

**University of Wisconsin-Madison  
Communication Sciences and Disorders**

**Course: CSD 832 Pediatric Audiology**

**Term: Spring 2018**

**Number of credits: 3**

This class entails two 75-minute class periods each week over the spring semester and carries the expectation that students will work on course learning activities for about 3 hours out of classroom for every class period. The syllabus below details expectations for students work.

This course covers pre and postnatal development of the auditory system, causes of childhood hearing loss, assessment of hearing in children including evaluation of (central) auditory processing disorders, and importance and working of early intervention programs for children.

**Schedule**

*Time:* Mondays and Wednesdays 8:15 - 9:30 AM

*Location:* Goodnight Hall Rm 412

**Instructor**

*Name:* Viji Easwar, PhD, MSc Audiology

*Email:* [veaswar@wisc.edu](mailto:veaswar@wisc.edu) (Please include "CSD 832" in the subject line of emails)

*Office hours:* Mondays and Wednesdays 9:45 – 11:00 AM

*Office location:* Room 475, Goodnight Hall, 1975 Willow Dr, Madison, WI 53706

**Required text**

Comprehensive Handbook of Pediatric Audiology, 2<sup>nd</sup> Edition. Edited by AM Tharpe and Richard Seewald. Plural Publishing

**Recommended text**

Pediatric Audiology: Diagnosis, Technology and Management, 2<sup>nd</sup> Edition. Edited by J Madell and C Flexer. Thieme Publishers

Note: Additional required and recommended readings may be posted before class.

**Course webpage**

Access through <https://canvas.wisc.edu/>

All course materials (syllabus, lectures, assignments) will be available on canvas. It is your responsibility to check for updates. Lectures slides will be made available at least 1 hour before class.

**Course learning outcomes**

Upon successful completion of this course, students will be able to

- Describe stages in embryonic and postnatal development of the auditory pathway
- Describe postnatal changes in auditory psychoacoustics, and speech perception
- Identify causes of childhood hearing losses and describe audiological profiles
- Describe the need for and construct audiological test batteries to evaluate hearing in children
- Identify children with suspected auditory processing disorders, develop an evaluation test battery for auditory processing disorders using behavioural and physiological measurements

- Describe the need for and implementation of early intervention programs

**Grades** are based on

- Three in-class non-cumulative tests - 15% (total 45%)
- Presentation on causes of hearing loss - 10%
- Group presentation on case studies – 10%
- CAPD lab – 10%
- Question bank contributions – 5%
- Final exam – 20%

**Grading scale**

Percentage	100-92	91.9-90	89.9-88	87.9-82	81.9-80	79.9-78	77.9-72	71.9-70	69.9-68	67.9-60	<60
UW-SP Letter Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	F
UW-Madison Letter Grade	A	A-B		B	B-C		C	C-D		D	F

**In class tests**

- On the days tests are scheduled, the test will be conducted at the beginning of the class.
- Details on format (canvas/paper) will be announced close to test time

**Presentations – causes of hearing loss**

- You will be required to present on two assigned disorders for 6 minutes each.
- Look up assigned topic and date of presentation in the document CSD832\_PresentationsCausesHL\_Spring2018 posted on canvas. Topics are assigned based on student order on class roster
- Carefully review instructions for presentations and the grading rubric in the same document.

**Case-based problems**

- Work in groups of three (some in pairs) – there are 6 case profiles (A-F)
- Each group will be provided a brief background on a child. You will be required to create an assessment plan based on instructions provided in CSD832\_GroupCaseEvaluations\_Spring2018. Grading rubric is available in the same document.

**CAPD assignment**

- Work in groups of two or three. Pick any three behavioural tests for evaluating processing disorders available in the clinic. Document results in the score sheet available, score the test according to the test manual and interpret the findings.
- Submit a group report with a scanned copy of the test worksheet, and your impression based on the score.
- It will be your responsibility to find out scoring and normative data for the test you perform.

**Question bank**

- At the end of each class (by midnight on Mondays and Wednesdays), each student must contribute a minimum of ONE question to the question bank

- Questions must be one of the 3 types: multiple choice, fill in the blanks or True/False. Questions can be based on lectures and/or readings. These questions will be compiled for your reference and may appear in the exam
- Further instructions defining satisfactory submissions will be posted on canvas.
- Satisfactory questions will each earn 1 point.

### **Academic honesty**

This information is taken from “Academic Misconduct Rules and Procedures Guide for Students” prepared by the Office of the Dean of Students, 75 Bascom Hall (August, 1998). “UWS 14.03 Academic Misconduct Subject to Disciplinary Action (I) Academic misconduct is an act in which a student:

- (a) seeks to claim credit for the work or efforts of another without authorization or citation;
- (b) uses unauthorized materials or fabricated data in any academic exercise;
- (c) forges or falsifies academic documents or records;
- (d) intentionally impedes or damages the academic work of others;
- (e) engages in conduct aimed at making false representation of a student’s academic performance
- (f) assists other students in any of these acts.”

“Plagiarism means presenting the works or ideas of others without giving credit. You should know the principles of plagiarism and the correct rules for citing sources...If you are unsure about the proper ways to give credit to sources...consult the Writing Center.”

By enrolling in this course, each student assumes the responsibilities of an active participant in UW-Madison’s community of scholars in which everyone’s academic work and behavior are held to the highest academic integrity standards. Academic misconduct compromises the integrity of the university. Cheating, fabrication, plagiarism, unauthorized collaboration, and helping others commit these acts are examples of academic misconduct, which can result in disciplinary action. This includes but is not limited to failure on the assignment/course, disciplinary probation, or suspension. Substantial or repeated cases of misconduct will be forwarded to the Office of Student Conduct & Community Standards for additional review. For more information, refer to <https://www.students.wisc.edu/doso/academic-integrity/>.

### **Special accommodations**

If you need any special accommodations in the curriculum, instruction or assessments of this course to enable you to fully participate, please let me know by the 29<sup>th</sup> of Jan, 2018. If students require special accommodation due to religious observance, please let me know by the 29<sup>th</sup> of Jan, 2018.

## Calendar

Required readings are in black; additional recommended are in green. Further readings may be posted before class

Week	Topic	Readings	Due
Wednesday 24 <sup>th</sup> Jan 2018	Introduction, course syllabus		
Monday 29 <sup>th</sup> of Jan 2018	Development – Embryology, postnatal	Tharpe and Seewald Chapter 1, <b>Chapter 18</b> Abdala Keefe 2012 (canvas),	Special accommodation requests due
Wednesday 31 <sup>st</sup> of Jan 2018	Development – Embryology, postnatal	Tharpe and Seewald Chapter 1, <b>Chapter 18</b> Abdala Keefe 2012 (canvas)	
Monday 5 <sup>th</sup> of Feb 2018	Maturation of central pathways	Tharpe and Seewald Chapter 2	
Wednesday 7 <sup>th</sup> of Feb 2018	Development – psychoacoustics and speech perception	Tharpe and Seewald Chapters 3 and 4	
Monday 12 <sup>th</sup> of Feb 2018	Development – psychoacoustics and speech perception	Tharpe and Seewald Chapters 3 and 4	
Wednesday 14 <sup>th</sup> of Feb 2018	In class test, Lecture: Developmental milestones	Milestone moments <a href="http://www.cdc.gov/milestones">www.cdc.gov/milestones</a>	
Monday 19 <sup>th</sup> of Feb 2018	Childhood causes of hearing loss - Introduction	Tharpe and Seewald Chapter 6 Mercer (2015) AJA, 24:451-461	
Wednesday 21 <sup>st</sup> of Feb 2018	Causes of HL – Presentations	See date-specific topics	
Monday 26 <sup>th</sup> of Feb 2018	Causes of HL – Presentations	See date-specific topics	
Wednesday 28 <sup>th</sup> of Feb 2018	Causes of HL – Presentations Environmental causes	See date-specific topics Tharpe and Seewald Chapter 9, 1	
Monday 5 <sup>th</sup> of March 2018	Causes of HL – Presentations Environmental causes	See date-specific topics Tharpe and Seewald Chapter 9, 1	
Wednesday 7 <sup>th</sup> of March 2018	In class test Lecture: Assessment – Case History		

Monday 12 <sup>th</sup> of March 2018	Assessment – behavioral approaches	Tharpe and Seewald Chapter 23	
Wednesday 14 <sup>th</sup> of March 2018	Assessment – behavioral approaches	Tharpe and Seewald Chapter 23	
Monday 19 <sup>th</sup> of March 2018	Assessment - speech assessment	Madell Flexer Chapter 11 (canvas)	
Wednesday 21 <sup>st</sup> of March 2018	Assessment – objective approaches	Tharpe and Seewald Chapters 20, 21, 22 Prof. Cynthia Fowler's class - 19 <sup>th</sup> March	
Monday 26 <sup>th</sup> of March 2018	NO CLASS – spring break		
Wednesday 28 <sup>th</sup> of March 2018	NO CLASS – spring break		
Monday 2 <sup>nd</sup> of April 2018	Assessment – Test battery, special considerations	Tharpe and Seewald Chapters 24 Gravel 2001 (canvas)	
Wednesday 4 <sup>th</sup> of April 2018	In class test ANSD	Tharpe and Seewald Chapters 11, 12 Guidelines for Neuropathy (canvas)	
Monday 9 <sup>th</sup> of April 2018	CAPD – guest lecture Introduction, behavioural measures	AAA guidelines, Tharpe and Seewald Chapter 13 Madell Flexer Chapter 16	
Wednesday 11 <sup>th</sup> of April 2018	CAPD – guest lecture Physiological measures, test battery	TBD	
Monday 16 <sup>th</sup> of April 2018	EHDI	Tharpe and Seewald Chapters 15 and 18, NCHAM ebook Chapter 1	
Wednesday 18 <sup>th</sup> of April 2018	NO CLASS - AAA conference CAPD lab		Review of case presentation due
Monday 23 <sup>rd</sup> of April 2018	EHDI	Tharpe and Seewald Chapters 15 and 18, NCHAM ebook Chapter 1	
Wednesday 25 <sup>th</sup> of April 2018	Group case presentations	No readings	
Monday 30 <sup>th</sup> of April 2018	Group case presentations; Exam guide	No readings	CAPD lab assignment due
Wednesday 2 <sup>nd</sup> of May 2018	Exam		

KASA statements associated with CSS832

	<b>Knowledge Area</b>	<b>Type of Documentation/ Experience</b>
A1.	Embryology and development of the auditory and vestibular systems, anatomy and physiology, neuroanatomy and neurophysiology, and pathophysiology.	Exam
A2.	Genetics and associated syndromes related to hearing and balance.	Exam, Presentation
A3.	Normal aspects of auditory physiology and behavior over the lifespan.	Exam
A4.	Normal development of speech and language.	Exam
A5.	Language and speech characteristics and their development across the life span.	Exam
A8.	Effects of chemicals and other noxious elements on auditory and vestibular function	Exam, presentation
A9.	Patient characteristics (e.g., age, demographics, cultural and linguistic diversity, medical history and status, cognitive status, and physical and sensory abilities) and how they relate to clinical services.	Exam, presentation, assignment
A10.	Pathologies related to hearing and balance and their medical diagnosis and treatment.	Exam, presentation, assignment
A12.	Principles, methods, and applications of psychoacoustics.	Exam
A26.	Principles and applications of counseling.	Exam, presentation
A29.	Consultation with professionals in related and/or allied service areas.	Exam, presentation
B1.	Implement activities that prevent and identify dysfunction in hearing and communication, balance, and other auditory-related systems.	Exam
B4.	Screen individuals for speech and language impairments and other factors affecting communication function using clinically appropriate, culturally sensitive and age-and site-specific screening measures.	Exam
C3.	Evaluating information from appropriate sources and obtaining a case history to facilitate assessment planning.	Exam, assignment
C5.	Conducting and interpreting behavioral and/or electrophysiologic methods to assess hearing thresholds and auditory neural function.	Exam, presentation

C7.	Conducting and interpreting otoacoustic emissions and acoustic immitance (reflexes).	Exam
C8.	Evaluating auditory-related processing disorders.	Exam, lab
C9.	Evaluating functional use of hearing.	Exam
C11.	Referring to other professionals, agencies, and/or consumer organizations.	Exam, presentation, assignment
D12.	Interpret results of the evaluation to establish type and severity of disorder.	Exam, assignment