# California State University, Sacramento DISORDERS OF THE AUDITORY SYSTEM

CSAD623 - 3 units Spring 2020 (AUD-1)

COURSE FACULTY		
Course Instructor:		
Folsom Hall office #:		
Office Phone:		
Office Hours:		
E-mail address:		

## **REQUIRED CLASS MEETINGS TIMES**

Days and times:

Building: Folsom Room #:

## **REQUIRED TEXTS**

Musiek, F., Barans, J.A., Shinn, J.B., & Jones, R.O. (2011). *Disorders of the auditory system*. Plural Publishing.

## **OPTIONAL TEXTS**

Katz, J. (2011). Handbook of clinical audiology (7th ed.). Wolters Kluwer

# COURSE WEBSITE

https://sacct.csus.edu

SacCT will be used as the learning management site for dissemination of course readings, handouts, slides, assignments, announcements, and tests/quizzes. The course faculty will have materials posted to SacCT at least 48 hours before class.

# Instructor Communication and Response Time

Faculty strive to have open communication with students both within and outside of the classroom. Students are encouraged to contact faculty to discuss questions about the course. Responses to telephone or e-mail messages will usually be transmitted within 48 hours during regular working hours. If you do not have a response within this time period, please check your contact methods and resend the message. Faculty will generally respond to student questions received during evenings and weekends once they are back in the office during regular business hours.

\*Please be aware that all content for this course is the property of the course faculty who have created it and can only be used for this course. Those wishing to use the materials outside of this course must receive written permission from the author/creator.

# **GENERAL COURSE INFORMATION**

# **PRE-REQUISITES**

Admission to Doctor of Audiology program; CSAD611, CSAD612, CSAD613, CSAD614

## **COURSE DESCRIPTION**

<u>Overview</u>

This course introduces students to the major disorders and pathologies of the peripheral and central auditory systems. The pathophysiology, diagnosis, management, and treatment of each disorder will be discussed.

# Approved Course Description (from CSUS Course Catalog)

Pathologies of the auditory system, including diagnosis, management, and treatment.

## WHY IS THIS COURSE IMPORTANT?

This course is important because it allows students to contrast normal and pathological anatomy and physiology processes and apply concepts related to the audiologic evaluation to the diagnosis of disorders of the auditory system.

## **UNIVERSITY LEARNING GOALS**

	1 Disciplinary knowledge	2 Communication	3 Critical thinking/analysis	4 Information literacy	5 Professionalism	6 Intercultural/global perspectives	7 Research
Addressed by this course	X		х	Х	х		х

## **GRADUATE LEARNER OUTCOMES**

Mastery of each student-learning outcome listed below is indicated by a grade of B or better on each component of the corresponding measures listed in the table. Students are required to track their progress towards meeting each learning outcome and must make an appointment with the instructor for any grade equal to or less than a B. The instructor will suggest strategies to help you establish competence and knowledge in these areas.

Students should track their progress towards meeting each learning outcome by listing their grades on the table below over the course of the semester.

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

- 1. List common disorders of the outer, middle, and inner ear
- 2. Describe the pathophysiology of disorders affecting the auditory system
- 3. Discuss the impact of various disorders on the audiologic evaluation and hearing sensitivity
- 4. Describe management and treatment options for various auditory system disorders

Graduate Learner Outcome	Component Indicating Competence	Grade(s) Received
1-4	Exam (100%)	
2-4	Case study paper (100%)	
2-4	Quiz (100%)	

# COURSE/CLASS POLICIES

# **Course Format**

Lecture

# **Class Preparation:**

All required readings are for the date listed in the course schedule, not the following class period. Students are responsible for all assigned readings, whether discussed in class or not.

# **Class Participation:**

Students are expected to actively participate in class discussions and are required to have read the assigned material prior to class meetings.

# **Class Attendance:**

Classroom attendance is necessary for this course. No more than three unexcused absences are allowed. Students are expected to arrive on time as class begins at X:XX am/pm.

# **Class Assignments**

Course grades will be based on ten quizzes, a case study, two exams, and one final exam.

## **Quizzes**

Weekly quizzes will be available on SacCT one week prior to the due date. Students are expected to complete the quiz before the scheduled due date. Quizzes are based on assigned reading. Students will have 60 minutes to take the quiz; late submissions will receive a 0.

# **Case Study Paper**

Students will be assigned a case study for a given disorder. The paper should outline the historical background of the disorder, pathophysiology, audiologic and/or medical diagnosis, expected impact on communication and hearing, treatment and management, and outcomes.

## Exams

- Exam absences: No make-up examinations will be given unless there is a documented emergency for which you have written proof. Any approved make-up exams will be scheduled at the end of the semester (during finals week) and may be administered in a different format from the original exam.
- Exam procedures:

Test arrival/start

Test duration and completion

## **Commitment to Integrity**

As a student in this course (and at this university) you are expected to maintain high degrees of professionalism, commitment to active learning and participation in this class and also integrity in your behavior in and out of the classroom.

## Sac State's Academic Honesty Policy & Procedures

"The principles of truth and honesty are recognized as fundamental to a community of scholars and teachers. California State University, Sacramento expects that both faculty and students will honor these principles, and in so doing, will protect the integrity of academic work and student grades." Read more about Sac State's Academic Honesty Policy & Procedures at the following website: http://www.csus.edu/umanual/AcademicHonestyPolicyandProcedures.htm

Definitions: At Sac State, "cheating is the act of obtaining or attempting to obtain credit for academic work through the use of any dishonest, deceptive, or fraudulent means." "Plagiarism is a form of cheating. At Sac State, "plagiarism is the use of distinctive ideas or works belonging to another person without providing adequate acknowledgement of that person's contribution." Source: Sacramento State University Library Note: Any form of academic dishonesty, including cheating and plagiarism, shall be reported to the office of student affairs.

# **Understand When You May Drop This Course**

It is the student's responsibility to understand when he/she need to consider disenrolling from a course. Refer to the Sac State Course Schedule for dates and deadlines for registration. After this period, a serious and compelling reason is required to drop from the course. Serious and compelling reasons include: (a) documented and significant change in work hours, leaving student unable to attend class, or (b) documented and severe physical/mental illness/injury to the student or student's family. Under emergency/special circumstances, students may petition for an incomplete grade. An incomplete will only be assigned if there is a compelling extenuating circumstance. All incomplete course assignments must be completed in accordance with the department's policy.

## **Accommodations**

Inform your instructor of any accommodations needed. If you have a documented disability and verification from the Office of Services to Students with Disabilities (SSWD), and wish to discuss academic accommodations, please contact your instructor as soon as possible. It is the student's responsibility to provide documentation of disability to SSWD and meet with a SSWD counselor to request special accommodation before classes start. SSWD is located in Lassen Hall 1008 and can be contacted by phone at (916) 278-6955 (Voice) or (916) 278-7239 (TDD only) or via email at sswd@csus.edu

# **Course Requirement Grading**

Activity	Points Available
Quizzes (10 points x 10)	100
Ca <mark>se</mark> study paper	100
Exam (date and material covered)	200
Exam (date and material covered)	200
Exam (date and material covered)	200
Final exam (date and material	300
covered)	
TOTAL COURSE POINTS	1100
AVAILABLE	

## **Overall Percentage Needed**

Note: A grade of "B" or higher is required to count toward the minimum number of units needed to advance to candidacy.

Grade	Percentage
Α	93-100%
A-	90-92%
B+	87-89%
В	83-86%
B-	80-82%
C+	77-79%
С	73-76%
C-	70-72%
D+	67-69%
D	63-66%
D-	60-62%
F	< 60%

# **COURSE SCHEDULE OF LECTURE TOPICS AND EXAMS**

Date	Topic and Activity or Quiz and Exam	Readings/ Assignment
1/20	Introduction to course Introduction to human genetics: mutations, inheritance	Musiek, Baran, Shinn, & Jones- Ch. 2
1/22	Introduction to human genetics: mutations, inheritance Outer ear anatomy and physiology review, disorders	
1/27	Outer ear disorders	Musiek, Baran, Shinn, & Jones- Ch. 4
1/29	Middle ear anatomy and physiology review Disorders of the middle ear	Musiek, Baran, Shinn, & Jones- Ch. 4
2/3	Disorders: mastoid, temporal bone, cholesteatoma	Yamamoto-Fukuda et al. (2010). Pathogenesis of middle ear cholesteatoma. <i>American Journal of Pathology</i> , <i>176</i> (6), 2602-2606.
		Mukerji, S.S., Parmar, H.A., Ibrahim, M., & Mukherji, S.K. (2011). Congenital malformations of the temporal bone. Neuroimaging Clinics of
2/5	Dia salama di Davilia	North America, 21(3), 603-619.
2/5	Disorders: otitis media  Cleft palate/lip	Lieperthal et al. (2013). The diagnosis and management of acute otitis media. <i>Pediatrics</i> , 131(13), e964-999.
		Morris, P. (2012). Chronic suppurative otitis media. <i>BMJ Clinical Evidence</i> , 2012.
		Gani, B., Kinshuck, A.J., & Sharma, R. (2012). A review of hearing loss in cleft palate patients. <i>International Journal of Otolaryngology</i> . doi: 10.1155/2012/548698
2/10	Disorders: otosclerosis	Cureoglu, S., Baylan, M.Y., & Paparella, M.M. (2010). Cochlear otosclerosis. Current Opinions in Otolaryngology Head and Neck Surgery, 18(5), 357-362.
2/12	Disorders: Eustachian tube dysfunction	Swarts, J.D., & Bluestone,

Last name o	of instructor (Semester Year)	
		C.D. (2003). Eustachian tube function in older children and adults with persistent otitis media. <i>International Journal of Pediatric Otorhinolaryngology</i> , <i>67</i> (8), 853-859.  Leo, G., Piacentini, E., Incorvaia, C., & Consonni, D. (2007). Sinusitis and Eustachian tube dysfunction in children. <i>Pediatric Allergy and</i>
		<i>Immunology</i> , 18(Suppl 1), 35-39.
2/17	Review for Exam 1	33 30.
2/19	Exam 1	
2/24	Inner ear anatomy and physiology review Disorders of the inner ear	Musiek, Baran, Shinn, & Jones- Ch. 5
2/26	Tinnitus	Langguth, B., Kreuzer, P.M., Kleinjung, T., & De
3/2	Presbycusis	Ridder, D. (2013). Tinnitus: causes and clinical management. <i>The Lancet Neurology</i> , 12(9), 920-930.  Gales, G.A., & Mills, J.H.
		(2005). Presbycusis. <i>The Lancet</i> , <i>366</i> (9491), 1111-1120.
		Huang, Q., & Tang, J. (2010). Age-related hearing loss or presbycusis. <i>European</i>
		Archives of Otorhinolaryngology, 267(8), 1179-1191.
3/4	No class	201(0), 1119-1191.
3/9	Noise-induced hearing loss	Sliwinksa-Kowalska, M., & Davis, A. (2012). Noise-induced hearing loss.  Noise and Health, 14(61), 274-280.
3/11	Ototoxicity	Fausti, S.A., Henry, J.A., Schaffer, H.I., Olson, D.J., Frey, R.H., & McDonald, W.J. (1992). High-frequency audiometric monitoring for early detection of aminoglycoside ototoxicity. <i>Journal of Infectious</i>

Last name	of instructor (Semester Year)	
		<i>Diseases</i> , <i>165</i> (6), 1026-1032.
3/16	Autoimmune inner ear disease	Maiolino, L. (2017). Autoimmune ear disease: Clinical and diagnostic relevance in Cogan's syndrome. <i>Audiology Research</i> , 7(1), 162.
3/18	Sudden idiopathic sensorineural hearing loss	Kuhn, M., Heman-Ackah, S.E., Shaikh, J.A., & Roehm, P.C. (2011). Sudden sensorineural hearing loss. <i>Trends in</i> <i>Hearing</i> , <i>15</i> (3), 91-105.
3/23	Bacterial and viral infections	Smyth, V., O'Connell, B., Pitt, R., O'Callaghan, M., & Scott, J. (1988). Audiological management in the recovery phase of bacterial meningitis. International Journal of Pediatric Otorhinolaryngology, 15(1),
		79-86.  Cohen, B.E., Durstenfeld, A., & Roehm, P.C. (2014).  Viral causes of hearin gloss: A review for hearing health professionals.  Trends in Hearing, 18.
3/25	Meniere's disease	Nakashima et al. (2016). Meniere's disease. <i>Nature</i> <i>Reviews Disease Primers</i> , 2.
3/30	Review for Exam 2	
4/1 4/6	Exam 2 Genetic syndromes and non-syndromic causes of hearing loss	Angeli, S., Lin, X., & Liu, X. (2015). Genetics of hearing and deafness. <i>Anatomical Record</i> , 295(11), 1812-1829.
4/8	Perilymph fistula	Wall, C. & Rauch, S.D. (1995). Perilymph fistula pathophysiology.  Otolaryngology Head and Neck Surgery, 112(1), 145-153.
4/13	Review of CANS Auditory nerve and CANS disorders	Musiek, Baran, Shinn, & Jones- Ch. 6-7  Shinn, J.B. (2012). An overview of (central) auditory processing

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		disorders. Audiology
		Online.
4/15	7 <sup>th</sup> and 8 <sup>th</sup> nerve tumors	Kirazli, T., Oner, K., Bilgen, C., Ovul, I., & Midilli, R. (2004). Facial nerve neuroma: Clinical, diagnostic, and surgical features. <i>Skull Base</i> , <i>14</i> (2), 115-120.
		Pinna, M.H., Bento, R.F., & Neto, R. (2012). Vestibular schwannoma: 825 cases from a 25-year experience. <i>International Archives of Otorhinolaryngology</i> , 16(4), 466-475.
4/20	Non-organic hearing loss	Hiraumi, H., Tsuji, J., Kanemaru, S., Fujino, K., & Ito, J. (2007). Non-organic hearing loss. <i>Acta Oto-laryngologica</i> , <i>127</i> (Suppl 557), 3-7.
4/22	Cardiovascular system Outer ear, ocular, and renal disorders Musculoskeletal	Tan et al. (2017). Associations between cardiovascular disease and its risk factors with hearing loss-A cross-sectional analysis. <i>Clinical Otolaryngology</i> . doi: 10.1111/coa.12936.
4/27	Central nervous system	Overell, J., & Lindahl, A. (2004). Neuro-otological syndromes for the neurologist. <i>Journal of Neurology, Neurosurgery, and Psychiatry</i> , 75(Suppl 4). doi: 10.1136/jnnp.2004.053603.
4/29	Review for final exam	, ·
5/4	Final exam	
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Please note that dates, topics, and assignments are subject to change. In the event of a change, you will be given ample notification of the change.