

**Professor:** Dr. Valerie Freeman (“Professor” or “Dr. Freeman”) [valerie.freeman@okstate.edu](mailto:valerie.freeman@okstate.edu)

**Virtual Office hours:** Tuesdays 11:30 & by appointment  
[https://gather.town/app/6Ny0c4WJGi95Jgrn/Freeman\\_Office](https://gather.town/app/6Ny0c4WJGi95Jgrn/Freeman_Office)

**GTA:** Sydney Ruder Hours: TBA [sydney.ruder@okstate.edu](mailto:sydney.ruder@okstate.edu)

**Course Objectives:** In this course, you will increase your knowledge of:

- speech production and perception (KASA III-B)
- objective speech recording measures used in assessment of speech disorders (KASA III-D)
- the traditional classification of consonants and vowels (KASA III-B)
- the nature of sound and various attributes of sound (KASA III-A)
- the anatomy and physiology of the subsystems of speech production (respiratory, phonatory, resonatory, articulatory (KASA III-B))
- the role of nervous system in speech production (KASA III-B)

### Required Materials

- **Textbook:** Ferrand, C. (2018). Speech Science: An Integrated Approach to Theory and Clinical Practice (4th edition). Pearson. ISBN: 0134481453. You may use the **print or e-text** version (you do not need both).
- **Praat** (free software): <http://www.fon.hum.uva.nl/praat/>. Installation will be demonstrated.
- **Canvas:** all course materials, quizzes, assignments, grades, exams, & live streaming

### Workload

- Before each class: read 10-20 pages, prepare for in-class reading check (not shown on schedule)
- In class: individual and team reading checks, practice worksheets, group work, etc.
- After some lectures: worksheets, small homework assignments (not shown on schedule)
- ~Weekly (before class): timed chapter quiz
- 5 times/semester: Lab assignments
- 4 times: exams (3 unit exams, 1 cumulative final)

### Course Grade Breakdown

- |  |     |
|--|-----|
| • Attendance & Participation   | 5%  |
| • Reading checks (before and after each lecture, grade = avg. of 2 attempts) | 10% |
| • Worksheets, in-class group activities, practice homework                   | 10% |
| • Chapter quizzes (~10-12 total, online, timed, open book/note)              | 15% |
| • Lab assignments (~5 total)   | 25% |
| • Exams (4 total: 3 units + 1 cumulative final; online, closed book/note)    | 35% |
| ○ Optional practice tests contribute up to 10% of exam score                 |     |

### Course Grade Conversion (no rounding)

- |             |             |             |             |
|-------------|-------------|-------------|-------------|
| • A ≥ 90.0% | • B ≥ 80.0% | • C ≥ 70.0% | • D ≥ 60.0% |
|-------------|-------------|-------------|-------------|

### Unexcused Late Work:

- -2% per calendar day for unexcused late work (automatically applied by Canvas)
- You can always turn in any work on Canvas to avoid being late (upload a photo of paper work)
- Exams cannot be done late without permission

## Policies & Procedures

### Attendance:

- **Class will be live streamed and recorded through Canvas Big Blue Button** (fka Conferences)
- **You may attend in person or via live stream** for any reason, on any day, no notice required
- No matter how you attend, participate during class by asking/answering questions during lecture, working together on assignments, etc.
- **If you're sick, STAY HOME** and tune in to the live stream if you're up to it
  - It doesn't matter what's making you feel yucky – especially if it's potentially contagious, even if you're not sure what it is or think it might be allergies but don't know for sure
  - See below if you have symptoms of COVID
- If you're sick and can't tune in, you can watch the recording on Canvas within two weeks
  - Jot down your answers to the comprehension checks during the lecture and send them to the TA to regain attendance points
  - If you're well enough to do this before the next class, there will be no late penalty
  - If you're too sick and need more time, email Dr. Freeman for an extension; documentation may be required for lengthy extensions
- Talk to Dr. Freeman if you need extensions due to illness or extenuating circumstances
- Inform Dr. Freeman of planned absences to arrange due date adjustments if necessary
- If you are or will be absent, it is your responsibility to check Canvas for the day's materials, watch the stream/recording, and check with classmates for updates
  - Dr. Freeman thinks everything in this course is important, so please don't send emails asking if you'll miss anything important, what we're doing in class, if there's anything due, or to let you know if you should do anything – check Canvas first, and then ask any questions you have about the day's material or assignments

### COVID:

- We are all **expected to wear a mask** during class, even if fully vaccinated. This is especially important in classrooms and laboratories because people are together for long periods of time. Wearing a mask during class not only protects you but also helps protect those around you who may be more vulnerable. This is a simple way we can look out for all members of the Cowboy family.
  - Dr. Freeman will wear a mask and use a microphone
  - We'll use a seating chart for attendance in case it's needed for contact tracing
  - We can also spread out in the classroom as much as possible
  - If we have a positive case in our class, we'll go **online synchronous** for two weeks
- **If you have any of these symptoms**, even if you think they're due to something else, contact **University Health Services at 405-744-7665** immediately, **do not come to class** in person, and **contact Dr. Freeman** about missing any work
  - Fever or chills
  - Cough
  - Shortness of breath or difficulty breathing
  - Fatigue
  - Muscle or body aches
  - Headache
  - New loss of taste or smell
  - Sore throat
  - Congestion or runny nose
  - Nausea or vomiting
  - Diarrhea

# Assignments

## Reading checks:

This course covers a lot of material, and it takes more than one visit to understand it well. The idea is to get familiar with the concepts by reading before class, and then hear about them a different way from the lecture. Reading checks before lecture give an incentive and reward for working this way, and questions you're unsure about will help you listen for that information during lecture. This is not intended to be stressful: you are not expected to learn it all on your own from the book! It would be very hard to get an A without doing any reading, but reading checks are not worth so much that your grade will suffer if you have trouble understanding the readings, and you have a second chance after lecture to get a perfect score and raise your average.

- Note: on daily assignments, **"Read" = required, focus of lessons**; "Review" = refresher
- Most classes begin with a short reading check over the day's readings on Canvas
  - ~7-10 questions, time limit ~7 mins
- After lecture, take the same reading check again, this time open-book/note in a group of 3-4
- Your score will be the average of your two attempts
- If you attend via live stream, work with others attending that way
  - If only one person is online, we'll ask a group in the room to log in to the stream
- If you're absent during class time, you can do both attempts on your own
  - Contact the TA to reopen it for you
  - Do the first attempt, then watch the recorded class, then do the second attempt
  - If you're well enough to do this before the next class, there will be no late penalty
  - If you're too sick and need more time, email the Dr. Freeman for an extension
- Let the TA know if you don't normally bring a laptop to class, so she'll bring enough paper copies

## Chapter quizzes:

- Each chapter has a short, timed, open note/book quiz (~10 questions, 10 mins) to do on Canvas outside of class

## Labs:

- In ~5 lab assignments, you will learn to use free software Praat to take acoustic measurements
- You'll need a computer on lab days (which are marked on the schedule); bring your own to class or tune in to the live stream

## Exams:

- Exams will be on Examity
  - Use your webcam to show your ID, a clear workspace, and the room around you
  - Exams are timed (~1 hour), closed note/book, and you should be alone
  - Cost to you: ~\$4-5 per exam
- Exams are planned for Mondays; they'll open on the prior Friday and close Monday night
- You may take exams at home/wherever any time during that period, or bring your laptop and take it in the classroom during regular class time
- Each unit (~2 chapters) has an Extra Credit Practice Exam that contributes to your exam score
  - It is very similar in content and style to the real exam (but it could be shorter)
  - There is also an ungraded Review version you can retake as many times as you want
- The final exam will be open for multiple days during finals week; details TBA

### LASSO Peer Tutoring:

- If you feel you haven't had much experience reading a textbook before lectures, or you struggle with your first reading checks, Dr. Freeman, the TA, or a LASSO peer tutor can help you develop reading and study habits to be successful in this course (and others!)
- LASSO offers **free** peer tutoring for many courses. Sign up at [Tutor.okstate.edu](https://tutor.okstate.edu)
- We usually have at least one CDIS senior as a tutor for this course. They can help with concepts, studying tips, practice, and going over homework/exams.

### General Schedule (subject to change – see Canvas for current dates)

| Wk | #  | Day | Date    | Topic & Prep for class   |
|----|----|-----|---------|--|
| 1  | 1  | M   | Aug 16  | Intro <ul style="list-style-type: none"><li>• Get book (print or e-text)</li><li>• Update Canvas profile: preferred first name, pronouns, pic</li></ul>  |
|    | 2  | W   | Aug 18  | <u>Ch 1: Nature of Sound</u> <ul style="list-style-type: none"><li>• Review ch 1 p. 1-15 (Physics)</li><li>• Read ch 1 p. 16-31 (waves)</li></ul>  |
| 2  | 3  | M   | Aug 23  | • Read ch 1 p. 31-53 (Attributes, Resonance)   |
|    | 4  | W   | Aug 25  | • <b>Due: Quiz Ch 1</b><br>• <b>Due: Worksheet Ch 1</b><br><u>Lab Ch 1: Praat Intro &amp; Vowel Duration</u> <ul style="list-style-type: none"><li>• Bring/share laptop with Praat installed</li></ul>   |
| 3  | 5  | M   | Aug 30  | <u>Ch 2: Respiratory System</u> <ul style="list-style-type: none"><li>• Review ch 2 p. 55-68 (anatomy)</li><li>• Read ch 2 p. 68-86 (Volume, Capacity, Speech Breathing)</li></ul> Lab questions   |
|    | 6  | W   | Sept 1  | • <b>Due: Quiz Ch 2</b><br><u>Ch 3: Respiratory Disorders</u> <ul style="list-style-type: none"><li>• Read ch 3 p. 88-99 (Measures, Classification)</li></ul> Lab questions  |
| 4  |    | M   | Sept 6  | <b>LABOR DAY (NO CLASSES)</b>  |
|    | 7  | W   | Sept 8  | • Read ch 3 p. 99-115 (Neurological)<br>• <b>Due: Worksheet Ch 2-3 (end of class)</b><br>Review  |
| 5  | 8  | M   | Sept 13 | • <b>Due: Quiz Ch 3</b><br>• <b>Due: Lab Vowel Durations (end of class)</b><br><b>Exam Ch 1-3</b>  |
|    | 9  | W   | Sept 15 | <u>Ch 4: Phonatory/Laryngeal System</u> <ul style="list-style-type: none"><li>• Review ch 4 p. 118-137 (anatomy, esp. valves)</li><li>• Read ch 4 p. 137-147 (Vibration, Life Span)</li></ul> <u>Lab Ch 4: Voice</u> <ul style="list-style-type: none"><li>• Bring/share laptop with Praat installed</li></ul> |
| 6  | 10 | M   | Sept 20 | • Read ch 4 p. 147-154 (Quality, Register)<br>Lab con't: Bring/share laptop with Praat installed   |
|    | 11 | W   | Sept 22 | • <b>Due: Quiz Ch 4</b><br><u>Ch 5: Phonatory Disorders</u> <ul style="list-style-type: none"><li>• Read ch 5 p. 155-170 (Measurements, EGG)</li></ul> Lab con't: Bring/share laptop with Praat installed  |
| 7  | 12 | M   | Sept 27 | • <b>Due: Voice Lab</b> <ul style="list-style-type: none"><li>• Read ch 5 p. 170-191 (Visualization, Treatment)</li></ul> <u>Lab Ch 5: EGG</u> <ul style="list-style-type: none"><li>• Bring/share laptop with Praat installed</li></ul>   |

|    |    |   |         |   |
|----|----|---|---------|---|
|    | 13 | W | Sept 29 | <ul style="list-style-type: none"> <li>• <b>Due: Quiz Ch 5</b></li> </ul> Lab con't: Bring/share laptop with Praat installed<br>Review  |
| 8  | 14 | M | Oct 4   | <b>Exam Ch 4-5</b>  |
|    | 15 | W | Oct 6   | <ul style="list-style-type: none"> <li>• <b>Due: EGG Lab</b></li> </ul> Ch 6: Articulatory/Resonance System<br><ul style="list-style-type: none"> <li>• Read ch 6 p. 195-215 (Tract, Pharynx)</li> <li>• Read ch 6 p. 215-223 (Classification)</li> </ul>   |
| 9  | 16 | M | Oct 11  | <ul style="list-style-type: none"> <li>• Read ch 6 p. 223-234 (Resonance)</li> </ul>  |
|    | 17 | W | Oct 13  | <ul style="list-style-type: none"> <li>• Read ch 6 p. 234-240 (Spectrograms: Sonorants)</li> </ul> <u>Lab Ch 6: Vowel formants</u><br><ul style="list-style-type: none"> <li>• Bring/share laptop with Praat installed</li> </ul>   |
| 10 | 18 | M | Oct 18  | <ul style="list-style-type: none"> <li>• Read ch 6 p. 240-246 (Spectrograms: Obstruents)</li> </ul> Lab con't: Bring/share laptop with Praat installed  |
|    | 19 | W | Oct 20  | <ul style="list-style-type: none"> <li>• Read ch 6 p. 246-252 (Context)</li> </ul> Lab con't: Bring/share laptop with Praat installed<br><ul style="list-style-type: none"> <li>• <b>Due: Worksheet Ch 6 (end of class)</b></li> </ul>  |
| 11 | 20 | M | Oct 25  | <ul style="list-style-type: none"> <li>• <b>Due: Vowel Lab</b></li> <li>• <b>Due: Spectrogram HW (end of class)</b></li> <li>• <b>Due: Quiz Ch 6</b></li> </ul> <u>Ch 7: Articulatory/Resonance Disorders</u><br><ul style="list-style-type: none"> <li>• Read ch 7 p. 255-260 (Visualization)</li> </ul>                         |
|    | 21 | W | Oct 27  | <ul style="list-style-type: none"> <li>• <b>Due: Bonus Spectrogram Quiz</b></li> </ul> <ul style="list-style-type: none"> <li>• Read ch 7 p. 260-278 (Disorders)</li> </ul> Review  |
| 12 | 22 | M | Nov 1   | <ul style="list-style-type: none"> <li>• <b>Due: Quiz Ch 7</b></li> </ul> <b>Exam Ch 6-7</b>  |
|    | 23 | W | Nov 3   | <u>Ch 8: Auditory System (&amp; Speech Perception)</u><br><ul style="list-style-type: none"> <li>• Review ch 8 p. 282-293 (Ear anatomy)</li> <li>• Read ch 8 p. 293-304 (Perception)</li> </ul> <u>Lab Ch 8: Speech Perception</u><br><ul style="list-style-type: none"> <li>• Bring/share laptop with Praat installed</li> </ul> |
| 13 | 24 | M | Nov 8   | <ul style="list-style-type: none"> <li>• <b>Due: Quiz Ch 8</b></li> <li>• <b>Bring: Lab "friend" responses</b></li> </ul> Lab con't: Bring/share laptop with Praat installed  |
|    | 25 | W | Nov 10  | <u>Ch 9: Hearing Loss (&amp; Speech Perception)</u><br><ul style="list-style-type: none"> <li>• Review ch 9 p. 305-314 (Hearing Loss)</li> <li>• Read ch 9 p. 314-326 (Perception, CIs)</li> </ul> Lab con't: Bring/share laptop with Praat installed   |
| 14 | 26 | M | Nov 15  | <ul style="list-style-type: none"> <li>• <b>Due: Perception Lab (end of class)</b></li> </ul> <u>Ch 10: Nervous System (&amp; Aphasia &amp; Motor Learning)</u><br><ul style="list-style-type: none"> <li>• Review ch 10 p. 328-369 (Neural anatomy)</li> </ul>   |
|    | 27 | W | Nov 17  | <ul style="list-style-type: none"> <li>• <b>Due: Quiz Ch 9</b></li> </ul> <ul style="list-style-type: none"> <li>• Read ch 10 p. 369-380 (Motor Control)</li> </ul>   |
|    |    | M | Nov 22  | <b>THANKSGIVING BREAK (no class)</b>  |
|    |    | W | Nov 24  | <b>THANKSGIVING BREAK (no class)</b>  |
| 15 | 28 | M | Nov 29  | <ul style="list-style-type: none"> <li>• <b>Due: Quiz Ch 10</b></li> </ul> Review   |
|    | 29 | W | Dec 1   | Review  |
| 16 |    |   | TBD     | <b>Final Exam (cumulative, details TBA)</b>   |