SPHR 371: ANATOMY & PHYSIOLOGY FOR SPEECH AND SWALLOWING
Fall 2011 – 4 credits (hybrid)
CRN 13566: TU @ 8:00-9:50am (Cramer Hall 171)
CRN 13567: TU @ 12:00-1:50pm (Neuberger Hall 350)

INSTRUCTOR
Rik Lemoncello, PhD
84-A Neuberger Hall
rrl@pdx.edu

Office Hours: MON 2:00-3:00
TUE 10:30-11:30
(or by appointment)

COURSE DESCRIPTION
This undergraduate course provides learners with an introduction to anatomy & physiology concepts, with specialized instruction on the structures and functions related to speech and swallowing. This course is a pre-requisite for graduate studies in speech-language pathology; thus, special emphasis will be placed on exploring clinical implications of structural and functional impairments.

A Note on Hybrid/Blended Learning: The course is a hybrid course, meaning that instruction will take place both face-to-face in the classroom as well as online. We will meet only on Tuesdays in the classroom; learners are responsible to complete online tutorials and learning modules outside of the classroom. Advantages to this blended learning environment include self-paced learning, use of Web-based anatomy resources, and focus of classroom time on application, practice, discussion, and clarification. The goal is for classroom and online time to complement each other to deepen the understanding of course material. The online portion is completed through Desire to Learn (D2L).

LEARNING OBJECTIVES
Upon successful completion of this course, learners should be able to:

1. Identify and label the anatomical structures of the respiratory, phonatory, articulatory/resonatory, and swallowing systems.
2. Describe the physiological functions of the respiratory, phonatory, articulatory/resonatory, and swallowing system structures.
3. Apply newly acquired knowledge of A&P to clinical case problems (i.e., the impact of impairments to body structure and function on speech & hearing).

(This course is related to ASHA-KASA Standard III-B: Communication & Swallowing – Biological)

INSTRUCTIONAL APPROACH
The nature of the course requires memorization of myriad anatomical structures and their related functions. Instructional methods to facilitate learning of facts (i.e., mnemonics, distributed rehearsal, cumulative review) will be integrated throughout the course. To support your learning, I will provide assistance in class as well as: during office hours to gain hands-on experience with 3-D anatomical models and charts presented in class; through Web resources and image links available through the D2L course site; and as requested for 1:1 or small group meetings. Learners are encouraged to visit during office hours to supplement classroom time.
**READINGS**


**COURSE D2L SITE**

As a hybrid course, we will use the Desire to Learn (D2L) Online Learning System to organize and coordinate face-to-face and online instruction. Course content is organized by learning modules and further organized with weekly tasks and assignments.

**BEFORE** class on Tuesday each week, you should:
- Complete assigned readings
- Watch online tutorials & take notes on study outlines; bring completed outline to class
- Post any questions about readings/tutorials on the online weekly discussion board

**DURING** class each week on Tuesday, we will:
- Answer questions related to online learning activities
- Complete in-class application activities to solidify understanding
- Engage in small group discussions and learning activities

**AFTER** class each week (by Friday), you should:
- Complete any additional readings or online tutorials related to the weekly topic
- Complete the weekly online learning probe to complete each weekly module

*You can log into D2L at: https://d2l.pdx.edu/ then click on “SPHR 371” to access this course.*
*You must have a PSU “ODIN” account to access D2L; see the Help Desk in SMU 18 for assistance.*
*Please contact the PSU Help Desk in SMU 18 (503-725-HELP) for all technical questions.*

**CLASSROOM ETIQUETTE**

In order to foster a learning environment that supports a diverse range of learning styles, it is imperative that all learners adhere to the following guidelines during class: (1) turn off and do not use cell phones, pagers, or technologies that may interrupt in-class flow; (2) refrain from surfing the Internet or sending messages (text, IM) on any devices (laptops, phones, etc); (3) attend to classroom discussion & do not talk with your neighbors during lecture; and (4) arrive at class on time and prepared. **Please be considerate of others; disruptions to classroom etiquette can distract other learners.** In addition, online netiquette requires conscientious efforts to communicate clearly in ways that are not offensive to the diversity of individuals participating in this course. Remember that text void of personal contact (i.e., no body language, intonation, etc) can easily be misinterpreted. Please see “netiquette” guidelines on the course D2L site.
ASSESSMENT OF LEARNING

**All late assignments will lose 2 points per day**

**Learning Probes:** To assist with keeping-up on anatomical terminology and physiological functioning, learning probes will provide an opportunity to practice critical knowledge. Weekly learning probes will be posted on the course D2L site (“quizzes”) at the end of each weekly module, and **must be completed by midnight on Friday of each week.** There will not be a learning probe in the same week as a scheduled quiz. Online learning probes are open-book/open-notes but are also timed (20 min). Each probe will be worth 10-14 points; there will be 8 opportunities to complete probe quizzes. **100 points**

**Drawing/Labeling Assignments:** Learning anatomy requires learners to visualize and label 3-D body structures. To assist with learning this visual information, learners will complete drawing and labeling assignments for each of the three major speech production systems (Respiration, Phonation, & Articulation/Resonance). Learners **may** select to draw structures free-hand or trace images from class resources (e.g., textbook, Web images, lecture notes); learners **MAY NOT** submit print-outs from Web sites or coloring books. Please do not use tracing paper. Learners are encouraged to complete anatomy drawings as we cover the content each week in order to keep up with assignments and generate questions before the next class period. **100 points each (300 points total)**

**Laryngeal Physiology Narrative Assignment:** One of the most complex structures we will study is the larynx. This structure is responsible for producing phonation (i.e., “voicing”) for speech. In order to ensure that learners grasp the exquisitely timed physiology of this system, each learner will write a one-page narrative description of how the true vocal folds achieve vibration. This written assignment must be proof-read and submitted with correct spelling, grammar, and paragraph structure. Learners should meet with a specialist at the PSU Writing Center for assistance with writing mechanics (see www.writingcenter.pdx.edu for more information). **100 points**

**Quizzes:** Two midterm quizzes will provide review of the information presented on the Respiratory and Phonatory speech production systems. Quizzes will be administered online. These Quizzes are open-book/open-notes but are also timed (90 min). **Academic honesty requires learners to commit to not sharing answers with each other and completing each quiz independently. Any evidence of cheating will not be tolerated.** Quiz questions will be objective and may take the form of: multiple-choice, fill-in-the-blank, matching, true/false, or labeling. To help prepare for each quiz, learners should: (1) review material in each learning module; (2) visit Dr. Lemoncello during office hours with specific questions; and (3) complete pre-quizzes on the course D2L site. Pre-quizzes will be available one week before the scheduled quiz. Learners may re-take pre-quizzes multiple times. The online pre-quiz will be closed at 12:00am on the day of the actual quiz. Pre-Quiz questions may or may not appear on the actual in-class Quiz. Pre-Quizzes will **NOT** count toward your course grade and are optional. The grades from the two “real” quizzes count toward your course grade. **Quizzes: 110 points each (220 points total)**

**Final Examination:** There will be a **comprehensive, in-class final exam,** similar in objective format to the two quizzes. The comprehensive final exam will focus primarily on content from the last two learning modules (Articulation/Resonance and Swallowing), but will also include content from throughout the entire course. The course final exam is by PSU (www.pdx.edu/registration/final-exams-schedule). **150 points**

**Final Grade Assignments will be based on the following final percentage (out of 870 points):**

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COURSE OUTLINE – corresponds with “Learning Modules” in D2L

*This schedule is tentative and may change as needed*

<table>
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<tr>
<th>Week</th>
<th>Topic</th>
<th>Readings</th>
<th>Assignments</th>
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<tr>
<td><strong>Module 1: Introduction to A&amp;P for Speech &amp; Swallowing</strong></td>
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| Week 1 | Introduction to A&P | CH 1  
Anatomical Terms | Week 1 Probe online by Fri |
| | Intro to Speech Production (Source-Filter) | CH 6 (267-271) | |
| **Module 2: The Respiratory System** | | | |
| Week 2 | Thorax, Lungs, & Passageways | CH 2 (35-79)  
Physiology: Speech & Non-Speech Breathing | Week 2 Probe online by Fri |
| | | CH 3 (131-138; 157-160)  
Atlas (2-9; 44-9; 102-13) | |
| Week 3 | Major Muscles of Inhalation & Exhalation | CH 2 (79-119)  
Physiology: Measurement & Disorders | Quiz #1 online by Fri |
| | | CH 3 (139-157)  
Atlas (pp. 30-3; 50-3; 130-31; 138-39) | |
| **Module 3: The Phonatory System** | | | |
| Week 4 | Laryngeal Cartilages | CH 4 (165-187)  
Physiology: Movements of the Larynx | Respiratory Drawings Due in Class on Tues |
| | | CH 5 (223-227)  
Atlas (558-59; 570-75) | Week 4 Probe online by Fri |
| Week 5 | Intrinsic Muscles of the Larynx | CH 4 (187-211)  
Extrinsic Muscles of the Larynx  
Physiology of Phonation: Voicing | Week 5 Probe online by Fri |
| | | CH 5 (227-243; 259-261)  
Atlas (544-45; 562-63) | |
| Week 6 | Physiology of Phonation: Pitch & Intensity | CH 5 (243-258)  
Intro to Voice Disorders | Laryngeal Narrative Due in Class on Tues |
| | | | Quiz #2 online by Fri |
| **Module 4: The Articulator/Resonatory System** | | | |
| Week 7 | The Skull: Facial Bones | CH 6 (271-326)  
Dental Occlusion  
Oral Cavity  
Physiology: Speech Production | Phonatory Drawings Due in Class on Tues |
| | | Atlas (454-59; 520-21; 526-27; 538-39; 542-43; 550-53) | Week 7 Probe online by Fri |
| Week 8 | No Class on TUE 11/15! | CH 6 (327-351)  
Muscles of the Face/Jaw  
Muscles of the Tongue  
Physiology: Speech Production | Week 8 Probe online by Fri |
| | | CH 7 (377-384)  
Atlas (462-69; 541; 548-49) | |
| Week 9 | Muscles of the Velum & Pharynx | CH 6 (352-361)  
Physiology Review & Disorders | Week 9 Probe online by Fri |
| | | Atlas (552-55) | |
| **Module 5: Swallowing Physiology** | | | |
| Week 10 | Swallowing Physiology | CH 8 (405-418) | Artic/Res. Drawings Due in Class on Tues |
| | | | Week 10 Probe online by Fri |

Cumulative Final Exam *in-class* THURS 12/8/11  
8am section: 8:00-9:50am  //  12pm section: 10:15am-12:05pm
ADDITIONAL UNIVERSITY & CLASSROOM POLICIES

Diversity: In this classroom, we will support and value diversity. To do so requires that we: respect the dignity and essential worth of all individuals; promote a culture of respect toward all individuals; respect the privacy, property, and freedom of others; reject bigotry, discrimination, violence, or intimidation of any kind; practice personal and academic integrity and expect it from others; promote the diversity of opinions, ideas, and backgrounds which is the lifeblood of a university. For additional information, please see the Office of Affirmative Action & Equal Opportunity at www.pdx.edu/diversity.

Documented Disability: Accommodations are collaborative efforts between students, faculty, and the Disability Resource Center. If you have a documented disability and require accommodation, you must arrange to meet with the course instructor prior to or within the first week of the term. The documentation of your disability must come in writing from the Disability Resource Center (Faculty Letter). Students who believe they are eligible for accommodations but who have not yet obtained approval through the DRC should contact the DRC immediately. Reasonable and appropriate accommodations will be provided for students with documented disabilities. For more information on the Disability Resource Center, please see www.drc.pdx.edu.

Academic Conduct: Academic dishonesty will not be tolerated. Any academic dishonesty will automatically result in a “0” for that assignment. Academic dishonesty includes cheating and fraud, including but not limited to: (a) plagiarism, which includes, but is not limited to, word for word copying, using borrowed words or phrases from original text into new patterns without attribution, or paraphrasing another writer’s ideas; (b) the buying and selling of all or any portion of course assignments and research papers; (c) performing academic assignments (including tests and examinations) for other persons; (d) unauthorized disclosure and receipt of academic information; and (e) falsification of research data. For additional information, please see the office for the Dean of Students at: www.pdx.edu/dos.

For tips to avoid plagiarism, please see: http://www.lib.pdx.edu/instruction/survivalguide/writeandcitemain.htm

Incompletes: A student may be assigned a mark of “I” when all of the following four criteria apply: (1) quality of work in the course up to that point is C- level or above; (2) essential work remains to be done--“essential” means that a grade for the course could not be assigned without dropping one or more grade points below the level achievable upon completion of the work; (3) reasons for assigning an “I” must be acceptable to the instructor. The student does not have the right to demand an “I”. The circumstances must be unforeseen or be beyond the control of the student. An instructor is entitled to insist on appropriate medical or other documentation; and (4) consultation must have occurred and a formal agreement must be reached between instructor and student. Both instructor and student should keep a written record of the remaining work and its completion date. The instructor may specify the highest grade that may be earned. This should not exceed the level of achievement displayed during the normal course period. The deadline for completion of an Incomplete can be no longer than one year. The instructor may set a shorter deadline, which shall be binding. An agreement to a longer period must be by petition to the Scholastic Standards Committee. Failure to make up the Incomplete in an undergraduate course by the end of one calendar year will result in the mark of “I” automatically changing to a grade of “F” or “NP,” depending on the grading option chosen by the student at registration. The instructor, department chair, or dean may set earlier deadlines. For additional information, please see pg. 45 in the 2010-2011 PSU Bulletin at: www.pdx.edu/oaa/pu-bulletin.

Conflict Resolution: Formal and informal options are available for students who believe they have been subjected to or witnessed bias, unfairness, or other improper treatment. In such circumstances, students may seek council from the University Ombuds Office; see www.pdx.edu/ombuds.

Religious Holy Days Policy: Any student who, because of religious beliefs, is unable to attend classes on a particular day shall be excused from attendance requirements and from any examination or other assignment on that day. The student shall make up the examination or other assignment missed because of the absence. Students should make arrangements with their instructors prior to the holy day.

Closure Policy: The PSU Campus Public Safety Office will announce closure of the University for any reason. If you are unsure, please check the PSU Web page (www.pdx.edu). Students should also consider signing up for (“opt-in”) the PSU Alert system to receive timely notifications of safety alerts directly to a cell phone, pager, phone, or email address. For more information, please see: www.pdx.edu/psu/psu-alert-notification-system.