

# **PEDIATRIC AUDIOLOGY**

## **ASLP 442**

### **EVALUATION OF THE PEDIATRIC PATIENT**

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## **PEDIATRIC AUDIOLOGY**

**Audiology and Speech Language Pathology 434** (2.0 credits)

Monday, Wednesday & Friday – 8:00am - 8:50am - 177 TLRB

**David L. McPherson, Ph.D.** - 129 TLRB

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### **COURSE DESCRIPTION**

This course is a three credit course required for undergraduate students majoring in Audiology and is recommended for students majoring in Speech-Language Pathology. This course meets the American Speech-Language-Hearing Association's (ASHA) certification requirements for course work in assessment and pathologies of the auditory system.

This course presents primary skill development in the administration and interpretation of basic tests of auditory disorders in infants and children including pure tone air- and bone conduction threshold testing, speech audiometry, fundamentals of middle ear tympanometry, and school and industrial hearing screening. Developmental anatomy and physiology of the normal and pathological auditory system in infants and children are introduced.

### **COURSE OBJECTIVES**

- A. To develop a theoretical and practical knowledge of hearing tests and measurements in the field of pediatric communicative disorders.
- B. To become proficient in the administration of standard audiological testing in infants and children.
- C. To understand the role of the auditory system in auditory and speech-language disorders in infants and children.
- D. To gain the fundamentals of gathering case history information and report writing in pediatrics.

### **TEXTBOOKS**

1. Northern, J. and Downs, M. *Hearing in Children* (Fifth edition). Baltimore: Williams & Wilkins, 2002. [ISBN 0-683-30764-9] [Required text. It is highly recommended that this text be purchased and kept for future reference]
2. Martin, F. and Clark, J. *Hearing Care for Children*. Boston: Allyn and Bacon, 1996. [ISBN 0-13-124702-6] [Secondary text, not required but recommended.]
3. Gelfand, S.A. (2001). *Essentials of Audiology*. New York: Thieme. [ISBN 1-58890-017-7]. [Secondary text, not required but recommended.]

### **CONTACTING THE INSTRUCTOR**

My office hours are primarily by appointment, however, if I am not involved in some activity you are welcome to see me at any time. If you call my office telephone and leave a message be sure to leave a time and phone number that you will be available for me to return your telephone call. I will make two attempts

at returning your telephone call. If you contact me using e-mail be sure to put 'ASLP 438' in the subject heading. I prioritize my e-mail by subject heading, with no heading getting the lowest priority. My home telephone is for 'emergencies' and is not to be used to schedule appointments or leave messages. I do not mind being contacted at home for specific questions.

### **Web Site Information**

Registered students in this course are to use BlackBoard<sup>®</sup> for this course. Login to Route Y  then select Blackboard in the lower section.

### **PREREQUISITES**

ASLP 334, ASLP 438 and Physics 167 are prerequisites for this course. Students that have not completed these prerequisites are required to discontinue this course until such time the prerequisite courses have been completed. The instructor reserves the right to disenroll students that have not met the prerequisites.

### **HONOR CODE**

The student is expected to be familiar with the Honor Code. The Honor Code is enforced in this class and students will be required to conform to its principles and practices. Cheating and plagiarism may result in a class failure, at the discretion of the instructor.

“Brigham Young University exists to provide a university education in an atmosphere consistent with the ideals and principles of The Church of Jesus Christ of Latter-day Saints. This atmosphere is preserved through commitment to conduct that reflects those ideals and principles” (Undergraduate Catalog, Brigham Young University).

### **COURSE MEETING TIMES**

This is a 3 credit hour course scheduled to meet Mondays and Wednesdays. You are expected to attend every class. No, it is not all right to miss class. I do not give midterm or final examinations other than the posted times. Please make your lifestyle arrangements according to the University calendar.

### **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 422-5895 or 367-5689 (24-hours); or contact the Honor Code Office at 422-2847.

### **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 (422-2767). 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 422-5895. D-382 ASB.

Students in this class must be registered with the Services for Students with Disabilities Office before accommodations will be made. It is in this manner that I may best, and fairly, make necessary accommodations. Accommodations will be made for all course activities, as needed, following registration, and no consideration will be given for course activities completed prior to the instructor being officially notified by the Services for Students with Disabilities Office. Please see me if you should have any questions.

### **ARCHIVING OF STUDENT WORK**

All materials not claimed by the end of the second week of the term following this class will be destroyed. After that date it will not be possible to contest scores or grades. The instructor reserves the right to fully review all contested material and adjust scores accordingly.

### **DEVOTIONALS**

Brigham Young University provides devotionals and forums throughout the year on most Tuesdays from 11:00 am to 11:50 am. On days that these enriching experiences are provided, the instructor is not available during the scheduled Devotional time nor should any of the facilities be used as part of this course during that time period.

## COURSE SCHEDULE AND OUTLINE - ASLP 442

ASLP 442 Course Schedule				
Class	Date	Topic	Assignment	
1	09/03/03 Wednesday	a. Introduction b. Group Projects	a. Quiz 1(Blackboard) [Open 6am - 12am 9/4/03]	
2	09/08/03 Monday	a. Hearing and Hearing Loss in Children	a. Chapter 1	
3	09/10/03 Wednesday	a. Anatomical Ontogeny of the Auditory System	a. Chapter 2	
4	DM 09/15/03 Monday	a. Otitis Media and Medical Aspects of Hearing Loss	a. Chapters 3,4	
5	DM 09/17/03 Wednesday	a. Maturation of the Auditory System	a. Chapter 5	
6	DM 09/22/03 Monday	a. Behavioral Hearing Testing I	a. Chapter 6	
7	DM 09/24/03 Wednesday	a. Behavioral Hearing Testing II	a. Chapter 6	
8	DM 09/29/03 Monday	a. Physiological Tests of Hearing in Children	a. Chapter 7	
9	DM 10/01/03 Wednesday	a. Physiological Tests of Hearing in Children II		
10	DM 10/06/03 Monday	a. Hearing Screening I	a. Chapter 8	
11	DM 10/08/03 Wednesday	a. Hearing Screening II*		
12	DM 10/13/03 Monday	a. Amplification I	a. Chapter 9	
13	TA 10/15/03 Wednesday	a. Amplification II	a. Chapter 9	
14	DM 10/20/03 Monday	a. Education and Aural Habilitation I	a. Chapter 10	
15	DM 10/22/03 Wednesday	a. Education and Aural Habilitation II	a. Chapter 10	
16	DM 10/27/03 Monday	<b>Exam 1 (class nos. 1-15)</b>		
17	DM 10/29/03 Wednesday	Group 01 Presentation		
18	TB A 11/03/03 Monday	Group 02 Presentation	a. Exam I returned	
19	TB A 11/05/03 Wednesday	Group 03 Presentation		
20	TB A 11/10/03 Monday	Group 04 Presentation		
21	TB A 11/12/03 Wednesday	Group 05 Presentation		
22	DM 11/17/03 Monday	Group 06 Presentation		
23	DM 11/19/03 Wednesday	Group 07 Presentation		
24	DM 11/24/03 Monday	Group 08 Presentation		
25	DM 12/01/03 Monday	Group 09 Presentation		
26	DM 12/03/03 Wednesday	Group 10 Presentation		
27	DM 12/08/03 Monday	Review		
28	DM 12/10/03 Wednesday	Review		
	12/15/03 Monday	<b>Final Examination (comprehensive)</b>		<b>11:00am - 2:00pm</b>

## COURSE REQUIREMENTS

### Assignments

All assignments must be typewritten unless otherwise noted. If computer generated, an easily readable font must be used. Originals and copies must be clear with dark print. Unless otherwise noted all assignments are due by the beginning of the class period on the due date. Penalties may be assigned for late assignments.

Reading assignments are to be completed prior to the beginning of the class period.

### Grading Standard

Each assignment will be weighted according to the following percentages:

Grading Schedule			
Assignment	Note	Weighted %	
<i>Project</i>			
1 Attendance*	2% per absence subtracted from course total (100%)	n/a	
2 Content		10%	
3 Depth		12%	
4 Clarity		5%	
5 Presentation Style		5%	
6 Class Peer Review		3%	
7 Participation/ Contribution		5%	40%
<i>Examinations</i>			
1 Exam 1	Mid-Term Examination (Comprehensive)	20%	
2 Final Exam	Comprehensive	25%	45%
<i>Quizzes</i>			
1 Quiz 1	Pre-requisite on hearing testing	15%	15%
			<b>100%</b>
*See Course Participation for more details			

The grade equivalent is based on the following percentages:

A	96-100 %	C+	78-80 %
A-	92-95 %	C	75-77 %
B+	88-91 %	C-	70-74 %
B	84-87 %	D	65-69 %
B-	81-83 %	E	64% & below

### **Examinations**

There will be two examinations, a midterm and a final. They will be essay or short answer type. Additional points on each question may be awarded for exceptional answers without penalizing other students. Students are encouraged to meet with the instructor following the midterm examination to discuss each question/answer. Examinations are given as scheduled. A sample question is included in the course syllabus ([click here for link](#))

### **Course Participation**

The student is expected to be prepared. This includes having read the material prior to class. Students that are not prepared may be penalized 2% of the final grade for each incidence. Absence from class, except for medical purposes, is considered unprepared.

### **Extra Credit**

In some instances extra credit may be given, at the discretion of the instructor, for participating in projects, attending seminars or other professional experiences. Extra credit is not given for purposes of grade deficiencies.

## **TERM PROJECT**

### **The Function of Presentations in Audiology and Speech-Language Pathology**

The discipline of Audiology and Speech-Language Pathology require good communication skills. It is common for an Audiologist or Speech-Language Pathologist to be asked to give community lectures, in-service lectures, and presentations at local, state, and national professional meetings. The purpose of this exercise is to prepare and give the student experience in making such presentations. The presentation for this course is to be at the professional level using current technology to present the material. Presentations reflect the professional knowledge and competency of the individual.

### **Requirements**

The class will be divided into several small groups of two or three individuals. Topics will be assigned by the instructor in a sequential manner such that each group will have the same time period to prepare the presentation.

### **Technical Requirements**

- All presentations will be done using Microsoft PowerPoint.
- Each presentation will last between 40 and 45 minutes.
- A computer copy of the presentation will be given to the instructor at the conclusion of the presentation.
- Multi-media will be incorporated into the presentation.

### **Grading Criteria**

The following table shows a summary of the grading criteria that will be used. There are four parts to the grading structure: Content and depth, presentation style and clarity, peer review, and participation and contribution.

Content and depth refers to the quality of information contained in the presentation. Presentation and style refers to the manner of presentation, and peer review is the grade given by each student in the class at the

time of presentation. Finally, each member in the group will grade each other, including themselves, based on their participation and contribution to the project.

Grading Criteria	Points
Content	20
Depth	20
Clarity	20
Presentation Style	20
Peer Review	10
Participation/Contribution	10
<b>TOTAL POINTS</b>	<b>100</b>

## SAMPLE ESSAY EXAM QUESTION

**Blue books, using double spacing, may be required for some or all examinations and quizzes except for 'take home' examinations which are to be typewritten, double spaced.**

*(Student name)*

*(Course)*

*(Date)*

Exam question: Describe and characterize the measures used in the auditory brainstem evoked potential recording and their relationship to stimulus intensity.

Response: The auditory brainstem evoked potential may be described as a biphasic waveform with quantitative properties of amplitude and latency. In addition a qualitative feature may be described in terms of its morphology.

Amplitude may either be described in voltage, usually microvolts, from the baseline to corresponding peak, or from positive peak to corresponding negative peak. As stimulus intensity increase, the amplitude of the response increases. The converse is also true. The first amplitude changes from baseline, in ideal recording conditions, may be seen as early as 10 dB above behavioral threshold for the stimulus; especially sharply rising (i.e. clicks) stimuli.

Latency is defined as the time, in milliseconds, from the onset of the stimulus to a peak. For consistency, wave V, which may be broad, is defined as the breaking point, or departure point, from the linear descending slope. Latency decreases as stimulus intensity increases. The converse is also true.

It should be noted that there is a point where both amplitude and latency asymptote.

In formulating this question one point is awarded for each correct identification and discussion of the pertinent areas:

1. Description of amplitude
2. Description of latency
3. Description of morphology
4. Use of microvolts
5. Use of milliseconds
6. Relationship of amplitude to intensity
7. Relationship of latency to intensity
8. Statement of how amplitude is measured
9. Statement of how latency is measured
10. Relationship of amplitude and latency to morphological features

It should be noted that areas 1, 2, 4, 5, 6, 7 and 8 were covered providing 7 points for this answer. However additional discussion in some areas were significant enough that extra points were awarded:

1. Acknowledging that the response is biphasic.
2. Amplitude may be measured using one of two references.
3. Amplitude of a wave may first appear at about 10 dB SL.

Consequently, an additional three points are awarded for this question providing a total of 10 points. Such additional points are solely at the discretion of the instructor. Since a grading curve is not used, other students are not penalized.

**THIS IS AN EXAMPLE. THE ACTUAL SHEET WILL BE DISTRIBUTED IN CLASS**

**ASLP 434 PEER REVIEW SHEET**

This sheet is to be turned in at the end of the presentation

Group: \_\_\_\_\_

Presentation Title: \_\_\_\_\_

Graded by (student name): \_\_\_\_\_

Grading:

On a scale of 0 to 10 the group presentation should be graded. You may use half-points (i.e., 6.5) in your grading, but not other decimal points (i.e., 6.8). Please use the following criteria in your evaluation:

Content: Was the topic relevant and did the presentation present the material at a level consistent with a college senior in our major?

Depth: Was the information presented of sufficient detail that you gained information that would be useful to you in the future for either further academic pursuits or clinical activity?

Clarity: Was the presentation clear, concise, and without ambiguity? Were technical terms defined such that they were understood?

Presentation Style: Was the presentation well executed and did it seem to be well prepared?

**Grade: \_\_\_\_\_/10**

You may make any comments you wish, also:

**THIS IS AN EXAMPLE. THE ACTUAL SHEET WILL BE DISTRIBUTED IN CLASS**  
(This sheet is used by the instructors at the time of the presentation to grade the group)

ASLP 434 PRESENTATION GRADING SHEET

Group: \_\_\_\_\_

Presentation Title: \_\_\_\_\_

Group Members:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

Content: Was the topic relevant and did the presentation present the material at a level consistent with a college senior in our major?

Depth: Was the information presented of sufficient detail that you gained information that would be useful to you in the future for either further academic pursuits or clinical activity?

Clarity: Was the presentation clear, concise, and without ambiguity? Were technical terms defined such that they were understood?

Presentation Style: Was the presentation well executed and did it seem to be well prepared?

Grading Criteria	Poss.	Pts.
Content	20	
Depth	20	
Clarity	20	
Presentation Style	20	
TOTAL POINTS	80	

**THIS IS AN EXAMPLE. THE ACTUAL SHEET WILL BE DISTRIBUTED IN CLASS**

(This is used by each student to grade each member within their group)

ASLP 434 PRESENTATION GROUP GRADING SHEET

Submitted by: \_\_\_\_\_ Group No. \_\_\_\_\_

Presentation Title: \_\_\_\_\_

Student Name	Knowledge	Contribution	Total
1.			
2.			
3.			
4.			

**Grading:**

Each individual in the group submits a grade from 0 to 5 for each member of the group including themselves (i.e., you grade yourself).

*Knowledge* refers to the intellectual understanding of the topic and scholarly writing (score from 0 to 5).

*Contribution* refers to the amount of time spent working with the group, reliability of the individual, and other aspects of group cooperation (score from 0 to 5).

Be honest in your evaluation. This is not a “good ole ‘boys’ club” and you should take this aspect of the assignment seriously.

You may make any comments you wish, also: