

San José State University
Department of Communicative Disorders and Sciences
EDAU 115, Introductory Hearing Science, Section 01, Fall Semester, 2017

Course and Contact Information

Instructor:	Shaum P. Bhagat, Ph.D., CCC-A
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Office Hours:	Monday, 8 am- 9 am
Class Days/Time:	Monday, 9 am- 11:45 am
Classroom:	Sweeney Hall 449
Prerequisites:	CDS major, upper division standing, or instructor consent.
GE/SJSU Studies Category:	n/a

Course Format

Class lecture and discussion.

Faculty Web Page and MYSJSU Messaging (Optional)

Course materials such as syllabus, handouts, notes, assignment instructions, etc. can be found on Canvas. You are responsible for regularly checking with the messaging system through [MySJSU](http://my.sjsu.edu) at <http://my.sjsu.edu> to learn of any updates.

Course Description

Anatomy, physiology and psychoacoustics of the auditory system; theories of hearing and physics of sound.

Course Learning Outcomes (CLO)

Following the successful completion of this class, students will demonstrate:

1. Knowledge of the basic physical characteristics and measurement of acoustic signals
2. Fundamental understanding of the basic anatomy and physiology of the auditory system
3. Fundamental understanding of the basic principles, methods and applications of psychoacoustics.
4. Recognition of how certain psychoacoustical methods are applied in the evaluation of hearing in clinical testing.
5. Fundamental understanding of differential diagnosis methods and test interpretation.
6. Understanding of the ASHA scope of practice for speech-language pathologists regarding pure-tone and outer/middle ear screenings.

Required Texts/Readings

Textbook

Welling, D.R. and Ukstins, C.A. (2013). Fundamentals of Audiology for the Speech-Language Pathologist. Jones & Bartlett Learning, Burlington, Massachusetts. ISBN-13: 978-1449660307 ISBN-10: 1449660304. Students can purchase or rent the textbook at the Amazon or Barnes and Noble websites.

Library Liaison

Emily Chan, emily.chan@sjsu.edu, Communicative Disorders and Sciences Librarian.

Course Requirements and Assignments

Textbook reading assignments corresponding to course topics are listed in the syllabus. Reading assignments are to be completed prior to class. Students will be expected to actively participate in classroom discussions. Class discussions are largely derived from the reading assignments. Therefore, completion of reading assignments by students prior to class will enhance the overall quality of student academic experiences.

There will be three homework assignments and two examinations (midterm examination and final examination). Each homework assignment will be worth 20 points. The due dates for the homework assignments are listed in the syllabus.

Homework Assignment #1: Decibel problems.

Homework Assignment #2: Pure tone hearing screening video. Visit this video:

<https://www.youtube.com/watch?v=CO6BZvzUFBA>. Observe how the client is being tested. Describe the tests required for a pure-tone hearing screening (i.e. what is the behavior of the clinician and client?) How are the test results interpreted? Reflect on the sequence of events in the video, and write a 2-3 page paper (double-spaced) describing your impressions.

Homework Assignment #3: Tympanometry video. Visit this video:

<https://www.youtube.com/watch?v=yfpGOI9I3Hw>. Observe how the client is being tested. Describe the tests required for a pure-tone hearing screening (i.e. what is the behavior of the clinician and client?) How are the test results interpreted? Reflect on the sequence of events in the video, and write a 2-3 page paper (double-spaced) describing your impressions.

Late assignments turned in after the due dates will be penalized by deducting 5 points from the point total for each day the assignment is turned in late (i.e. if the assignment is turned in one day late, 5 points will be deducted, if the assignment is turned in two days late, 10 points will be deducted, etc.). Assignments that are not turned in will be assigned a grade of zero.

The two examinations will be worth 100 points each. Each exam will consist of multiple-choice questions, fill-in-the-blank questions, and short answer questions. There will be no make-up exams.

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.

Consent for Recording of Class and Public Sharing of Instructor Material

Common courtesy and professional behavior dictate that you notify someone when you are recording him/her. You must obtain the instructor's permission to make audio or video recordings in this class. Such permission allows the recordings to be used for your private, study purposes only. The recordings are the intellectual property of the instructor; you have not been given any rights to reproduce or distribute the material.

Course material developed by the instructor is the intellectual property of the instructor and cannot be shared publicly without his/her approval. You may not publicly share or upload instructor generated material for this course such as exam questions, lecture notes, or homework solutions without instructor consent.

Final Examination or Evaluation

There will be a comprehensive final examination administered in this class. The final examination will consist of multiple-choice questions, fill-in-the-blank questions and short answer questions.

Grading Information

Grades in this course will be determined on the basis of student performances on the homework assignments and the exams. The total number of points earned by the student will be divided by the total number of points possible, and this percentage will be used to assign grades using the plus/minus letter grade system according to the following scale:

98-100:**A+** 93-97:**A** 90-92:**A-** 87-89:**B+** 83-86:**B** 80-82:**B-** 77-79:**C+** 73-76:**C** 70-72:**C-** 67-69:**D+** 63-66:**D** 62-60:**D-** <60:**F**

Classroom Protocol

Class attendance is expected. Students will be expected to arrive to class on time. There will be no make-up exams without prior consent of the Instructor. Please refrain from websurfing, texting, and accessing social media during class. This degree of civility and respect is an element of the classroom culture. Failure to comply with these rules will result in your possible dismissal from class for the day. In addition, rude behavior (e.g., interrupting the Instructor, excessive talking in class) will also result in possible punitive measures.

University Policies

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](http://www.sjsu.edu/gup/syllabusinfo/) at <http://www.sjsu.edu/gup/syllabusinfo/>.

EDAU 115 / Introductory Hearing Science, Fall Semester, Course Schedule

This schedule is subject to change with fair notice and how the notice will be made via announcements in class.

Course Schedule

Week	Date	Topics, Readings, Assignments, Deadlines
1	8-28-2017	Introduction to acoustics, Chapter 2, pp. 9-17.
2	9-04-2017	Labor Day- No Class
3	9-11-2017	Decibels, Chapter 2, pp. 9-17.
4	9-18-2017	External and middle ear anatomy and physiology, Chapter 2, pp. 18-26.
5	9-25-2017	Inner ear anatomy, Chapter 2, pp. 18-26. HW#1 Due.
6	10-02-2017	Inner ear physiology, Chapter 2, pp. 18-26.
7	10-09-2017	The auditory brain, Chapter 2, pp. 18-26.
8	10-16-2017	Midterm exam
9	10-23-2017	Psychoacoustics: thresholds and masking
10	10-30-2017	Psychoacoustics: loudness and pitch
11	11-06-2017	Psychoacoustics: binaural phenomena
12	11-13-2017	Case history and differential diagnosis, Chapter 4, pp. 39-49.
13	11-20-2017	Pure-tone audiograms: testing and interpretation, Chapter 5, pp. 55-64.
14	11-27-2017	Speech audiometry, Chapter 6, pp. 65-72. HW#2 Due.
15	12-04-2017	Tympanometry, Chapter 7, pp., 73-85.
16	12-11-2017	OAE and ABR, Chapter 8, 87-92. HW#3 Due.
Final Exam	12-18-2017	TBD