

CSAD 221: Neurogenic Language Disorders

This course has been designed to be in direct support of the following American Speech-Language Hearing Association (ASHA) Knowledge and Skills Acquisition for certification in Speech-Language Pathology

CALIFORNIA STATE UNIVERSITY SACRAMENTO Department of Communication Sciences and Disorders (CSAD) Spring Semester 2019

Course Title:	Neurogenic Language Disorders
Units:	4
Course:	CSAD 221
Section:	1
Class Number	#33276
Days of the week (DOW):	Monday & Wednesday
DOW/Times/Locations:	Monday, Folsom Hall, Clinic NeuroService Alliance Lab, 2 nd Floor 9:00 – 11:50 a.m.
Instructor:	Darla K. Hagge Ph.D. CCC-SLP
Contact Information:	hagge@csus.edu 714/749-2799, cell [If time-sensitive]
Office:	Shasta Hall #255
Office Hours:	Office hours: T, 2-4/ W, 2-3

To make an appointment with Dr. Hagge,
please call 916/278-4867 or visit the Front Desk at Folsom Hall, 2nd floor.
Note: The entrance to the Front Desk and Dr. Hagge's office: Door #2316.

Dr. Hagge's Office is #2405

*The information below is at the discretion of the individual course instructor and
may be changed at any time with prior notice to students in the course.*

Course Description:

In-depth study of language and cognitive disorders in adult, secondary to cerebrovascular accident, dementia, and/or traumatic brain injury. Assessment and intervention strategies are covered with particular emphasis on functional outcomes.

Course Overview:

This four-unit graduate seminar focuses on the cognitive, linguistic and social-emotional aspects of right and left-hemisphere stroke, traumatic brain injury, and dementia. Assessment procedures and intervention strategies will be discussed. In this course you will analyze ideas and make critical evaluations, understand and apply research literature, and demonstrate professional communication skills. To enhance learning, students will be given the opportunity to work directly with adults with acquired communication disorders in the assigned mandatory weekly lab meetings through NeuroService Alliance.

Prerequisite:

Admittance into the CSUS SPA graduate program.

Objectives

I. Course Objectives:

1. Review/introduce location and function for neuroanatomical structures related to language and cognition.
2. Review/introduce relevant national and international policies, scope of practice and theoretical perspectives related to linguistic and cognitive-communication disorders.
3. Introduce neuropathologic and neuroanatomic explanations of aphasia and related disorders.
4. Review/introduce the neurologic assessment including cranial nerves and clinical signs/symptoms.
5. Introduce general principles for assessment of adults with acquired neurogenic cognitive-communication disorders.
6. Introduce standardized and nonstandardized assessment of the four language modalities for adults with acquired cognitive-communication disorders including verbal expression, auditory comprehension, reading, and writing.
7. Introduce assessment of Functional Communication and factors related to Quality of Life for adults with acquired cognitive-communication disorders.
8. Introduce the context for treatment of cognitive-communication disorders including multidisciplinary approach, candidacy for treatment, clinical decision making, online data and documentation, generalization, and social validation.
9. Introduce the treatment of aphasia and related disorders including process-oriented treatment, functional and social approaches to intervention, and group treatment.
10. Introduce assessment of cognitive processes including attention, memory, and executive function for adults with acquired cognitive-communication disorders.
11. Introduce right-hemisphere syndrome for adults with acquired cognitive-communication disorders including impairment, formal and informal assessments, and intervention approaches.
12. Introduce traumatic and nontraumatic brain injury for adults with acquired cognitive-communication disorders including pathophysiology, prognostic indicators, assessment, intervention, group treatment, and community integration.
13. Introduce the dementias, etiologies, progression, assessment, intervention, and management.
14. Review/introduce principles of evidence-based practice as it relates to adults with acquired cognitive-communication disorders.

II. Student Learning Objectives:

Upon successful completion of the course, the student will:

1. Identify neuroanatomical structures and corresponding function related to language and cognition.
2. Identify national and international policies, scope of practice and theoretical perspectives related to linguistic and cognitive-communication disorders.
3. Identify neuropathologic and neuroanatomic explanations of aphasia and related disorders.
4. Identify the cranial nerves and corresponding clinical signs/symptoms.
5. Identify the general principles for assessment of adults with acquired neurogenic cognitive-communication disorders.
6. Identify standardized and nonstandardized assessment of the four language modalities for adults with acquired cognitive-communication disorders including verbal expression, auditory comprehension, reading, and writing.
7. Identify assessment measures of Functional Communication and factors related to Quality of Life for adults with acquired cognitive-communication disorders.
8. Describe the context for treatment of cognitive-communication disorders including multidisciplinary approach, candidacy for treatment, clinical decision making, online data and documentation, generalization, and social validation.
9. Describe the treatment of aphasia and related disorders including process-oriented treatment, functional and social approaches to intervention, and group treatment.
10. Describe the assessment of cognitive processes including attention, memory, and executive function for adults with acquired cognitive-communication disorders.
11. Describe right-hemisphere syndrome for adults with acquired cognitive-communication disorders including impairment, formal and informal assessments, and intervention approaches.
12. Describe traumatic and nontraumatic brain injury for adults with acquired cognitive-communication disorders including pathophysiology, prognostic indicators, assessment, intervention, group treatment, and community integration.
13. Describe the dementias, etiologies, progression, assessment, intervention, and management.

14. Critically evaluate treatment methods using principles of evidence-based practice for individuals with acquired neurogenic communication

LEARNING OUTCOMES COMPETENCIES (CSAD 221):

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

Students should track their progress towards meeting each learning outcome by listing their grades on the table below over the course of the semester. The instructor will use a variety of activities and strategies that implement both quantitative and qualitative assessment measures to ensure maximizing students’ opportunities to learn and to integrate information presented in this course. The quantitative and qualitative data from these measures will be triangulated to evaluate students’ mastery of each learning outcome.

Course Learning Outcomes	Components Indicating Competence	Grades Received
1	Quiz #1 – 25% Mid-Term Examination – 10%	
2	Quiz #1 – 25% Mid-Term Examination – 10%	
3	Quiz #1 – 25% Mid-Term Examination – 10%	
4	Quiz #1 – 25% Course & Lab Attendance & Participation – 25% Mid-Term Examination – 10%	
5	Quiz #2 – 25% Course & Lab Attendance & Participation – 25% Mid-Term Examination – 10%	
6	Quiz #2 – 25% Mid-Term Examination – 10% Language Assessment Notebook, Parts A & B – 100%	
7	Quiz #2 – 25% Mid-Term Examination – 10%	
8	Quiz #2 – 25% Quiz #5 – 100% Course & Lab Attendance & Participation – 25% Mid-Term Examination – 10%	
9	Quiz #3 – 50% Mid-Term Examination – 20% Final Examination – 10%	
10	Quiz #3 – 50% Cognitive Assessment Notebook – 100% Final Examination – 20%	
11	Quiz #4 – 50% Final Examination – 20%	
12	Quiz #4 – 50% Final Examination – 20%	
13	Quiz #5 – 50% Final Examination – 20%	
14	Quiz #5 – 50% Course & Lab Attendance & Participation – 25% Final Examination – 10%	

Textbook & Course Materials:

Required Text:

Brookshire, Robert (2015). *Introduction to Neurogenic Communication Disorders*. 8th edition, Mosby: St. Louis.

Recommended Texts:

Chapey, R. (Ed.) (2008). *Language intervention strategies in aphasia and related neurogenic communication disorders*, 5th Ed. Lippincott Williams & Wilkins: Philadelphia.

Hux, K. (Ed.) (2010). *Assisting survivors of traumatic brain injury: The role of speech-language pathologists*, 2nd Ed. Pro-Ed: Austin, TX.

Other Readings:

Additional readings will be made available on the course web site/CANVAS environment

Required Materials:

Students should bring the following to each class meeting:

Required textbook

Laptop, netbook, iPad, or other device with internet capability (if device is not available, student(s) should arrange to share with a classmate, *in advance of class meeting*)

Paper, pens, pencils

Download, print, and bring relevant in-class learning activities and other documents, as uploaded to SacCT by the instructor(s)

Bring flashlight for practice cranial nerve examination

Scantron Forms, for all quizzes, mid-term & final examination (Style of Scantron *for quizzes*: #883-E and #886-E *for exams*)

Course Requirements:

- Internet connection (DSL, LAN, or cable connection desirable)
- Access to SacCT/Web site/Other
- Access to a computer and printer

Course Structure:

This course will incorporate a variety of in-class learning experiences including direction instruction (lecture), active learning activities, small/whole group discussions, multimedia viewing, and guest presentations from adults at the chronic stage of living with acquired communication disorders. Due to the breadth and depth of the course content, students will be assigned weekly readings and will be quizzed weekly on the assigned readings and course lectures, discussions, and activities. All assignments (e.g., group project and presentation, Language/Cognitive Evaluation Notebook) are carefully constructed and assigned for the purpose of enhancing student learning and preparing for future clinical success.

Online Resources:

Please view the course SacCT website for a large collection of resources including websites, articles, documents, and more.

Course Methods:

Students will meet the objectives listed above through a combination of the following activities:

- Attend all class meetings (see attendance policy)
- Participate in small/whole group discussions and in-class active learning activities
- Complete and pass quizzes, mid-term examination, and a final examination
- Prepare and participate in a group oral presentation
- Create a Language (Part I) and Cognitive (Part II) Evaluation Notebook

Policies/Procedures:

Attendance & Participation: This course involves verbal interaction among the students, the instructor, members and significant others of NeuroService, community volunteers and undergraduate students. You cannot really “get” what was covered in class via classmates’ notes. Class and Lab attendance and participation are **required**, and roll will be taken randomly and/or weekly. Report absences to the instructor in person or via voice mail or email *prior to class meeting*. **TWO (2) unexcused absences on roll days will result in your final grade dropping one letter grade.** Working as a Speech-Language Pathologist requires being present, arriving on time, and being prepared. Practicing those skills now will prepare you for what this career will be like. If you do need to miss a class, you are responsible for all materials covered in your absence. This means you must get any materials handed out during your missed session from a classmate, not the instructor.

Class meetings and participation: Lecture + discussion + observation format + assigned documentation will be followed. Active listening and problem solving are expected. We will employ a somewhat Socratic method to

facilitate critical thinking, stimulate discussion, and illuminate ideas. This means that you may be called on at random to answer questions or add to a model being presented on the board.....please be prepared! When you are listening to another student present his/her ideas, you should take notes and offer suggestions. Comments such as “I agree” or “great idea,” are okay. Substantive participation (e.g., comments that help advance the discussion, or that help develop a new angle on a problem) is considered to be far more meaningful participation. Speech-Language Pathology is a profession in which you need to actively problem solve at all times. *For this reason, exams will definitely cover material that has been discussed in class. This includes videos, review of materials, lab experiences, etc. Be aware that you must be “present to win” this knowledge.*

Readings: You are responsible for all reading materials assigned including Communication Partner Training (CPT). Not all assigned readings appear on this syllabus, as some short readings may be added during the course of the semester. You are expected to have completed the assigned readings prior to class time on topic discussion dates so that you are able to participate in discussion and ask questions.

Exams and Quizzes: A total of two (2) examinations and five (5) quizzes will be given during the semester. You are responsible for materials covered in required readings, classroom discussions, and handouts. Exams may include multiple choice, true/false, short answer, fill-in, and/or essay. Quizzes may include multiple choice, true/false and/or fill-in questions. All quizzes require the use of a Scantron (Style: TBA). No exceptions. *No make-up examinations or quizzes are given unless there is a documented medical emergency for which you have written proof provided by a doctor. Any approved make-up exams will be scheduled at the end of the semester during dead week and may be administered in essay format.*

Project: A total of one (1) two-part project will be assigned: The Informal Assessment Notebooks, Part A and Part B. The details regarding this project will be discussed in class and/or posted on SacCT. Scores on late submissions will drop by one letter grade per day.

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Tentative Lecture/Activity Schedule (<i>subject to change</i>)				
Key for Readings: B = Brookshire, required text / Ch = Chapey, recommended text				
Week	Date (2019)	Topic	Readings	Activities
1	1/21 (holiday) & 1/23	<p>*Introduction Orientation Syllabus Review Student survey</p> <p>*History of persons with disabilities, a brief review, posted on CANVAS</p> <p>*ASHA Scope of Practice</p> <p>*WHO's ICF</p> <p>*Neuroanatomy & Physiology (<i>a brief review, posted on Bb</i>)</p>	<p>B = Chapter 1 ----- Ch = Pg 42-64</p> <p>ASHA & Related Documents: Scope of Practice http://www.asha.org/uploadedfiles/SP2016-00343.pdf</p> <p>WHO's ICF http://www.who.int/classifications/icf/en/</p> <p>Available online: http://apps.who.int/iris/bitstream/10665/42417/1/9241545445_eng.pdf</p> <p>Overview of aphasia on ASHA website http://www.asha.org/public/speech/disorders/Aphasia.htm</p> <p>Overview of apraxia of speech on ASHA website http://www.asha.org/public/speech/disorders/Apraxia-of-Speech-in-Adults/</p> <p>Overview of Right hemisphere damage on ASHA website http://www.asha.org/public/speech/disorders/Right-Hemisphere-Brain-Damage/</p> <p>Overview of TBI on ASHA website http://www.asha.org/Practice-Portal/Clinical-Topics/Traumatic-Brain-Injury-in-Adults/</p> <p>Overview of dementia on ASHA website http://www.asha.org/public/speech/disorders/dementia/</p> <p>Causes of dementia https://www.asha.org/PRPSpecficTopic.aspx?folderid=8589935289&section=Causes</p> <p>Life participation approach to aphasia: http://www.asha.org/public/speech/disorders/LPAA.htm</p> <p>Family adjustment to aphasia</p>	<p>*No Quiz</p> <p>*Direct Instruction/Lecture</p> <p>*Small/whole group Discussions</p> <p>*Active learning Activities</p>

Tentative Lecture/Activity Schedule (<i>subject to change</i>)				
Key for Readings: B = Brookshire, required text / Ch = Chapey, recommended text				
Week	Date (2019)	Topic	Readings	Activities
			http://www.asha.org/public/speech/disorders/FamilyAdjustmentAphasia.htm	
2	1/28 & 1/30	*Case Study *Neuroanatomic Explanations of Aphasia and Related Disorders – A brief Review *Practice identifying presence of aphasia: In-class activity *Cranial Nerve Review, posted on Bb	B = Chapter 8 Chapter 2 ----- Ch = Chapter 1 (<i>definition of aphasia and history of aphasiology, pg 3-4</i>); Chapter 2, pg 20-41	*Direct Instruction/Lecture *Small/whole group Discussions *Active learning Activities
3	2/4 & 2/6	*Assessing Adults w/ Neurogenic Cognitive-Communicative Impairments *Assessing Language (<i>Verbal Expression, V/E; Auditory Comprehension, A/C</i>)	B = Chapter 3 ----- Ch = Ch 4-Model of language, pgs 64-65; WHO ICF applied to aphasia, pgs 65-66; Classifying aphasia, pg 81; Goals of assessment, Goal 1, identifying presence of aphasia, pgs 84-85; Goal 2, identification of complicating conditions, pgs 90-top of 94; Goal 10, determining prognostic factors, pgs 123-126. ----- B = Chapter 5	*Direct Instruction/Lecture *Small/whole group discussions *Active learning activities
4	2/11 & 2/13	*Assessing Language (<i>Reading; Writing</i>) *Assessing Functional Communication & Quality of Life (QOL)	B = Chapter 5 ----- B = Chapter 6 ----- Ch = Chapter 4, quality of life (QOL), pgs 121-122	*Direct Instruction/Lecture *Small/whole group discussions *Active learning Activities <i>Assessment Review</i>
5	2/18 & 2/20	*The Context for Tx of Cognitive - Communication Disorders	B = Chapter 7 SacCT = Posted protocols ----- Ch = Ways to describe severity, pgs 81-82; BDAE aphasia severity rating scale; Ch 4, Direct observations & comprehensive tests of aphasia, tests of specific language functions, pgs 69-74; Table on pgs 75-76; ethnocultural considerations, pgs 78-79	*Assessment Experience: Practice administering assessments *Small/whole group discussions *Active learning activities

Tentative Lecture/Activity Schedule (<i>subject to change</i>)				
Key for Readings: B = Brookshire, required text / Ch = Chapey, recommended text				
Week	Date (2019)	Topic	Readings	Activities
6	2/25 & 2/27	*Treatment of Aphasia & Related Disorders; Functional and Social Approaches	B = Chapter 9 ----- Ch = Chapter 28, Language Oriented Treatment, pgs 756-761; Chapter 18, Early management of Wernicke's Aphasia, pgs 507-529. Chapter 30, Communication Based interventions for PWA, pgs 821-824; ; Chapter 11, Social approaches to aphasia intervention, pgs 290-318.	*Quiz 1, 2/27 Aphasia *Direct Instruction *Small/whole group discussions *Active learning activities
7	3/4 & 3/6	*Assessing Cognition *Begin work on Assessment Notebook, Part B	B = Chapter 4	*Informal Language Assessment Binder DUE on March 6 *Direct Instruction *Small/whole group discussions *Active learning activities
8	3/11 & 3/13	*Assessing Cognition, continued *Right Hemisphere Syndrome	B = Chapter 4	*Quiz #2, 3/14/18 Cognition *Direct Instruction *Small/whole group discussions *Active learning activities
9	<i>Spring Break, March 18-22, 2018</i> <i>(no class meetings; finish your assessment notebook!)</i>			
10	3/25 & 3/27	*Right Hemisphere Syndrome, cont. Characteristics, Assessment, & Intervention	B = Chapter 10 ----- Ch = Chapter 34, Characteristics and evaluation procedures, pgs 963-981 Ch = pgs 880-885 (top); pg 887-888 top, Table 33-2, pg 892; and read pgs 892-893 Hux = Chapter 5, pgs 61-92; Chapter 6, Assessment and treatment of cognition, pgs 93-133	*Take Home Mid-Term NeuroSA Informal Evaluation, Hard copy due at the beginning of class on 3/27 *Direct Instruction *Small/whole group discussions *Active learning activities
11	4/1(Holiday) & 4/3	*Traumatic Brain Injury (TBI): Etiology and Characteristics	B = Chapter 11	*Quiz #3, 4/3 Right Hemisphere Syndrome/Dysfunction Direct Instruction *Small/whole group discussions *Active learning activities

Tentative Lecture/Activity Schedule (<i>subject to change</i>)				
Key for Readings: B = Brookshire, required text / Ch = Chapey, recommended text				
Week	Date (2019)	Topic	Readings	Activities
12	4/8 & 4/10	*TBI: Prognosis and Recovery	B = Chapter 11	*Direct Instruction *Small/whole group discussions *Active learning Activities
13	4/15 & 4/17	*TBI: Intervention	B = Chapter 11	*Direct Instruction *Small/whole group discussions *Active learning Activities
14	4/22 & 4/24	*TBI: Group Tx and Community Integration	B = Chapter 11	*Due on 4/24: Informal Cognitive Assessment Notebook, Part B *Direct Instruction *Small/whole group discussions *Active learning Activities
15	4/29 & 5/1	*Types of Dementia; Assessment	B = Chapter 12 ----- Ch = Chapter 20, Primary progressive aphasia, pgs 543-547; Chapter 35, Dementia, pgs 988-996. ----- Bb: MMSE	Quiz #4, 5/1 TBI/NTBI *Direct Instruction *Small/whole group discussions *Active learning Activities
16	5/06 & 5/8 Dead Week: No NeuroSA (Class meetings on M & W)	*Dementia: Management and Intervention	B = Chapter 12	*Quiz #5, 5/8 Dementia *Direct Instruction *Small/whole group discussions *Active learning activities
17	Week of May 13-17 TBD: Per university final exam schedule	*Final Exam, Cumulative Multiple choice, Scantron 100 questions	Place/Time: Per University final exam schedule	No NeuroSA

Grading Policy: A total of 600 points are possible. Your final grade will be calculated as a % of points out of 600 points. Points possible are assigned as follows:

Methods of Evaluation:		
Assignment	Point Value	Date Scheduled
Attendance & participation in class meetings & in-class activities & assignments, including assigned documentation <i>(Class & Lab Meetings with assigned documentation)</i>	100	See CANVAS for additional information
5 quizzes (20 pts per quiz x 5) Scantron	100	See CANVAS for additional information
Mid-Term Exam	100	See CANVAS for additional information
Assessment Notebook, Parts A and B (100 pts each)	200	See CANVAS for additional information
Final Exam, Cumulative <i>(Bring Scantron)</i>	100	Week of 05/13/19 <i>(TBD: per University's official final examination schedule)</i>
Total possible points	600	

Final Grade: Final grades assigned according to the following scores:

Letter Grade	Percentage	Performance
A	93-100%	Excellent Work
A-	90-92%	Nearly Excellent Work
B+	87-89%	Very Good Work
B	83-86%	Good Work
B-	80-82%	Mostly Good Work
C+	77-79%	Above Average Work

Letter Grade	Percentage	Performance
C	73-76%	Average Work
C-	70-72%	Mostly Average Work
D+	67-69%	Below Average Work
D	60-66%	Poor Work
F	0-59%	Failing Work

Commitment to Integrity: As a student in this course (and at this university) you are expected to maintain high degrees of professionalism, commitment to active learning and participation in this class and also integrity in your behavior in and out of the classroom.

Sac State's Academic Honesty Policy & Procedures:

"The principles of truth and honesty are recognized as fundamental to a community of scholars and teachers. California State University, Sacramento expects that both faculty and students will honor these principles, and in so doing, will protect the integrity of academic work and student grades." Read more about Sac State's Academic Honesty Policy & Procedures at the following website: <http://www.csus.edu/umannual/AcademicHonestyPolicyandProcedures.htm>

Definitions: At Sac State, "**cheating** is the act of obtaining or attempting to obtain credit for academic work through the use of any dishonest, deceptive, or fraudulent means."

"**Plagiarism** is a form of cheating. At Sac State, "plagiarism is the use of distinctive ideas or works belonging to another person without providing adequate acknowledgement of that person's contribution." **Source:** Sacramento State University Library

Note: Any form of academic dishonesty, including cheating and plagiarism, may be reported to the office of student affairs.

Understand When You May Drop This Course: It is the student's responsibility to understand when he/she need to consider disenrolling from a course. Refer to the Sac State Course Schedule for dates and deadlines for registration. After this period, a serious and compelling reason is required to drop from the course. Serious and compelling reasons include: (a) documented and significant change in work hours, leaving student unable to attend class, or (b) documented and severe physical/mental illness/injury to the student or student's family. Under emergency/special circumstances, students may petition for an incomplete grade. An incomplete will only be assigned if there is a compelling extenuating circumstance. All incomplete course assignments must be completed by the department's policy.

Equal Access:

California State University-Sacramento, Department of Communication Sciences and Disorders, seeks to provide equal access to its programs, services, and activities for people with disabilities. If you have a documented disability and verification from the Office of Services to Students with Disabilities (SSWD), and wish to discuss academic accommodations, please contact your instructor as soon as possible. It is the student's responsibility to provide documentation of disability to SSWD and meet with a SSWD counselor to request special accommodation before classes start. **Sacramento State Services to Students with Disabilities (SSWD)** offers a wide range of support services and accommodations for students in order to ensure students with disabilities have equal access and opportunity to pursue their educational goals. Working collaboratively with students, faculty, staff and administrators, SSWD provides consultation and serves as the information resource on disability related issues to the campus community. SSWD is located in Lassen Hall 1008 and can be contacted by phone at (916) 278-6955 (Voice) or (916) 278-7239 (TDD only) or via email at sswd@csus.edu.

CSAD 221 Neurogenic Language Disorders

This course has been designed 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: receptive and expressive language disorders (phonology, morphology, syntax, semantics, pragmatics, prelinguistic communication, and paralinguistic communication) in speaking, listening, reading, writing, and manual modalities (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: social aspects of communication (e.g., behavioral and social skills affecting communication), 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 receptive and expressive language (phonology, morphology, syntax, semantics, pragmatics, prelinguistic communication, and paralinguistic communication) in speaking, listening, reading, writing, and manual modalities.
- 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 prevention, assessment, and intervention regarding social aspects of communication (e.g., behavioral and social skills affecting communication).

- 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 V-A: Oral and Written Communication
- The student will demonstrate skill in oral and written or other forms of communication sufficient for entry into professional 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: 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.