

# **Speech Anatomy & Physiology**

## **CD 484-710 Spring 2019**

Instructor: <b>Barbara R. Brindle, Ph.D., CCC-SLP</b>	Office: AC 108-E
Office Hours: Mon./Wed. 2:30-4:30 p.m. CT; Tue. 2:30-5:30 pm CT; Thur. 6-6:30 pm CT; & by appointment	Phone: 270-745-4299 E-mail: barbara.brindle@wku.edu
Virtual Office: 10 minutes before and after each class	Class: Tuesdays 6:30-7:30 pm; or Thursdays 8:30-9:30 pm CT

**Course Description:** Anatomy and physiology provide the foundation of the communicative process. CD 484 is designed to help students identify the structures and functions which comprise the speech and hearing mechanism, and to understand the relationship of this mechanism to the communicative process, and the consequences of anatomical and/or physiological dysfunction.

This is a web-based course. Access to reliable high speed internet service is required. There will be no face-to-face meetings. Classes and Virtual Office will be conducted via Adobe Acrobat software. Powerpoint slideshows, video lectures, quizzes, and additional resources will be available on the WKU Blackboard site at <http://blackboard.wku.edu>. A proctor will be required for the midterm and final exams.

### **Texts:**

### **Required**

Seikel, King, & Drumright (2010). ANATOMY & PHYSIOLOGY FOR SPEECH & LANG, & HEARING, ed.4 [With CD] Delmar, ISBN 1-4283-1223-4 or ed.5.

You may choose either the hardcover or the online version, as preferred.

### **Recommended**

Stedman (2008). STEDMAN'S MEDICAL DICTIONARY FOR HEALTH PROFESSIONS & NURSING, ed.6, [With CD.] Lippincott. ISBN 0-7817-7618-X

For students who need a good medical dictionary for a modest price. Earlier editions provide fewer illustrations, but should also suffice for our purposes.

### **Course Evaluation:**

- 1. Six quizzes/study guides. These will be open book/notes, on-line, and in the format of mixed objective and short to medium answer essay. The quiz will be posted on Blackboard after class upon conclusion of every topical unit (2 or 3 chapters in text), and will be due in one week. There will be no make-up quiz once results have been discussed in class. Quizzes will be due by 11:55 pm CT on the date assigned. 30-50 pts each.

- 2. Six unit assignments, due at the end of each unit. These will be open-book, multi-media assignments designed to help you integrate content. See Assignment Guidelines for details. 20-30 pts each.
- 3. Two traditional proctored examinations. Tentatively scheduled for the weeks of [3/15-22](#) and [5/3-10](#). 70-80% of the questions will be drawn from the electronic quizzes and assignments. 100 pts each. See policy # 4.
- 4. Five oral peripheral evaluations. The first will be completed upon a normal adult volunteer/classmate, tentatively scheduled for the [March 19<sup>th</sup>/21<sup>st</sup>](#) class. *We can attempt this by webcam or videoconference, or you can video yourselves and send me a CD or DVD.* The remaining four volunteers may be of any age, gender, or history. *If you are evaluating speech clients, arrange to be supervised by an SLP-CCC.* Write a *one-page* summary of the similarities and differences that you see. See assignment guidelines for details. Protocols and summary due by 11:55 pm CT on [April 8<sup>th</sup>](#). 75 points.
- Extra Credit: Taste Test to be completed in conjunction with the oral peripheral evaluations. Students will map where four volunteers taste sweet, sour, and salty substances. 4 points each. Due [April 8<sup>th</sup>](#).
- 5. One group presentation of oral motor exercises; 4-6 members per group. See assignment guidelines for details. Webpage URLs due to instructor by 8 p.m. April [28<sup>th</sup>](#). Orally presented to class on [4/30-5/2](#). 100 points. This presentation may use one of the following formats:
  - 15-20 minute oral presentation. *Assignment may be presented in person, submitted by CD/ DVD, posted on You-Tube, or by webcam/videoconference if all parties have access to same.*
  - Original webpage, which would encompass 6-8 pages if printed.
- 6. Participation in *one* virtual classroom chat weekly. 2 points each.

## **Core Objectives and ASHA Knowledge and Skills Acquisition (KASA)**

### **Performance Indicators:**

#### Core Objectives:

- a. Define anatomy, physiology, and related nomenclature
- b. Describe the motor speech subsystems of respiration, phonation, resonance, articulation, and prosody, as they relate to the speech process
- c. Identify primary bones, muscles, cartilages, nerves, and spaces relevant to speech production
- d. Describe the mechanics of respiration, phonation, resonance, and articulation as they relate to speech production
- e. Identify primary structures of the auditory mechanism
- f. Describe the process of hearing as it relates to communication
- g. Discuss the central, peripheral, and autonomic nervous system
- h. Discuss neuroanatomy as it relates to communication
- i. Discuss the effect that anatomical and/or physiological dysfunction would have on the communicative process

- j. Practice application of above objectives via administration of oral peripheral evaluations and taste tests to volunteer subjects
- k. Demonstrate understanding of the range of normal oral structure and function
- l. Analyze commonly used oral motor exercises according to muscles and functions affected
- m. Demonstrate understanding of how and why oral motor exercises should be applied in a clinical setting

### **ASHA Knowledge and Skills Acquisition (KASA) Performance Indicators:**

<b>KASA Standard</b>	<b>Core Objective Addressed</b>	<b>Evaluation</b>
III.B. Demonstrate knowledge of basic anatomic & physiological processes, including their biological, neurological, acoustic, psychological, developmental, and linguistic and cultural bases.	a,b,c,d,e,f, g,h,i	Quizzes Assignments Exams
III.C. Demonstrate knowledge of the nature of Speech, hearing, and communication disorders and differences and swallowing disorders, including the etiologies, characteristics, anatomical/physiological, acoustic, psychological, developmental, and linguistic and cultural correlates.	a,b,c,d,e,f, g,h,i	Quizzes Assignments Exams
III.D. Demonstrate knowledge of the principles and methods of prevention, assessment, and intervention for people with communication and swallowing disorders.	j,k	Assignments OSMSE-3
III. F. Demonstrate knowledge of processes used in research and the integration of research principles into evidence-based clinical practice.	j,k	OSMSE-3, Taste test
IV.G.3. Demonstrate interaction and personal qualities including: communicate effectively, recognizing needs/values/preferred mode of communication, and cultural/linguistic background of client/caregivers/etc.; collaborate in case management; provide counseling regarding swallowing to client/caregivers/ etc.; adhere to ASHA code of ethics and behave professionally.	j,k,l,m	OSMSE-3 Taste test Presentation

*All assignments and quizzes will be due by 11:55 pm CT Sundays on the assigned dates, unless otherwise noted.*

## **Policies**

### **Class:**

1...Students are responsible for all material presented.

- Regular attendance is highly recommended. Students in this class are adults by Kentucky law and are considered capable of making their own decisions about attendance; however you are responsible for the material covered.

- b. This is a web-based course. Access to compatible computer technology and software is your own responsibility.
  - c. All due dates and class notifications reference Central Time zone. Time zone conversion is your own responsibility.
  - d. Note: MAC users tend to have more difficulty interfacing with university systems. The Instructional Technology department can be of assistance with difficulties involving access to university online functions, but the ultimate responsibility is yours. The (IT) help desk can be reached at 270-745-7000.
  - e. Quizzes and Exams will be announced in advance. 'Technical difficulties' must be overcome within one week to receive credit for the online quiz. No credit will be given once the answer key has been posted. No other make-up or late assignments will be accepted.
2. Contact.
- a. The instructor will be available for questions during office hours, before & after class, and by E-mail at your convenience. I will make every effort to respond within two business days. Consider posting questions on the discussion board, so that your peers may also benefit.
  - b. All e-mail correspondence will be sent to your WKU e-mail address. You may forward this to your preferred e-mail account by following the instructions posted in the FAQ folder under the Start Here tab. It is your responsibility to either forward your mail or check your WKU e-mail on a regular basis.
  - c. When contacting me by e-mail, type **CD 484 in the title line**, followed by a brief descriptor of content. Like many faculty, I use a filter to prioritize student e-mail from the many received daily, enabling me to respond to your e-mail first.
  - d. Please be aware that I do not answer the telephone if I have a student in my office. Make an appointment via e-mail if you have difficulty getting through.
3. There are many variations of word-processing and media software. The following are required for this class:
- a. Text: Microsoft Word (.doc or .docx), Adobe (.pdf) or Rich Text file (.rtf).
  - b. Media: (.wav), Windows Media (.wmv), Mp4, or VLC Media Player (.vlc).
4. Proctoring services can be arranged by the Distance Learning Testing Center. See their webpage at <https://www.wku.edu/testing/students.php>. The DLTC does not charge a fee; however, the WKU Remote Proctoring Network includes proctor locations who may charge for services as well as those that don't. Students are responsible for payment of any proctoring fees if they choose to use a site that charges for services. Students are also responsible for any additional fees that might be associated with the use of a particular proctoring site, such as parking fees.
5. The instructor reserves the right to modify this syllabus as needed. .
6. Communication Disorders Program Scoring Standards: A = 93-100% of total points; B = 85-92%; C = 77-84%; D = 68-76%; F = <68%, i.e. <338/500 points.

### **University:**

1. To represent ideas or interpretations taken from another source as one's own is **plagiarism**. The academic work of the student must be his/her own. Give the original authors credit for any source material used, whether print or electronic sources. Plagiarism will result in failure of the assignment involved. If unsure what constitutes plagiarism, refer to University guidelines at

[http://www.wku.edu/Dept/Support/StuAffairs/StuLife/handbook/2004pdf/12\\_Academic%20Offenses.pdf](http://www.wku.edu/Dept/Support/StuAffairs/StuLife/handbook/2004pdf/12_Academic%20Offenses.pdf). All quotes and paraphrased material must be referenced according to **APA style**.

2. Students with disabilities who require accommodations (academic adjustments and/or auxiliary aids or services) for this course must contact the Office for Student Disability Services, in the Student Success Center at Downing University Center A 201. The OFSDS telephone number is (270) 745-5004 V/TTY. Please DO NOT request accommodations directly from the professor or instructor without a letter of accommodation from the Office for Student Disability Services.
3. University Grievance Procedures are specified at:  
<http://www.wku.edu/StuAffairs/StuLife/handbook/2004pdf/16%20Student%20Grievance%20Procedure.pdf>

**Other:**

1. The Department of Communication Disorders is accredited by the Council on Academic Accreditation (CAA) in Audiology and Speech-Language Pathology. Complaints about programs must be signed and submitted in writing to the Chair, Council on Academic Accreditation in Audiology and Speech-Language Pathology, American Speech-Language-Hearing Association, 2200 Research Blvd, Rockville, MD, 29050. The complaint must clearly describe the specific nature of the complaint and the relationship of the complaint to the accreditation standards, and provide supporting data for the charge. The complainant's burden of proof is a preponderance or greater weight of the evidence.

**Tentative Weekly Topics:**

Week	Dates	Topic	Week	Date	Topic
1	1/22-24	Introduction	8	3/19--21	OSMSE
2	1/29-31	Respiration	9	3/26-28	Articulation
3	2/5-7	Respiration	10	4/2-4	Articulation
4	2/12-14	Resp./Phonation	11	4/9-11	Artic/Resonance
5	2/19-21	Phonation	12	4/16-18	Swallowing
6	2/26-28	Phonation	13	4/23-25	Swallowing
--	3/ 4-8	<i>Spring Break</i>	14	4/30-5/2	Present/ Hrg-Neuro
7	3/12-14	Oral Exam	--	5/6-10	<b>Finals Week</b>

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