

**AUDITORY PERCEPTION  
SLHS 503 Fall**

Time: Class MW 9:30-10:20, Lab F 9:30-11:20  
Room: HEAV G42  
Credits: 3

**Instructor:** Dr. Beth Strickland  
**Office:** G36B Heavilon Hall  
**Phone:** 494-3804 (use voice mail if necessary)  
**Email:** estrick@purdue.edu  
**Office hours:** to be arranged

**Required text:** Hearing, 4<sup>th</sup> Ed., by Gelfand

**Grading policy:**

Quizzes and midterm exams	50%
Final exam	20%
Participation	5%
Lab	25%

**Grading scale:**

90%+	= A
80-89%	= B
70-79%	= C
60-69%	= D
<60%	= F

I encourage you to keep track of your performance during the semester and to remediate any problems during the semester.

**Class guidelines:** You are responsible for all material covered in class and in the readings. Do the readings before class. Many people in the past have found this to be a challenging course. Your success will be related to how much you actively participate in mastering the material, in class, in lab, and on your own. Please ask questions. If you don't understand what is going on, your classmates probably don't either.

**Class Schedule:**

Week	Date	Topic	Reading
1	8/21	Introduction, acoustics review	Ch. 1
	8/23	Acoustics review	
	8/25	<b>Lab: Acoustics introduction</b>	
2	8/28	Theory of signal detection	Ch. 8
	8/30		
	9/1	<b>Lab: Acoustics</b>	

Week	Date	Topic	Reading
3	9/4	LABOR DAY - no class	
	9/6	Psychoacoustic methods	Ch. 7
	9/8	<b>Lab: Psychoacoustic methods</b>	
4	9/11	Auditory sensitivity	Ch. 9, p. 279-286
	9/13	Effects of duration	Ch. 9, p 286-288 Article 1
5	9/15	<b>Lab: Auditory sensitivity</b>	
	9/18	Reading an article	
	9/20	Exam 1	
6	9/22	<b>Lab: Intensity discrimination</b>	
	9/25	Intensity + Frequency discrimination	Ch. 9, p. 288-297
	9/27	Temporal resolution	Ch. 9, p. 297-305
7	9/29	<b>Lab: Modulation detection</b>	
	10/2	continued	
	10/4	Masking	Ch. 10, p. 313-319
8	10/6	<b>Lab: Masking</b>	
	10/9	OCTOBER BREAK - no class	
	10/11	Frequency selectivity	Ch. 10, p. 319-328
9	10/13	<b>Lab: Critical bands</b>	
	10/16	Frequency selectivity	
	10/18	Frequency selectivity	
10	10/20	<b>Lab: Psychophysical tuning curve</b>	
	10/23	CROSSROADS - no class	
	10/25	Temporal course of masking	Article 2
11	10/27	<b>Lab: Temporal masking</b>	
	10/30	Temporal course of masking	Article 3
	11/1	Forward and backward masking	Ch. 10, p. 331-334
12	11/3	<b>Lab: Temporal masking</b>	
	11/6	Informational masking	Ch. 10, p. 336-340
	11/8	Exam 2	
13	11/10	<b>Lab:</b>	
	11/13	Loudness	Ch. 11
	11/15	Loudness	
14	11/17	<b>Lab: Loudness</b>	
	11/20	Pitch	Ch. 12
	11/22	THANKSGIVING VACATION - no class	
15	11/27	Binaural hearing	Ch. 13
	11/29		
	12/1	<b>Lab: Binaural hearing</b>	
16	12/4	Speech Perception	Ch. 14
	12/6		
	12/8	<b>Lab: Speech Perception</b>	

## Articles

1. Viemeister, N. F., and Wakefield, G. H. (1991).  $\Delta$ Temporal integration and multiple looks, $\textcircled{a}$  J. Acoust. Soc. Am. 90(2), 858-865.
2. Strickland, E. A. and Krishnan, L. (2005). "The temporal effect in listeners with mild to moderate cochlear hearing impairment," J. Acoust. Soc. Am. 118(5), 3211-3217.
3. Strickland, E. A. (2004).  $\Delta$ The temporal effect with notched-noise maskers: Analysis in terms of input-output functions, $\textcircled{a}$  J. Acoust. Soc. Am. 115(5), 2234-2245.

Department of Audiology and Speech Sciences  
Course Syllabus - ASHA Standards

Course Number: AUS 503

Course Title: Auditory Perception

Instructor: Elizabeth Strickland

Semester: Fall 2005

American Speech-Language Hearing Association (ASHA) Certification Standards  
Addressed in this Course

IV-B, B2, B4, B8, B9, B10, B13, B14  
IV-D, D17, D18

Behaviorally Defined Objectives Related to the Standards and the Target  
Knowledge/Skills to be Acquired Upon Course Completion

IV-B B2: The student will be able to identify how patient characteristics affect performance on listening tasks.

IV-B B4: The student will be able to identify and describe the function of auditory structures up to the cochlea. They will understand the effects of pathology on the functioning of the auditory system up through the cochlea.

IV-B B8: The student will be able to identify and describe the affects of age on auditory perception.

IV-B B9: The student will be able to identify and apply the principles and methods of psychoacoustics.

IV-B B10: The student will be able to describe the effects of chemical agents on the auditory and vestibular systems.

IV-B B13: The student will be able to identify and measure the physical characteristics of acoustic stimuli.

IV-B B14: The student will show knowledge of the physical characteristics and measurement of electrical stimuli.

IV-D D17: The student will demonstrate proper use sound generation programs and a real ear measurement system.

IV-D D18: The student will be able to calibrate the real ear measurement system.

Evidence for Evaluation of Achievement of Target Knowledge/Skills Competencies

Overall class performance of 80% or greater on quizzes and examinations, lab experiences, and discussions of papers.

Opportunities for Remediation

If the level of knowledge/skill expected upon the completion of this class are not achieved in the first assessment, the following remediation option is available:

The student will be required to pass this area on the gateway exam.