



**Department of**  
**SPEECH, LANGUAGE, and HEARING SCIENCES**

**2016-2017**

**Department Overview**

Introduction to the “Cactus Book”



Department of Speech, Language, and Hearing Sciences  
The University of Arizona  
1131 E. 2<sup>nd</sup> Street  
P.O. Box 210071  
Tucson, Arizona 85721-0071

# The Department of Speech, Language, and Hearing Sciences



## Mission Statement

The mission of the Department is to contribute to the scientific study of human communication and its disorders, and to educate students regarding the relevant knowledge and skills necessary for clinical and research endeavors in the field.

## Academic Programs

The Department of Speech, Language, and Hearing Sciences offers coursework leading to B.S., M.S., Au.D., and Ph.D. degrees. The undergraduate degree provides a broad education providing an understanding of human communication and its disorders. This degree is also preparatory for clinical degrees in speech-language pathology or audiology, as well as for advanced degrees speech, language, and hearing sciences or related fields of study. The master's program in speech-language pathology and the clinical doctoral program in audiology are accredited by the Council on Academic Accreditation (CAA) in Audiology and Speech-Language Pathology of the American Speech-Language-Hearing Association (ASHA).

The Master of Science (M.S.) program is a two-year course of study that includes a variety of clinical training opportunities for students desiring a career in speech-language pathology. Those master's level students planning to pursue studies leading to a Ph.D. degree should also plan to complete a master's thesis. A nonclinical Master of Science degree is also available.

The Doctor of Audiology (Au.D.) program is a four-year course of study that is a professional degree with a clinical emphasis in audiology.

The Doctor of Philosophy (Ph.D.) program prepares students for academic and research careers through coursework and participation in research projects.

The information that follows is subject to change. The Departmental requirements and practices summarized herein supplement those described in the University of Arizona's General and Graduate Catalogs. In case of conflict, the appropriate Catalog prevails. Students are held to Departmental requirements in effect at the time they are admitted to the program unless they formally choose to meet new requirements.

## **Department of Speech, Language, and Hearing Sciences**

### **Training Mission Statement**

The training mission of the Department of Speech, Language, and Hearing Sciences at the University of Arizona is to provide academic and clinical training to students in audiology and speech-language pathology sufficient to achieve the following knowledge outcomes and skills:

- Ability to comprehend basic principles of biological and physical sciences, mathematics and the social and behavioral sciences.
- Ability to demonstrate speech and language skills necessary for effective communication with clients/patients and their relevant others, and for composing well-written and substantive diagnostic and treatment reports, treatment plans, professional correspondence, and scientific and technical reports,
- Ability to analyze, synthesize and evaluate biological, acoustic, psychological, developmental, linguistic and cultural correlates of basic human communication processes and disorders including: speech, receptive and expressive language in oral, written, and manual modalities, hearing, swallowing, and cognitive/social aspects of communication.
- Ability to analyze and evaluate information about prevention, assessment, and intervention over the range of communication disorders specified in the current ASHA Scope of Practice for audiology and speech-language pathology.
- Ability to analyze and synthesize relevant information regarding professional ethics and to interpret the principles of the ASHA Code of Ethics as they apply to the professional practice of audiology and speech-language pathology.
- Ability to comprehend the common principles of research and research design, both basic and applied, used in human communication sciences and disorders and to know sources of research information and how to access them.
- Have an understanding of issues currently having an impact on audiology or speech-language pathology as professions.

## RESEARCH AND CLINICAL FACULTY

Al-Jurf, Soha	M.S.	Clinical Instructor (SLP)
Alt, Mary	Ph.D.	Associate Professor (SLP)
Baraket, Fadyeh	Au.D.	Clinical Assistant Professor (AUD)
Beeson, Pélagie M.	Ph.D.	Professor and Department Head (SLP)
Bunton, Kate	Ph.D.	Associate Professor (SLP)
Casteix, Jennifer	M.S.	Clinical Assistant Professor (SLP)
Cone, Barbara	Ph.D.	Professor (AUD)
Cuzner, Lea	M.S.	Clinical Assistant Professor (SLP)
Dai, Huanping	Ph.D.	Associate Professor
Dean, James	Au.D.	Senior Lecturer (AUD)
Fabiano-Smith, Leah	Ph.D.	Assistant Professor (SLP)
Faux Muller, Cass	M.S.	Clinical Associate Professor (SLP)
Hansen, Erica	Au.D.	Clinical Assistant Professor (AUD)
Hawley, Janet L.	M.S.	Clinical Assistant Professor (SLP)
Hoit, Jeannette D.	Ph.D.	Professor (SLP)
Kielar, Aneta	Ph.D.	Assistant Professor
Kiernan, Barbara	Ph.D.	Director, Child Language Center
Marrone, Nicole	Ph.D.	Assistant Professor (AUD)
McGrath, Kathe	M.S.	Clinical Assistant Professor (SLP)
Miller, Julie	Ph.D.	Assistant Professor
Motoyoshi, Rui	M.A.	Bilingual Clinical Instructor (SLP)
Muller, Thomas	Au.D.	Clinical Associate Professor (AUD)
Musiek, Frank	Ph.D.	Professor
Norrix, Linda	Ph.D.	Clinical Assistant Professor (AUD)
Plante, Elena	Ph.D.	Professor (SLP)
Samlan, Robin	Ph.D.	Assistant Professor (SLP)
Story, Brad	Ph.D.	Professor, Associate Department Head
Velenovsky, David	Ph.D.	Senior Lecturer (AUD)
White, Meghan	Ph.D.	Assistant Professor (SLP)
Wong, Aileen	Au.D.	Clinical Instructor (AUD)
Wymer, Carole	M.S.	Clinical Assistant Professor (SLP)

## EMERITUS FACULTY

Bayles, Kathryn	Ph.D.	Professor Emerita
Boone, Daniel R.	Ph.D.	Professor Emeritus
Glattke, Theodore J.	Ph.D.	Professor Emeritus
Hodgson, William R.	Ph.D.	Professor Emeritus
Holland, Audrey L.	Ph.D.	Regents Professor Emerita
Shelton, Ralph L.	Ph.D.	Professor Emeritus

## SPEECH, LANGUAGE, AND HEARING RESEARCH FACULTY RESEARCH

The Speech, Language, and Hearing Sciences building houses research laboratories that complement our on-campus clinical facilities. Students have the opportunity to enroll in independent studies, participate in ongoing investigations, and to conduct directed research in the context of thesis and dissertation projects. A wide range of research interests are represented by the faculty as highlighted below.

Mary Alt	Receptive language development with a particular emphasis on the learning mechanisms that contribute to Specific Language Impairment.
Pélagie Beeson	Neurogenic communication disorders, with particular emphasis on the nature and treatment of aphasia, acquired alexia and agraphia.
Kate Bunton	Kinematic, aerodynamic, and acoustic characteristics of normal and disordered speech production, speech development, and correlates of speech intelligibility.
Barbara Cone	Human auditory system development and methods for assessing hearing in infants at risk for hearing loss or neurologic impairment.
Huanping Dai	Basic-science aspects of auditory perception, applied issues related to hearing, including the application of statistical and psychophysical principles and methods to the diagnoses of hearing disorders, and the signal processing for amplification.
James Dean	Audiologic assessment for individuals with developmental disabilities, predictive modeling of audiological treatment benefits and the application of outcome measures to validate treatment efficacy.
Leah Fabiano-Smith	Phonological development and disorders in bilingual Spanish-English speaking children and clinical issues related to culturally and linguistically diverse populations.
Jeannette Hoit	Normal and abnormal speech motor control, aging speech and hearing physiology, motor speech disorders, research ethics and practices.
Aneta Kielar	Integration of behavioral and neuroimaging measures of brain function with goal to understand changes in cognitive functioning associated with brain damage and recovery.
Barbara Kiernan	Atypical language-learning characteristics of children with specific language impairment.
Nicole Marrone	Hearing loss and treatment in adults; aging and cognitive factors in auditory perception; improving speech understanding in competing noise and reverberation
Julie Miller	Neurogenetic mechanisms underlying birdsong as a model for

	understanding speech function and dysfunction
Frank Musiek	(Central) auditory processing disorders, Auditory evoked potentials, Neuroanatomy & neurophysiology of the central auditory system, Neuroaudiology
Elena Plante:	Brain-language relations in developmental language disorders and language assessment and treatment.
Robin Samlan	Production, perception, and measurement of the human voice
Brad Story	Speech acoustics/analysis/signal processing, synthesis/simulation of speech and voice, relation between articulation and acoustics, speech-to-speech transformation, perception of natural and synthetic speech.
David Velenovsky	Tinnitus management, studying inner ear function in lizards as a way to better understand cochlear mechanics and auditory processing in individuals on the autism spectrum.
Meghan Darling-White	Develop and validate interventions that have an impact on functional speech production skills in individuals with motor speech disorders.

## **Research Professionals**

Chelsea Bayley, M.S., CCC-SLP	Aphasia Research Project (Beeson)
Cecelia Figueroa, M.S., CCC-SLP	L4 Lab (Alt)
Dianne Patterson, Ph.D.	Plante Lab & Aphasia Research Project (Beeson)
Kindle Rising, M.S., CCC-SLP	Aphasia Research Project (Beeson)
Rebecca Vance, M.S., CCC-SLP	Plante Lab

## COURSES IN SPEECH, LANGUAGE, AND HEARING SCIENCES

All courses, with the exceptions noted below, carry three (3) semester hours of credit. Prerequisites (P) are indicated below. Concurrent registration allowed is listed as CR. Courses needing instructor approval prior to enrolling are indicated as "Instructor approval." All courses are preceded by the department code SLHS.

Course #	Course Title	Semester offered (Fall, Spring, Summer)
207	Survey of Human Communications and Disorders	F, S
255	Hearing, Health and Society	F
261	Anatomy and Physiology of the Speech Mechanism (4, includes lab)	S
263	The World of Sound: Speech, Music, & MP3s	F, S
267	Acoustics for the Speech and Hearing Sciences (P Math 111 or Math 120R)	F, S
270	Scientific Thinking in Speech and Hearing Sciences	S
340	Language Science	F
362	Neurobiology of Communication	F
367	Speech Science	S
380	Hearing Science (4, includes lab) (P SLHS 267)	S, Su
391*	Preceptorship	F, S
392*	Directed Research (1-6)	F, S, Su
399*	Independent Study (1-3)	F, S, Su
399H*	Honors Independent Study (1-3)	F, S, Su
430/530	Cognitive Neuroscience of Language (P 340, 362)	S
435/535	Bilingualism, Multiculturalism, and Nonmainstream Dialects (P 340, 362, CR 441)	S
441/541	Language Acquisition (P340)	S
454/554	Audiologic Rehabilitation-Lifespan (P 483)	F
458/558	Clinical Studies: Speech-Language Pathology (1-3) (P 441, 471, & 3.2 GPA)	F, S, Su
459/559	Clinical Studies: Audiology (1-3) (P 441, 471, & 3.2 GPA)	F, S, Su
468	Speech Perception	S
471/571	Speech Sound Disorders (P 367 & 3.2 GPA)	F

473	Communication Disorders II	S
477	Communication Disorders I	F
483/583R	Principles of Audiology (P380)	F, Su
483/583L	Laboratory in Principles of Audiology (CR 483R)	F, Su
491*	Preceptorship (1-3)	F, S
491H*	Honors Preceptorship (1-3)	F, S
492*	Directed Research (1-6)	F, S, Su
495a	Colloquium (1)	F, S
496a/596a	Seminar: Advanced Clinical Observation, Analysis, & Writing (1) (P 477, 483R, CR 473)	S
497	Accent Modification (1)	Su
498	Senior Capstone (1-3)	F, S, Su
498H*	Honors Thesis	F, S, Su
499*	Independent Study (1-5)	F, S, Su
499H*	Honors Independent Study	F, S, Su
500	Introduction to Research Methods in Speech and Hearing Sciences	S
501	Professional Issues in Speech-Language Pathology and Audiology (1)	F
509	Pediatric Audiology Clinic Readiness	S
510	Counseling Techniques in Communication Disorders	S
511	Tool School (1)	F
512	Evaluation Process in Speech-Language Pathology	S
520	Cognitive Neuroscience of Hearing	F
543	Adult Language Disorders: TBI and Dementia	S
544	Adult Language Disorders: Aphasia & RHI	F
552	Language Disorders in School Age Children (P441)	S
555	Developmental Language Disorders: Preschool Level (P441)	F
557	Dysphagia	S
558	Clinical Studies: Speech-Language Pathology (1-3)	F, S, Su
559	Clinical Studies: Audiology (1-3)	F, S, Su
562A	Anatomy and Physiology of Auditory and Vestibular Systems	F
562B	Psychophysical Acoustics	F



565	Acoustics for the Speech and Hearing Sciences (P Math 111 or Math 120R)	F
566	Preclinical Speech Science (4)	F
568	Speech Perception (P 267 or 565, Ling 314 or equiv) (odd years)	S
572	Speech Disorders I (P 566 or 567)	F
574	Speech Disorders II (P 566 or 567)	S
575	Neuromotor Speech Disorders (P 566 or 567)	F
581A	Amplification I	S
581B	Amplification II	F
582A	Disorders of Hearing and Balance	S
584	Occupational and Community Audiology (even years)	S
586	Pediatric Audiology (4)	S
587	Laboratory in Auditory Prosthetics (1)	F, S
588A	Physiological Evaluation in Audiology	F
588B	Assessment and Rehabilitation of the Balance System	S
588C	Electrophysiology of Auditory Perception (odd years)	S
588L	Laboratory in Electrophysiology	F
588Q	Laboratory in Balance	S
589R	Advanced Audiologic Evaluation	F
595a	Colloquium (1)	F, S, Su
596	Seminar (1-3)	
	A Experimental Phonetics	Instructor approval
	B Clinical Audiology	Instructor approval
	G Cochlear Implants	F
	J Practice Management	S
	K Imaging Technologies	Instructor approval
	M Tinnitus	S
597	Workshop (1-3)	
	001 Accent Modification	Instructor approval
	A Supervision in Speech and Hearing	Instructor approval
	B Professional and Legal Issues in Audiology	Instructor approval
599*	Independent Study (1-3)	F, S, Su
649	Survival Skills and Ethics	S
658	Advanced Clinical Studies: Speech-Language (1-3)	F, S, Su
659	Advanced Clinical Studies: Audiology (1-3)	F, S, Su
691*	Preceptorship (1-3)	Instructor approval

696	Seminar (1-3)		
	A	Topics in Speech, Language, Hearing Science	F, S
	B	Clinical Audiology	F, S
699*	Independent Study (1-3)		Instructor approval
795a	Clinical Issues in Audiology	(1-3)	F, S
799*	Independent Study (1-3)		Instructor approval
900*	Research (1-3)		Instructor approval
908	Case Studies (1-3)		F, S
910*	Thesis (1-6)		Instructor approval
912*	Audiology Doctoral Project (1-9)		Instructor approval
920*	Dissertation (1-9)		Instructor approval
921	Audiology Externship (1-14)		Instructor approval

\* Section number should associate with the faculty mentor.

Students interested in enrolling for independent study should review information on faculty websites.

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