

DISORDERS OF PHONATION
COMD 6810 – Spring Semester 2006
T, Th 10:30- 11:45 am 3 semester hours

PROFESSOR: Kim Corbin-Lewis, Ph.D. **OFFICE HOURS:** Tuesday, 11:45-12:45
or by appointment
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PREREQUISITES

COMD 3100 Anatomy of the Speech and Hearing Mechanism
COMD 5070 Speech Science

COURSE DESCRIPTION

Disorders of Phonation is a graduate level course on the diagnosis and management of voice disorders across the lifespan. As such, it is comprehensive and successful completion will enable the student to work with individuals with voice disorders in all medical and educational settings. Course lectures are supplemented with practical laboratory experiences using state of the art techniques and equipment. Supplemental readings are taken from the current body of research literature and range from basic anatomy and physiology of the vocal mechanism to diagnostic methods, and specific management strategies. This course is designed to provide the clinician-in-training with the theoretical base to select appropriate tests, make a differential diagnosis, create a management plan, and evaluate treatment progress. It is not a “cookbook” approach to diagnosis and treatment – the goal of the course is to provide theory-based skills that can be flexibly used across all disorders of phonation.

ASHA KNOWLEDGE AND SKILLS ACQUISITION (KASA)

COMPETENCIES/COURSE OBJECTIVES

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

- *describe the anatomy & physiology of the vocal mechanism KASAIII-B, C
- *describe lifespan changes in voice including pediatric development of the vocal mechanism and aging influences KASA III-B,C
- *describe the respiratory, articulatory, and resonatory events during voice production KASA III-B, C
- *articulate theories of voice production and resonance KASA III-B
- *visually describe common structural pathologies including nodules, polyps, vocal hemorrhage and varix, polypoid degeneration, granuloma, ulcers, cysts, webs, laryngomalacia, papilloma, sulcus vocalis, leukoplakia, carcinoma and understand the mechanical and aerodynamic effect on voice production KASA III-C, D
 - *identify the mechanical, acoustic & aerodynamic, and perceptual effects of each KASA III-C,D
- *visually describe dynamic vibratory pathologies including recurrent laryngeal abductor/adductor paralysis, superior laryngeal nerve paralysis, spasmodic dysphonia, essential vocal tremor, dystonia, and paradoxical vocal fold motion and understand the mechanical and aerodynamic effect on voice production KASA III-C, D
 - *identify the mechanical, acoustic & aerodynamic, perceptual effects of each KASA III-C,D

- *describe etiologies & characteristics of vocal pathologies (benign, malignant, and neuropathologic) including incidence and prevalence KASA III-C
- *recognize disorders of vocal use including muscle tension dysphonia, vocal fatigue, vocal abuse and misuse, ventricular phonation, mutational falsetto, conversion aphonia KASA III-C, D
- *outline a state-of-the-art voice assessment: including history; acoustic, aerodynamic, perceptual, visual imaging and electroglottographic measures KASA III-C, D
- *interpret subjective & objective voice production data KASA III-D; IV-1, e
- *identify techniques for assessing the psychosocial impact of voice disorders across the lifespan (eg. validated questionnaires) KASA III-D
- *describe techniques for prevention of voice disorders (such as vocal hygiene, avoiding phonotrauma) KASA III-D
- *describe treatment approaches & supportive evidence based outcomes to voice disorders: behavioral, medical (including pharmacological), surgical, and combination strategies. KASA III-D
- *describe appropriate management procedures including recommendations & referrals KASA III-D; IV 2-g
 - *develop appropriate long and short-term goals and objectives to treat diagnosed voice disorder KASA IV-G
- *outline a state-of-the-art alaryngeal voice assessment protocol: including stimulability, insufflation testing, prosthesis fitting, and modality selection KASA III-D
- *describe treatment approaches & supportive evidence based outcomes to alaryngeal speech production: behavioral, medical (including pharmacological), surgical, and combination strategies. KASA III-D

The above competencies are viewed as essential skills this course is designed to address. If you are having difficulty establishing these competencies please see me as early as possible. *It is your responsibility to seek extra help if you need it.* I encourage you to call my office and setup an appointment so we can discuss questions you might have.

REQUIRED TEXTBOOK

Stemple, J. C., Glaze, L. E., & Klaben, B. G. (2000). Clinical Voice Pathology: Theory and Management, 3rd Edition. Singular Thomson Learning. ISBN 0-7693-0005-7

RECOMMENDED TEXTBOOK

Stemple, J. C. (2000). Voice Therapy: Clinical Studies, Second Edition. Singular Thomson Learning.

COURSE FEE

There is a \$30.00 course fee associated with this class. The fee is used, in part, to cover expenses associated with the laryngeal acoustic and videostroboscopic labs, course materials, and honorarium for guest speakers.

EVALUATION

Exams – 60%

There will be three, non-cumulative exams worth 20% each during the course of the semester. While non-cumulative, it is anticipated that material learned early in the course will be incorporated into later material – the course will build upon itself as we move

through anatomy and physiology of the vocal mechanism to identification of disorders to diagnosis and management. The final exam is described below and will consist of a take-home clinical report project and an oral exam component where you will demonstrate your ability to implement various treatment techniques with hypothetical patients with voice disorders.

Research article critiques – 10%

Being able to critically read primary research is a valuable and necessary skill for a speech-language pathologist in the professional world. You will need to upgrade your skills and stay current, in part, by carefully and critically reading your professional journals. You will be guided through this process for one current journal article and then will complete 3 additional articles to be critiqued. You may choose articles from the Journal of Voice, the Journal of Speech-Language-Hearing Research (JSHR), medical journals including Otolaryngology, Archives of Otolaryngology--Head and Neck Surgery, Annals of Otology, Rhinology and Laryngology, Laryngoscope, and Otolaryngology--Head and Neck Surgery. You will need to email me your selected article title and journal for prior approval. **Assignment due date will be March 2, 2006, by 3:00 pm.**

Quizzes – 10%

Approximately 5 pop quizzes on course readings (textbook and electronic reserve) will be held throughout the semester. There is no such thing as a “make-up quiz” nor will quiz dates be announced in advance. If you are not present for the quiz you will lose all points and receive a “0” for that particular quiz. If you have a university-approved excuse for an absence, you will not have a “0” for the missed quiz averaged into your scores, however you will end up with fewer overall quiz points to be used in calculating your score.

Clinical Report/Final Oral Exam – 20%

Following units on disease states and diagnosis you will be given clinical information on a voice patient. You will be required to write a complete clinical report including history, clinical voice examination, videostroboscopic examination, interpretation of findings, diagnosis, prognosis, and long and short-term goals with management strategies. Example reports and more detailed directions will be provided prior to this assignment. The oral exam component will be scheduled to be held during the week of April 13, 2006. There will be no formal examination during the scheduled exam period.

Assignments or projects not turned in on time will have 5% automatically deducted from the total possible points for each late day, including weekends. Exam dates, once set, will not be changed for any reason other than university-approved excuses. You will not be graded on attendance, as such, however be assured that I am aware of who is in class and actively participating and who is not. I expect you to take full advantage of this opportunity to learn everything you can about disorders of voice.

Grading in this graduate level 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 by each student. 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

READING ASSIGNMENTS

Reading assignments will be a combination of chapters from the required textbook and seminal, primary research articles that will be available on electronic reserve through the SciTech library (COMD 6810; Password: cor6810). It is critical that you keep up with the reading so that you may be a vital participant in class discussions. ***Please come to lectures with reading assignment completed for that day.*** *If there is an associated PowerPoint lecture on electronic reserve, have it downloaded and available for note-taking.* Dates for individual topics and exams are tentative and may be altered based on class progress at the discretion of the professor.

1/10	Chapter 2	Anatomy and Physiology (pp. 21-58)
1/12	Chapter 2	Anatomy and Physiology (pp. 21-58) Electronic Reserve: Cellular Physiology of the Vocal Folds. Gray, S. D. (2000)
1/17	Chapter 2	Anatomy and Physiology (pp. 21-58) Electronic Reserve: Biomechanical and Histologic Observations of Vocal Fold Fibrous Proteins. Gray, S. D., Titze, I. R., Alipour, F., & Hammond, T. H. (2000).
1/19	Chapter 2	Anatomy and Physiology (pp. 21-58)
1/24	Chapter 3	Some Etiologic Correlates (pp. 63-82)
1/26	Exam 1 – Anatomy and Physiology (Ch. 2)	
1/31	Chapter 4	Pathologies of the Laryngeal Mechanism (pp. 85-143)
2/2	Chapter 4	Pathologies of the Laryngeal Mechanism (pp. 85-143)
2/7	Chapter 4	Pathologies of the Laryngeal Mechanism (pp. 85-143)
2/9	Chapter 4	Pathologies of the Laryngeal Mechanism (pp. 85-143)
2/14	Chapter 5	The Diagnostic Voice Evaluation (pp. 149-178)
2/16	Exam 2 – Etiologies and Pathologies (Ch 3 & 4)	

- 2/21 Monday Classes
- 2/23 Chapter 5 The Diagnostic Voice Evaluation (pp. 149-178)
- 2/28 Chapter 6 Instrumental Measurement of Voice (pp. 179-255)
Electronic Reserve: Instrumentation in Voice Assessment and Treatment: What's the Use? Behrman, A., & Orlikoff, R. F. (1997)
- 3/2 **Acoustics Lab**
Electronic Reserve: Reliability of the Multi-Dimensional Voice Program for the Analysis of Voice Samples of Subjects with Dysarthria. Kent, R. D., Vorperian, H. K., & Duffy, J. R. (1999)

Research article critiques due today in class (10:30-11:45 am).

- 3/7 Chapter 6 Instrumental Measurement of Voice (pp. 179-255)
Strobe Lab – Logan Regional Hospital
- 3/9 Chapter 6 Instrumental Measurement of Voice (pp. 179-255)
Strobe Lab – Logan Regional Hospital
- 3/14 March Break
- 3/16 March Break
- 3/21 Chapter 6 Instrumental Measurement of Voice (pp. 179-255)
- 3/23 **Exam 3 – Evaluation and Diagnosis (Ch. 5 & 6)**
- 3/28 Chapter 7 Survey of Voice Management (pp. 261-392)
Electronic Reserve: Treatment Efficacy: Voice Disorders. Ramig, L. O., & Verdolini, K. (1998)
- 3/30 Chapter 7 Survey of Voice Management (pp. 261-392)
Electronic Reserve: Voice Treatment Techniques: A Review and Recommendations for Outcome Studies. Pannbacker, M. (1998)
- 4/4 Chapter 7 Survey of Voice Management (pp. 261-392)
Electronic Reserve: Vocal Function Exercises: A Wholistic Voice Therapy. Stemple, J. C. & Gerdeman (1995)
Electronic Reserve: Resonant Voice Therapy. Stemple, J. C. (2001)
- 4/6 Chapter 7 Survey of Voice Management (pp. 261-392)
Electronic Reserve: Manual Circumlaryngeal Therapy for Functional Dysphonia: An Evaluation of Short- and Long-Term Treatment Outcomes. Roy, N., Bless, D. M., Heisey, D., & Ford, C. (1997)

- 4/11 Chapter 7 Survey of Voice Management (pp. 261-392)
Electronic Reserve: Efficacy of Vocal Function Exercises as a Method of Improving Voice Production. Stemple, J. C., Lee, L., D'Amico, B., & Pickup, B. (1994)

Clinical Report Writing assignment given

- 4/13 Chapter 7 Survey of Voice Management (pp. 261-392)
Electronic Reserve: Paradoxical Vocal Fold Motion: A Tutorial on a Complex Disorder and the Speech-Language Pathologist's Role. Mathers-Schmidt, B. A. (2001)

Week of April 17th – Sign-up for oral exam on management

- 4/18 Chapter 8 The Professional Voice (pp. 397-434)
Electronic Reserve: An Evaluation of the Effects of Two Treatment Approaches for Teachers with Voice Disorders: A Prospective Randomized Clinical Trial. Roy, N., Gray, S. D., Simon, M., Dove, H., Corbin-Lewis, K., Stemple, J. C. (2001)

- 4/20 Chapter 8 The Professional Voice (pp. 397-434)

Clinical Report Writing Assignment due today in class (10:30-11:45 am).

- 4/25 Chapter 9 Rehab of the Laryngectomized Patient (pp. 439-512)
 4/27 Chapter 9 Rehab of the Laryngectomized Patient (pp. 439-512)

Knowledge and Skills Assessment (KASA)

The American Speech-Language-Hearing Association has recently changed its system for assuring the competence of newly trained professionals in speech-language pathology and audiology. In the past, graduate students were regarded as competent upon satisfactory completion of an array of coursework and clinical practicum, in addition to other requirements. The KASA approach defines a body of clinical and academic skills required of all students in training. Faculty and clinic supervisors attest to the satisfactory acquisition of each skill. At the conclusion of each course and practicum experience, feedback is gathered regarding skill achievement and entered onto a master form, which can be reviewed by students and faculty. All skills noted on the KASA form must be satisfactorily completed in order for the Department Chair to sign ASHA certification papers. The steps in the KASA process for each student is described in detail below and subsequently presented in a flow chart.

Explanatory Notes to KASA Procedure:

1. Each student will have a tracking form that lists each element of knowledge and skill. The form will allow the student and program to monitor progress toward completion of training.
2. Course syllabi will specify the knowledge and skill trained within each course. Faculty will provide each student an opportunity to demonstrate knowledge or skill development (by examination, paper, presentation, project, etc.).
- 2a. When necessary, a student will be provided with ONE additional opportunity (in the current class) to demonstrate this knowledge or skill.
3. At the conclusion of each semester, faculty will transmit data regarding successful skill and knowledge development for every student.
4. All successfully completed skills and areas of knowledge will be entered on the tracking form.
5. If a student fails to develop a skill or area of knowledge that was trained in a given course, no action will be taken if another opportunity (course or clinic) remains available in which the skill can be acquired.
6. If a student has no further opportunity to satisfactorily develop a failed skill, the student must take a special examination during the last semester to demonstrate acquisition of the skill in question. If the student does not pass the special examination and has not acquired the skill(s) in question, the program director will not sign the student's certification papers.
7. A checklist will be used to account for skills or knowledge developed in clinic. These data will be entered on the KASA tracking form.
8. In the event that a student fails to develop a clinical skill, a faculty member with expertise related to that area would assist in remediation if there were no other opportunities for the student to develop the skill in other clinic settings. The faculty member would supply guidance to the student as well as some mechanism for reassessing the skill in question.
9. Faculty will review each student's KASA tracking form at the first faculty meeting of each semester.

Students need to also understand that satisfying KASA standards does not necessarily indicate completion of departmental or university requirements. It is possible that a student may pass a standard in one course, but not in another course taken subsequently. In this situation, a student would be closely-monitored and required to do more work to demonstrate overall competency of that standard. **Adapted from the University of Rhode Island 1/06**

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."

Plagiarism Plagiarism includes knowingly "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 used of materials prepared by another person or agency engaged in the selling of term papers or other academic materials." The penalties for plagiarism are severe. They include warning or reprimand, grade adjustment, probation, suspension, expulsion, withholding of transcripts, denial or revocation of degrees, and referral to psychological counseling.

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).

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; and
- Is a welcomed and valued member of Utah State University.