longer be available, and you will have missed the credit for that quiz. If your web connection crashes while you are taking the quiz, please email me so that I can re-set the quiz to let you try again.

Quiz deadlines:

Chapter Number	Take before midnight on:
1	Jan 16
2	Jan 23
3	Jan 30
4	Feb 6
5	Feb 13
6	Feb 27
7	Mar 12
8	Mar 19
9	Mar 26
10	Apr 2

As a student at Brigham Young University, you are expected to uphold the highest standards of integrity. With regard to exams and quizzes, this means that you work entirely alone, and agree not to disclose to others any information about the exam or quiz you may have already taken, which they are about to take.

Students With Disabilities
Brigham Young University is committed to providing a working and learning atmosphere that reasonably accommodates qualified persons with disabilities. If you have any disability, which may impair your ability to complete this course successfully, please contact the Services for Students with Disabilities Office (378-2767). Reasonable academic accommodations are reviewed for all students who have qualified documented disabilities. Services are coordinated with the student and instructor by the SSD Office. If you need assistance or if you feel you have been unlawfully discriminated against on the basis of disability, you may seek resolution through established grievance policy and procedures. You should contact the Equal Employment Office at 378-5895. D-382 ASB.

Software Projects
Equipment and software applications will be made available for you to gain experience in using modern speech analysis or synthesis software on your own or another computer. There will be three separate projects. Detailed instructions for each will be posted on Blackboard.

1) 'Esynth' program - you will construct a harmonic series from sine waves. Due by 5 p.m. on Friday, February 20th. Worth 5% of course grade.
2) 'Esystem' program - you will experiment with filtering and resonance. Due by 5 p.m. on Friday, February 27th. Worth 5% of course grade.
3) TF32 program - you will analyze samples of your own speech. Due by 5 p.m. Friday, March 26th. Worth 10% of course grade.

Learning your names
I am going to try to learn all of your names, although with a big class, this may take a while. 5% of your grade will be dependent on the following three things. First, either I or my assistant will video record you saying your name, where you are from, and one interesting thing about you. I will use this recording to associate names and faces (it's amazing how little the university class roll pictures resemble most students!). Secondly, you will need to post some information about yourself on the Blackboard web site. Be creative here, but consider such things as where you come from, what motivated you to get into this field, what your career ambitions are, your family, your hobbies and interests, a favorite joke or anecdote, etc. Finally, you will need to look at the information posted by the 5 students who follow you alphabetically and send me an email describing something you learned about them. If the person who follows you on the list has not posted anything, just go on until you find the next 5 after you who have information available. The deadline for completing this assignment is the end of January.

Grading
Each of the three examinations will be worth 20% of the course grade. The open-book text-based quizzes will contribute 15% to your overall grade. The three software projects will contribute 20% in total. The final 5% will be given for the video and web introduction exercise described above under *"Learning your names."*

Preventing Sexual Harassment
Title IX of the Education Amendments of 1972 prohibits sex discrimination against any participant in an educational program or activity receiving federal funds. The act is intended to eliminate sex discrimination in education. Title IX covers discrimination in programs, admissions, activities, and student-to-student sexual harassment. BYU's policy against sexual harassment extends not only to employees of the university but to students as well. If you encounter unlawful sexual harassment or gender based discrimination, please talk to your professor; contact the Equal Employment Office at 378-5895 or 367-5689 (24-hours); or contact the Honor Code Office at 378-2847.

Class Schedule
(subject to change… this is just the plan ☺)

Month	Day	Topic	Reading	Read	Skip
January	5	introduction to speech measurement	Ch1	all	none
	7	analog electronics	Ch2	6-10	11-15
	12	analog electronics	Ch2	16-19;32-34	20-31
	14	digital systems	Ch3	36-40;50	41-49
	19	holiday - no class			
	21	Basic instruments	Ch4	54-81	82-91
	26	basic instruments	Ch4		
	28	basic instruments	Ch4		
February	2	exam 1 (take by noon on 4th)			
	4	speech intensity	Ch5	all	none
	9	speech intensity	Ch5		
	11	speech intensity/fund. frequency	Ch5, Ch6	all	none
	16	holiday - no class			
Tuesday	17	fundamental frequency	Ch6	all	none
	18	fundamental frequency	Ch6		
	23	spectrography	Ch7	all	none
	25	spectrography	Ch7		
March	1	spectrography	Ch7		
	3	exam 2 (take by noon on 5th)			
	8	air pressure	Ch8	all	none
	10	air pressure	Ch8		
	15	air flow and volume	Ch9	all	none
	17	air flow and volume	Ch9		
	22	laryngeal function	Ch10	all	none
	24	laryngeal function	Ch10		
	29	laryngeal function	Ch10		
	31	velopharyngeal function	Ch11	all	none
April	5	electromyography	Ch12	all	none
	7	palatometry, articulatory kinematics	Ch12		
	12	respiratory measurements	Ch12		