
Speech, Language, and Hearing Sciences

In the College of Health and Human Services

OFFICE: Speech, Language, and Hearing 221
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Accredited in speech-language pathology and audiology by the Council on Academic Accreditation in Audiology and Speech-Language Pathology and in the education of the deaf by the Council on Education of the Deaf.

Faculty

Emeritus: Allen, Cheng, Christensen, Davies, Nichols, Riedman, Seitz, Thal, Thile, Williams

Director: Wulfeck

Professors: Barlow, Emmorey, Gutierrez-Ciellen, Kramer, Newhoff, Shapiro, Wulfeck

Associate Professors: Dreisbach Hawe, Evans, Love-Geffen, Mackersie

Assistant Professors: Blumenfeld, Nip, Pruitt, Torre, III

Lecturers: Branch, Dorricott, Fager, Fischer, Forestal, Francini, Georgeson, Guthrie, Hughes, Korpics, Kotas, Lopes, Millsap, Ramsay, Scheer-Cohen, Schmitz, Sottak, Struxness, Turner, Vincent, Vintinner

Adjunct: Singh

Offered by the School

Doctor of Philosophy degree in language and communicative disorders.

Doctor of Audiology.

Master of Arts degree in speech, language, and hearing sciences.

Major in speech, language, and hearing sciences with the B.A. degree in liberal arts and sciences.

Certificate in bilingual speech-language pathology (refer to the *Graduate Bulletin*).

Clinical-rehabilitative services credential.

The Major

The School of Speech, Language, and Hearing Sciences is committed to preparing speech-language-hearing professionals to meet the challenges of a racially, ethnically, and linguistically diverse society. There are limited employment opportunities for holders of the bachelor's degree; the bachelor's degree in speech, language, and hearing sciences serves as the basis for graduate and professional study in speech, language, and hearing sciences. A master's or professional doctoral degree, national certification and/or state licensure or school credential are needed for professional practice in areas such as speech-language pathology, audiology, education of the deaf and hard-of-hearing, teaching American Sign Language (ASL) as a second language, ASL linguistics, and ASL interpreting. A research doctorate (Ph.D.) is required for individuals wishing a research and teaching career at the university level.

Speech-language pathology, audiology, and education of the deaf and hard-of-hearing are professions which identify, help, and study persons with communicative disorders. Those entering these professions should possess a strong motivation to help individuals with genetically, physically, or psychologically caused communication problems. Preparation involves acquiring the knowledge and skills necessary to assume responsibility for assessment, education and rehabilitation of persons with speech, language, and hearing disorders.

The master's degree is an advanced degree for those wanting to work professionally as a speech-language pathologist or educator of the deaf. A professional doctorate is required for those wanting to work

professionally as an audiologist. Positions in speech, language, and hearing sciences are available in many public and private settings working with persons with speech, language, hearing, and deaf-blind disorders. Graduates with certification or licensure work in rehabilitation centers, schools, hospitals, private agencies, private practice, industry, research, and university teaching and research centers. Career opportunities are particularly good for minority, bilingual or bicultural persons.

The undergraduate curriculum is broad, involving coursework on normal and disordered speech, language, and hearing, as well as clinical procedures. All speech, language, and hearing sciences majors cover a set of general studies in early coursework (23-35 units) before specialization (36-41 upper division units). Students interested in the speech, language, and hearing sciences program are advised to take college level courses in anatomy, biology, psychology, English, physiology, linguistics, physics, and mathematics. Studies leading to private practice, hospital work, industrial work, work in school settings, or preparation for graduate work are similar in many ways; it is the area of specialization that serves to differentiate courses of study.

Speech, Language, and Hearing Sciences Major Honors

The School of Speech, Language, and Hearing Sciences formally recognizes exceptional undergraduate students in the program and encourages them to engage in research in the field. Students with a GPA of 3.5 or higher will be eligible to apply for admission to the school's honors program during the fall semester of their junior year.

Application. Interested students must complete an application that will be reviewed by the school's honors adviser who will make a recommendation to the admittance for each applicant. Once admitted to the program, honors students will begin their official program during the spring semester of their junior year. The program will take 1-1/2 years to complete. Each student will be required to maintain a GPA of 3.5 or higher and show evidence of progress through the honors program.

Faculty Mentor. Each student will select a research mentor (faculty sponsor) by the end of the junior year. The mentor will help the student select a program of study for the senior year. This will lead to a formal research prospectus for the honors project which will be due to the mentor and the honors adviser by October 1 of the student's senior year.

Honors Project. The student will conduct a research project and write up a formal honors report to be submitted to the research mentor and honors adviser at the end of the spring semester of the senior year. Each student will present the honors research at a school symposium at that time. The honors research must comply with all Human Subjects IRB regulations.

Requirements. Speech, Language, and Hearing Sciences 491 during the spring semester of the student's junior year and Speech, Language, and Hearing Sciences 492A and 492B during the fall and spring semesters of the senior year, respectively. No more than three units of honors courses may apply towards the required 29 units for the speech, language, and hearing sciences undergraduate major.

Major Academic Plans (MAPs)

Visit <http://www.sdsu.edu/mymap> for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

SLHS

Speech, Language, and Hearing Sciences Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 12201)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 68 units in speech, language, and hearing sciences courses can apply to the degree.

A minor is not required with the major.

Preparation for the Major. Speech, Language, and Hearing Sciences 101, 106, 150; Biology 100; Psychology 101 and 260; Psychology 270 and 271 taken concurrently (Sociology 201, Statistics 119 or 250 can be substituted for the Psychology 270 and 271 combination). Students in American Sign Language and deaf studies are required to take Speech, Language, and Hearing Sciences 102, 201, 202. (23-35 units)

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to the section of this catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above or completing one of the approved upper division writing courses (W) with a grade of C (2.0) or better. See "Graduation Requirements" section for a complete listing of requirements.

Major. Students elect to follow one of three tracks for the major: (a) *Audiology*, (b) *American Sign Language and Deaf Studies*, or (c) *Speech-Language Pathology*. Within these three tracks, requirements for the speech, language, and hearing sciences major are as follows:

(a) *Audiology.* Speech, Language, and Hearing Sciences 300, 305, 320, 321, 340, 340L, 511, 512, 513, 580, and six units selected from Speech, Language, and Hearing Sciences 350, 491 or 492A, 499, 514, 595; Biology 336; Counseling and School Psychology 400. (36 units)

(b) *American Sign Language and Deaf Studies.* Speech, Language, and Hearing Sciences 300, 305, 320, 321, 340, 340L, 350, 357, 513, 550, 558; and nine units selected from Speech, Language, and Hearing Sciences 511, Linguistics 454, 520, 551, 553; Psychology 340, 344, 442; Special Education 500, 501, 502. (40 units)

(c) *Speech-Language Pathology.* Speech, Language, and Hearing Sciences 300, 305, 320, 321, 340, 340L, 503, 511, 512, 513, 514, 580. (36 units)

Students pursuing a graduate degree should consult the *Graduate Bulletin* for required undergraduate preparation.

Time Limitation. All courses for the major must be completed within seven years for the granting of the undergraduate degree. Any course completed more than seven years prior to the date on which all requirements for the degree are completed cannot be used to satisfy unit requirements for the degree. Exceptions for individual courses must be approved by the department and filed with the Office of Advising and Evaluations.

Credential

The School of Speech, Language, and Hearing Sciences offers academic and practica coursework applicable to the Clinical-Rehabilitative Services (C-RS) Credential (Credential Code: 00900), required for working in California public schools.

Applicants to a credential program are required to submit scores from the California Basic Education Skills Test (CBEST) as part of the application for admission to a credential program. Note that the CBEST is given only three or four times each year.

Credential candidates are required to have the Certificate of Clearance (finger printing) prior to beginning the school experience. Candidates should apply for the Certificate of Clearance several

months prior to submitting an application to the school for public school practicum placement in order for the certificate to be processed in time for the placement.

Clinical or Rehabilitative Services Credential Language, Speech and Hearing (Credential Code: 00900)

Students desiring to work with pupils with speech-language and hearing impairments on an itinerant or pull-out basis must complete the Clinical-Rehabilitative Services (C-RS) Credential for Language, Speech and Hearing (LSH). A master's degree in speech, language, and hearing sciences is required of all candidates graduating with a C-RS credential. Candidates for C-RS credential in Language, Speech and Hearing (LSH) must complete the requirements for the Certificate of Clinical Competence (CCC) from the American Speech-Language Hearing Association and the requirements of California licensure in Language and Speech. See sections on Certificates and Licensure.

Admission Requirements:

1. Formal application to San Diego State University and to the School of Speech, Language, and Hearing Sciences. All applicants for the credential must satisfy the admission requirements of the university and of the school for classified graduate standing and be recommended by the school for admission to the credential program.
2. California Basic Education Skills Test (CBEST) results.
3. Interview with the coordinator of the Language, Speech and Hearing credential.

Program Requirements:

1. The credential program requires a master's degree in Speech-Language Pathology.
2. The following courses are also required: Speech, Language, and Hearing Sciences 525, 541, 546, 618A, 618B, 626A, 626B, 626C, 627, 929, 933. In addition, students must complete at least one of the following courses: Speech, Language, and Hearing Sciences 521, 522, 619, or 676.
3. The program of professional preparation for the C-RS Credential in Language and Speech requires a minimum of 75 semester credit hours, including a minimum of 27 semester credit hours in basic sciences and a minimum of 36 semester credit hours in professional coursework. At least 30 of the 36 semester credit hours must be in courses for which graduate credit is received, and at least 21 of the 30 graduate semester credit hours must be in the professional area for which the credential is sought. The candidate must complete a minimum of 25 supervised observation hours and 350 clinical contact hours including 50 clock hours in each of three types of clinical setting. This credential also requires that a minimum of 100 clock hours be completed in the school setting. See the section on Certificates and the Credential Coordinator for additional information.

Certificates and Licensure

Preparation Leading to the Certificate of Clinical Competence from the American Speech-Language-Hearing Association

Students may complete the academic and clinical practice requirements leading to the Certificate of Clinical Competence in Speech-Language Pathology (CCC-Sp) or to the Certificate of Clinical Competence in Audiology (CCC-A) given by the American Speech-Language-Hearing Association (ASHA). The certificate requires a master's degree for speech-language pathology and a professional doctorate for audiology and specialized clinical experiences. The applicant must pass a national examination in the area for which the certificate is sought and complete a Clinical Fellowship (following approval of academic coursework and clinical practica). Consult an adviser in the area in which certificate is desired.

**Preparation Leading to State Licensure in
Speech Pathology or Audiology**

Students may complete the academic and clinical practicum requirements leading to California State Licensure in Speech Pathology or in Audiology, a legal requirement for all individuals professionally employed in non-public school settings and some public school settings. The Speech Pathology and Audiology Examining Committee which operates within the California State Board of Medical Quality Assurance requires a master's degree or equivalent in speech, language, and hearing sciences in the area (Speech Pathology or Audiology) in which the license is to be granted, 300 clock hours of supervised clinical experience, a national examination, and nine months of full-time supervised work experience (Required Professional Experience). For audiology, the fourth year externship satisfies the Required Professional Experience. Most Licensure and ASHA Certification requirements may be fulfilled concurrently. Consult an adviser in the area in which licensure is desired for specific information.

Courses (SLHS)

Refer to *Curricula and Courses and University Policies* sections of this catalog for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

LOWER DIVISION COURSES

No credit will be given for Speech, Language, and Hearing Sciences 101, 102, 201, and 202 taken out of sequence.

SLHS 101. American Sign Language I (4) [GE]

American Sign Language structure, use, literature, and deaf culture. Introductory level communication competence in ASL. Not open to students who completed three years of high school American Sign Language classes unless the third course was completed five or more years ago. (Formerly numbered Speech, Language, and Hearing Sciences 159.)

SLHS 102. American Sign Language II (4) [GE]

Prerequisite: Speech, Language, and Hearing Sciences 101.

Continuation of Speech, Language, and Hearing Sciences 101. Beginning level communication competence in American Sign Language. Not open to students who completed four years of high school American Sign Language classes unless the fourth course was completed five or more years ago. (Formerly numbered Speech, Language, and Hearing Sciences 259.)

SLHS 106. Communicative Disorders (3)

Orientation to field of speech pathology and audiology. Survey of communicative disorders, covering all areas of exceptionality, normal growth and development as it relates to speech and language. Waiver of this course is permitted only upon satisfactory passage of a competency examination.

SLHS 150. Sign Languages and Deaf Culture (3) [GE]

Introduction to sign languages, deafness and deaf culture. General issues of human language, language learning, and minority societies.

SLHS 201. American Sign Language III (4) [GE]

Prerequisite: Speech, Language, and Hearing Sciences 102.

Continuation of Speech, Language, and Hearing Sciences 102. Intermediate level communication competence in American Sign Language. Not open to students who completed five years of high school American Sign Language classes unless the fifth course was completed five or more years ago. (Formerly numbered Speech, Language, and Hearing Sciences 289.)

SLHS 202. American Sign Language IV (4) [GE]

Prerequisite: Speech, Language, and Hearing Sciences 201.

Continuation of Speech, Language, and Hearing Sciences 201. Practice of all language skills of American Sign Language at the intermediate to advanced level.

SLHS 296. Experimental Topics (1-4)

Selected topics. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree.

**UPPER DIVISION COURSES
(Intended for Undergraduates)**

SLHS 300. Introduction to Language Science (3)

Structure, acquisition, processing, and neurological organization of language in typical and disordered communication.

SLHS 305. Hearing and Speech Sciences (4)

Prerequisite: Credit or concurrent registration in Speech, Language, and Hearing Sciences 106.

Concepts of hearing and speech science. Hearing science component to include physical acoustics, anatomy and physiology of auditory system, and psychoacoustics. Speech science component to include speech acoustics. Not open to students with credit in Speech, Language, and Hearing Sciences 205 and 323.

SLHS 320. Phonetics (3)

Two lectures and three hours of laboratory.

Principles of speech production and practical skills in discriminating and transcribing sounds of various dialects in English and other languages, as well as clinical populations. Competency in IPA broad and narrow transcription, classification of speech sounds, and patterns of speech.

SLHS 321. Anatomy, Neurology, and Physiology of Speech (4)

Three lectures and three hours of laboratory.

Prerequisite: Credit or concurrent registration in Speech, Language, and Hearing Sciences 106. Recommended: Psychology 260.

Anatomy and physiology of neural, respiratory, phonological, and articulatory systems related to speech.

SLHS 322. Learning in Communicative Disorders (3)

Understanding how people learn to communicate and understanding differences in learning related to communication disorders. Principles of learning and motivation. Role of diversity in learning.

SLHS 340. Principles of Audiology (3)

Prerequisites: Speech, Language, and Hearing Sciences 305, Psychology 260, concurrent registration in Speech, Language, and Hearing Sciences 340L.

Diagnostic audiology procedures: Pure-tone testing, masking, speech recognition testing and immittance. Integration and interpretation of results from the basic audiological test battery.

SLHS 340L. Techniques of Audiometry (1)

Three hours of laboratory.

Prerequisite: Credit or concurrent registration in Speech, Language, and Hearing Sciences 340.

Laboratory experience with pure-tone, speech, and immittance audiometric tests.

SLHS 350. Advanced Topics in Deaf Studies (3)

Prerequisites: Speech, Language, and Hearing Sciences 150; credit or concurrent registration in Speech, Language, and Hearing Sciences 201.

Specialized topics in contemporary deaf culture. Topics in American Sign Language, literature, culture, and linguistics.

SLHS

Speech, Language, and Hearing Sciences

SLHS 357. Fieldwork with the Deaf (1) Cr/NC

Two hours of activity per unit of credit and one hour of staffing.
Prerequisite: Credit or concurrent registration in Speech, Language, and Hearing Sciences 201 or competency in American Sign Language.

Field observation and participation under supervision in school settings with small groups of hearing impaired youngsters. Maximum credit three units.

SLHS 491. Honors Special Study (2)

Prerequisites: Junior standing and formal admission to speech, language, and hearing sciences honors program.

Current research and methodology in communicative sciences and disorders, with emphasis on faculty research programs in the School of Speech, Language, and Hearing Sciences.

SLHS 492A. Honors Project and Symposium (3) Cr/NC

Prerequisites: Senior standing and admission to speech, language, and hearing sciences honors program.

Preparation of a research project for the honors program.

SLHS 492B. Honors Project and Symposium Extension (3) Cr/NC

Prerequisite: Speech, Language, and Hearing Sciences 492A.

Completion and presentation of research project for the honors program.

SLHS 496. Topics in Speech, Language, and Hearing Sciences (1-4)

Study of some problem in speech, language, and hearing sciences. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Maximum credit six units.

SLHS 499. Special Study (1-3)

Prerequisite: Consent of instructor.

Individual study. Maximum credit six units.

UPPER DIVISION COURSES (Also Acceptable for Advanced Degrees)

SLHS 503. Low Incidence Communicative Disorders (3)

Prerequisites: Speech, Language, and Hearing Sciences 320 and 321.

Characteristics, etiologies, assessment, and intervention strategies for fluency, voice, and craniofacial/cleft palate disorders.

SLHS 511. Pediatric Aural Rehabilitation (3)

Prerequisites: Speech, Language, and Hearing Sciences 320, 340. Recommended: Speech, Language, and Hearing Sciences 300, 357, and 513.

Theoretical, methodological, and technical issues related to facilitating receptive and expressive communication in individuals who are deaf or hard-of-hearing. Emphasizes multidisciplinary case management of children.

SLHS 512. Phonological Acquisition and Disorders (3)

Prerequisite: Speech, Language, and Hearing Sciences 320.

Phonology, phonological development, and phonological disorders as they relate to basic linguistic theory. Concepts considered through critical thinking and problem-solving.

SLHS 513. Language Development and Disorders in Early Childhood (3)

Prerequisites: Speech, Language, and Hearing Sciences 300, 320, 321.

Language and communication development, delay, and disorders as they relate to theory and clinical practice in children from infancy through preschool age.

SLHS 514. Language Development and Disorders in School Age Children and Adolescents (3)

Prerequisites: Speech, Language, and Hearing Sciences 300, 320, 321.

Language development, delay, and disorders as they relate to developmental theory and clinical practice for school-age children from 5 through 18 years of age.

SLHS 521. Speech-Language Screening of Children (1) Cr/NC

Four hours of supervision.

Prerequisite: Clinic clearance.

Screening speech and language of children in various community facilities and settings.

SLHS 522. Speech-Language Screening of Adults (1)

Four hours of supervision.

Prerequisite: Clinic clearance.

Screening speech and language of adults in various community facilities and settings.

SLHS 525. Clinical Processes (1-2)

Prerequisite: Consent of instructor.

Clinical issues, policies, and methods in speech-language pathology. Experience in writing lesson plans and clinical reports. Clinical observation to partially fulfill requirements for certification. Maximum credit five units.

SLHS 541. Hearing Screening of Children (1) Cr/NC

Three hours of laboratory screening per week.

Prerequisites: Speech, Language, and Hearing Sciences 340 and 340L.

Field experiences in audiometric and impedance screening of children to obtain contact hours in screening required by American Speech-Language-Hearing Association, California License, and Clinical-Rehabilitative Services credential.

SLHS 546. Clinical Practice with Aural Rehabilitation (0.5)

Two hours of supervision.

Prerequisites: Grade of C or better in Speech, Language, and Hearing Sciences 511 and a minimum of two units in Speech, Language, and Hearing Sciences 525.

Supervised practicum in aural rehabilitation. One unit represents two hours of clinical contact and one hour of staffing per week.

SLHS 550. Deaf Studies and Education (3)

Prerequisites: Speech, Language, and Hearing Sciences 150; and 201 or competency in American Sign Language.

History and current trends in deaf studies and education; contemporary issues; elementary, secondary and higher education programs for young deaf students; communication and visual technologies; federal laws and legal precedents; activism and leadership in deaf community; diverse career opportunities.

SLHS 558. ASL Structure and Acquisition (3)

Prerequisites: Speech, Language, and Hearing Sciences 150; and 201 or competency in American Sign Language.

ASL phonology, morphology, syntax, and discourse structure, including simple and complex sentence structure, storytelling, and sociolinguistics. Analyzing language samples in ASL. Developing lesson plans to teach ASL to deaf and hard-of-hearing children.

SLHS 570. Dysphagia (3)

Prerequisite: Consent of instructor.

Measurement techniques and research in dysphagia. Assessment and treatment of dysphagia and swallowing problems in children and adults.

SLHS 580. Communication Processes and Aging (3)

Prerequisite: Twelve upper division units in an appropriate major.

Normal and disordered communication processes in the aging.

SLHS 595. Research Practicum (1-3)

Prerequisites: Consent of instructor and approval of school chair.

Participation in a specific research activity under faculty supervision. Maximum combined credit of six units of Speech, Language, and Hearing Sciences 595 and 795.

SLHS 596. Selected Topics in Speech, Language, and Hearing Sciences (1-4)

Prerequisite: Twelve units in speech, language, and hearing sciences courses.

Specialized study of selected topics from the area of speech-language pathology, audiology, education of the hearing impaired, and speech and hearing science. May be repeated with new content. See *Class Schedule* for specific content. Limit of nine units of any combination of 296, 496, 596 courses applicable to a bachelor's degree. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

GRADUATE COURSES Refer to the *Graduate Bulletin*.
