

Anatomy and Physiology of the Speech Mechanism
COMD 3100 -- FALL Semester, 2004
Tuesday, Thursday 9:00 – 10:15am 3 semester hours

PROFESSOR: Kim Corbin-Lewis, Ph.D. **OFFICE HOURS:** Tuesday, 12:00-1:00
Thursday, 10:30 - 11:45 or by appointment
OFFICE: Communicative Disorders 108 **PHONE:** 797-1302
E-Mail: Kim.Corbin-Lewis@usu.edu **Dept. Web:** www.coe.edu/COMD

COURSE DESCRIPTION

This undergraduate course is intended to provide the student with a comprehensive and functional background in the anatomy and physiology of biologic systems involved in human communication. The course provides a detailed look at the structures and function of the human speech mechanism. This will enable the student to understand the basic process and to be able to communicate efficiently with physicians, surgeons and other professional specialists. The material is limited to those structures and processes that directly relate to the communication process and will not include units on the limbs. The course will cover anatomy and physiology of the head, neck, chest, skeleton, nervous system, and circulatory system. Embryology of the speech and hearing mechanism will also be covered. Anatomy and physiology is material that, to some degree, must be learned by rote memorization; hence, the student is encouraged to study with other class members in study groups. It is also strongly recommended that all readings be completed prior to the class lecture addressing the stated topic. These practices have proven to be the best method for studying and retaining the course material. Visual representations of the structures are contained within the texts; however, the student should seek to compile a collection of visuals that can be used to supplement the textual material and the human dissection projections provided.

FORMATIVE ASSESSMENT PROCEDURES:

Learner outcomes will reflect those outlined in the Knowledge and Skills Acquisition (KASA) Summary Form for Certification in Speech-Language Pathology by the American Speech-Language-Hearing Association (ASHA) attached to the end of this syllabus.

COMPETENCIES

Following successful completion of the course the student will be able to:

- A. Define and use anatomical concepts, terminology, and planes of dissection (KASA IIIA)
- B. Identify and label the structures of the respiratory, phonatory, articulatory, resonatory, and neurological systems that participate in human communication (KASA IIIB)

- C. Demonstrate an understanding of the function of the respiratory, phonatory, articulatory, resonatory, and neurological system components as they participate in human communication (KASA IIIB)
- D. Describe how these systems function as an integrative whole during the communicative act
- E. Describe the embryological development of these systems that subserve communication (KASA IIIB)

EVALUATION

Class Participation - 10%

Attendance is expected though not checked. It will be impossible to participate during class (and therefore earn your 10%) if you are absent.

Promptness is also required and is part of the expected level of professionalism. Late arrivals are disruptive to the class and instructor. If tardiness becomes an issue, random roll calls will be made during the semester at the first of the class period. If you arrive after the roll call, 5 points will be deducted from your overall accumulated points at the end of the semester.

Exams - 90%

Five unit exams will be objective, **non-cumulative** tests. Each examination will have approximately 30 questions and will be worth 100 points. Exam dates will be **tentatively** set at the beginning of the semester (dates will be at the professor's discretion and will depend on speed of progress in the class). You must take the exam as scheduled. There will be accommodations made for university-approved excuses **only**. If an exam is not taken with the class and you do not have a university-approved excuse, you will automatically forfeit 10% of the total points for that test. ***There are NO exceptions to this policy.*** The final unit examination will be held during the assigned final exam period on: **Tuesday, December 14, 2004 at 9:30-11:20pm**. Please notify me ASAP if there are any university approved scheduling conflicts with exams.

Review and Lab Sessions

Review sessions and 3-5 lab sessions will be held regularly during the semester to assist the student in integrating the material presented in class. The labs are arranged for students to visualize human dissections in the Anatomy Lab (BNR 320). This is a new addition to COMD 3100 and scheduling will be announced during class. A second year graduate student, Jason Steadman, will be directing the sessions on Tuesday evening from approximately 4:00 – 6:00 p.m. Review and lab session attendance is optional BUT participation will GREATLY influence a student's success on examinations and synthesis of course material.

Extra Credit Assignment

The study of the human body is integral to many different fields and professions. While dry at times, we may learn far more than just the structures and functions of tissues,

organs, and systems. As a 50-point extra credit assignment you may further explore the use of cadavers in the paperback book “Stiff” by Mary Roach. This book is currently on the New York Times Bestseller list and can be purchased in most bookstores. If you choose to complete the extra credit assignment you will be given 5 questions to briefly respond to after you read the book. I would strongly encourage all of you to read this interesting and informative book.

GRADING

Grading in this upper division course is NOT done on a curve. Material presented in this class is essential to becoming a competent professional in the field of communicative disorders and, as such, is viewed as a needed knowledge base. The following University-approved grading scale will be used:

93-100 = A
 90-92 = A-
 87-89 = B+
 83-86 = B
 80-82 = B-
 77-79 = C+
 73-76 = C
 70-72 = C-
 60-69 = D
 < 60 = F

Any exams that are not picked up will be shredded one year from the test date.

REQUIRED TEXT: Zemlin, W. R. Speech and Hearing Science: Anatomy and Physiology, 4th Edition, Allyn & Bacon, 1998. (Available at bookstore)

RECOMMENDED BOOK: Rohen, J. W., Yokochi, C., & Lutjen-Drecoll, E. Color Atlas of Anatomy, Fifth Edition. Lippincott, Williams & Wilkins, 2002.

Roach, Mary. Stiff: The Curious Lives of Human Cadavers. W. W. Norton & Company, 2003.

READING ASSIGNMENTS

Week	Dates	Topic
1	31-August 2-September	Introduction, Ch 1 Tissues Ch 1 Tissues
2	7-September 9-September	Ch 1 Tissues Study group – arrange times COMD 003 Ch 2 Breathing
3	14-September 16-September	Ch 2 Breathing Study group – arrange times COMD 003 Ch 2 Breathing

4	21-September 23-September	Ch 2 Breathing Study group – arrange times COMD 003 Ch 2 Breathing
5	28-September 30-September	Exam on Chapters 1 & 2 Ch 3 Phonation
6	5-October 7-October	Ch 3 Phonation Study group – arrange times COMD 003 Ch 3 Phonation
7	12-October 14-October	Ch 3 Phonation Study group – arrange times COMD 003 Ch 3 Phonation; p. 556 Circulation
8	19-October 21-October	Exam on Chapter 3 Ch 4 Articulation
9	26-October 28-October	Ch 4 Articulation Study group – arrange times COMD 003 Ch 4 Articulation
10	2-November 4-November	Ch 4 Articulation; p. 557 Circulation Study group – arrange times COMD 003 Exam on Chapter 4
11	9-November	Ch 5 Nervous System Study group – arrange times COMD 003
	11-November	Ch 5 Nervous System
12	16-November 18-November	Ch 5 Nervous System Study group – arrange times COMD 003 Ch 5 Nervous System; p. 557-560 Circulation
13	23-November 25-November	Exam on Chapter 5 Thanksgiving Holiday – NO CLASS
14	30-November 2-December	Ch 8 Circulation Ch 7 Embryology
15	7-December 9-December	Ch 7 Embryology Study group – arrange times COMD 003 Ch 7 Embryology
Final:	14-Dec	Final non-cumulative Exam - 9:30-11:20am

Audio taping of course lectures is allowed; videotaping is not.

COURSE SUPPLEMENTAL MATERIALS: Some chapter outlines and handouts will be placed on USU's e-reserve library system and can be accessed by students in the following manner:

- Go to the USU homepage (www.usu.edu) and click on the INDEX tab. Then click on "E" and scroll down to and click on ELECTRONIC RESERVE SERVICES.
- Then click on [Electronic Reserves Course Materials](#).
- Under "Select an Instructor" use the arrow to the right of the little box to see the different names of the instructors on the USU system. Scroll down until you find "Corbin-Lewis, Kim" and click on that name. Then click the "GO" button.
- Click on "Anatomy".
- Enter COR3100 as the password.

University Standards of Academic Integrity - "The Honor System"

Each student has the right and duty to pursue his or her academic experience free of dishonesty. The Honor System is designed to establish the higher level of conduct expected and required of all Utah State University students.

The Honor Pledge: To enhance the learning environment at Utah State University and to develop student academic integrity, each student agrees to the following Honor Pledge: "I pledge, on my honor, to conduct myself with the foremost level of academic integrity." A student who lives by the Honor Pledge is a student who does more than not cheat, falsify, or plagiarize. A student who lives by the Honor Pledge:

- Espouses academic integrity as an underlying and essential principle of the Utah State University community;
- Understands that each act of academic dishonesty devalues every degree that is awarded by this institution; &
- Is a welcomed and valued member of Utah State University.

Sexual Harassment

Sexual harassment is defined by the Affirmative Action/Equal Employment Opportunity Commission as any "unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature." If you feel you are a victim of sexual harassment, you may talk to or file a complaint with the Affirmative Action/Equal Employment Opportunity Office located in Old Main, Room 161, or call the AA/EEO Office at 797-1266.

Students with Disabilities

The Americans with Disabilities Act states: "Reasonable accommodation will be provided for all persons with disabilities in order to ensure equal participation within the program. If a student has a disability that will likely require some accommodation by the instructor, the student must contact the instructor and document the disability through the

Disability Resource Center (797-2444), preferably during the first week of the course. Any request for special consideration relating to attendance, pedagogy, taking of examinations, etc., must be discussed with and approved by the instructor. In cooperation with the Disability Resource Center, course materials can be provided in alternative format, large print, audio, diskette, or Braille."

Withdrawal Policy and "I" Grade Policy

Students are required to complete all courses for which they are registered by the end of the semester. In some cases, a student may be unable to complete all of the coursework because of extenuating circumstances, but not due to poor performance or to retain financial aid. The term 'extenuating' circumstances includes: (1) incapacitating illness which prevents a student from attending classes for a minimum period of two weeks, (2) a death in the immediate family, (3) financial responsibilities requiring a student to alter a work schedule to secure employment, (4) change in work schedule as required by an employer, or (5) other emergencies deemed appropriate by the instructor.

ACADEMIC HONESTY: It is expected that students and faculty alike maintain the highest standards of academic honesty as outlined in the Utah State University Honor System. Portions of the Honor System that pertain to academic honesty are included below. More information is available through Student Services at <http://studentlife.tsc.usu.edu/stuserv/>

Academic Dishonesty

The Student Code defines academic dishonesty as acts of cheating, falsification, and plagiarism. Cheating is defined as:

- Using or attempting to use or providing others with any unauthorized assistance in taking quizzes, tests, examinations, or in any other academic exercise or activity, including working in a group when the instructor has designated that the quiz, test, examination, or any other academic exercise or activity be done individually.
- Depending upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments.
- Substituting for another student, or permitting another student to substitute for oneself, to take an examination or prepare academic work.
- Acquiring tests or other academic material belonging to a faculty member, staff member, or another student without express permission.
- Continuing to write after time has been called on a quiz, test, examination, or any other academic exercise or activity.
- Submitting substantially the same work for credit in more than one class, except with prior approval of the instructor.
- Engaging in any form of research fraud.

Falsification is defined as:

- Altering or fabricating any information or citation in an academic exercise or activity.

Plagiarism is defined as:

- Representing, by paraphrase or direct quotation, the published or unpublished work of another person as one's own in any academic exercise or activity without full and clear acknowledgment. It also includes the unacknowledged use of using materials prepared by another person or by an agency engaged in the selling of term papers or other academic materials.

Grievance Process (Student Code)

Students who feel they have been unfairly treated [in matters other than (i) discipline or (ii) admission, residency, employment, traffic, and parking - which are addressed by procedures separate and independent from the Student Code] may file a grievance through the channels and procedures described in the Student Code:

http://studentlife.tsc.usu.edu/stuserv/pdf/student_code.pdf (Article VII. Grievances, pages 25-30).

PROFESSIONALISM

Chial, M. (1998). Conveying expectations about professional behavior. Audiology Today, 10 (4), p.25.

Speech-language pathology is a professional discipline. Professions require certain behaviors of their practitioners. Professional behaviors (which may or may not directly involve other people) have to do with professional tasks and responsibilities, with the individuals served by the profession and with relations with other professionals. Included among professional tasks are education and training. The following conveys expectations about the behaviors of those who seek to join this profession.

1. You show up.
2. You show up on time.
3. You show up prepared.
4. You show up in a frame of mind appropriate to the professional task.
5. You show up properly attired.
6. You accept the idea that “on time,” “prepared,” “appropriate,” and “properly” are defined by the situations, by the nature of the task, or by another person.

7. You accept that your first duty is to the ultimate welfare of the persons served by your profession, and that “ultimate welfare” is a complex mix of desires, wants, needs, abilities and capacities.
8. You recognize that professional duties and situations are about completing tasks and about solving problems in ways that benefit others, either immediately or in the long term. They are not about you. When you are called upon to behave as a professional, you are not the patient, the customer, the star, or the victim.
9. You place the importance of professional duties, tasks and problem solving above your own convenience.
10. You strive to work effectively with others for the benefit of the person served. This means you pursue professional duties, tasks and problem solving in ways that make it easier (not harder) for others to accomplish their work.
11. You properly credit others for their work.
12. You sign your work.
13. You take responsibility for your actions, your reactions, and your inaction. This means you do not avoid responsibility by offering excuses, by blaming others, by emotional displays, or by helplessness.
14. You do not accept professional duties or tasks for which you are personally or professionally unprepared.
15. You do what you say you will do. By the time you said you would do it. To the extent you said you would do it. And to the degree of quality you said you would do it.
16. You take active responsibility for expanding the limits of your knowledge, understanding, and skill.
17. You vigorously seek and tell the truth, including those truths that may be less than flattering to you.
18. You accept direction (including correction) from those who are more knowledgeable or more experienced. You provide direction (including correction) to those who are less knowledgeable or less experienced.
19. You value the resources required to perform professional duties, tasks, and problem solving, including your time and that of others.

20. You accord respect to the values, interests, and opinions of others that may differ from your own, as long as they are not objectively harmful to the persons served.
21. You accept the fact that others may establish objectives for you. While you may not always agree with those goals, or may not fully understand them, you will pursue them as long as they are not objectively harmful to the persons served.
22. When you attempt a task for the second time, you seek to do it better than you did it the first time. You revise the ways you approach professional duties, tasks, and problem solving in consideration of peer judgments of best practices.
23. You accept the imperfections of the world in ways that do not compromise the interests of those you serve, or your own pursuit of excellence.
24. You base your opinions, actions, and relations with others upon sound empirical evidence, and upon examined personal values consistent with the above.
25. You expect all of the above from other professionals.

ASHA Knowledge and Skills Acquisition (KASA) Requirements for Certification in SLP

ASHA Standard	Student will demonstrate:	Class Assignment	Portfolio Evidence	Evaluation Criteria
IIIA	The (student) must demonstrate knowledge of the principles of: <i>biological sciences</i> , physical sciences, mathematics, and social/behavioral sciences	Exams/lecture	Graded exams	Instructor grading
III B	The (student) must demonstrate knowledge of basic human communication and swallowing processes, including their <i>biological, neurological</i> , acoustic, psychological, <i>developmental</i> , and linguistic and cultural bases	Exams/lecture	Graded exams	Instructor grading