

Medical Aspects of Audiology: Pediatrics
Com D 7390
Fall Semester, 2004
Monday & Friday 10:30-11:45
LillyWhite Room 109
Instructor: Mark Krumm, Ph.D. Office: 034
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COURSE DESCRIPTION

This course will provide detailed information of common pediatric disorders leading to hearing loss. Course information will include diagnosis of disorders and appropriate management of these disorders.

COURSE OBJECTIVES

1. Students will be able to describe basic development processes of peripheral and central auditory system
2. Students will be able to describe normal and pathological characteristics of the external auditory meatus, tympanic membrane and middle ear system through otoscopy.
3. Students will be able to identify and describe pathology of the pinna and external meatus.
4. Students will be able to identify and describe pathology of the middle ear system.
5. Students will be able to identify and describe pathology of the inner ear.
6. Students will be able to describe the basic application of Mendelian genetics in respect to hearing loss including the shortcoming of this model.
7. Student will understand the process and benefits genetic counseling.
8. Students will be able to identify outer, middle, inner ear and central pathology on the basis of case history and through audiogram interpretation.
9. Students will be able to provide consumers with appropriate counseling to manage pediatric hearing disorders.

TEXTS:

(ND) Northern, J.L., & Downs, M.P., (2002). Hearing in Children. 5th ed. Lippincott, Williams and Wilkins. (4th edition ok for 2nd year students)

(CL) Canalis, R.F. & Lambert, P.R. (2000). The Ear: Comprehensive Otology. 1st ed. Lippincott, Williams and Wilkins

COURSE REQUIREMENTS:

1. Readings from text and other sources assigned.
2. Three examinations
3. Students will conduct a grand round for an outer ear disorder or middle ear disorder and an inner ear disorder (for a total of three separate grand rounds). The grand round information will include case history information, an audiogram, and management recommendations and be presented to class. Information for these grand rounds may be obtained through our clinic client records, a recent client, online resources or texts.
4. Each student will write one 10 page paper (in accordance to APA guidelines) on an ear disorder of their choosing.
5. Each student will orally present their paper to the class and provide all students with a 1 page summary. This presentation will be approximately 20 minutes in length.

GRADING

Grades will be based upon the total combined score received for 3 comprehensive examinations, 3 grand rounds, your paper and presentation. The possible number of points for each component of the grade is as follows:

Examination #1	100	points
Examination #2	100	points
Examination #3	100	points
Grand Rounds (outer /middle ear disease)	25	points
Grand Rounds (inner ear disease)	25	points
Paper	100	points
Presentation	25	points
Professionalism	25	points
TOTAL	525	points

All assignments are due at the beginning of class. **Five points will be deducted from your grade for each day an assignment is late.**

Professionalism:

Student Professionalism: As you can see, you can earn as many as 25 points for professionalism. You will receive deductions from this point total for the following reasons:

- Lateness to class (-1 point for each minute late)
- Missing class without a written physician or professor excuse (-50 points)
- Use of cell phones or PDA's (-5 points)

- Display of poor collegiality (-5 points)
- Lack of class participation (-5 points)
- Grumpy exterior (-10 points)

The following guideline will be used in the determination of you final grade for the course.

A	96% or higher	C	73 - 76%
A-	90 - 95%	C-	70 - 72%
B+	87 - 89%	D+	67 - 69%
B	83 - 86%	D	65 - 66%
B-	80 - 82%	F	Less than 65%
C+	77 - 79%		

PROJECTED SCHEDULE OF CLASS (Please note this is tentative)

Date	Topic	Assignment
M Aug 30	No Class—student orientation	
F Sept 3	Syllabus and Intro/Embryology of the ear	ND 33-47; CL 17-28
M Sept 6	Embryology of the ear and CANS development	ND 33-47; CL 17-28
F,M,F Sept 10-17	Genetics and genetic hearing loss	ND 115-124; CL Chapt 30
M Sept 20	A crash course on audiogram interpretation	
F Sept 24	Otoscopy and video otoscopy; Pinna disorders	CL 160-1
M Sept 27	No class: World Congress On Audiology	
F Oct 1	Pinna and ear canal disorders	CL Chapt 19,20; ND 91-94; 109-111;
Mon Oct 4	Outer ear disorders	
F Oct 8	Examination #1	
M Oct 11	Middle ear disorders: Otitis media	ND Chapt 3
F Oct 15	Middle ear disorders: OM and other disorders	CL Chapt: 23, 24, 25
M Oct 18	Middle ear disorders issues & treatment	CL Chapt 26, 27
F Oct 22	Grand rounds outer/middle ear disorders	
M Oct 25	Grand rounds (cont)	
F Oct 29	Inner ear pathology: Prenatal disorders	CL chapt 30; ND 94-95; 110,113-4
M Nov 1	Inner ear pathology: Prenatal disorders	ND 104-5; 108; 279-282; CL 492-499
F Nov 5	Inner ear pathology: Prenatal disorders	
M Nov 8	Examination #2	
F Nov 12	Inner ear pathology: Perinatal disorders	ND 277-8; 283-4;
M Nov 15	Inner ear pathology: Perinatal disorders	CL 499-500;
F Nov 19	No Class: ASHA at Philly	
M Nov 22	Inner ear pathology: Perinatal disorders	ND 97-8; CL 571-582
M Nov 29	Inner ear pathology: Neonatal disorders	ND 98-100; 102; 106-7
M Fri 3	Inner ear pathology & 8 th nerve: Neonatal disorders	CL 500-8
M Dec 6	Grand rounds Inner disorders and misc	
F Nov 10	Grand rounds & Boys Town Top Hearing disorders/JCIH 2000	ND 260-275;
M Dec 13	Final: 9:30-11:40	

Topics in Detail:

The following topics will be covered in class:

Embryology of the ear

Central nervous system development

Audiogram interpretation:

Normal audiogram and associated tests including immittance, ABR and OAEs

Conductive audiogram and associated tests

Sensori-neural audiogram and associated tests

Mixed hearing loss

Central hearing loss

Functional hearing loss

Otoscopy

Video-otoscopy

Regular

Pinna disorders (includes description of disorder, pathology etiology, audiogram, treatment and counseling for services)

Anotia

Microtia

Pre Auricular pits

Skin tags

Other pinna malformations

Perichondritis

Collapsed pinna

Ear Canal disorders: (includes description of disorder, pathology etiology, audiogram, treatment and counseling for services)

Atresia

Stenosis

Osteomas

Exostoses

Perichondritis

Otitis externa

Fluid discharge

Collapsed ear canals

Ear Wax

Foreign objects

Middle ear disorders: (includes description of disorder, pathology etiology, audiogram, treatment and counseling for services)

Eustachian tube dysfunction

Normal

Atelectasis

Otitis media

Tympanic membrane disorders

Tympanosclerosis

Chronic perforation

Flaccidity

Cholesteatoma

Mastoiditis

Bullous myringitis

Middle ear malformation (incomplete ossicular chain formation/fixation)

Inner ear and VIIIth nerve disorders: (includes description of disorder, pathology etiology, audiogram, treatment and counseling for services)

TORCH

Hypoxia

Childhood meniere's

Noise induced hearing loss

Ototoxicity

Aids and other autoimmune disorders

Fever

Sudden hearing loss

Neurofibromatosis type I and II

Cerebellar stroke

Non-syndromic hearing disorders

Syndromic disorders

Central disorders (hopefully)

Leukodystrophies; other central degenerative disorders

DD, Autism

Case history (hopefully)

ARTICLE V. UNIVERSITY REGULATIONS (USU Student Policy Handbook)

Violations of University Standards (*aka be ethical and all shall go well with thee*)

The following activities have been found to interfere with University functions or threaten the well-being and the educational purposes of students and are, therefore, specifically prohibited and make the student subject to discipline.

1. Cheating, falsification, plagiarism, or other forms of academic dishonesty.
 - a. Cheating includes intentionally using or attempting to use or providing others with unauthorized information, materials, or study aids in any academic exercise or activity. Substituting for another student, or permitting another student to substitute for oneself, in taking an examination or preparing academic work is also considered a form of cheating.
 - b. Falsification is the intentional and unauthorized altering or inventing of any information or citation in an academic exercise or activity.
 - c. Plagiarism is knowingly representing the words or ideas of another as one's own in any academic exercise or activity.

Discipline Regarding Academic Dishonesty Violations

Students have a responsibility to promote academic honesty at the University by not participating in or facilitating others' participation in any act of academic dishonesty and by reporting incidences of academic dishonesty to their instructors. Faculty are encouraged to take necessary precautions to keep tests, grades, records, and other confidential materials secure, and to closely monitor classroom examinations.

1. When infractions of academic honesty are observed or suspected:
 - a. As soon as possible, the student shall be notified by the instructor of the infraction and its consequences.
 - b. If the infraction results in a grade change for the course or a more serious penalty, the incident shall be reported to the dean of the college and the Vice President for Student Services
2. Academic dishonesty violations may require one or a combination of the following disciplinary measures:
 - a. Reprimand--a written or verbal denouncement by the instructor.
 - b. Grade Adjustment--receipt of a lower grade administered by the instructor.
 - c. Warning or Probation--continued attendance at the University predicated upon satisfying certain requirements as specified by the University.
 - d. Suspension--temporary dismissal from the University for a specified time.
 - e. Expulsion--permanent dismissal from the University.
3. Reprimand and Grade Adjustment, as described above, are administered by the instructor in consultation with the department head or dean. The other disciplinary measures listed above are administered through the Vice President for Student Services Office.