

CSD 400 - Anatomy and Physiology of Speech and Language

Spring, 2016 (3 credit hours)

Melanie Lowry, PhD, CCC-SLP

9:00-9:50 MWF (Swaid 215)

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Office Hours are posted on my door and appointment times are available via email

Course Description: Normal anatomy and physiology of speech and language will be presented. Specific breakdowns in anatomical and physiological functioning resulting in communication disorders will be discussed.

Required Materials: Seikel, J. A., King, D. W., & Drumright, D. G. (2015). *Anatomy and Physiology for Speech, Language, and Hearing* (5th ed.). Clifton Park, NY: Delmar. ISBN 978-1285198248

Strongly suggested: McFarland, D. (2015). *Netter's Atlas of Anatomy for Speech, Swallowing and Hearing* (2nd Ed.). St. Louis: Mosby/Elsevier Press. ISBN 978-0323239820

Course Objectives: This course is designed to provide the undergraduate student in communication sciences and disorders with a functional knowledge of the anatomy and physiology of speech and language production. Attention is given to the specific structures, muscles, and function of respiration, phonation, resonance, and articulation. An overview of the central and peripheral nervous systems is provided. By the conclusion of this course students are expected to know the location and function of the primary structures and muscles of the speech/language mechanism as well as understand how these structures function to produce speech, language, cognition, and swallowing.

Course Structure: This course is divided into sections. Each section will cover the structure (anatomy) and function (physiology) of each body system. Specific breakdowns in anatomical and physiological functioning resulting in communication disorders will be discussed. The systems covered in this course include:

- 1) Basics of Anatomy & Physiology
- 2) Neurology
- 3) Respiration
- 4) Phonation
- 5) Articulation & Resonance
- 6) Swallowing (as time permits)

Academic Integrity

Honesty and integrity are characteristics that should describe each one of us as servants of Jesus Christ. As your instructor, I pledge that I will strive for honesty and integrity in how I handle the content of this course and in how I interact with each of you. I ask that you join me in pledging to do the same.

Academic dishonesty will result in penalties up to and including dismissal from the class with a failing grade and will be reported to the Associate Provost. All instances of dishonesty will be handled according to the procedures delineated in the Harding University catalog.

Relationship to ASHA Standards: ASHA upholds eight Standards related to academic and clinical training as well as continuing education, acquisition and maintenance of your CCCs. These Standards have been recently revised and new standards became effective September 1, 2014. The revised Standards are available in your departmental handbook and students are encouraged to review them. This course primarily contributes to evidence of skills described in Standards IV-B, IV-C and IV-D.

Students with Disabilities: It is the policy for Harding University to accommodate students with disabilities, pursuant to federal and state law. Therefore, any student with a *documented disability* condition (e.g. physical, learning, or psychological) who needs to arrange reasonable accommodations must contact the instructor and the Disabilities Office at the *beginning* of each semester. (If the diagnosis of the disability occurs during the academic year, the student must self-identify with the Disabilities Office *as soon as possible* in order to get academic accommodations in place for the remainder of the semester.) The Disabilities Office is located in Room 219 in the Student Center, telephone, (501) 279-4019.

Time Management Expectations

For every course credit hour, the typical student should expect to spend at least three clock hours per week of concentrated attention on course-related work, including but not limited to time attending class, as well as out-of-class time spent reading, problem solving, reviewing, organizing notes, preparing for upcoming quizzes/exams, developing and completing projects, and other activities that enhance learning. Thus, for a three-hour course, a typical student should expect to spend at least nine hours per week dedicated to the course.

Dress Code

All members of the Harding community are expected to maintain standards of modesty and decency in dress appropriate to the Christian lifestyle and consistent with professional employment expectations. For these reasons, students are expected to adhere to an established dress code. Additional standards of dress may be required by certain academic or extracurricular programs.

Assessment Statement

Harding University, since its charter in 1924, has been strongly committed to providing the best resources and environment for the teaching-learning process. The board, administration, faculty, and staff are wholeheartedly committed to full compliance with all criteria of the Higher Learning Commission of the North Central Association of Colleges and Schools. The university values continuous, rigorous assessment at every level for its potential to improve student learning and achievement and for its centrality in fulfilling the stated mission of Harding. Thus, a comprehensive assessment program has been developed that includes both the Academic units and the Administrative and Educational Support (AES) units. Specifically, all academic units will be assessed in reference to the following Expanded Statement of Institutional Purpose: The University provides programs that enable students to acquire essential knowledge, skills, and dispositions in their academic disciplines for successful careers, advanced studies, and servant leadership.

Course Policies:

- Attendance is expected at each class meeting and will be recorded. It is the student's responsibility to sign the attendance sheet at each class meeting. As stated in the Student Handbook, excessive absences can result in being dropped from the course with the grade of "F."
- Students are expected to read assigned material prior to class and be prepared to participate in class discussions. Students who miss class are responsible for content.
- Please do not text during class. I am not blind and I see you do it; I find it rude and unprofessional. I may not call you out (although I might, you never know) but I do notice.

- Lectures, slides and test questions are considered to be intellectual property and some course components are protected by an additional copyright. For these reasons, students may not record any portions of a class or photograph slides without the express permission of the course instructor.
- Written work must be reasonably correct in mechanics (e.g. grammar, punctuation, etc.). Points will be deducted for inadequate work.
- It is expected that students will adhere to assignment due dates. Late work will not be accepted and a zero will be given for the assignment.
- Submitting work taken directly from another source will be considered plagiarism and no credit will be given on the assignment. Cheating in all its forms is inconsistent with the Christian faith and practice and will result in sanctions up to and including dismissal from the class with a failing grade. Obtaining information from students taking this course during a previous semester or giving information to students in subsequent semesters is considered Academic Dishonesty.
- This course adheres to university guidelines regarding workload requirements per credit hour.
- All exams will be given in the campus Testing Lab. I encourage you to review the Testing Lab's policies posted on Canvas. Exams are generally composed of true/false, multiple choice, labeling and fill-in the blank questions.
- If you are unable to take an examination due to illness, an alternate form of the exam (essay or written paper) may be substituted for the missed exam. In order to be allowed the opportunity to make up the exam you must contact me prior to the scheduled exam and have a written doctor's excuse (not the HU nurse).
- Students are encouraged to review each exam with the course instructor. Students scoring below the class average on any exam will be **required** to meet with the instructor to review exam performance and clarify any gaps in knowledge. Appointments may also be made to answer any questions the student may have regarding quiz grades. Students are expected to take ownership and responsibility of their course grades.

Grading - Assessment of the knowledge, skills, and proficiency of each student for the purpose of assigning a letter grade at the completion of this course will be based on the following:

Chapter Exams -	50%
Exam #1 – Neurology & Basics of A&P	
Exam #2 – Respiration	
Exam #3 – Phonation	
Exam #4 - Articulation/Resonance	
Final Exam (Comprehensive)	20%
Quizzes – there are 12	10%
Class Projects	20%
• Respiration t-shirt	
• Clay brain	
• Clay larynx	

Grading Scale:

A -	90 – 100%
B-	80 – 89%
C -	70 – 79%
D -	60 - 69%
F -	below 60%

Grades are not gifts; they are earned. The instructor does not *GIVE* grades; rather the student *EARN*S the grade through organization, diligence, planning, and execution. Students are expected to assume individual responsibility for the quality, presentation and timeliness of their own work.

Course Requirements- (must be completed to earn credit in this course):

1. There will be four examinations and a final. The final will be comprehensive.
2. Each student will make a three-dimensional model of a the left cerebral hemisphere and the larynx. Clay (Model Magic) is available at WalMart, other stores, or online. Play-Dough is not recommended; it falls apart when dry and you will be sad. Your larynx model should be able to stand on its own. Both should be turned in at the beginning of class on the day they are due. Grading forms and “helpful hints” are available on Canvas.
3. Each chapter will have at least one accompanying quiz on Canvas. You will have multiple opportunities to take each quiz. It is possible that you can earn a perfect score in this part of the course but that will require diligence on your part.
4. Each student will complete a t-shirt depicting the respiratory system. Details and rubric are posted to Canvas.
5. Exam reviews with the instructor are required if the student scores below the class average.
6. Because 30% of the course grade is based on projects and open book quizzes, an average of 70% must be earned on course examinations (including the Final) to earn credit in the course.

This course will meet two times with colleagues in the College of Nursing to discuss issues related to tracheostomy care and enteral feeding methods. These topics represent the clinical application of material learned in this course. Powerpoint presentations will be available on Canvas and students will see material from these labs on examinations.

MLK Day – January 18 – no classes
Richard Walker Conference – January 29
Peter Huttlinger/guitarist – February 2
CHS Movie Night (Still Alice) – February 16
CVA Seminar – February 25 8:00 – 1:00
Spring Break – Feb 29 – March 4
Midterm Week – March 7-11
Spring Sing – March 24 – 27
IPE Night at the Round Tables – April 4
Lunch & Learn/Tracheostomy – April 5
Lunch & Learn/Dysphagia – March 25
Interprofessional Devotional – April 20
Dead Week – April 25-29
Finals Week – May 2 - 6
Graduation – May 7

Dr. Lowry's helpful hints for CSD 400:

Give yourself permission to absolutely LOVE this course. There is nothing that convinces me more of God's sovereignty over this fallen world than learning more and more about His masterpiece – the human body. You are an absolute miracle – the workmanship of His almighty hand. You are a living, breathing, walking “study aid” for this course. If you have negative preconceived notions about this course, let go of them.

An average student should expect to devote 9 hours of time each week to this 3 credit hour course. Approximately three of those hours will be spent in a classroom. Spending the remaining time (six hours weekly) with the material *outside of class time* will be necessary if you plan to successfully complete this course.

I strongly suggest that (at the very least) you listen to the Echo lectures and read the chapter before coming to class. You may also benefit from completing the study exercises found at the end of each chapter and on the CD that accompanies your textbook. Your learning will be enhanced if my lecture on the material is not the first time you are exposed to a given topic. If you are not yet a believer in this concept, give it a shot. I think you'll surprise yourself.

There is a tremendous amount of information in your text – we can't possibly master ALL of it in 16 weeks. Pay attention to the quizzes – they will help guide you toward the information that I consider important in this course.

This course is additive in nature meaning that your understanding of future concepts is built upon understanding of earlier concepts. If you fall behind, catch up! If you're lost, ask yourself if you are dedicating enough time to the material outside of class or if you are expecting to learn everything you need to know for an exam while you are in the classroom. If you are reading your textbook before class, spending adequate time with the material outside of class and are still lost, see me (earlier rather than later). I want to help you be successful in this class.

In this course, spelling counts. Take the time to learn the correct spelling of each term – if it's spelled wrong, it will be counted wrong. Basic anatomical terms and names of structures do not require capitalization (e.g. esophagus, neurons, larynx, palatoglossus). Structures/diseases named for people (e.g. Broca's area, Parkinson disease, Alzheimer's disease, circle of Willis) are capitalized.

Make it easier on yourself and “crack the code” of anatomy early in this course. Learn the basic anatomical terms presented in the first chapter and you'll have an easier time later. The first anatomists were Greeks, thus many Greek (and Latin) terms form the basis for anatomical terminology. Your book does a great job of highlighting this in the margins – pay attention.

I am a firm believer that excellent treatment is built on a solid diagnostic foundation which is built on a clear understanding of what's “normal.” You can't reasonably expect to improve your patient's function if you can't identify the problem. Please view this course as foundational (not optional) for your skills as a diagnostician and clinician.

Jan 11	Overview/Introductions	1	
Jan 13	Basic Elements	1	
Jan 15	Basic Elements	1	No class today–complete Echo Lecture & Chapter 1 Quiz
Jan 20	Neuroanatomy	11/12	
Jan 22	Neuroanatomy		Chapter 11a Quiz
Jan 25	Neuroanatomy		
Jan 27	Neuroanatomy		
Jan 29	Neuroanatomy		Chapter 11b Quiz
Feb 1	Neuroanatomy		
Feb 3	Neurophysiology		Chapter 11c Quiz
Feb 5	Neurophysiology		
Feb 8	Neurophysiology		Clay Brains due – see Canvas
Feb 10	Neurophysiology		Chapter 12 Quiz
Feb 12	Neurophysiology		
Feb 15	Neurophysiology		
Feb 17	Respiration	2/3	Exam #1 2/18-2/19
Feb 19	Respiration		
Feb 22	Respiration		
Feb 24	Respiration		Feb 26 – no class! Ch. 2 Quiz
March 7	Respiration		
March 9	Respiration		
March 11	Respiration		Midterm Week
March 14	Respiration		Respiration t-shirt due – see Canvas
March 16	Respiration		Chapter 3 Quiz
March 18	Phonation	4/5	Exam #2 3/17 – 3/18
March 21	Phonation		
March 23	Phonation		
March 25	Phonation		
March 28	Phonation		Chapter 4 Quiz
March 30	Phonation		Afternoon Trach/Vent lab with Nursing – 3:00 – 4:50
April 1	Phonation		Clay larynx due – see Canvas
April 4	Phonation		
April 6	Phonation		Chapter 5 Quiz
April 8	Artic/Resonance.	6/7	Exam #3 4/7 & 4/8
April 11	Artic/Resonance		
April 13	Artic/Resonance.		Afternoon Enteral Feeding lab with Nursing – 3:00 – 4:50
April 15	Artic/Resonance		
April 18	Artic/Resonance		
April 20	Artic/Resonance		Chapter 6 Quiz
April 22	Artic/Resonance		
April 25	Artic/Resonance		Chapter 7 Quiz
April 27	Artic/Resonance		Exam #4 4/28 & 4/29
April 29	Review Day		
May 2-6	Final Exam Week		See posted schedule for Final Day/Time