



## SACRAMENTO STATE

### Department of Communication Sciences and Disorders

“... providing a rigorous scientific background and diverse clinical experiences while fostering a dedication to lifelong learning and community service”

### CALIFORNIA STATE UNIVERSITY - SACRAMENTO

#### SPRING 2019 SYLLABUS

#### CSAD 127 Introduction to Medical Speech Pathology (Section 02)

Monday/Wednesday/Friday

1:00 - 1:50pm

Folsom Hall (FLS) – Room 1051

**Instructor:** Aishah Y. Patterson, Ph.D., CCC-SLP  
Assistant Professor

**Email:** [patterson@csus.edu](mailto:patterson@csus.edu)

**Office:** Folsom Hall (FLS) 2404B

**Phone:** (916) 278-7341

**Office Hours:** Mon/Wed

10:00am - 11:30am *or by appointment*

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#### Course Description:

Current concepts regarding the anatomy and physiology, etiology, assessment, and treatment of craniofacial disorders, laryngectomy, tracheostomy and dysphagia.

#### Course Prerequisites:

CSAD 123, CSAD 125, CSAD 126, PSYC 2, STAT 1, CHDV 30, and DEAF 51.

#### Required Text:

Johnson, A. F. (2017). *Medical speech-language pathology: A practitioner's guide* (3<sup>rd</sup> ed.). New York, NY: Thieme Publishers ISBN: 9781604063967

The course textbook is available online through the CSUS Library (eBook Central Academic Complete): <https://ebookcentral.proquest.com/lib/csus/detail.action?docID=4718698>

#### Supplemental Readings:

Supplemental reading and available audio/video material, assigned or otherwise referred to during the course, will be placed online and/or library reserve for student access.

#### Online Learning Environments:

<http://canvas.csus.edu/>

This course is paired with Canvas, an online learning resource. Students are required to log onto <https://my.csus.edu/> (accessible from any computer with an internet connection and up-to-date web browser) **regularly** to access posted course material, resources, announcements, and grades. Additional assistance with Canvas is available through the Academic Technology Center (ATC) at <https://www.csus.edu/atc/students.html>. In person support is available at the AIRC Computer

Lab, Rm 2004 (Monday – Friday, 7:30am – 4:00pm). Need help? Phone (916) 278-2450 or email [academictechcenter@csus.edu](mailto:academictechcenter@csus.edu).

<https://tophat.com>

This course will make use of TopHat technology to facilitate classroom discussions, promote student engagement during lectures, monitor material acquisition, and maintain attendance. Students will be permitted to utilize their cellular phone, laptop or tablet to produce real-time responses to questions proposed during various lectures. Students are responsible for monitoring their own attendance and participations points in TopHat. TopHat application subscription is per semester (\$26) or per year (\$38), as opposed to per course.

**Difficulties signing into TopHat for attendance and/or participation must be addressed with the instructor before, during, or immediately after lecture on the same day attendance and/or participation points are distributed. There are no make-ups for missing class and the attendance/participation points distributed on the day that you missed.**

### **Learning Outcomes Competencies - CSAD 127:**

Mastery of each student learning outcome listed below is indicated by a grade of C or better on each component of the corresponding measures listed in the table. Students are required to track their progress toward meeting each learning outcome and must make an appointment with the instructor for any grade equal to or less than a C. The instructor will suggest strategies to help you establish competence and knowledge in these areas.

Students should track their progress toward meeting each learning outcome by listing their grades on the table below over the course of the semester.

### **CSAD 127 Specific Student Learning Outcomes:**

1. Recognize the speech-language pathologist's role, responsibilities and scope of practice within the medical setting.
2. Recognize and understand types of medical reporting, documentation, and terminology.
3. Identify health care personnel specific to the medical setting.
4. Identify the anatomical, physiological, social, cultural, and psychological correlates of neurologically-based communication disorders that impact language, speech, cognition, voice, and swallowing.
5. Explain assessment procedures (including imaging techniques, instrumentation, and formal/informal assessments) and management options for patients with neurologically-based communication disorders, dysphagia, head and neck cancer, and genetic syndromes.
6. Identify anatomical structures specific to patient populations post-laryngectomy and prior to cleft lip and palate repair.
7. Identify and differentiate various alaryngeal speech options post-laryngectomy.

8. Interpret evidence-based practices specific to the assessment and management of patients in medical settings.
9. Recognize ethical violations in medical speech pathology and understand presented solutions.
10. Discuss surgical, prosthetic, and speech therapy options used to treat cleft lip and palate.

| Course Learning Outcome | Components Indicating Competence   | Grades Received |
|-------------------------|--|-----------------|
| 1 – 3                   | Exam 1; Assignment 1   |                 |
| 4 – 5                   | Exams 1, 2, 3 and 4;<br>Assignments 1, 2, 3, 4 and 5;<br>Class participation |                 |
| 6                       | Exams 3 and 4;<br>Assignment 5; Class Participation                          |                 |
| 7                       | Exam 3; Assignment 5; Class participation                                    |                 |
| 8                       | Exams 1, 2, 3 and 4;<br>Assignments 1, 2, 3, 4 and 5;<br>Class participation |                 |
| 9 – 10                  | Exam 4; Class participation  |                 |

**Course Procedures:**

**CSAD 127 (Section 02)** will meet on Mondays, Wednesdays, and Fridays from 1:00 - 1:50pm in Folsom Hall (FLS), room 1051. Meetings will consist of lectures, small and large group discussions, in and out of class assignments, and invited speakers (to be arranged).

**Office Hours:**

Office hours are drop-in and provided weekly on **Mondays and Wednesdays from 10:00am - 11:30am**. Office hours begin on the first day of class (1/23/19) and run until the last day of class (5/10/19). On the rare occasion that regular office hours need to be cancelled or rescheduled, an announcement will be posted on Canvas. If students are **unable** to attend regular office hours (Folsom Hall, 2404B), they are welcome to email the professor to set up a separate appointment time for an *in-person* meeting or meeting via *virtual office hours*. The professor will respond to the email to confirm the appointment day and time. If the student is later unable to keep the scheduled appointment time, a courtesy email is requested to cancel and/or reschedule the appointment.

**Student Responsibilities:**

- **Attendance** Classroom attendance is **mandatory**. Students are expected to arrive to class sessions on time and remain for the entire class period. Should events require an absence, it is the student's responsibility to acquire all materials and information covered during their absence from *peers*. Per university policy, children and non-registered guests are **not allowed** to attend class sessions. Students are expected to attend the course section for which they are registered.

- **Professionalism** Classroom participation during discussions and demonstrations should be conducted in a professional manner. At a minimum, students must maintain a level of respectful, courteous behavior expected of a professional in the field of speech-language pathology. Cell phone and electronic device use for non-academic purposes is **not permitted** during the class period.
- **Participation** Classroom participation is **mandatory**. Students are expected to actively participate in all small and large group discussions. Discussions are designed to facilitate acquisition of course content. Students will practice diagnostic and therapeutic techniques, observe and analyze audio/video patient samples, and interact with guest speakers (speaker schedule to be arranged). Classroom lectures regularly include discussion of *actual* clinical cases, thus **recording (audio or video)** of class lectures or discussions is **not permitted**.

**Course Assessment Plan:**

Student assessment in this course will require the completion of four (4) multiple-choice/short answer exams (worth 50 points each) and five (5) written assignments (worth 20 points each). There will be 33 points distributed throughout the semester for attendance and participation (*unannounced*). There are 333 points available for the course. Please secure a **Scantron 883-E or 883-ES** for each exam. Please keep Scantrons in good condition, as the machine will have difficulty reading them.

| Source                   | Points | Percentage of Grade |
|--------------------------|--------|---------------------|
| Exams (4)                | 200    | 60%                 |
| Written Assignments (5)  | 100    | 30%                 |
| Attendance/Participation | 33     | 10%                 |
| Total                    | 333    | 100%                |

**Extra Credit:**

There is **no** extra credit anticipated for this course. An exception will be made in the event that a guest lecture or learning experience **cannot** be scheduled during the regular class period. Under such circumstances, the extra credit option (and alternative option) will become available, with additional credit not exceeding 10 points.

**Grading Scale:**

The final course grade will be assigned based on a total of 333 points available for the course and according to the following scale.

| Letter Grade | Percent | Points    |
|--------------|---------|-----------|
| A            | 100-93% | 333 - 309 |
| A-           | 92-90%  | 308 - 299 |
| B+           | 89-87%  | 298 - 289 |
| B            | 86-83%  | 288 - 275 |
| B-           | 82-80%  | 274 - 265 |
| C+           | 79-77%  | 264 - 255 |
| C            | 76-73%  | 254 - 242 |
| C-           | 72-70%  | 241 - 232 |
| D+           | 69-67%  | 231 - 222 |
| D            | 66-63%  | 221 - 209 |
| D-           | 62-60%  | 208 - 199 |
| F            | ≤59     | ≤ 198     |

### Work Habits:

- The penalty for **late** written assignments is a 1-point deduction per day. Written assignments are supplied with a grading rubric.
- There are **no planned make-up exams** for this course. Legitimate, **documented** emergencies (e.g., medical emergency or family death) are acceptable exceptions. Exams must be made up within the time frame specified by the instructor. The student is responsible for arranging (with the instructor's approval of a date) a time to take the make-up at the CSUS Testing Center. The Testing Center charges a \$6 fee to proctor make-up exams (See page 7 of the syllabus).
- A grade of incomplete (I) is limited to **documented** emergencies and extenuating circumstances. A grade of incomplete requires that the student has passed the first half of the course.

### Other Course Policies:

#### Students with Special Needs

In accordance with University policies, the instructor will make reasonable accommodations for the known physical or mental limitations of a qualified student. Qualified students with disabilities should contact the Services to Students with Disabilities (SSWD) office for information regarding accommodations. Please provide the instructor with a copy of the accommodation letter from SSWD.

Students bear the responsibility of contacting the SSWD office to document a qualifying disability, to have that office recommend appropriate accommodations, and to inform the instructor of those accommodations. Please inform the instructor ***as soon as possible*** should you think you require accommodations.

More information available at: <http://www.csus.edu/sswd/index.html>  
Sacramento State University  
Services to Students with Disabilities (SSWD)  
Lassen Hall, Room 1008  
Phone: (916) 278-6955; TDD: (916) 278-7239; Fax: (916) 278-7825  
Email: [sswd@csus.edu](mailto:sswd@csus.edu)

### **Ethics**

Students are expected to abide by the university's policies on academic integrity, honesty, and conduct, as outlined by the Office of Student Conduct. It is the student's responsibility to familiarize themselves with the university Student Conduct Code. Violations of these policies will not be tolerated.

The Student Conduct Code manual is available at:  
<http://www.csus.edu/umannual/student/ums16150.htm>

Sacramento State University  
Office of Student Conduct  
Lassen Hall, Room 3008  
Phone: (916) 278-6060; Fax: (916) 278-5443  
Email: [conduct@csus.edu](mailto:conduct@csus.edu)

### **Discrimination**

California State University (CSU) policy prohibits discrimination on the basis of age, disability (physical and mental), gender (or sex), gender identity (including transgender), gender expression, genetic information, marital status, medical condition, nationality, race or ethnicity (including color or ancestry), religion (or religious creed), sexual orientation, sex stereotype, and veteran or military status. California State University prohibits all forms discrimination, harassment (including sexual harassment, sexual misconduct, dating and domestic violence, and stalking) and retaliation.

The University Policy Manual is available at:  
<http://csus.edu/umannual/>

### **Campus Resources:**

#### **Division of Student Affairs: Basic Needs Support**

Students experiencing challenges in the area of food and/or stable housing, help is just a click, email, or phone call away. Sacramento State University offers basic needs support for students who are experiencing challenges in these areas. Please visit the *Basic Needs* website to learn more about options and resources available for food and housing security.  
<https://www.csus.edu/basicneeds/>

Additional resources (i.e., transportation barriers, financial emergencies, mental/physical health and wellness, and transition to campus following hospitalization) are available at:

<https://www.csus.edu/student/casemanager/>

**Division of Student Affairs: Testing Center**

Make-up exams are administered at the CSUS Testing Center. Dates approved to take a make-up exam are made at the instructor's discretion. For those students **with instructor approval** to schedule a make-up exam (see page 5 of the syllabus), additional information and online registration are available at: <https://www.csus.edu/testing/testregservices/makeup.html>

**CSAD 127 Introduction to Medical Speech Pathology (Section 02)  
Spring, 2019 Tentative Course Calendar**

| <b>Week</b> | <b>Session</b> | <b>Date</b>    | <b>Topic</b>   | <b>Assigned Reading</b>   |
|-------------|----------------|----------------|--|---|
| 1           | 1              | 1/23/19<br>Wed | Introduction<br>Course Overview  | Please Review<br>Course Syllabus  |
|             | 2              | 1/25/19<br>Fri | Medical Speech-Language<br>Pathology Overview  | Johnson – Chapter 1<br><br>ASHA Roles and<br>Responsibilities <i>online</i> |
| 2           | 3              | 1/28/19<br>Mon | Medical Speech Pathology<br><i>Scope of practice, health care<br/>personnel, settings, rounds and<br/>states of illness</i>                | Golper – Chapter 1<br><i>available online</i>                               |
|             | 4              | 1/30/19<br>Wed |  |   |
|             | 5              | 2/1/19<br>Fri  |  |   |
| 3           | 6              | 2/4/19<br>Mon  | Brain Imaging of Communication<br>Function: Basic Clinician Guide<br><i>Angiography, CT, MRI, fMRI, PET,<br/>SPECT, NIRS, EEG, and MEG</i> | Johnson – Chapter 3<br><br><b>Assignment 1<br/>Due 2/8/19</b>               |
|             | 7              | 2/6/19<br>Wed  |  |   |
|             | 8              | 2/8/19<br>Fri  |  |   |
| 4           | 9              | 2/11/19<br>Mon | Intro to Aphasia<br><i>A&amp;P, causes, types</i>  | compiled aphasia<br>reading – <i>available<br/>online</i>                   |
|             | 10             | 2/13/19<br>Wed | Aphasia Clinical Cases and<br>Video Samples  |   |
|             | 11             | 2/15/19<br>Fri |  |   |
| 5           | 12             | 2/18/19<br>Mon | Aphasia<br>Assessment and Management   | Johnson – Chapter 5   |
|             | 13             | 2/20/19<br>Wed | <b>Exam I Review</b>   |   |
|             | 14             | 2/22/19<br>Fri | <b>Exam I</b><br><i>Covering Weeks 1 – 5</i>   | <b>Exam I</b><br><b>2/22/19</b>   |
| 6           | 15             | 2/25/19<br>Mon | Intro to Dementia<br><i>A&amp;P, causes, types</i>   | compiled dementia<br>reading – <i>available<br/>online</i>                  |
|             | 16             | 2/27/19<br>Wed | Dementia   |   |



|             |                |                |  |   |
|-------------|----------------|----------------|--|---|
|             | 17             | 3/1/19<br>Fri  | Assessment and Management  | Johnson – Chapter 6   |
| 7           | 18             | 3/4/19<br>Mon  | Intro to TBI<br><i>A&amp;P, causes, types</i><br><br>Traumatic Brain Injury (TBI)<br>Assessment and Management   | compiled TBI reading –<br><i>available online</i><br><br>Johnson – Chapter 7              |
|             | 19             | 3/6/19<br>Wed  |  |   |
|             | 20             | 3/8/19<br>Fri  |  |   |
|             |                |                |  |   |
| <b>Week</b> | <b>Session</b> | <b>Date</b>    | <b>Topic</b>   | <b>Assigned Reading</b>   |
| 8           | 21             | 3/11/19<br>Mon | Intro to Motor Speech Disorders<br><i>A&amp;P, causes, types</i><br><br>Motor Speech Disorders<br>Assessment and Management                                  | compiled motor speech<br>reading – <i>available<br/>online</i><br><br>Johnson – Chapter 9 |
|             | 22             | 3/13/19<br>Wed |  |   |
|             | 23             | 3/15/19<br>Fri | Dementia, TBI, and<br>Motor Speech Disorders<br>Clinical Cases and<br>Video Samples<br><i>*Online Access Provided*</i><br><i>Patterson @ CSHA Convention</i> | <b>Assignment 2<br/>Due 3/15/19</b>   |
| 9           | 24             | 3/18/19<br>Mon | <b><i>Spring Recess – No classes</i></b>   |   |
|             | 25             | 3/20/19<br>Wed | <b><i>Spring Recess – No classes</i></b>   |   |
|             | 26             | 3/22/19<br>Fri | <b><i>Spring Recess – No classes</i></b>   |   |
| 10          | 27             | 3/25/19<br>Mon | <b>Exam II Review</b>  |   |
|             | 28             | 3/27/19<br>Wed | <b>Exam II</b><br><i>Covering Weeks 6 – 10</i>   | <b>Exam II</b><br><b>3/27/19</b>  |
|             | 29             | 3/29/19<br>Fri | Intro to Dysphagia<br><i>A&amp;P, causes, types</i>  | compiled dysphagia<br>reading – <i>online</i>   |
| 11          | 30             | 4/1/19         | <b><i>Cesar Chavez Birthday – Obs.</i></b>   | <b><i>No Classes in Session</i></b>   |
|             | 31             | 4/3/19<br>Wed  | Dysphagia<br>Assessment and Management   | Johnson – Chapter 10  |
|             | 32             | 4/5/19<br>Fri  |  |   |
| 12          | 33             | 4/8/19<br>Mon  | MBS (Videofluoroscopy) vs<br>Fiberoptic Endoscopic Eval of<br>Swallowing – FEES<br>(Videoendoscopy)  | Johnson – Chapter 11<br><br><b>In-Class Assignment 3<br/>Due 4/8/19</b>                   |
|             | 34             | 4/10/19<br>Wed | Neurogenic Voice Disorders<br><i>Spasmodic Dysphonia, Myasthenia<br/>Gravis, and Paradoxical VF Motion</i>   | Johnson – Chapter 12<br>pp. 174 - 181   |
|             | 35             | 4/12/19<br>Fri |  |   |
|             | 36             | 4/15/19<br>Mon | Head and Neck Cancer<br><i>Laryngectomy and Alaryngeal</i>   | compiled oncology<br>reading – <i>available</i>   |

|             |                        |                        |  |  |
|-------------|------------------------|------------------------|--|--|
| 13          | 37                     | 4/17/19<br>Wed         | <i>Speech (artificial larynx, esophageal speech, and tracheoesophageal voice prosthesis – TEP)</i> | <i>online</i><br>Johnson – Chapter 13  |
|             | 38                     | 4/19/19<br>Fri         | <i>Special Topic: Neurofibromatosis</i>  | <b>Guest Speaker<br/>Dr. Heather Thompson</b>  |
| 14          | 39                     | 4/22/19<br>Mon         | Dysphagia, Neurogenic Voice, and Laryngectomy Clinical Cases and Video Samples                     | <b>In-Class Assignment 4<br/>Due 4/22</b>  |
|             | 40                     | 4/24/19<br>Wed         | <b>Exam III Review</b>   |  |
| <b>Week</b> | <b>Session</b>         | <b>Date</b>            | <b>Topic</b>   | <b>Assigned Reading</b>  |
|             | 41                     | 4/26/19<br>Fri         | <b>Exam III</b><br><i>Covering Weeks 10 – 14</i>   | <b>Exam III</b><br><b>4/26/19</b>  |
| 15          | 42                     | 4/29/19<br>Mon         | A&P: Facial, Oral, and Velopharyngeal Structures   | Kummer – Chapter 1<br>(pp. 2 – 27) – <i>available online</i>                               |
|             | 43                     | 5/1/19<br>Wed          | Clefts of the Lip and Palate   | Kummer – Chapter 2<br>(pp. 39 – 63)<br><i>available online</i><br><br>Johnson – Chapter 14 |
|             | 44                     | 5/3/19<br>Fri          | Resonance Disorders and Velopharyngeal Dysfunction<br><i>Assessment and Management</i>             | <b>Guest Speaker<br/>Dr. Heather Thompson</b>  |
| 16          | 45                     | 5/6/19<br>Mon          | Cleft Lip/Palate<br>Clinical Cases and Video Samples   | <b>Assignment 5<br/>Due 5/6/19</b>   |
|             | 46                     | 5/8/19<br>Wed          | Ethics in the Medical Setting  | Johnson – Chapter 21   |
|             | 47                     | 5/9/19<br>Fri          | <b>Exam IV Review</b>  |  |
|             | <b>FINALS<br/>WEEK</b> | <b>5/13/19<br/>Mon</b> | <b>Exam IV 12:45 - 2:45pm</b><br><i>Covering Weeks 15 - 16</i>                                     | <b>EXAM IV</b><br><b>5/13/19</b>   |

### Course References:

Bayles, K. and Tomoeda, C. (2013). *Cognitive-communication disorders of dementia* (2<sup>nd</sup> ed.). San Diego, CA: Plural Publishing, Inc

Chapey, R. (2008). *Language intervention strategies in aphasia and related neurogenic communication disorders* (5<sup>th</sup> ed.). Philadelphia, PA: Lippincott Williams & Wilkins

- Duffy, J. R. (2013). *Motor speech disorders: Substrates, differential diagnosis, and management* (3<sup>rd</sup> ed.). St. Louis, MO: Elsevier Mosby
- Freed, D. (2000). *Motor speech disorders: Diagnosis and treatment*. San Diego, CA: Singular Publishing Group
- Golper, L. A. C., Klaben, B. K., and Miller, C. K. (2018). *Medical speech-language pathology: A desk reference* (4<sup>th</sup> ed.). San Diego, CA: Plural Publishing
- Hartley, L. L. (1995). *Cognitive-communicative abilities following brain injury: A functional approach*. San Diego, CA: Singular Publishing Group
- Helm-Estabrooks, N., Albert, M. L., and Nicholas, M. (2013). *Manual of Aphasia and Aphasia Therapy* (3<sup>rd</sup> ed.). Austin, TX: PRO-ED, Inc
- Hux, K. (2003). *Assisting survivors of traumatic brain injury: The role of speech-language pathologists*. Austin, TX: PRO-ED, Inc
- Kummer, A. (2014). *Cleft palate and craniofacial anomalies: Effects on speech and resonance* (3<sup>rd</sup> ed.). Clifton Park, NY: Cengage Learning
- Logemann, J. A. (1986). *Manual for the videofluorographic study of swallowing* (2<sup>nd</sup> ed.). San Diego, CA: College-Hill Press
- Logemann, J. A. (1998). *Evaluation and treatment of swallowing disorders* (2<sup>nd</sup> ed.). Austin, TX: PRO-ED, Inc
- Myers, P. S. (1999). *Right hemisphere damage: Disorders of communication and cognition*. San Diego, CA: Delmar. Singular. Publishing Group
- Sohlberg, M. M. and Mateer, C. A. (2001). *Cognitive rehabilitation: An integrative neuropsychological approach*. New York, New York: The Guilford Press

## **CSAD 127: Introduction to Medical Speech Pathology**

**This course has been designated to be in direct support of the following  
American Speech-Language Hearing Association (ASHA)**

### **Knowledge and Skills Acquisition for certification in Speech-Language Pathology:**

#### Standard IV-C: Speech, Language, Hearing, Communication, and Swallowing Disorders and Differences

- The student will demonstrate the ability to analyze, synthesize and evaluate knowledge re: phonology, articulation disorders (including the etiologies, characteristics, and anatomical physiological, acoustic, psychological, developmental, linguistic, and cultural correlates).
- The student will demonstrate the ability to analyze, synthesize and evaluate knowledge re: voice and resonance disorders (including the etiologies, characteristics, and anatomical physiological, acoustic, psychological, developmental, linguistic, and cultural correlates).
- The student will demonstrate the ability to analyze, synthesize and evaluate knowledge re: swallowing disorders (oral, pharyngeal, esophageal, and related functions, including oral function for feeding; orofacial myofunction), including the etiologies, characteristics, and anatomical physiological, acoustic, psychological, developmental, linguistic, and cultural correlates.
- The student will demonstrate the ability to analyze, synthesize and evaluate knowledge re: cognitive aspects of communication (e.g., attention, memory, sequencing, problem solving, and executive functioning), including the etiologies, characteristics, and anatomical physiological, acoustic, psychological, developmental, linguistic, and cultural correlates.
- The student will demonstrate the ability to analyze, synthesize and evaluate knowledge re: communication modalities, including the etiologies, characteristics, and anatomical physiological, acoustic, psychological, developmental, linguistic, and cultural correlates.

#### Standard IV-D: Prevention, Assessment, and Intervention

- The student will demonstrate the ability to analyze, synthesize, and evaluate knowledge re: the principles and methods of prevention, assessment, and intervention regarding articulation.
- The student will demonstrate the ability to analyze, synthesize, and evaluate knowledge re: the principles and methods of prevention, assessment, and intervention regarding voice and resonance.
- The student will demonstrate the ability to analyze, synthesize, and evaluate knowledge re: the principles and methods of prevention, assessment, and intervention regarding swallowing (oral, pharyngeal, esophageal, and related functions, including oral function for feeding; orofacial myofunction).

- The student will demonstrate the ability to analyze, synthesize, and evaluate knowledge re: the principles and methods of prevention, assessment, and intervention regarding cognitive aspects of communication (e.g., attention, memory, sequencing, problem solving, and executive functioning).
- The student will demonstrate the ability to analyze, synthesize, and evaluate knowledge re: the principles and methods of assessment and intervention regarding communication modalities.

#### Standard IV-E, IV-G, IV-H: Contemporary Professional Issues

- The student will demonstrate the ability to analyze, synthesize and evaluate knowledge re: standards of ethical conduct.
- The student will demonstrate the ability to analyze, synthesize and evaluate knowledge re: contemporary professional issues and advocacy.

#### Standard IV-F: Research

- The student will demonstrate the ability to analyze, synthesize and evaluate knowledge re: processes used in research and integration of research principles into evidence-based clinical practice.

#### Standard IV-B: Basic Human Communication Processes

- The student will demonstrate the ability to analyze, synthesize and evaluate knowledge re: biological bases of human communication.
- The student will demonstrate the ability to analyze, synthesize and evaluate knowledge re: neurological bases of human communication.
- The student will demonstrate the ability to analyze, synthesize and evaluate knowledge re: acoustic bases of human communication.
- The student will demonstrate the ability to analyze, synthesize and evaluate knowledge re: psychological bases of human communication.
- The student will demonstrate the ability to analyze, synthesize and evaluate knowledge re: developmental/lifespan bases of human communication.
- The student will demonstrate the ability to analyze, synthesize and evaluate knowledge re: linguistic bases of human communication.
- The student will demonstrate the ability to analyze, synthesize and evaluate knowledge re: cultural bases of human communication differences.

#### Standard IV-B: Swallowing Processes

- The student will demonstrate the ability to analyze, synthesize and evaluate knowledge re: biological bases of human communication.

- The student will demonstrate the ability to analyze, synthesize and evaluate knowledge re: neurological bases of human communication.
- The student will demonstrate the ability to analyze, synthesize and evaluate knowledge re: psychological bases of human communication.
- The student will demonstrate the ability to analyze, synthesize and evaluate knowledge re: developmental/lifespan bases of human communication.
- The student will demonstrate the ability to analyze, synthesize and evaluate knowledge re: cultural bases of human communication differences.