# San José State University College of Education/Communicative Disorders and Sciences EDAU 170 Hearing Science, Section 1, Spring 2019

#### **Course and Contact Information**

**Instructor**: Meredith Kondo, Au.D.

Office Location: SH 118

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Office Hours: After class

Class Days/Time: Monday 9-11:45am

Classroom: SH 433

Prerequisites: EDAU 115

# Mission of the College of Education, SJSU:

The mission...is to prepare educators who have the knowledge, skills, dispositions and ethics that ensure equity and excellence for all students in a culturally diverse, technologically complex, global community.

# Mission of the Department of Communicative Disorders and Sciences, SJSU:

The mission of CD&S is to provide a high quality program for speech-language pathologists to meet the communicative needs of our increasingly diverse multilingual/multicultural population. The program follows an academic and clinical curriculum, based on a sound theoretical framework and research findings that promote competent practitioners who participate in lifelong learning experiences. The program is enhanced through faculty, academic, and clinical expertise, trans-disciplinary and family collaboration and technological advancements in assessment and intervention.

#### **KNOWLEDGE BASE:**

ASHA recommended guidelines for manual pure-tone threshold audiometry; ASHA recommended procedures for Speech Recognition Threshold; ANSI standards for Calibration of Audiometers; ASHA guidelines for screening for middle-ear disorders.

#### **TUTORING SERVICES:**

TUTORING SERVICES ARE AVAILABLE THROUGH SJSU. IF NEEDED, PLEASE REQUEST MORE INFORMATION FROM YOUR PROFESSOR.

CALIFORNIA COMMISSION ON TEACHER CREDENTIALING STANDARDS CLINICAL REHABILITATIVE SERVICES CREDENTIAL IN SPEECH AND LANGUAGE WITH SPECIAL CLASS AUTHORIZATION

#### Standard 22 Speech and Language Disorders.

Each candidate demonstrates understanding of speech, language and hearing disorders. The candidate demonstrates understanding of speech, language, and hearing disorders, including but not limited to disorders of language, articulation, fluency, voice, and hearing.

### Standard 23 Evaluation of Speech and Language Disorders

Each candidate demonstrates proficiency in screening for and evaluation of speech and language disorders and in screening for hearing disorders. The candidate exhibits knowledge of hearing screening procedures.

#### Standard 24 Management of Speech and Language Disorders

Each candidate demonstrates proficiency in the management of speech, language, and hearing disorders. The candidate demonstrates knowledge of management procedures, including remediation principles used in habilitation and rehabilitation for children and adults with various disorders of communication in their primary languages.

# **Course Description (Required)**

Topics include: theory of diagnostic audiological evaluation; calibration of audiometers; screening versus diagnosis; differential diagnosis of conductive versus sensorineural pathology. Procedures for obtaining pure-tone thresholds, speech recognition threshold, word recognition performance, acoustic immittance measurements, and otoacoustic emissions will be studied. The course culminates with interpretation of audiometric results. Prerequisites: EDAU 115 or permission of instructor.

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

- 1. Students will perform and interpret screening and diagnostic tests for the purpose of evaluating hearing loss, including pure tone thresholds, speech recognition thresholds, word recognition performance, tympanometry, and acoustic reflexes.
- 2. Students will make appropriate recommendations for medical or audiological follow up based upon audiometric test results.
- 3. Students will understand the pathology underlying common hearing losses and will be able to differentiate pathology through audiometric interpretation. This objective will be evaluated by performance on two examinations.
- 4. Students will understand the scope of practice for speech-language pathologists and audiologists as regards to screening for, and diagnosing, hearing loss. Students will also understand the ASHA recommended guidelines for screening for hearing loss and middle-ear pathology.
- 5. All student learning objectives will be evaluated using three laboratory assignments and two written examinations during the course of the semester, as described in the course requirements.

# Required Texts/Readings (Required)

#### **Textbook**

Audiology Primer, VAMC, Mountain Home, Tennessee – from Richard H. Wilson, Ph.D. Required. Note: .pdf version is posted on Canvas.

# **Course Requirements and Assignments (Required)**

- 1. Complete all readings as assigned.
- 2. Participate in class discussions.
- 3. Completion of three laboratory assignments:
  - A. Lab 1. Pure-tone audiograms: Using the portable audiometers, obtain five audiograms from friends, family, or classmates. Specifics of the assignment will be given.
  - B. Lab 2. Speech audiometry: Using the clinic audiometer, work in groups of three to obtain pure-tones and speech tests. Specifics of the assignment will be given.
  - C. Lab 3. Tympanometry and Otoscopy: Using the portable tympanometer and clinic otoscopes, obtain two tympanograms from classmates. Specifics of the assignment will be given.
- 4. Completion of two written exams. Make up exams are not given.
- Office of Graduate and Undergraduate Programs' <u>Syllabus Information web page</u> at http://www.sjsu.edu/gup/syllabusinfo/

SJSU Credit Hour Requirement below.

"Success in this course is based on the expectation that students will spend, for each unit of credit, a minimum of 45 hours over the length of the course (normally 3 hours per unit per week with 1 of the hours used for lecture) for instruction or preparation/studying or course related activities including but not limited to internships, labs, clinical practica. Other course structures will have equivalent workload expectations as described in the syllabus."

# **Grading Information (Required)**

Lab 1: 10 points Lab 2: 10 points Lab 3: 10 points Exam 1: 50 points Exam 2: 50 points

Grades will be assigned on a statistical distribution of total points.

# **University Policies (Required)**

Per University Policy S16-9, university-wide policy information relevant to all courses, such as academic integrity, accommodations, etc. will be available on Office of Graduate and Undergraduate Programs' Syllabus Information web page at <a href="http://www.sjsu.edu/gup/syllabusinfo/">http://www.sjsu.edu/gup/syllabusinfo/</a>"

#### **GRIEVANCE PROCEDURES:**

Information regarding grievance procedures is available in SH 115.

#### **ACADEMIC INTEGRITY:**

"Your own commitment to learning, as evidenced by your enrollment at SJSU, and the University's Academic Integrity Policy requires you to be honest in your academic course work. Faculty are required to report all infractions to the Office of Judicial Affairs. The policy on academic integrity can be found at www.sjsu.edu."

#### AMERICANS WITH DISABILITIES ACT:

"If you need course adaptations or accommodations because of a disability, or if you need special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible, or see me during office hours. Presidential Directive 97-03 requires that students with disabilities register with DRC to establish a record of their disability."

# **EDAU 170 / Hearing Science, Spring 2019, Course Schedule**

\*The schedule is subject to change with fair notice and how the notice will be made available.

# **Course Schedule**

Week	Date	Topics, Readings, Assignments, Deadlines
1		Introduction; Audiological Evaluation; Calibration (Pages 1-8)
2		Case History
3		Pure tone audiometrics
4		Bone Conduction and masking
5		Interpretation of Audiograms
6		Ear Pathologies
7		Exam 1
8		Speech recognition threshold (Pages 8-12)
9		Word recognition
10		Lab 2 demostration
11		Tympanometry (Pages 14-18)
12		Acoustic Reflexes (Pages 18-19)
13		Otoacoustic Emissions (Pages 19-22)
14		Case Studies (Pages 42-65)
15		Summary
Final Exam		TBD