

**California State University, Sacramento**  
**Department of Communication Sciences and Disorders**

**CSAD 125: Developmental and Acquired Neurogenic Language Disorders Across The Lifespan**  
**Spring Semester 2019**

<b>CSAD 125 Section 1 #32842</b>	<b>Mon/Wed/Fri 9:00am to 9:50am</b>	<b>Folsom Hall 1050</b>
<b>CSAD 125 Section 2 #33086</b>	<b>Mon/Wed/Fri 11:00am to 11:50am</b>	<b>Folsom Hall 1049</b>

**Instructor, Segment 1: James Chuchas, MA, CCC-SLP**

**Phone: 916-278-6601**

**Office hours: MWF: 10:00am- 10:50am (Subject to change)**

**Email: james.chuchas@csus.edu**

**Office Location: Folsom Hall, 2<sup>nd</sup> Floor, CSAD Department**

**Please note: (Appointments need to be scheduled by e-mailing me directly)**

**Instructor, Segment 2: Dr. Lisa D'Angelo, PhD, CCC-SLP**

**Phone: 530-400-1970**

**Office hours: (after spring break) Wednesday 10-11, Tuesday 1:30-3**

**Email: dangelo@csus.edu**

**Folsom Hall Office , please schedule with me or drop in at these times**

**Prerequisite: CSAD 112, CHDV30, PSYC2, STAT1, and DEAF51**

**Course Description:** The focus of this 3-unit undergraduate seminar is on language disorders across the lifespan, including the dynamic and reciprocal relationship of the disorders among the following: the child, adolescent, or adult, his/her family, and the environment. Diagnostic categories discussed will include: Intellectually Disability, Language Delay, Specific Language Impairment (SLI), Language Learning Disability (LLD), Autism Spectrum Disorder (ASD), Traumatic and Non-Traumatic Brain Injury (TBI/NTBI), Neglect and Abuse, Right and Left Hemisphere Cerebrovascular Accident (CVA), and Progressive Disorders (e.g., the Dementias).

**Course Objectives:**

**Segment 1:**

1. Introduce the student to Locke's theory of neuro linguistic development of language.
2. Introduce the student to a speech and language processing model across the lifespan.
3. Introduce the student to the multiple etiologies of language disorders in children and adults. Review the importance of hearing on speech and language development. Discuss prevention of language delays.
4. Introduce the myriad of symptoms associated with language disorders, categorize symptoms, and determine areas of greatest needs for intervention. Discuss anatomical/physiological, acoustic, psychological, developmental, linguistic, and cultural correlates to language disorders.
5. Review the continuum of language disorders: Oral/listening, reading, and writing. Introduce the student to cognitive aspects of communication (attention, discrimination, memory, sequencing, problem solving, and executive functions) and social aspects of communication (behavioral and social skills affecting communication)

6. Introduce the student to assessment strategies for various clinical situations, drawing from formal and informal approaches as appropriate. Skills to be evaluated include receptive and expressive abilities as they are manifested in phonology, morphology, syntax, semantics, pragmatics, and oral narrative. Assessment of BOTH oral AND written language forms will be emphasized.
7. Introduce the student to issues pertaining to family/friends' challenges in learning about and living with children with language disorders.
8. Introduce the student to issues pertaining to teachers' challenges in working with children with language disorders in the classroom and the relationship between language disorders and the language arts curriculum in the public schools.
9. Introduce the student to current research in the area of language disorders and the importance of evidence-based clinical practice.
10. Review linguistic difference vs. linguistic disorder and delivery of services to culturally and linguistically diverse populations.

### **Segment 2:**

1. Introduce the student to the historical roots and purpose of studying brain science in speech-language pathology.
2. Review basic medical terminology including direction, planes, and anatomic orientation
3. Introduce the student to policy and theoretical perspectives including the ASHA Scope of Practice, the World Health Organization's *International Classification of Functioning, Disability and Health*, history of persons with disabilities, and the Medical and Social Model Approaches to Disability.
4. Introduce/review the Human Communication Nervous System: The Central Nervous System (CNS).
5. Introduce/review the Human Communication Nervous System: The Peripheral Nervous System (PNS) and the Autonomic Nervous System, Development of the Nervous System, and the Principles of Neurologic Organization.
6. Introduce the student to neuronal function in the nervous system, including physiology, cellular potential, myelin development and related disorders, and central nervous system regeneration.
7. Introduce the student to the neurosensory organization of speech and hearing including anatomy and clinical examination.
8. Introduce the student to the neuromotor control of speech including the pyramidal and extrapyramidal systems, and the cerebellar system and related clinical signs.
9. Review/introduce the student to the cranial nerves including names, structure, innervation, testing procedures, and signs of abnormal function.
10. Introduce the student to the clinical speech syndromes of the motor systems including dysarthria type, etiology, and associated neurologic characteristics.
11. Introduce the student to the central language mechanism including a model for language and its disorders
12. Introduce the student to adult disorders of language including linguistic and cognitive-communicative disorders.

**Learning Outcomes Competencies: Language Disorders Across the Lifespan (CSAD 125)**

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 tables (below). 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” C”*. 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 tables below over the course of the semester.

**CSAD 125 Specific Student Learning Outcomes—Over the course of the semester, students should be able to: (see Segments 1 and 2):**

**Segment 1**

**Student will:**

1. Discuss and interpret Locke's theory of neuro linguistic development of language abilities.
2. Critically evaluate the relevance of a speech and language processing model in understanding language disorders in children and adults.
3. Distinguish among the multiple causes of language disorders and discuss complicating factors to language development (such as hearing deficit, cognitive deficit, etc.).
4. Recall and explain symptoms associated with a continuum of language disorders, categorize symptoms, and determine areas of greatest needs for intervention. Discuss associated etiology and anatomical/physiological, acoustic, psychological, developmental, linguistic, and cultural correlates. Identify and discuss relevant cognitive and social aspects of communication. Discuss prevention of language delays.
5. Design assessment plans to evaluate BOTH oral and written language, drawing from formal and informal testing procedures as appropriate. The client skills to be evaluated include auditory comprehension and expressive abilities as they are manifested in phonology, morphology, syntax, semantics, pragmatics, and oral narrative.
6. Identify and explain issues pertaining to parents’ and caretakers’ challenges in learning about and living with language disorders across the lifespan.
7. Identify and explain issues pertaining to teacher’s challenges in working with children with language disorders with specific emphasis on the language arts curriculum.
8. Identify basic processes used in research about language disorders and the integration of research principles into evidence-based clinical practice.
9. Recognize and discuss the difference between a language difference and a language disorder. Discuss cultural considerations to language development.

<b>Course Learning Outcomes Segment 1</b>	<b>Components Indicating Competence</b>	<b>Grades Received</b>
1	Exam 1 (50%)	
2	Exam 1 (50%)	
3	Exam 2 (25%)	
4	Exam 2 (30%)	
5	Exam 2 (25%) Assessment Project (100%)	
6	Exam 2 (5%)	
7	Exam 2 (5%)	
8	Exam 2 (5%)	
9	Exam 2 (5%)	

**CSAD 125 Specific Student Learning Outcomes (continued)**

**Segment 2**

**Student will:**

1. Identify the historical roots and purpose of studying brain science in speech-language pathology.
2. Identify basic medical terminology including direction, planes, and anatomic orientation
3. Discuss policy and theoretical perspectives including the ASHA Scope of Practice, the World Health Organization's *International Classification of Functioning, Disability and Health*, history of persons with disabilities, and the Medical and Social Model Approaches to Disability.
4. Identify structures and systems within the Central Nervous System (CNS).
5. Identify structures and systems within the Peripheral Nervous System (PNS) and the Autonomic Nervous System and discuss the development of the Nervous System, and relevant principles of Neurologic Organization.
6. Identify structures of the neuronal function in the nervous system, including physiology, cellular potential, myelin development and related disorders, and central nervous system regeneration.
7. Identify the neurosensory organization of speech and hearing including the anatomical structures and clinical examination.
8. Identify the structures of the pyramidal and extrapyramidal systems, and the cerebellar system and related clinical signs.
9. Identify the cranial nerves including the names, structure, innervation, testing procedures, and signs of abnormal function.
10. Identify the clinical speech syndromes of the motor systems including dysarthria type, etiology, and associated neurologic characteristics.
11. Identify the central language mechanism including a model for language and its disorders
12. Identify acquired adult disorders of language (e.g., linguistic disorders and cognitive-communication disorders) in terms of definition, description, etiology, incidence & prevalence, clinical signs/symptoms, and progression by accessing/reviewing the literature and citing references using APA format.

<b>Course Learning Outcomes Segment 2</b>	<b>Components Indicating Competence</b>	<b>Grades Received</b>
1, 2, 3, & 4	Quiz #1 – 100% Exam #3 – 20%	
5, 6	Quiz #2 – 100% Exam #3 – 20%	
7, 8	Quiz #3 – 100% Exam #3 – 20%	
9, 10	Quiz #4 – 100% Exam #3 – 20%	
11, 12	Group Project – 100% Quiz #5 – 100% Exam #3 – 20%	

## **Required Core Readings & Text:**

### **Segment 1:**

- Locke, J. 1997. A theory of neurolinguistic development. *Brain and Language* 58, 265-326. (Posted on CSUS Canvas)
- Owens, R. E. (2014). *Language disorders: A functional approach to assessment and intervention*. 6th edition. Boston, MA: Pearson (Available at the bookstore)

### **Segment 2:**

- Seikel, A., Konstantopoulos, K., & Drumright, D. (2018). *Neuroanatomy and neurophysiology for speech and hearing sciences*. San Diego, CA: Plural Publishing.

## **Recommended Readings:**

### **Segment 2:**

- Sacks, O. (1998). *The man who mistook his wife for a bat*. New York, NY: Touchstone.

## **Required Materials:**

### **Students should bring the following to each class meeting:**

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 CSUS Canvas by the instructor(s)

Bring flashlight for practice cranial nerve examination

Scantrons, for all quizzes and final examination (Style of Scantron: Form No. 883-E)

## **Course Requirements:**

Internet connection (DSL, LAN, or cable connection desirable)

Access to CSUS Canvas Web site

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, and multimedia viewing. Due to the depth of the course content, students will be assigned weekly readings to be completed before the class meeting. All assignments and activities are carefully administered for the purpose of enhancing student learning.

## **Policies/Procedures:**

**Attendance:** This course involves verbal interaction among the students and the instructor. You cannot really “get” what was covered in class via classmates’ notes. Class attendance is required and roll will be taken randomly. 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, on time, and 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 will be followed. Active listening and problem solving is 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, etc. Be aware that you must be “present to win” this knowledge.*

**Readings:** You are responsible for all reading materials assigned. 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 three (3) 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 Scantron (Form Number: 883-E). 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.*

**Projects:** A total of two (2) group project(s) will be assigned. The details regarding these projects will be discussed in class and/or posted on CSUS Canvas. Scores on late submissions will drop by one letter grade *per day*.

**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:

Points Possible:

<b>Segment 1:</b>	
Exam 1	100 points
Exam 2	100 points
Assessment Projects	100 points
<b>Segment 2:</b>	
5 quizzes (20 pts per quiz x 5 quizzes)	100 points
Group Projects	100 points
Exam 3	100 points
<b>Total possible points:</b>	<b>600 points</b>

### Final Grade based on 600 Total possible points:

Final grades assigned according to the following Percentages:

94.5 - 100	A
89.5 - 94.4	A-
86.5 - 89.4	B+
83.5 - 86.4	B
79.5 - 83.4	B-
76.5 - 79.4	C+
73.5 - 76.4	C
69.5 - 73.4	C-
66.5 - 69.4	D+
63.5 - 66.4	D
59.5 - 63.4	D-
Below 59.5	F

### 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/student/stu-0100.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](mailto:sswd@csus.edu).

**Basic Needs Support**

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

**Cellphones/Smartphones/Audio & Visual Recording:**

All cellphones and smartphones are to be turned off and put away throughout class period. No texting or e-mailing during class lecture.

Audio and/or Visual recording of class lectures is not permitted or allowed, for the first half of the course. This is allowed for the second half.

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*Tentative Course Schedule: PLEASE NOTE: Subject to change*

DATE	TOPIC	ASSIGNED READINGS	Assignments/Activities
<i>Week of:</i> 1/21/19	Introduce Syllabus Observe some children and adults with language disorders. Discuss what you see and hear.	Start reading Locke's article	Introduction Lecture/PPT
	Observe some children and adults with language disorders. Discuss what you see and hear. A review of theories on Language/Language Development		Lecture/PPT Locke
<i>Week of:</i> 1/28/19	Begin Locke's neuro linguistic development of language abilities discussion	Be finished with Locke's article	Lecture/PPT
	Continue with Locke/Locke Class Activity		Lecture/PPT
<i>Week of:</i> 2/4/19	A Functional Language Approach To Label or Not? Begin Language Impairments: Introduction to an Information Processing Model across the lifespan	Owens Chs. 1 & 2	A Functional Language Approach Lecture/PPT
	Information Processing Model across the lifespan—Finish Lecture and Class Activity		Lecture/PPT
<i>Week of:</i> 2/11/19	<b><u>Exam #1 (2/13/19) &amp; (2/15/19)</u></b>	Owens Ch. 2	
	Language Impairments	Owens Ch. 2	Lecture/PPT Language Impairments 1
<i>Week of:</i> 2/18/19	Language Impairments		Lecture/PPT
	Language Impairments	Owens Ch. 2	Lecture/PPT Language Impairments 2
<i>Week of:</i> 2/25/19	Language Impairments		Lecture/PPT

	Language Impairments	Owens Ch. 13	Language Impairments 3
<i>Week of:</i> 3/4/19	Communication Assessment/Language Impairment		Lecture/PPT Assessment
	Communication Assessment/Language Impairment	Owens Ch.4	Lecture/PPT
<i>Week of:</i> 3/11/19	<b>Exam #2 (3/12/19) &amp; (3/14/19)</b>		
	Communication Assessment Presentations <b>End of Segment 1</b>		
<i>Week of:</i> 3/18/19	<i>Spring Break</i>		
<b><i>Class Date</i></b>	<b><i>Class Topic:</i></b>	<b><i>Readings:</i></b>	<b><i>Assignments &amp; Activities:</i></b>
<i>Week of:</i> 3/25/19	Intro to Speech-Language Neurology Hx of persons with disabilities Social and medical models ASHA Scope of Practice ICF ASHA's webpage: <a href="http://www.asha.org/academic/curriculum/slp-aneuro/deskref.htm">http://www.asha.org/academic/curriculum/slp-aneuro/deskref.htm</a> Oliver Sacs: <i>The Man Who Mistook His Wife for a Hat</i>	ASHA Scope of Practice  WHO ICF 2001  Both posted Canvas	Overview Lecture /PPT
	Organization of the Nervous System, I Structures and function Practice w/ Case Studies	Seikel et al., Ch 1	Lecture /PPT
<i>Week of:</i> 4/1/19	Organization of the Nervous System, II Peripheral and Autonomic Systems Embryology of the Nervous system General principles of organization Practice w/ Case Studies	Ch 5, 6	<b>Quiz #1</b> <b>4/2/18</b> Lecture/PPT
	Neuronal Function in the Nervous System	Seikel et al.	Lecture/PPT

	Neurons and Action Potentials Myelin and related disorders Practice w/ Case Studies	Ch 2	
<i>Week of:</i> 4/8/19	Neurosensory Organization of Speech & Hearing Pathways & clinical signs/symptoms Practice w/ Case Studies	Ch 3	<b><u>Quiz #2</u></b> <b><u>4/9/18</u></b> Lecture /PPT
	Neuromotor Control of Speech Pathways & clinical signs/symptoms Practice w/ Case Studies	Ch 8, 9	Lecture /PPT
<i>Week of:</i> 4/15/19	The Cranial Nerves In-class cranial nerve assessment & “face” Bring: Documents posted on Bb Small flashlight, pen/pencil	Ch 7	<b><u>Quiz #3</u></b> <b><u>4/16/18</u></b> Lecture/PPT
	Clinical Speech Syndromes of the Motor Systems The Dysarthrias & Apraxias Signs & Symptoms Practice w/ Case Studies	Ch 4	Lecture /PPT
<i>Week of:</i> 4/22/19	Clinical Speech Syndromes of the Motor Systems, <i>continued.</i>	Ch 11	<b><u>Quiz #4,</u></b> <b><u>4/23/18</u></b> Lecture/PPT
	Central Language Mechanism & Learning Cognition-Communication Disorders Language Mechanisms, Lesions, & Disorders	Posted articles	Lecture/PPT
<i>Week of:</i> 4/29/19	Central Language Mechanism & Learning, <i>continued.</i>	Posted article	<b><u>Due: Group Assignment</u></b> <b><u>4/30/18</u></b> Lecture /PPT
	Adult Disorders of Language Aphasia, Fluent & Nonfluent		Lecture /PPT

<i>Week of:</i> 5/6/19	Adult Disorders of Language Traumatic Brain Injury (TBI) Right Hemisphere Disorder	Posted article	Lecture/PPT
	Adult Disorders of Language Non-traumatic Brain Injury (NTBI) Dementias	Posted chapter	<b><u>Quiz #5</u></b> <b><u>5/9/18</u></b> Lecture /PPT
<i>Week of:</i> 5/13/19	Final Examination Cumulative for Segment 2	TBD	Per University schedule

## **Knowledge And Skills Acquisition (KASA) For Certification in Speech-Language Pathology**

### **CSAD 125: Developmental and Acquired Neurogenic Language Disorders Across the Lifespan**

**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: hearing disorders (including the impact on speech and language 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.
- 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, screening, and intervention regarding hearing, including the impact on speech and language.
  - 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).
- Standard IV-B: Basic Human Communication Processes**
- 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: developmental/lifespan bases of human communication.
  - The student will demonstrate the ability to analyze, synthesize and evaluate knowledge re: linguistic bases of human communication.

