COURSE OBJECTIVES:

This course is designed to provide the AuD student with the knowledge, skills, and experience to conduct a basic audiological test battery, which includes pure tone audiometry with masking, speech audiometry with masking, acoustic immittance measurements, and distortion product otoacoustic emissions. In this course, students will develop an understanding of the principles, administration, recording, and interpretation of audiological tests.

COURSE DESCRIPTION:

CMDS 8120 is a two hour credit course composed of classroom instruction, clinical instruction and practice, written examinations, and practical examinations. Through lecture, demonstration, and “hands on” practice, the student will learn to use audiometric equipment, administer basic audiological tests, record test results, and interpret test findings.

ASHA KNOWLEDGE AND SKILLS ACQUISITION (KASA) OUTCOMES:

Specific conceptual and clinical objectives of this course include items covered in ASHA’s “Knowledge and Skills Acquisition” (KASA) system. The learner outcomes may be measured by any of the following: written examinations (1), practical examinations (2), homework (3), laboratory exercises (4), and classroom participation (5).

Standard IV-A: Foundations of Practice

The applicant must have knowledge of:

A12. Principles, methods, and applications of psychoacoustics (1, 2, 3, 4, 5)
A13. Instrumentation and bioelectrical hazards (1, 2, 3, 4)
A14. Physical characteristics and measurement of electric and other non-acoustic stimuli (1, 2, 4, 5)
A21. Universal precautions and infectious/contagious diseases (1, 2, 4, 5)

The applicant must have knowledge and skills in:

A24. The use of instrumentation according to manufacturer’s specifications and
Standard IV-C: Assessment
The applicant must have knowledge and skills in:

C2. Assessing individuals with suspected disorders of hearing, communication, balance, and related systems (1, 2, 3, 4, 5)

C4. Performing Otoscopy for appropriate audiological assessment/management decisions, determining the need for cerumen removal, and providing a basis for medical referral (2, 3, 4)

C5. Conducting and interpreting behavioral and/or electrophysiologic methods to assess hearing thresholds and auditory neural function (1, 2, 3, 4)

C7. Conducting and interpreting Otoacoustic emissions and acoustic immittance (reflexes) (1, 2, 3, 4)

Specific skills will include:

1. Describe applicable procedures for universal precautions
2. Apply appropriate infection control procedures
3. Perform otoscopic examination using acceptable procedure
4. Accurately describe results of otoscopic examination
5. Use middle ear analyzer according to manufacturer’s specifications
6. Administer acoustic immittance test battery (tympanometry, ipsilateral and contralateral middle ear muscle reflexes) for cooperative subject
7. Accurately record results of acoustic immittance tests
8. Accurately interpret results of acoustic immittance tests
9. Use clinical audiometers according to manufacturer’s specifications
10. Administer air conduction threshold test using ASHA protocol for cooperative subject
11. Administer bone conduction threshold test using ASHA protocol for cooperative subject
12. Apply masking during pure tone testing using plateau method
13. Accurately record audiometric thresholds on audiogram
14. Accurately interpret results of pure tone audiometry
15. Administer Speech Recognition Threshold (SRT) test using ASHA 1998 protocol for cooperative subject
16. Apply masking during SRT testing
17. Correctly record SRTs with masking on audiogram form
18. Obtain word recognition scores at suprathreshold presentation level with contralateral masking for cooperative subject
19. Correctly record word recognition scores on audiogram form
20. Correctly interpret results of speech audiometry tests
21. Correctly identify normal hearing acuity, conductive hearing loss, mixed hearing loss, and sensorineural hearing loss
22. Correctly describe degree of severity of hearing loss
23. Use otoacoustic emissions (OAEs) equipment according to manufacturer’s specifications
24. Obtain DPOAEs on cooperative subjects
25. Accurately interpret results of OAE testing
CLASS POLICIES:
1. Attendance at class meetings and practice sessions is expected; observe starting times of the class and when we reconvene after a break.
2. Excused absence from class and practical learning opportunities require prior notification to instructor and presentation of physician’s explanation.
3. Unexcused absences from class or practical learning opportunities cannot be made up. Unexcused absences from class or clinical experiences may negatively affect the final grade.
4. Turn off cell phones and pagers before entering class and practice sessions; computers may only be used to take class notes.
5. Refrain from eating and drinking during class and practice sessions.
6. Be prepared to actively participate during class discussions, which include both speaking and listening, and question/answer periods.
7. Complete reading assignments before each class.
8. Submit assignments by the due date. Late work may be penalized or refused (and the assignment awarded a grade of zero) at the discretion of the instructor.
9. Class announcements will be posted to a class electronic mailing list. Students should access their Auburn University email account and regularly check their email.
10. Students can contact the instructor by telephone or email. The instructor will make every effort to respond to inquiries within 24 hours.

GRADING POLICY: Homework assignments and laboratory experiences will be given throughout the semester. The final examination will be a written examination, administered on the scheduled exam date. Tests, clinical practice, and course activities include:
- Quizzes (3) 12 points (4 points each)
- Written tests (2) 20 points (10 points each)
- Practical tests (3) 30 points (10 points each)
- Assignments (8) 8 points
- Written final examination 30 points

The final grade for the course will be determined by the total number of points achieved throughout the semester.

A = 100-90 points
B = 89-80 points
C = 79-70 points
D = 69-60 points
F = 59-0 points

Students may withdraw from this course by mid-semester (with a W on the transcript), but withdrawal from this class will affect the student’s progression through the AuD program and may delay graduation.

STUDENT EVALUATION OF COURSE AND PROFESSOR:
Students will be asked to complete the appropriate evaluation instrument (AU eValuate) at the end of the course.

CLASSROOM BEHAVIOR:
The AU Classroom Behavior Policy is strictly followed in this course; please refer to the Student Policy eHandbook at http://www.auburn.edu/student_info/student_policies/ for details of this policy.

**ACADEMIC HONESTY:**
All portions of the Auburn University Student Academic Honesty code (Title XII) found in the Student Policy eHandbook at http://www.auburn.edu/student_info/student_policies/ will apply to this class. All academic honesty violations or alleged violations of the SGA Code of Laws will be reported to the Office of the Provost, which will then refer the case to the Academic Honesty Committee.

**STUDENTS WITH DISABILITIES:**
Students with disabilities who may need accommodations should meet with T. Duane Donald, Director of the Office of Accessibility, 1244 Haley Center, 844-2096 (V/TT). Then, the student should arrange a meeting with Dr. Wilson during her office hours the first week of classes, or as soon as possible, if accommodations are needed immediately. If a student has a conflict with the office hours, an alternate time can be arranged. The student should contact Dr. Wilson by e-mail to schedule a meeting. The student should bring a copy of the Accommodation Memo and an Instructor Verification Form to the meeting.

**EMERGENCY PROCEDURES:**
Situations, signaled by the University fire alarm, weather siren, or other warning systems, may occur during this class period. Instructions issued by the teacher or other university personnel should be followed and may include to “shelter”, to “evacuate”, or to “barricade” in the room.

When “sheltering”, students should walk calmly to the nearest Severe Weather Shelter Area (green and white wall-mounted signs). Students should assemble in this area, sitting in the hallway, so all classmates can be accounted for.

When “evacuating”, students should walk calmly down the hall to the nearest designated exit. Cross the concourse and assembly in the grassy knoll in front of Cater Hall. Students should gather in the grassy knoll so all classmates can be accounted for.

When “barricading” in the room, turn out the lights, draw the blinds, turn off computers and cell phones, barricade the door, stay away from windows, and crouch behind furniture, next to a wall.

Additional information is available on the Auburn University Department of Public Safety and Security (emergency management) website (http://www.auburn.edu/administration/public_safety/emergency/emergency_preparedness.html).

**CLASS SCHEDULE AND CONTENT:**
Tuesday, August 18  Orientation to CMDS 8120

**LECTURE**: infection control  
**Read**: pp 26-35 in Audiology Clinic Manual (to access Clinic Manual go to AU website, Academics, College of Liberal Arts, Academics, Graduate Programs, Audiology Program, Clinic Manual)  
**Read**: www.audiology.org, select search, type infection control, select article, Infection control in audiological practice  
**Read**: www.audiologyonline.com, select journal, select article, type infection control, search, select, Infection control Part I: Why audiologists need to do it and Infection control Part II: What audiologists need to do  
**Read**: pp. 88-96

Thursday, August 20  
**LECTURE**: Otoscopic examination  
**Watch**: video otoscopy (Google search for otoscopic inspection video, select ENT-Ear Examination-Otoscopy.mp4)

Tuesday, August 25  
**NO CLASS**: CMDS departmental retreat

Thursday, August 27  
**CLINICAL PRACTICE**: otoscopic examination  
**Assignment**: homework #1 (due September 3rd - description of otoscopic examination on 6 ears [3 subjects])  
**Read**: pp. 221-228

Tuesday, September 1  
**LECTURE**: tympanometry

Thursday, September 3  
**CLINICAL PRACTICE**: tympanometry  
Homework #1 due  
**Quiz #1**: infection control and otoscopy  
**Assignment**: homework #2 (due Sept. 10 - otoscopy and tympanometry on 4 subjects)  
**Read**: pp. 228-235

Tuesday, Sept. 8  
**LECTURE**: Middle ear muscle reflexes (MEMRs)

Thursday, Sept. 10  
**CLINICAL PRACTICE**: tympanometry and MEMRs  
Homework #2 due  
**Assignment**: homework #3 (due September 17 – otoscopy, tympanometry, and MEMRs on 3 subjects)  
**Read**: pp. 235-249

Tuesday, Sept. 15  
**LECTURE**: Distortion Product Otoacoustic Emissions
<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
<th>Notes</th>
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<tbody>
<tr>
<td>Thursday, Sept. 17</td>
<td>CLINICAL PRACTICE: DPOAEs</td>
<td>Homework #3 due Assignment: homework #4 (due by Sept. 24th - DPOAEs on 3 subjects) Read: pp. 101-110, 112-120, 126-130</td>
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<td>Tuesday, Sept. 22</td>
<td>LECTURE: bone conduction threshold audiometry</td>
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<td>Thursday, Sept. 24</td>
<td>PRACTICAL EXAM #1: infection control, otoscopy, tympanometry, middle ear muscle reflexes Homework #4 due Read: pp. 122-126, 130-146</td>
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<td>Tuesday, Sept. 29</td>
<td>LECTURE: air conduction audiometry; interpretation of pure tone thresholds</td>
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<td>Thursday, Oct. 1</td>
<td>CLINICAL PRACTICE: air and bone conduction audiometry Assignment: homework #5 (due October 8 – otoscopy, air conduction and “better” bone conduction threshold tests on 4 subjects) Read: pp. 179-187, 191-194</td>
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<td>Tuesday, Oct. 6</td>
<td>LECTURE: masking for bone conduction audiometry (Dr. Kelli Watts)</td>
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<td>Thursday, Oct. 8</td>
<td>CLINICAL PRACTICE: bone conduction masking</td>
<td>Homework #5 due Read: pp. 179-191, 198-203</td>
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<td>Tuesday, Oct. 13</td>
<td>LECTURE: masking for air conduction audiometry</td>
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<td>Thursday, Oct. 15</td>
<td>NO CLASS: fall break</td>
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<td>Tuesday, Oct. 20</td>
<td>CLINICAL PRACTICE: air and bone conduction masking</td>
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<td>Thursday, Oct. 22</td>
<td>CLINICAL PRACTICE: air and bone conduction masking Assignment: homework #6 (due Oct. 29th – AC and BC threshold testing with one ear plugged; mask AC and BC thresholds as indicated, for 3 subjects)</td>
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<td>Tuesday, Oct. 27</td>
<td>PRACTICAL EXAM #2: air and bone conduction threshold testing with masking Read: pp. 147-163</td>
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<td>Thursday, Oct. 29</td>
<td>LECTURE: Speech Reception Thresholds (SRTs)</td>
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Assignment: homework #7 (due Nov. 13th otoscopy, AC and BC thresholds and SRTs with one ear occluded for 3 subjects)
Read: pp. 163-178

Tuesday, Nov. 3  
**LECTURE:** review SRTs; word recognition testing with contralateral masking

Thursday, Nov. 5  
**CLINICAL PRACTICE:** speech audiometry (SRTs and word recognition)
**QUIZ #2:** air and bone conduction audiometry, SRTs

Tuesday, Nov. 10  
**CLINICAL PRACTICE:** AC and BC threshold testing, SRTs, and word recognition testing with contralateral masking

Thursday, Nov. 12  
**CLINICAL PRACTICE:** AC thresholds, BC thresholds, SRTs and word recognition testing with contralateral masking
**QUIZ #3:** Pure tone and speech audiometric testing with masking
Homework #7 due

Tuesday, Nov. 17  
**CLINICAL PRACTICE:** Pure tone audiometry and speech audiometry with masking

Thursday, Nov. 19  
**PRACTICAL TEST #3:** SRTs and word recognition testing with masking
**Read:** pp. 204-211

Tuesday, Nov. 24  
No class-Thanksgiving holiday

Thursday, Nov. 26  
No class-Thanksgiving holiday

Tuesday, December 1  
**LECTURE:** interpretation and integration of audiological test results
**WRITTEN TEST #2:** Acoustic immittance testing, pure tone and speech audiometric testing with masking, interpretation of test findings
Assignment: homework #8 (due by end of semester - air and bone conduction testing, SRTs, and word recognition testing [contralateral masking as indicated] with one ear occluded on 2 subjects)

Thursday, Dec. 3  
**LECTURE:** interpretation and integration of audiological test results; recommendations and referrals
FRIDAY, DEC. 11
@8:00-10:30 AM
FINAL WRITTEN EXAMINATION
Last day to submit Homework #8

The syllabus may be subject to change due to unforeseen circumstances.