

Speech Science Summer 2007
June 04 – July 27

Instructor:	Lissa Power-deFur, Ph.D.
Contact Info:	will be provided once course begins
Office Hours	I will respond to e-mail and postings on the Q&A discussion forum with 48 hours, often within 24 hours. I will not be available during the following time periods due to family events (July 1 – 5, and July 21 – Aug 31) and the ASHA Schools Conference (July 13 – 16). Be sure to begin the subject line of all e-mails with CSDS 450 .

Course Description

An introduction to speech science theory, instrumentation, and measurement. Emphasis on normal speech perception and production. 3 credits. Pre-requisites: CSDS 307 Phonetics and CSDS 313 Anatomy and Physiology of Speech and Hearing Mechanisms.

This course is being taught with the understanding that all students have taken and satisfactorily completed CSDS 307 and CSDS 313 or an equivalent courses in phonetics and anatomy and physiology. Although exceptions may be made, it should be understood that any student without a strong background in these areas might need to accelerate their learning in these areas to keep up with the course information and assignments.

Required Resources

Minimum Computer and Software Requirements for Longwood Online courses can be found at www.longwood.edu/online. **Please be sure that your computer meets these requirements.**

Microsoft Word and PowerPoint are the only acceptable formats for submission of assignments.

Accessing the course through a high-speed Internet connection (DSL or cable) is advised. Some portions of the course with video and audio clips or links to other web sites will not work without high speed access. As a result, students who don't have high-speed access on their home computer will want to make arrangements to use high speed access from another location. **Computer problems are not acceptable reasons for delays in meeting assignment due dates.**

Text: Ferrand, C.T. (2007). Speech Science: An Integrated Approach to Theory and Clinical Practice. Needham Heights, MA: Allyn and Bacon. ISBN 0-205-28508-2.

This text can be ordered through the Longwood Bookstore (<http://longwood.bkstore.com>) by clicking "contact us" and completing the feedback form. Be sure to include your mailing address so the text can be sent to you.

ASHA Knowledge and Skills Acquisition (KASA) Standards

Standard III-B. Demonstrate knowledge of basic human communication and swallowing processes, including their biological, neurological, acoustic, psychological, developmental, and linguistic and cultural bases

Standard III-C Demonstrate knowledge of the nature of speech, language, hearing, and communication disorders and differences and swallowing disorders, including their etiologies, characteristics, anatomical/physiological, acoustic, psychological, developmental, and linguistic and cultural correlates.

Upon successful completion of this course, students should be able to:

1. explain the physics of sound, including nature of sound and the concepts of pressure, frequency and intensity (KASA III-B)
2. describe the normal auditory capabilities with respect to auditory sensitivity, loudness and pitch perception and binaural hearing (KASA III-B)
3. identify theories and models regarding the production and perception of speech (KASA III-B)
4. explain the acoustic and physiologic characteristics of speech sounds, including phonation, articulation, and resonance (KASA III-B)
5. analyze normal production of phonemes and consonants by reading spectrograms (KASA III-B)
6. identify the instrumentation to measure the physiological functions of respiration and phonation (KASA III-B)

Honor Code:

Students are expected to abide by the Longwood University Honor Code at all times. Suspicion of any violation will be investigated and university policy will be followed. The Longwood Honor Code can be found at

<http://www.longwood.edu/judicial/the%20philosophy%20of%20The%20Honor%20Code.htm#Philosophy%20of%20the%20Honor%20Code>

Students shall write the Academic Pledge **on each assignment** before submission. Failure to do so shall result in a 2 point deduction on each assignment.

Please be advised that future speech-language pathologists are bound by the American Speech-Language-Hearing Association (ASHA) Code of Ethics. (ASHA is the national accreditation agency.) This code of ethics applies to any persons applying for membership to ASHA and should be adhered to by students aspiring to be speech-language pathologists. The Code of Ethics can be found at <http://www.asha.org/NR/rdonlyres/F51E46C5-3D87-44AF-BFDA-346D32F85C60/0/v1CodeOfEthics.pdf>.

Disability Statement:

The instructor is willing to meet reasonable accommodations for any students with a documented disability. The student should submit supporting material to the instructor. This includes the necessary accommodations as outlined by the Disability Support Center at Longwood University (<http://www.longwood.edu/disability>). **This information must be submitted no later than 7 calendar days after the beginning of the course.**

Online Course Policies: Longwood online policies can be found at <http://www.longwood.edu/online>. On the left hand side of that screen are links to “Student Responsibilities” and “Student Support”. Be sure to review **ALL** the student responsibilities before beginning this course. The Technical Support link (http://www.longwood.edu/online/Tech_support.htm) will provide you information about how to resolve technical issues if they should arise.

Students must maintain current system software and virus definition updates. The Help Desk can assist in this matter. [Free anti-virus software](#) is available for downloading. **If your anti-virus software is not up-to-date, YOU MUST download the free anti-virus software!**

Assurance Statement

All students are required to review the Honor Code, Code of Ethics and On-line policies, signing an assurance statement to this fact and assuring they are keeping their virus software up-to-date. See assignment page for the assurance statement. This statement must be submitted prior to submission of any other assignment. (No other assignments will be graded until this is received.)

Blackboard: Blackboard™ will be the venue for this class. All announcements, course documents, assignments, and class discussions will take place on Blackboard, <http://online.longwood.edu>

Posting of Course Materials. All *PowerPoint (PPT)* presentations will be found in the course document section of Blackboard. The PPT presentations are designed to help guide your reading in the text, not to supplant the reading. *The text readings* are necessary for full comprehension of the material and should be completed prior to completion of any assignment. *Assignments* will be posted on the assignment section of Blackboard. Review the *announcement* section on a daily basis for any new information.

Schedule

Week	Topic	Reading	Assignment
1 June 04 – 10	The Nature of Sound	Ferrand, Chapter 2	Review syllabus and submit any questions to instructor. Submit assurance statement to instructor. Assignment #1
2 June 11 – 17	Nature of Sound: Clinical Applications	Text, Chapter 3	Terminology Group 1
3 June 18 – 24	Respiratory System	Text, Chapter 4	#2
4 June 25 – July 1	Respiratory System: Clinical Applications	Ferrand, Chapter 5	Discussion 1 Terminology Group 2
5 July 2 – 8	Phonatory System	Ferrand, Chapter 6	#3
6 July 9 – 15	Phonatory System: Clinical Applications	Ferrand, Chapter 7	Discussion 2 Terminology Group 3
7 July 16 – 22	Articulatory System & Clinical Applications	Ferrand, Chapters 8 & 9	#4
8 July 23 - 29	Speech Perception	Ferrand, Chapter 12	Final Project Terminology Group 4

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Learning Activities:

Homework Assignments

In order to incorporate the information from the text without the opportunity for hands-on labs, the majority of the course will include homework assignments in which you will implement certain principles of speech science on your own and report on the results. The assignment must be submitted (via Blackboard) no later than 10 pm by the end of the week specified.

Assignment and Topic	Points	Due Date (end of week # __)
1. Nature of Sound	100	Week 1
2. Respiration	100	Week 3
3. Phonation	100	Week 5
4. Articulation	100	Week 7

Clinical Application Discussions

After conclusion of each topic, mini-projects and questions will be posted for discussion. Students are expected to take an active part in discussions. LU policies for discussion forums are outlined at http://www.longwood.edu/online/Discussion_Bds.htm. Please be sure to review the policies. Postings will be graded on both the number of posts and the quality of the post. (25 points each, 100 points total.)

Terminology Portfolio

A portfolio of speech science terminology fundamental to the profession will be developed from the list of words posted on the blackboard assignment page. The portfolio will be submitted in 4 stages, after completion of each major unit of study. (100 points)

Final Project

A final project will include the speech perception unit and analysis of a speech spectrogram.

Policy on Late Assignments: **Students are expected to submit assignments by 10 pm on the due date.** Work may be submitted late but will be charged a 5% penalty of total possible points for each 24 hour period after due date until date of actual submission up to a total of 20% of possible points. (Assignments will not be accepted more than 4 days (96 hours) late.)

If you experience technical difficulties while trying to submit an assignment by the deadline or have a **significant personal emergency**, call my office and leave a voice mail message stating the time and the nature of the technical problem. Only then will consideration be given to accepting an assignment late without a penalty. However, it still must be submitted by 9 am the next day in order to avoid a late penalty. It's best to **plan ahead**, so this does not become an issue for you. All late work must be submitted by 10:00 PM on the last day of the course.

Course Grade

<u>Requirement</u>	<u>Point Value</u>	<u>Your Points</u>	<u>Due Date</u>
Submission of Assurance Statement	0		End of week 1
Discussion Board Participation (4 times)	50		End of Weeks 2, 4, 6, and 8
Homework Assignments	400		End of weeks 1, 3, 5, and 7
Terminology Portfolio	100		End of weeks 2, 4, 6, and 8
Final Project	100		Due by 10 pm July 27
TOTAL	650		

Grading Scale:

A	585 - 650
B	520 - 584
C	455 - 519
D	390 - 454
F	< 389

Note: If you already have a bachelor's degree, you are considered a graduate student. Longwood University does not allow a grade of D for graduate students; therefore, if you earn less than 520 points, the grade will be F.