

DOCTOR OF AUDIOLOGY (Au.D.)

IN

SPEECH, LANGUAGE, AND HEARING SCIENCES

2008-2009

DEPARTMENT OF SPEECH, LANGUAGE, AND HEARING SCIENCES

UNIVERSITY OF ARIZONA

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DOCTOR OF AUDIOLOGY (Au.D.)

Introduction

The Department of Speech, Language, and Hearing Sciences offers coursework leading to B.S., M.S., Au.D. and Ph.D. degrees. The Au.D. is a first professional degree with a clinical emphasis in audiology and is accredited by the Council on Academic Accreditation (CAA) of the American Speech-Language-Hearing Association (ASHA). The Au.D. program of study is designed to satisfy the requirements of the Graduate College and to prepare students to meet the knowledge and skill areas required by the profession and its certifying organizations.

The information that follows is subject to change. The Departmental requirements and practices summarized herein supplement those described in the University'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.

Training Mission Statement Department of Speech, Language, and Hearing Sciences

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 interaction with clients/patients and their relevant others, for writing grammatical and substantive scientific and technical reports, diagnostic and treatment reports, treatment plans, and professional correspondence.
- 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, cognitive aspects of communication, and 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 a profession.

**FACULTY AND PROFESSIONAL STAFF
SPEECH, LANGUAGE, AND HEARING SCIENCES**

CURRENT FACULTY:

Alt, Mary	Ph.D. Assistant Professor (Speech-Language Pathology)
Barkmeier-Kraemer, Julie	Ph.D. Associate Professor (Speech-Language Pathology)
Bayles, Kathryn A.	Ph.D. Professor Emerita (Speech-Language Pathology)
Beeson, Pelagie M.	Ph.D. Associate Professor (Speech-Language Pathology)
Boone, Daniel R.	Ph.D. Professor Emeritus (Speech-Language Pathology)
Bunton, Kate	Ph.D. Assistant Research Scientist (Speech-Language Path)
Christensen, Thomas	Ph.D. Research Scientist
Cone-Wesson, Barbara	Ph.D. Professor (Audiology)
Crooks, Kimberly	B.S. Director, Autism Center
Cuzner, Lea	M.S. Clinical Assistant Professor (Speech-Language Pathology)
Dai, Haunping	Ph.D. Associate Professor (Audiology)
DeDe, Gayle	Ph.D. Assistant Professor (Speech-Language Pathology)
DeFeo, Anthony B.	Ph.D. Director, Speech-Language and Hearing Clinics
Faux Muller, Cass	M.S. Clinical Assistant Professor (Speech-Language Pathology)
Foreman, Kelli	M.S. Clinical Assistant Professor (Speech-Language Pathology)
Glattke, Theodore J.	Ph.D. Professor Emeritus (Audiology)
Harris, Frances P.	Ph.D. Retired Assistant Department Head (Audiology)
Hawley, Janet	M.S. Clinical Assistant Professor (Speech-Language Pathology)
Hesse, Kristi	Au.D. Clinical Assistant Professor (Audiology)
Hixon, Thomas J.	Ph.D. Director, Institute for Neurogenic Communication Disorders and Professor Emeritus (Speech-Language Path)
Hodgson, William R.	Ph.D. Professor Emeritus (Audiology)
Hoit, Jeannette D.	Ph.D. Professor (Speech-Language Pathology)
Holland, Audrey L.	Ph.D. Regents Professor Emerita (Speech-Language Pathology)
Kiernan, Barbara	Ph.D. Director, Child Language Center
Lee, Jungmee	Ph.D. Assistant Professor (Audiology)
Lotto, Andrew	Ph.D. Assistant Professor (Audiology)
Maas, Edwin	Ph.D. University Associate, Research
Matkin, Noel D.	Ph.D. Professor Emeritus (Audiology)
McDonald, Betty	M.A. Clinical Assistant Professor (Speech-Language Pathology)
Muller, Thomas	Au.D. Clinical Assistant Professor (Audiology)
Norrix, Linda	Ph.D. Clinical Assistant Professor (Audiology)
Plante, Elena	Ph.D. Department Head (Speech-Language Path)
Shelton, Ralph L.	Ph.D. Professor Emeritus (Speech-Language Pathology)
Story, Brad	Ph.D. Associate Professor (Speech Science)
Swisher, Linda	Ph.D. Associate Professor, Retired (Speech-Language Pathology)
Van Tasell, Dianne	Ph.D. Professor (Audiology)
Velenovsky, David	Ph.D. Senior Lecturer (Audiology)
Wymer, Carole	M.S. Clinical Assistant Professor (Speech-Language Pathology)

ADJUNCT FACULTY AND CLINICAL INSTRUCTORS:

Ascher, Sarah Super	M.S.	Audiologist, Carondelet St. Joseph's Hospital
Bailey, E. Fiona	Ph.D.	Adjunct Assistant Research Professor (Physiology)
Casteix, Jennifer	M.S.	University Associate, Tucson Medical Center
Cevette, Michael	Ph.D.	Adjunct Associate Professor (Audiology)
Childers, Robert L.	Ph.D.	Adjunct Associate Professor (Audiology)
Coppola, Lisa	M.S.	University Associate, St. Joseph's Hospital
Emami, Afshin J.	M.D.	Adjunct Assistant Professor
Fragomeni-Nuttall, Mary	M.S.	Director, Outpatient and Pediatric Therapies, Tucson Medical Center
Gapp, E. Elizabeth	M.S.	University Associate, Marana Public Schools
Gasch, Janis W.	M.S.	Audiology, Arizona Hearing Specialists
Gilabert, Nancy	M.S.	Speech-Language Pathologist, Roberts Elementary
Glose, Diana M.	M.S.	Audiologist, VA Medical Center
Hirsch, Fabiane	Ph.D.	University Associate (Speech-Language)
Hill, Emmeline K.	M.S.	Audiologist, Children's Clinics for Rehabilitative Services
Howard, Sherril	M.S.	University Associate, Instruction, Speech Center of Southern Arizona
Johnsen, Debora	M.S.	University Associate
Keller, Lyn M.	Au.D.	University Associate
McMullen, Nathaniel	Ph.D.	Associate Professor (Anatomy, Speech, Language and Hearing Sciences)
Primeau, Richard L.	M.A.	Audiologist, VA Medical Center
Rapcsak, Steven Z.	M.D.	Professor (Neurology, Psychology & Speech, Language and Hearing Sciences)
Robinette, Martin	Ph.D.	Adjunct Professor (Audiology)
Welker, Rebecca D.	M.S.	Speech-Language Pathologist
Wilson, Kent	Ph.D.	Adjunct Associate Professor (Speech-Language Path.)

RESEARCH FACILITIES

The Department of Speech, Language, and Hearing Sciences at the University of Arizona includes laboratories in the following areas: psychoacoustics, speech physiology, child language, and aphasia. These laboratories complement the Department's practicum facilities and are used for both faculty research and student research training.

The current research interests of the faculty include:

- Mary Alt: Receptive language development with a particular emphasis on the learning mechanisms that contribute to Specific Language Impairment.
- Julie Barkmeier-Kraemer: Normal anatomy and physiology of the larynx for voice production and swallowing, neuroanatomy and neurophysiology of the larynx, voice disorders, and dysphagia.
- Pelagie Beeson: Neurogenic communication disorders, with particular emphasis on the nature and treatment of aphasia, acquired alexia and agraphia.
- Kate Bunton: Motor speech disorders, aging speech physiology, speech intelligibility testing and measurement, and normal speech development.
- Thomas Christensen: Neuroanatomy and functional organization of brain networks involved in language processing with emphasis on the intersecting roles of attention and memory in attentive listening, using functional magnetic resonance imaging and related techniques.
- Barbara Cone-Wesson: Human auditory system development and methods for assessing hearing in infants at risk for hearing loss or neurologic impairment.
- Gayle DeDe: Neurogenic communication disorders and cognitive aging; real-time processes underlying sentence comprehension, the role of general cognitive abilities (e.g., working memory) on sentence comprehension, sentence comprehension impairments in aphasia.
- Anthony DeFeo: Language disorders of school-age children, clinical assessment and treatment strategies for speech-language disorders, disordered articulation in children, and case studies.
- Thomas Hixon: Speech breathing, normal and abnormal speech motor control, motor speech disorders.
- Jeannette Hoit: Normal and abnormal speech motor control, aging speech and hearing physiology, motor speech disorders, research ethics and practices.

Barbara Kiernan:	The atypical language-learning characteristics of children with specific language impairment.
Jungmee Lee:	Understanding mechanism of human auditory system to process spectral and temporal information of sounds through behavioral measurements, psychoacoustics for normal-hearing and hearing impaired population
Andrew Lotto:	Auditory cognitive science; the roles of auditory encoding and perceptual learning in the perception of complex sounds, such as speech
Edwin Maas:	Speech production, particularly phonological planning and motor planning for speech, disorders of spoken language production in adults and children, effects of conditions of practice and feedback in treatment of motor speech disorders
Elena Plante:	Brain-language relations in developmental language disorders and language assessment.
Brad Story:	Speech acoustics/analysis/signal processing, synthesis/simulation of speech and voice, relation between articulation and acoustics, volumetric imaging of vocal, nasal, and subglottal systems, speech-to-speech transformation, perception of natural and synthetic speech.

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 in parentheses and CR indicates Concurrent Registration.

<u>Catalog Number</u>	<u>Course Title</u>	<u>Semester</u> <u>Fall(I), Spring (II)</u>
207	Survey of Human Communication and Its Disorders	I, II
261	Anatomy and Physiology of the Speech Mechanism (4, includes lab) (P two Tier One NATS courses)	II
262	Neurobiology of Communication (P two Tier One NATS courses)	I
267	Acoustics for the Speech and Hearing Sciences (P Math 110)	I
270	Scientific Thinking in Speech and Hearing Sciences	I
282	Biology of Sensation (P two Tier One NATS courses)	I
310	Family Health and Deafness (P two Tier One INDV)	I, II
340	Language Science	I
341	Language Development (P INDV 101)	I
367	Phonetics	I
380	Hearing Science (4, includes lab) (P 267)	II
392	Directed Research (1-6)	I, II, 1 st & 2 nd Summer
399	Independent Study (1-3)	I, II
399H	Honors Independent Study (1-3)	I, II
420/520	Cognitive Neuroscience of Hearing (P 270)	I
441/541	Language Acquisition (P 340)	II
454/554	Audiologic Rehabilitation-Lifespan (P 483R)	II
458/558	Clinical Studies: Speech-Language Pathology (1-3) (P 441 or CR)	I, II, 1 st & 2 nd Summer
459/559	Clinical Studies: Audiology (1-3) (P 483R or CR)	I, II, 1 st & 2 nd Summer
460R/560R	Speech and Hearing Science Instrumentation (2) (P 380 or CR)	I
460L/560L	Speech and Hearing Science Instrumentation Laboratory (1)	I
464	Cultural Diversity: SLP and Audiology Relevance	I
468/568	Speech Perception (P 267, LING 314 or equivalent)	II
470/570	Introduction to Stuttering (P senior status only)	I
471/571	Articulation Disorders and Therapies (P 340, 367, 473)	I
473	Pediatric Communication Disorders (P 261 or CR)	II
477/577	Adult Communication Disorders (P 261)	I
478/578	Speech Technology (P 267 or LING 314)	II

<u>Catalog Number</u>	<u>Course Title</u>	<u>Semester</u> <u>Fall(I), Spring (II)</u>
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483/583R	Principles of Audiology (P 380)	II & Sum.
483/583L	Laboratory in Principles of Audiology	II
486/586	Pediatric Audiology (P 380, 483R)	II
492	Directed Research (1-6)	I, II
496A	Seminar: Clinical Observations and Analysis (1) (P 477, 473, 483R)	I, II
498	Senior Capstone (1-3)	I, II
498H	Honors Thesis	I, II
499	Independent Study (1-5)	I, II, 1 st & 2 nd Summer
499H	Honors Independent Study	I, II
500	Introduction to Research Methods in Speech and Hearing Sciences	II
501	Professional Issues in Speech-Language Pathology and Audiology (1)	I
502	Principles of Neuroanatomy (4)	II
510	Counseling Techniques in Communication Disorders	II
512	Evaluation Process in Speech-Language Pathology	I
544	Adult Language Disorders: Aphasia & Right Hemisphere Syndrome	I
545B	Adult Language Disorders: Dementia and TBI (2)	II
552	Language Disorders in School Age Children (P 441 or 541)	II
555	Developmental Language Disorders: Preschool- Level (P 441 or 541))	I
557	Dysphagia	II
558	Clinical Studies: Speech-Language Pathology (1-3)	I, II, 1 st & 2 nd Summer
559	Clinical Studies: Audiology (1-3) (P 589R/L or CR)	I, II, 1 st & 2 nd Summer
562A	Anatomy and Physiology of Auditory & Vestibular Systems	I
562B	Psychophysical Acoustics	II
562L	Laboratory in Psychoacoustics	I, II
564	Cultural Diversity: SLP and Audiology Relevance	II
565	Acoustics for the Speech and Hearing Sciences (P Math 110)	I
567	Preclinical Speech Science	I
572	Voice Disorders (P 567)	I
574	Cleft Palate, Other Craniofacial Disorders, and Communication (P 471 or 571)	I

<u>Catalog Number</u>	<u>Course Title</u>	<u>Semester</u> <u>Fall(I), Spring (II)</u>
575	Neuromotor Speech Disorders (P 567)	II

576	Communicative Aspects of Aging (1)	II
580	Occupational and Community Audiology (2)	II
581A	Amplification I	II
581B	Amplification II	I
582A	Disorders of Hearing and Balance (4) (P 380, 483R)	II
585	Audiologic Habilitation: Children (P 483 or 583R)	I
587	Lab in Hearing Aids and Audiologic Rehabilitation (1)	I, II
588A	Physiological Evaluation of the Auditory System	I
588B	Assessment and Rehabilitation of the Balance System	II
588C	Electrophysiology of Auditory Perception and Cognition (2)	II
588L	Laboratory in Electrophysiology	I, II
589R	Advanced Audiologic Evaluation (P 380, 483 or 583R)	I
589L	Laboratory in Advanced Audiologic Evaluation (1)	I
595A	Colloquium	I, II
596	Seminar (1-3)	
A	Experimental Phonetics	I, II
B	Clinical Audiology	I, II
C	Hearing: Physiology and Psychophysics	I, II
D	Language and Language Disorders	I, II
E	Speech Pathology	I, II
G	Cochlear Implants	II
I	Research Forum in Audiology	I, II
J	Business Aspects of Audiology	Pre-session
K	Imaging Technologies	II
L	Aging and the Auditory System	II
M	Tinnitus	1 st Summer
N	Educational Aud & Speech-Lang Path	1 st Summer
597	Workshop (1-3)	
A	Supervision in Speech and Hearing	1 st Summer
B	Professional & Legal Issues in Audiology	II
C	Cerumen Management	1 st Summer
H	Human Neuroanatomy (P PSYC 502)	I, II
599	Independent Study (1-5)	I, II
649	Survival Skills and Ethics	II
658	Advanced Clinical Studies: Speech-Language Pathology (1-3)	I, II 1 st & 2 nd Summer
659	Advanced Clinical Studies: Audiology (1-3)	I, II, 1 st & 2 nd Summer

<u>Catalog Number</u>	<u>Course Title</u>	<u>Semester</u> <u>Fall(I), Spring (II)</u>
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691	Preceptorship (1-3)	I, II
695A	Colloquium - Motor Control (2)	II

696	Seminar (1-3)	
	A	Topics in Speech, Language & Hearing Sc. I, II
	B	Clinical Audiology I, II
699	Independent Study (1-3)	I, II, 1 st & 2 nd Summer
759	Externship in Audiology (1-14)	I, II, 1 st & 2 nd Summer
793A	Internship in Audiology (1-14)	I, II, 1 st & 2 nd Summer
795A	Clinical Grand Rounds in Audiology (1)	I, II
799	Independent Study (1-3)	I, II, 1 st & 2 nd Summer
900	Research (1-3)	I, II, 1 st & 2 nd Summer
908	Case Studies (1-3)	I, II
910	Thesis (1-6) (maximum total: 6 units)	I, II, 1 st & 2 nd Summer
920	Dissertation (1-9)	I, II, 1 st & 2 nd Summer
930	Supplementary Registration (1-9)	I, II, 1 st & 2 nd Summer

DOCTOR OF AUDIOLOGY (Au.D.) INFORMATION

The faculty members of the Department of Speech, Language, and Hearing Sciences are committed to providing graduate education, both academic and clinical, of the highest quality. They are also committed to increasing the number of well-qualified audiologists whose backgrounds are

underrepresented and whose career interests include serving individuals in underserved populations of the state and nation.

Applicants for admission to the Au.D. program must possess the capability to complete, with or without reasonable accommodations, the entire clinical curriculum. This curriculum requires certain demonstrated proficiencies that are separate from academic requirements. To achieve these proficiencies, the Clinical Graduate Program requires that each student be able to meet certain technical standards. These technical standards can be found in Appendix A, and each student is asked, upon admission, to verify that s/he can meet the standards.

Au.D. and Ph.D.

Persons who wish to pursue both Au.D. and Ph.D. degrees should enroll in the Au.D. degree before they are formally admitted to the Ph.D. program. Application and admission to the Ph.D. program would take place after the majority of requirements for the Au.D. are fulfilled. The Ph.D. program will focus on

- (a) knowledge of and competency in the use of research tools;
- (b) understanding the kernel elements of the discipline of human communication sciences and disorders; and
- (c) research experiences leading to increasing independence and the pursuit of a dissertation in the student's major area of study.

The Ph.D. program requires a minimum of approximately 36 credit hours beyond the Au.D. and will emphasize mentored research experiences, coursework, and the undertaking of original research for the dissertation. The plan of study and research experiences will be developed on an individual basis for each student and approved by the student's major advisor and program committee. There are graduate credits earned during the Au.D. that may be applied toward the Ph.D. with the approval of the student's program committee. The student who plans to obtain both degrees should seek advice from their Au.D. committee about the choice of Au.D. research project that will contribute to his or her Ph.D. training. Similarly, the statistics, neuroscience and genetics or pharmacology requirements for the Au.D. will also be integral to the development of the Ph.D. plan of study. Research rotations and examinations will follow the sequence prescribed for the Ph.D. degree elsewhere in this document and in the regulations of the Graduate College.

Doctor of Audiology Program of Study

The Au.D. requires a minimum of 80 credit hours of course work in hearing science, audiology and communication disorders and supplementary areas. 77 of these credit hours must be at the graduate level. This total includes a mandatory research project (3 to 9 hours), 6 credit hours in Neurosciences

and Genetics or Pharmacology and 3 credit hours in statistics. In addition, supplementary coursework in communication sciences and disorders may be needed to fulfill the knowledge and skill requirements for professional certification. At least 16 credit hours of practicum (including a minimum of 4 credit hours for a clinical externship) will be taken to obtain the requisite clinical experience for certification. See Appendix C for the Department Program of Study. Practicum will be available through University of Arizona sites, and externships will be offered at cooperating sites. Students entering the Au.D. program who have already obtained certification (Certificate of Clinical Competence in Audiology, CCC-A) will be required to pass the examinations required for the Au.D.

Graduate credit earned at other approved institutions, if accepted by the major department and the Graduate College, may be counted toward the requirements of this degree. All required units of credit must be at the 500-level or above at The University of Arizona (or, in the case of transfer units, their equivalent at other institutions). Six units of 400-level credit taken at The University of Arizona may be used, depending on the course requirement it might fill, but will not receive graduate credit or be calculated in the graduate grade-point average. At least 23 units must be in courses in which regular grades (A, B, C) have been earned. Credit for correspondence courses or extension work obtained at other institutions will not be accepted for graduate credit.

Coursework In The Major Department.

The coursework and practicum requirements needed to complete the Au.D. are listed below in the recommended sequence. Minor variations in the course requirements and sequence may occur. Students should check with their advisor concerning departures from this sequence (* Courses that are “take or show”)

Fall Year I (Semester 1)	UNITS
SPH 565 Acoustics for Speech & Hearing Sc*	3
SPH 562a Anatomy and Physiology of Auditory and Vestibular System	3
SPH 554 Audiologic Rehabilitation-Lifespan	3
SPH 589R Advanced Audiologic Evaluation	3
SPH 560R Instrumentation	2
SPH 559 Clinical Studies in Audiology	1
SPH 795a Clinical Issues in Audiology (Topic: Introduction to Clinic)	1

Spring Year I (Semester 2)	UNITS
SPH 582a Disorders of Hear and Bal.	4
SPH 581a Auditory Prosthetics I	3
SPH 587 Laboratory in Auditory Prosthetics	1
SPH 586 Pediatric Audiology	3
SPH 562b Psychophysical Acoustics	3
SPH 562L Laboratory in Psy. Acoustics	1
SPH 559/659 Audiology Practicum	2

Year 1 Summer (Semester 3)	UNITS
Statistics* or other course	3
SPH 559 Clinical Studies: Audiology	1

(Continued next page)

Fall Year 2 (semester 4)	UNITS
SPH 581b Auditory Prosthetics II	3
SPH 587 Laboratory in Auditory Prosthetics	1
SPH 588a Physiological Evaluation of the Auditory System	3
SPH 588L Laboratory in Electrophysiology	1
SPH 520 Cognitive Neuroscience of Hearing OR other required course	3
SPH 559/659 Clinical Studies: Audiology	2
SPH 795a Clinical Issues in Audiology (Topic: Auditory Prosthetics)	1

Spring Year 2	UNITS
SPH 588b Assessment and Rehabilitation of the Balance System	3
SPH 500 Introduction to Research Methods	*3
Other required course	3
SPH 588c Electrophysiology of Auditory Perception & Cognition OR other required course	2
SPH 588L Laboratory in Electrophys (sec 2) OR other required course	1
SPH 559/659 Clinical Studies: Audiology	2
SPH 795a Clinical Issues in Audiology (Topic: Educational Audiology and APD)	1

Summer Year 2 (Semester 6)	UNITS
SPH 596j Business Aspects of Audiology	2
SPH 559/659 Clinical Studies: Audiology	1

Fall Year 3 (Semester 7)	UNITS
SPH 910 Thesis	3
SPH 512 Evaluation Processes in Speech Language Pathology	3
SPH 501 Professional Issues	1
SPH 596i Research Forum in Audiology	1
SPH 520 Cognitive Neuroscience of Hearing OR other required course	3
SPH 559/659 Clinical Studies: Audiology	2
SPH 795a Clinical Issues in Audiology (Grand Rounds)	1

Spring Year 3 (Semester 8)	UNITS
SPH 910 Thesis	3
SPH 588c Electrophysiology of Auditory Perception & Cognition OR other required course	2
SPH 588L Laboratory in Electrophys (sec 2) OR other required course	1
SPH 580 Occupational & Community Aud	1
SPH 596f Counseling for Speech & Hearing	2
SPH 559/659 Clinical Studies: Audiology	2
Course in Neuroscience	4

Fall Year 4 (Semester 10)	UNITS
SPH 910 Thesis	as needed
SPH 759 Audiology Externship	2

Spring Year 4 (Semester 11)	UNITS
SPH 759 Audiology Externship	2

The following courses are also required, but may have been taken at the undergraduate level

1. Course in speech/language development,
2. Course in speech perception,
3. Course in either adult or pediatric communication disorders, and

Practicum Requirements

Students completing the Au.D. degree must have coursework and practicum experience meeting the certification requirements of the American Speech-Language-Hearing Association (see Appendix B for Practicum Sites and Appendix D for ASHA standards). In a typical 4-year program of study, students will accumulate approximately 2000 hours of clinical practicum experience in a variety of settings. To comply with current state licensure laws, students will be required to complete 20 hours of clinical practicum in speech-language pathology.

In clinic orientation, students will be introduced to the Grading Overview (G.O.-A), the Formative Assessment of Student Training (F.A.S.T.-A), and the Portfolio Assessment of Clinical Education (P.A.C.E.-A) forms. These forms are the systems used to evaluate performance in the clinical program. The F.A.S.T.-A ratings will be entered electronically by your instructor and a summary of the ratings will be entered in the ROKSA-A. The G.O.-A is discussed at the time of grading and kept on file in the clinic office. A copy of the P.A.C.E.-A will be placed on record each semester.

Students receiving a C or lower in core clinical courses will be required to retake the course. They will not be eligible for clinic placement until the semester that they are retaking the course. The core clinical courses, for the purpose of this policy, are:

SPH 589 R & L	Advanced audiologic evaluation (and lab)
SPH 581A & 587	Auditory prosthetics I (and lab)
SPH 581B & 587	Auditory prosthetics II (and lab)
SPH 554	Auditory rehabilitation – lifespan
SPH 586	Pediatric audiology
SPH 588 A & L	Electrophysiology assessment of the auditory system
SPH 588 B & L	Assessment and rehabilitation of the balance system

Record of Knowledge and Skills Acquisition - Audiology (ROKSA-A)

All students who are applying for certification under 2007 standards must use the ROKSA-A (see Appendix E) to track their acquisition of the knowledge and skills required for ASHA certification. At the conclusion of the graduate program, the program director will review the ROKSA-A and complete the Verification by Program Director page.

Clinical Externship

A clinical externship will be completed in the 4th year of the Program of Study, and students must maintain enrollment during that period. Enrollment for 2-3 units of SPH 759, Clinical Studies: Externship during any semester of the externship will satisfy the requirement. SPH Faculty will continue to maintain contact with students and with their professional preceptors during the externship year. Performance during the Clinical Externship will be rated by the student's preceptor in conjunction with the campus facilitator. Students who wish to apply for a competitive externship

placement are advised to begin exploring these options during the fall semester preceding the final year. Many placement sites begin interviewing candidates in January.

Speech/Language Requirements for the Au.D. Student

A core curriculum has been identified to provide clinical audiology students with sufficient breadth and understanding of speech and language disorders across the life span and to provide the skills necessary to fulfill the standards for certification by the American Speech-Language-Hearing Association. These required courses are:

4. Course in speech/language development,
5. Course in speech perception,
6. Course in either adult or pediatric communication disorders, and
7. SPH 512 Evaluation Process in Speech/Language Pathology

The first three courses could be taken at the undergraduate level; the third must be taken at the graduate level.

Research Project

An advanced research project is required with enrollment in at least 3 units of SPH 910 - Thesis and optional enrollment in SPH 596I - Research Forum. Prior to the beginning of the 3rd year of study, students should select a Project Advisor and a Project Committee composed of a total of three members, including the advisor.

Research is the bedrock of clinical audiology. Research experience provides the critical thinking and analysis skills that will enhance your clinical decision making for each and every patient you serve. Your decision to earn your Au.D. at the University of Arizona means that you are eager to contribute to the development of the field by your own contribution to research.

As you advance through your coursework, clinical and seminars, you will find that they are infused with and informed by research. The imperative for evidence-based clinical practice requires that we continuously evaluate our diagnostic and treatment methods for evidence of their effectiveness. Your research project will address a question or problem posed by the study of hearing, language and speech mechanisms and/or a clinical practice issue. Research projects undertaken for the Au.D. are far-ranging and have included the study of auditory manifestations of Huntington's Disease, the acoustics of dining halls in assisted-living facilities, basic mechanisms underlying generation of transient-evoked otoacoustic emissions and auditory evoked potentials, electrophysiology of speech perception in cochlear implant users, the effectiveness and performance of feed-back suppression in hearing aids, and the electroacoustic performance of open-fit hearing aids and the critical assessment of hearing aid dispensing from the local hearing aid bank.

Your research project will be mentored by your project advisor and committee. Your project advisor will provide you with guidance in developing the question and the methods to answer the question. While we encourage your originality and creativity, as this is likely your first research experience, guidance and supervision of each step in the research process will be needed. Your project advisor and committee are eager to provide you with that. Your project advisor will likely have a well-defined project in mind that may be a piece of the larger on-going research effort of her/his lab. It

is never too early to start discussing research opportunities with your instructors.

Committees and Examinations

Committees:

Major Advisor and Program Committee: Each student will select a Major Advisor and at least two additional faculty, including one from Speech-Language Pathology, to form the Program Committee. This should take place during the first year of study. This committee will be responsible for approving the program of study and reviewing progress.

Research Project Committee: After selecting a topic for the 3rd-year research project and an advisor to mentor the project, each student will select two faculty to serve on the Research Project Committee. It is recommended that one member of the committee be from Speech-Language Pathology. This committee replaces the student's program committee. The research committee faculty members will be responsible for guiding the student through the research and the written product that will serve as the outcome. The academic faculty on this committee will also participate in the student's 3rd-year and final examinations. The student will present the work in a public forum, which is typically the Department of Speech, Language and Hearing Sciences' Colloquium series. Oral defense of the thesis is required.

Examinations:

Qualifying Examination: An examination covering the knowledge and skill areas acquired during the first year of graduate study will be given at the end of the second semester of study. The examination will have both written and practicum components. The practicum component will be satisfied by achieving a performance level of 80% or better on the Laboratory Final Examinations for SPH 589L and SPH 581A.

National Certification Examination: This examination is required by the American Speech-Language-Hearing Association, and students will take it at the end of the second year of study. The student must obtain a passing score on the National Certification Examination no later than the end of the 5th regular semester in residence.

3rd-year Comprehensive Examination: An examination covering the knowledge and skill areas acquired during the first three years of graduate study will be given during the third year. The examination will have practical, written, and oral components as described below. Grading of each component will be done with a three-category system: Honors Pass, Pass, & Fail. Students must achieve at least "Pass" on all elements of each component, and must pass all elements of the practical and written examinations prior to their oral examination. Students will be given an opportunity to do remedial work and be reexamined by the questioner regarding each failed element. If a student fails on reexamination, then the examiner will report this in writing to the student's program committee.

1. Practical & Written examinations

- a. The Practical examination will occur during the fall semester. Clinical faculty will provide students with guidelines for this examination and will administer and grade it.

- b. The written component will be administered early in the spring semester. This component will consist primarily of case analyses and will be given over two days. Administrative details concerning the examination will be provided during the fall semester.
- c. If students fail any element of the practical or written component, then they will be provided with feedback on their performance and a remedial exercise and/or reexamination will be devised by the examiner (practical component) or question author (written component). The content of the exercise/reexamination will focus on the areas of demonstrated weakness, although the examiner/author is not limited to the original question or activity.
- d. Based on the remedial effort, the examiner/author will present a new grade of Honors Pass, Pass or Fail. If the student does not pass at this second opportunity, then the oral examination will be postponed, and a report will be made to the Program Committee.

2. Oral Examination

- a. All faculty are welcome to attend any oral examination and to ask questions, however only the members of the student's Examination Committee will be allowed to vote.
- b. The outcome of the oral examination will be Honors Pass, Pass or Fail.
- c. The results will be reported to the student's Program Committee and the cumulative results of the examination will be reported to the Graduate College.

4th Year Examination: Upon completion of all requirements for the Au.D. degree, the students will have a final examination. A primary component of this examination will be an oral defense of their research if this has not been completed. Additionally, students will be asked questions about any aspect of the discipline. This examination will be conducted in accordance with the regulations of the Graduate College.

Students are expected to meet all Graduate College deadlines and requirements for the Au.D. degree. Requirements and deadlines can be found and forms downloaded from the following website: <http://grad.admin.arizona.edu/>.

Annual Evaluation

The faculty meets each semester to review graduate students' overall progress in the program. Discussion focuses on cumulative academic record, performance in clinical practicum, contributions as a teaching assistant, and research/thesis efforts. This review provides an opportunity for individual faculty to share impressions of students' strengths and special talents, as well as areas that may need improvement. In addition, the faculty can be made aware of extenuating circumstances that may bear upon a student's performance during a given semester.

HIPAA Client/Patient Confidentiality Clinical Policy

HIPAA stands for The Health Insurance Portability and Accountability Act (HIPAA) is a federal law regarding confidentiality of client/patient information. Students will receive information about departmental policies for protecting the confidentiality of client/patient information on Orientation Day. All students must receive HIPAA training to participate in any clinical endeavor. Please see Appendix F for a copy of the departmental policy and the actions that will be taken should a policy violation occur.

Student Grievance Procedure

The Graduate College policy on grievance procedures can be found at the following website:
<http://grad.arizona.edu/catalog/policies/grievance.php>.

Students may also contact the Council on Academic Accreditation of the American Speech-Language-Hearing Association at 10801 Rockville Pike, Rockville, MD 20852.

Student checklist for completion of requirements for AuD

- _____ Complete coursework (minimum of 61 units)
- _____ Complete Research Project requirement (3-9 units)
- _____ Complete Practicum requirement (minimum of 16 units)
- _____ Pass Qualifying Examination
- _____ Pass National Certification Examination
- _____ Pass 3rd-year Examination
- _____ Complete Externship
- _____ Pass Final Examination/Oral Defense of Research (given during year 4)

Timeline for Completion of Doctor of Audiology (Au.D.)

Year 1

- Complete HIPAA training (semester I)
- Select Major Advisor and Program Committee (semester I)
- Complete Program of Study forms for department and Graduate College (semester II)
- Pass Qualifying examination (SS I)
- Complete required coursework (semester I, II)
- Maintain satisfactory academic performance (semester I, II)
- Establish (semester I) and maintain ROKSA-A (semester II)

Year 2

- Complete required coursework (semester III, IV)
- Maintain satisfactory academic performance (semester III, IV)
- Maintain satisfactory clinical performance (semester III, IV)
- Pass National Certification Examination (end of semester IV)**
- Maintain ROKSA-A (semester III, IV)

Year 3

- Select topic for research project and Research Project Committee (semester V)
- Present research in SPH colloquium (semester V or VI)

Complete required coursework (semester V, VI)
Maintain satisfactory academic performance (semester V, VI)
Maintain satisfactory clinical performance (semester V, VI)
Arrange interviews for Clinical Externship placement (semester V)
Pass Third-Year Examination (semester V, VI)
Maintain ROKSA-A (semester V, VI)

Year 4

Externship (summer session II, semester VII, VIII)
Maintain satisfactory clinical performance (semester VII, VIII)
Final examination/Oral Defense of Research (semester VIII)
Maintain ROKSA-A (semester VII, VIII)

** Passing Score must be obtained by end of semester V