

Speech, Language, and Hearing Sciences

IN THE COLLEGE OF HEALTH AND HUMAN SERVICES

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Faculty

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Peter Torre, III, Ph.D., Professor of Speech, Language, and Hearing Sciences

Henrike K. Blumenfeld, Ph.D., Associate Professor of Speech, Language, and Hearing Sciences

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Giang T. Pham, Ph.D., Associate Professor of Speech, Language, and Hearing Sciences

Alyson Abel Mills, Ph.D., Assistant Professor of Speech, Language, and Hearing Sciences

Stephanie Ries-Cornou, Ph.D., Assistant Professor of Speech, Language, and Hearing Sciences

JoAnn P. Silkes, Ph.D., Assistant Professor of Speech, Language, and Hearing Sciences

General Information

The master's degree program in speech-language pathology and professional doctorate in audiology (Au.D.) are accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology.

The School of Speech, Language, and Hearing Sciences offers graduate study leading to the Master of Arts degree in speech, language, and hearing sciences, and to the credentials described below. The cooperating faculties of San Diego State University and the University of California, San Diego, offer a joint program leading to a Ph.D. in language and communicative disorders and a professional doctorate in audiology (Au.D.). The School of Speech, Language, and Hearing Sciences is committed to preparing speech-language-hearing professionals to meet the challenges of a culturally and linguistically diverse society. An M.A. degree in speech, language, and hearing sciences provides the necessary education, technical training, and creative experience necessary for professional activity, college-level teaching, and preceptors in speech-language pathology and related fields.

The programs utilize the facilities of the Speech, Language, and Hearing building, which includes observation rooms, school reference collection, and speech and hearing science laboratories. In the laboratories, students use acoustic immittance equipment, audiometric response simulators, EEG, electromagnetic articulography, eye-tracking, digital spectrograph, hearing aid analyzer, laryngoscopic manikin, microprocessor based diagnostic audiometers, miniphonators, optical motion capture, personal computers, phonic mirror, spectral signal analyzer, state-of-the-art ENG and evoked potential equipment, Visipitch, and video and audio equipment with ongoing new acquisitions.

In addition, the school utilizes its on-campus audiology and speech-language clinics. Students and faculty participate in providing direct delivery of clinical services to clients and participate in the assistive device assessment program, which evaluates and recommends augmentative or alternative means of communication for persons with severe communication impairment. Field experience is offered in the public schools and community agencies. Practicum and observation experiences are possible at various hospitals, schools, community agencies, and rehabilitation agencies.

Section I. Master's Degree Programs

Admission to Graduate Study

Students will be admitted to the graduate programs only in the fall semester. Applications to the university must be submitted by January 12 for the master's degree programs in speech-language pathology and communicative sciences. For application information, see the school's website, <http://slhs.sdsu.edu>, select "M.A. Application" from the index or call 619-594-7746.

All students must satisfy the general admission and examination requirements for admission to the university with classified graduate standing as described in Admission and Registration. In addition, the applicant must satisfy the following requirements before being considered for admission to classified graduate standing by the school's Admissions Review Committee.

Students applying for admission should electronically submit the university application available at <http://www.calstate.edu/apply> along with the application fee by December 15.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the School of Speech, Language, and Hearing Sciences via the Communication Sciences and Disorders Centralized Application Service (CSDCAS) at <https://csdcas.com>. Incomplete applications will not be reviewed. Deadline for receipt: January 12.

Graduate Admissions

The following materials should be submitted as a complete package directly to:

Graduate Admissions
Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes or electronically) from all postsecondary institutions attended;
 - Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

School of Speech, Language, and Hearing Sciences

The following admissions materials must be submitted electronically via CSDCAS (<https://csdcas.com>) by January 12:

1. Essay;
2. Curriculum vitae or resume;
3. Transcripts*;
4. Letters of recommendation (Applicants must provide names and e-mail addresses for recommenders. Recommenders will be sent e-mail to electronically complete letter of recommendation).

*Official transcripts must be mailed to CSDCAS Verification Department, P.O. Box 9113, Waterton, MA 02471

Once the above requirements have been satisfied, the applicant's file is considered complete and eligible for review by the school's Admissions Review Committee. Admission to the graduate programs is guided by careful consideration of all the above materials by a designated Admissions Review Committee. Applicants whose files are incomplete will not be eligible for admission to classified graduate standing. The number of new admissions is restricted and is determined by space availability; therefore, admission is based on consideration of all application materials and the relative merits of individual applicants among all eligible applicants.

Graduate faculty serve as graduate advisers and are assigned to students upon admission.

Advancement to Candidacy

All students must meet the general requirements for advancement to candidacy as described in Requirements for Master's Degrees.

Specific Requirements for the Master of Arts Degree

(Major Code: 12203)

In addition to meeting the requirements for classified graduate standing and the basic requirements for the master's degree as described in Requirements for Master's Degrees, the student must complete a graduate program of at least 36 units (64 units for the Concentration in Speech-Language Pathology). A student must complete Speech, Language, and Hearing Sciences 799A, Thesis for Plan A. The thesis option requires approval by the school and may not be appropriate for every student. If Plan B is elected, the student must pass a written comprehensive examination (which may be repeated only twice). No more than six units of coursework outside the school acceptable for the graduate level may be applied to the master's degree.

The School of Speech, Language, and Hearing Sciences offers three concentrations leading to the Master of Arts degree. Students in each concentration must have already completed a bachelor's degree (or approved level coursework) in speech, language, and hearing sciences (or equivalent). Each concentration requires completion of a specific pattern of graduate units described below:

A. Concentration in Speech-Language Pathology (SIMS Code: 550182). This concentration has a clinical focus and may be used to satisfy the academic and clinical preparation for the Certificate of Clinical Competence in Speech-Language Pathology from the American Speech-Language-Hearing Association (ASHA); for the Speech-Language Pathology Credential from the California Commission on Teacher Credentialing; and for licensure from the State of California. Students are required to complete coursework in all of the following areas: articulation, fluency, voice and resonance, receptive and expressive language, hearing, swallowing, cognitive and social aspects of communication, and augmentative and alternative communication modalities. **Graduate Program.** Students must complete a minimum of 45 academic units and a minimum of 19 clinical practicum units. The following courses are required: Speech, Language, and Hearing Sciences 570, 600A, 600B, 606, 607, 608, 609A, 609B, 613, 614, 617, 675, and either 672 or 673. In addition, students must complete nine units from Speech, Language, and Hearing Sciences 750, 790, 793, 794, 795, 797, 798, 799A. At least three

of the nine units must be selected from Speech, Language, and Hearing Sciences 750, 790, 793, 794. A minimum of 19 units in the following clinical practicum courses are required: Speech, Language, and Hearing Sciences 525 (4 units); 521 and/or 618A and/or 619 (1-3 units); 618B (1-2 units); 626A, 626B, and/or 626C (3-5 units); 627 (3 units); 629 (1 unit); 630 (1 unit); and 933 (4 units). For students lacking transcript credit in aural rehabilitation, Speech, Language, and Hearing Sciences 546 (2 units) is also required. It is school policy that all students maintain a 3.0 grade point average in their program coursework.

B. Concentration in Speech-Language Pathology: Bilingual Specialization (SIMS Code: 550183). Students who have an interest in working with bilingual clients are encouraged to apply to the concentration in speech-language pathology with a specialization in bilingualism. Students are required to pass a language proficiency test in a language other than English. To be a candidate for the specialization, a student must be admitted to the master's degree program in speech-language pathology since the specialization is coordinated with these endeavors. This concentration has a clinical focus and may be used to satisfy the academic and clinical preparation for the Certificate of Clinical Competence in Speech-Language Pathology from the American Speech-Language-Hearing Association (ASHA); for the Speech-Language Pathology Credential from the California Commission on Teacher Credentialing; and for licensure from the State of California. Students are required to complete coursework in all of the following areas: articulation, fluency, voice and resonance, receptive and expressive language, hearing, swallowing, cognitive and social aspects of communication, and augmentative and alternative communication modalities. **Graduate Program.** Students must complete a minimum of 51 academic units and a minimum of 19 clinical practicum units. The following courses are required: Speech, Language, and Hearing Sciences 570, 600A, 600B, 606, 607, 608, 609A, 609B, 613, 614, 617, 672, 673, 675, 794. Students must also complete three units of Speech, Language, and Hearing Sciences 750, 790, or 793. An additional six units must be selected from Speech, Language, and Hearing Sciences 750, 790, 793, 795, 797, 798, or 799A with approval of adviser. A minimum of 19 units in the following clinical practicum courses are required: Speech, Language, and Hearing Sciences 525 (4 units); 521 and/or 618A and/or 619 (1-3 units); 618B (1-2 units); 626A, 626B, and/or 626C (3-5 units); 627 (3 units); 629 (1 unit); 630 (1 unit); and 933 (4 units). For students lacking transcript credit in aural rehabilitation, Speech, Language, and Hearing Sciences 546 (2 units) is also required. It is school policy that all students maintain a 3.0 grade point average in their program coursework.

C. Concentration in Communicative Sciences (SIMS Code: 550142). This concentration has research and theoretical foci in the area of communicative disorders. Students interested in non-clinical study requiring a strong scientific foundation may avail themselves of this concentration. **Graduate Program.** Required courses: a minimum of 36 units to include Audiology 712 or Speech, Language, and Hearing Sciences 600A and 600B; 33 units of electives from 600- and 700-level Speech, Language, and Hearing Sciences courses and/or 700- and 800-level Audiology courses, with consent of the faculty adviser, and may include up to six units of 500-, 600-, and 700-numbered courses from engineering, linguistics, physics, psychology, or other departments with approval of graduate adviser. Students may complete three units of 799A (Plan A) as part of the 33 units or pass a comprehensive/qualifying examination (Plan B).

Section II. Doctoral Program

<http://slhs.sdsu.edu/phd>

General Information

The cooperating faculties of San Diego State University and the University of California, San Diego, offer a joint doctoral program in language and communicative disorders. The program's focus is the interdisciplinary study of language and communicative disorders. A major emphasis of the program is to apply techniques

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developed in cognitive science and neuroscience to the study of language and language disorders. The program involves study and research in normal and abnormal language (including sign languages), and in the neural bases of language use and language loss.

Participating faculty have research interests in a wide range of issues in the processes of language development, language and aging, multilingualism, language disorders, assessment, and intervention. Graduates of the program will be qualified to serve as faculty in university programs in a variety of disciplines, and to provide leadership in research and health services.

The doctoral program faculty at SDSU are members of the School of Speech, Language, and Hearing Sciences, Department of Linguistics and Asian/Middle Eastern Languages, and the Department of Psychology. The doctoral program faculty at UCSD are also an interdisciplinary group from the Department of Cognitive Science, Department of Communications, Department of Linguistics, Department of Neurosciences, Department of Psychiatry, and the Department of Psychology. The program is coordinated by the doctoral program directors at each campus, in conjunction with an executive committee comprised of three faculty from each campus appointed by the graduate deans from each campus.

The program is innovative in that many of the requirements are designed to function as a model of professional preparation specifically incorporating activities in which a successful teacher and researcher must engage after obtaining the Ph.D. Students will be required to participate in interdisciplinary research throughout the program, learn about the nature and ethics of research, prepare grant proposals, write manuscripts, and will gain experience in oral presentations and teaching. Graduates from the program will be well-prepared for the rigors of an academic/research career.

Faculty

The following faculty participate in the doctoral program in language and communicative disorders and are available as advisers, for direction of research, and as members of dissertation committees.

San Diego State University: Abel Mills (Speech, Language, and Hearing Sciences), Barlow (Speech, Language, and Hearing Sciences), Blumenfeld (Speech, Language, and Hearing Sciences), Emmorey (Speech, Language, and Hearing Sciences), Friend (Psychology), Holcomb (Psychology), Keating (Linguistics), Love-Geffen (Speech, Language, and Hearing Sciences), Marinkovic (Psychology), Müller (Psychology), Nip (Speech, Language, and Hearing Sciences), Pham (Speech, Language, and Hearing Sciences), Pruitt-Lord (Speech, Language, and Hearing Sciences), Ries-Cornou (Speech, Language, and Hearing Sciences), and Silkes (Speech, Language, and Hearing Sciences).

University of California, San Diego: Ackerman (Linguistics), Bellugi (Salk Institute, Psychology), Brown (Neuroscience), Carver (Psychology), Chukoskie (Institute for Neural Computation), Coulson (Cognitive Science), Creel (Cognitive Science), Deák, (Cognitive Science), Ferreira (Psychology), Garellek (Linguistics), Gollan (Psychiatry), Haist (Psychiatry), Halgren (Neuroscience), Kutas (Cognitive Science), Mayberry (Linguistics), Moore (Linguistics), Townsend (Neuroscience), Trauner (Neuroscience).

Admission to Doctoral Study

The doctoral program in language and communicative disorders draws from a variety of disciplines including cognitive science, engineering, linguistics, neuroscience, psychology, speech, language, and hearing sciences, and other related sciences. Students should have adequate preparation in mathematics, statistics, research, and biological sciences. Backgrounds in neurosciences and/or language sciences, or language disorders are helpful, but not required for admission.

Applicants for admission to the doctoral program must meet the general requirements for admission to both universities, as specified in the current SDSU and UCSD catalogs. Applicants must meet the special requirements of this program which include (a) an acceptable baccalaureate or master's degree or equivalent from a regionally accredited institution; (b) a GPA of at least 3.25 on a 4.0 scale in the last 60 semester (or 90 quarter) credits of upper division and/or graduate courses (c) good standing in the

last institution attended; (d) suitable scores on the analytic, quantitative, and verbal sections of the Graduate Record Examination; (e) submission of appropriate application form and supporting materials as outlined below.

Applicant files are reviewed as a group by an admissions committee, composed of doctoral program faculty from each campus. Other doctoral faculty may review applicant files and make recommendations to the admissions committee. Assuming that the above requirements are met, decisions will also be guided by an evaluation of the adequacy of the applicant's preparation in view of their stated needs and objectives. Given the limited number of spaces available (4 to 6 new admissions each year are anticipated, subject to available facilities), the admissions committee will select the best qualified applicants to fill the available spaces. No minimum set of qualifications will guarantee an applicant admission to the doctoral program. The admissions committee will make recommendations for admission to the graduate deans from each campus.

Application. Students will be admitted to the doctoral program only in the fall semester/quarter. Applications and all other supporting materials must be received (not postmarked) by January 12 to be considered for the doctoral program beginning in the following fall semester/quarter.

Application Guidelines for the SDSU/UCSD Joint Doctoral Program in Language and Communicative Disorders

To be admitted to the Joint Doctoral Program, applicants must electronically submit the university application available at <http://www.calstate.edu/apply> along with the application fee.

All applicants must submit admissions materials separately to SDSU Graduate Admissions and to the SDSU/UCSD Joint Doctoral Program (<http://apply.interfolio.com/46722>).

Graduate Admissions

The following materials should be submitted to:

Graduate Admissions

Enrollment Services
San Diego State University
San Diego, CA 92182-7416

1. Official transcripts (in sealed envelopes or electronically) from all postsecondary institutions attended;
 - Students who attended SDSU need only submit transcripts for work completed since last attendance.
 - Students with international coursework must submit both the official transcript and proof of degree. If documents are in a language other than English, they must be accompanied by a certified English translation.
2. GRE scores (<http://www.ets.org> SDSU institution code 4682);
3. English language score, if medium of instruction was in a language other than English (<http://www.ets.org> SDSU institution code 4682).

SDSU/UCSD Joint Doctoral Program

The following admissions materials must be submitted electronically via Interfolio (<http://apply.interfolio.com/46722>) by January 12:

1. Essay;
2. Curriculum vitae or resume;
3. Transcripts;
4. Letters of recommendation (Applicants must provide names and e-mail addresses for recommenders. Recommenders will be sent e-mail to electronically complete letter of recommendation).

For information regarding the admissions process, visit the school website at <http://slhs.sdsu.edu>.

Specific Requirements for the Doctor of Philosophy Degree

(Major Code: 12201) (SIMS Code: 550102)

Faculty Adviser. Upon admission to the program, the executive committee will assign each student a faculty adviser. The faculty adviser will help the student select a program of study during the first year. The faculty adviser, in conjunction with the doctoral

program coordinators, will help the student select a first laboratory rotation. Once the student has selected a major area of study (see below) the student will be reassigned an appropriate adviser, if necessary.

Residency Requirements. Students will be required to complete credits equivalent to one year's full-time enrollment at each campus. The definition of residence must be in accord with the regulations of SDSU (<http://arweb.sdsu.edu/es/registrar/residency.html>) and UCSD (<https://students.ucsd.edu/finances/fees/residence/status-change.html>). Students may be enrolled in courses at both institutions during any given semester/quarter.

Language Requirement. Students are required to have some experience in the acquisition of a second language. This may be satisfied through informal learning, immersion, or two or more years of formal coursework in a second language. Any recognized natural language will be acceptable to fulfill this requirement (including American Sign Language or other sign languages). Artificial languages, e.g., computer languages, will not satisfy this requirement. For students selecting the multilingualism concentration, proficiency must be demonstrated in English and at least one other language.

Major Area of Concentration. By the end of the first year, all students select a major field of emphasis by choosing one of three concentrations: Adult Language, Child Language, or Multilingualism. All students will be required to take some courses in each of the three concentrations.

The **Adult Language concentration** is intended to provide intensive education in communicative disorders in adults. Students in this concentration will also develop expertise in the study of language processing in normal adults.

The **Child Language concentration** is intended to provide specialized education in childhood (birth to adolescence) communicative disorders. Students in this concentration will also achieve competence in developmental psycholinguistics emphasizing language acquisition in normally-developing children.

The **Multilingualism concentration** is intended to provide education in cross-linguistic, ethnographic, and other comparative studies of communicative disorders in children and/or adults, including those associated with bilingualism and second language acquisition (including acquisition of sign language in deaf individuals).

Course Requirements. The program for each student will consist of a common core of courses designed to provide the basic tools for research and a foundation knowledge in the important issues in language and communicative disorders, together with specific electives appropriate to the student's chosen concentration. The core courses must be taken for a letter grade unless approved by the program directors. Students must maintain a 3.0 grade point average in program coursework.

The **Tools requirement** consists of two courses in statistics/research design, a course in neuroanatomy and physiology, a course in syntax, and a professional survival skills course.

The **Foundations requirement** consists of two courses on normal language and three courses on disorders of language.

The **Electives requirement** consists of at least four courses, with a minimum of three courses related to the chosen concentration. These electives must be chosen from a broad list of approved options from anthropology, cognitive science, communicative disorders, computer science, linguistics, neurosciences, and psychology. Consult with adviser for approved elective courses. Other electives may be taken to satisfy this requirement with permission of the adviser. The four required electives must be approved by the student's adviser and the doctoral program coordinators. Students may select additional electives with approval of the adviser.

Laboratory Rotations. In order to obtain experience in different research methodologies or with different populations, each student will be required to complete two laboratory rotations, each lasting a minimum of one semester or quarter. During each rotation, students will enroll in the associated laboratory course. The laboratory rotations must be approved by the student's adviser and the doctoral program faculty member who supervises that laboratory.

Projects. All students will be required to complete two research projects during their first two years of the program (first and second year projects). These projects are usually connected with the laboratory rotations and approved by the doctoral program faculty working in the laboratory. These projects will involve experiment design, data collection, analyses, preparation of a potentially publishable manuscript, and an oral presentation of the research findings at the annual doctoral colloquium. Students will be encouraged to submit their projects for presentation at professional meetings and to submit them to an appropriate journal.

Methods Minor. All students will be required to develop basic expertise in experimental design and statistics, and all students will become familiar with standard techniques for behavioral assessment, e.g., intelligence testing, standardized tests of language ability, analyses of free speech, design and implementation of experimental measures of language and other related cognitive behaviors. In addition, by the end of the third year, all students will declare a methods minor from one of three options: behavioral dynamics, neural imaging, or neural modeling. It is expected that the student will gain experience in the chosen minor through at least one laboratory rotation and enrollment in applicable courses selected with adviser recommendation.

The **Behavioral Dynamics minor** is intended for students who want to specialize in computer-controlled methods for the study of language and cognitive processing in real-time.

The **Neural Imaging minor** is intended for students who want to complement behavioral studies with neuro-anatomical and neuro-physiological techniques, including event-related brain potentials and functional magnetic resonance imaging.

The **Neural Modeling minor** is intended for students who are interested in the simulation of normal and abnormal language and cognition in artificial neural networks. Students who elect this minor will be required to take Cognitive Science 201F or Computer Science and Engineering 258A as an elective.

Dissertation Committee. Prior to developing a dissertation proposal or taking the qualifying examination, the student must have a dissertation committee. The committee members are recommended by the doctoral program coordinators with consent of the executive committee, and then appointed by the graduate deans of both campuses. The dissertation committee will consist of at least five members, including four from the doctoral program faculty groups (with at least two members from each campus) and one tenured faculty member who is in a different home department than the committee chair.

Qualifying Examination. After successful completion of the first and second year projects, the student is eligible to take the qualifying examination. The qualifying examination consists of a written component which is to be in the form of a scholarly review of one or more issues related to the student's chosen area of research and an oral component which will be a formal presentation of the paper to be presented in an open forum to the approved dissertation committee and the public. Students will be encouraged to write their integrative paper in a form and quality which may be submitted to an appropriate journal.

Teaching. The teaching requirement may be satisfied under one of two options.

Model 1 requires that the doctoral student teach a full course and submit the course syllabus to the Executive Committee for review at the end of the semester/quarter.

Model 2 requires that the doctoral student serve as a TA (SDSU) and/or TA (UCSD) for two courses. The student will develop a syllabus in an area related to one of these courses and present a master lecture to the Executive Committee and an invited audience on a topic in the syllabus chosen by the Executive Committee.

Dissertation Proposal. The dissertation proposal will take the form of an NIH or NSF grant proposal. For model 1 dissertation (see below), the proposal will be based on completed research which become pilot studies for the grant proposal. The student may be encouraged to submit the grant proposal to support their future research, e.g. post doctoral studies, or a First Investigator Award. For model 2 dissertation, the proposal will become the basis for the dissertation research to be completed. The dissertation proposal must be approved by the student's dissertation committee.

Advancement of Candidacy. A student will be recommended for advancement to candidacy after completing all requirements as described above, including the qualifying examination and the dissertation proposal. Students eligible for advancement to candidacy are recommended to the graduate deans of both institutions. When approved by both institutions, students will be notified by the Graduate Studies office at UCSD. Advancement is required to take place by the end of the student's fourth year. Delay in advancement beyond the fourth year must be approved by the executive committee and then by the dean of graduate affairs at UCSD.

Dissertation. After advancement to candidacy, the remaining requirement will be the satisfactory completion of a dissertation. The dissertation may take one of the following two forms:

Model 1 dissertation. Students who have maintained continuity through their second year project, qualifying examination, and dissertation proposal, and who have successfully generated publishable research which has been submitted to respected journals, may use a minimum of three such interconnected manuscripts as their dissertation. The dissertation will contain an introduction and review of the literature which conceptually links the submitted studies, the studies themselves (exactly as they have been prepared for publication), and a conclusion which pulls the results together in a broader theoretical framework.

Model 2 dissertation. Students may choose to carry out a more traditional dissertation involving the appropriate written presentation of original research carried out by the student under the guidance of the student's dissertation committee chair.

Dissertation Defense. The dissertation defense will be the same for both dissertation models and will consist of an oral presentation of the dissertation material to the doctoral committee and a publicly invited audience.

Award of the Degree. The Doctor of Philosophy degree in language and communicative disorders will be awarded jointly by the Regents of the University of California and the Trustees of The California State University in the names of both institutions.

Financial Support. Funding for graduate students cannot be guaranteed, although every effort will be made to provide students with some form of support through faculty grants, graduate teaching assistantships, research assistantships, or scholarships. The program endeavors to provide financial support that will enable all students to devote full time to study and research training. Financial support will be awarded consistent with the policies of the Divisions of Graduate Affairs at each campus. Tuition and fees will be determined in accord with extant policies at the campus in which the student is matriculated in a given year.

Credential

The School of Speech, Language, and Hearing Sciences offers academic and practica coursework applicable to the Speech Language Pathology (SLP) 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.

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 department for school practicum placement in order for the certificate to be processed in time for the placement.

Speech Language Pathology (SLP) Credential in 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 Speech Language Pathology (SLP) Credential in Language, Speech, and Hearing (LSH). A master's degree in speech, language, and hearing sciences is required of all candidates graduating with a SLP credential. Candidates for SLP 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, 546 (or transcript credit in an equivalent course), 618A and/or 619, 618B, 626A, 626B, 626C, 627, 629, 630, 933.
3. The program of professional preparation for the SLP Credential in Language, Speech, and Hearing 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 in Speech-Language Pathology and Audiology by the Council on Academic Accreditation in Audiology and Speech-Language Pathology

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 Council on Academic Accreditation in Audiology and Speech-Language Pathology. The certificate requires a professional doctorate in audiology (see Audiology) and a master's degree in speech-language pathology, and 75 semester units (at least 27 of the 75 semester units must be in basic science coursework, and at least 36 of the 75 semester units must be in professional coursework). At least 30 of the 36 professional coursework units must be in courses for which graduate credit was received. A minimum of 21 of the 30 units must be completed at the graduate level in the professional area for which the certificate is sought. The certificate requires 375 clock hours of supervised clinical observation (25 hours) and clinical practicum (350 hours), and at least 250 or the 350 clock hours must be in the professional area for which the certificate is sought while the applicant is engaged in graduate study. Clock hours must satisfy designated categories for age span, types of disorders, assessment and intervention. 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). Most Licensure and ASHA Certification requirements may be fulfilled concurrently. Consult an adviser in the area in which licensure is desired for specific information.

Bilingual Speech-Language Pathology Certificate

(SIMS Code: 550170)

The Certificate in Bilingual Speech-Language Pathology is designed for students who plan to work with bilingual speakers with communicative disorders. To be a candidate for the certificate, a student must be seeking the master's degree program in speech-language pathology since the certificate is coordinated with these endeavors.

The certificate program requires completion of 13 units to include nine units of substantive coursework and four units of graduate clinical practicum with bilingual speakers with communicative disorders. Based on research and clinical expertise of the faculty, as well as the availability of a clinical population, the certificate is currently focused on Spanish-English communicative disorders. The following core courses are required: Speech, Language, and Hearing Sciences 672, 673, 794. In addition, students must complete 100 hours of graduate clinical practicum in the target language(s). Candidates seeking admission to the certificate program must pass a Spanish proficiency test and satisfy admission requirements to the school as listed in the *Graduate Bulletin*. Students who speak languages for which clinical training is not available (i.e., languages other than Spanish) are encouraged to apply to the specialization in bilingualism within the concentration in speech-language pathology.

Courses Acceptable for Master's and Doctoral Degree Programs in Speech, Language, and Hearing Sciences

(SLHS)

Refer to *Courses and Curricula and Regulations of the Division of Graduate Affairs* sections of this bulletin for explanation of the course numbering system, unit or credit hour, prerequisites, and related information.

UPPER DIVISION COURSES

SLHS 511. Aural Rehabilitation (3)

Prerequisites: Speech, Language, and Hearing Sciences 320, 340. Recommended: Speech, Language, and Hearing Sciences 300, 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 with a grade of C (2.0) or better. **Proof of completion of prerequisite required:** Copy of transcript.

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

SLHS 513. Foundations of Speech-Language: Development (4)

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

Speech-language development as related to theories of language acquisition, development, and clinical practice in children from birth to school-age.

SLHS 514. Foundations of Speech-Language: Differences and Disorders in Children (3)

Prerequisite: Speech, Language, and Hearing Sciences 513. Speech and language disorders and issues related to assessment of and intervention with children from culturally and linguistically diverse populations.

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

Three hours of laboratory.
Prerequisite: Clinic clearance.
Screening speech and language of children in various community facilities and settings.

SLHS 525. Clinical Processes (1-2) Cr/NC

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 539. Neuroanatomy and Disorders of Speech and Language (3)

Prerequisites: Speech, Language, and Hearing Sciences 150, 300, 305, and 321; or graduate standing.
Structural and functional neuroanatomy and disorders of speech and language resulting from pathology of the nervous system.

SLHS 546. Clinical Issues in Aural Rehabilitation (2)

Prerequisite: Consent of instructor.
Theoretical, methodological, and technical issues related to the speech-language pathologist's role in facilitating communication in individuals who are deaf or hard-of-hearing.

SLHS 570. Dysphagia (4)

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 590. Seminar in Research Foundations of Speech, Language, and Hearing Sciences (3)

Prerequisites: Consent of instructor and a grade of B+ (3.3) or better in Speech, Language, and Hearing Sciences 305, 320, 513. Open only to senior speech, language, and hearing sciences majors. Graduate students may not use this course toward program of study.

Specialized study of selected topics in speech, language, and hearing sciences.

SLHS 595. Research Practicum (1-3)

Prerequisites: Consent of instructor and a cumulative GPA of 3.0 or better.

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)

Prerequisites: 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

SLHS 600A. Research Methods in Communication Sciences and Disorders (1)

Prerequisite: Admission to the M.A. program in speech, language, and hearing sciences.

Methods of investigation in communication sciences and disorders to include research design, basic statistics, principles of evidence-based practice, ethical conduct in research design and work with human participants. (Speech, Language, and Hearing Sciences 600A, 600B formerly numbered Speech, Language, and Hearing Sciences 600.)

SLHS 600B. Advanced Research Methods in Communication Sciences and Disorders (2)

Prerequisite: Speech, Language, and Hearing Sciences 600A.

Principles of evidence-based practice, single-subject design, statistics for single-subject design, statistics used in longitudinal research and scale development; regression and factor analysis. (Speech, Language, and Hearing Sciences 600A, 600B formerly numbered Speech, Language, and Hearing Sciences 600.)

SLHS 606. Voice, Resonance, and Fluency Disorders (3)

Prerequisite: Consent of instructor.

Normal voice, resonance, and fluency, symptoms and causes of voice, resonance, and fluency disorders and their assessment and management.

SLHS 607. Phonology and Phonological Disorders (3)

Prerequisite: Consent of instructor.

Characterization of phonological disorders, assessment frameworks, intervention strategies. Theoretical frameworks of phonology as applied to and experimentally evaluated in speech-language pathology. Methodology considered within context of clinical cases studies designed to facilitate critical thinking and problem-solving.

SLHS 608. Acquired Neuromotor Speech Disorders (3)

Prerequisite: Consent of instructor.

Theories and clinical methods of diagnosis and intervention pertaining to motor speech disorders (dysarthria and apraxia of speech) in adults.

SLHS 609A. Acquired Neurogenic Language and Cognitive Disorders I (3)

Prerequisite: Consent of instructor.

Theories and clinical methods of diagnosis and intervention pertaining to language and communication disorders in adults with left or right hemisphere brain damage.

SLHS 609B. Acquired Neurogenic Language and Cognitive Disorders II (3)

Prerequisite: Speech, Language, and Hearing Sciences 609A.

Theories and clinical methods of diagnosis and intervention pertaining to cognitive and linguistic disorders in adolescents and adults with traumatic brain injury, dementing illness or frontal lobe impairments.

SLHS 613. Language Disorders: Infancy Through Preschool (3)

Prerequisite: Consent of instructor.

Major theories of language development with focus on early language development; effect of theoretical perspective on approaches to assessment and intervention; development and evaluation of assessment and intervention procedures and instruments.

SLHS 614. Language Disorders: School Age Through Adolescence (3)

Prerequisite: Consent of instructor.

Normal and impaired language development in children five years through adolescence. Assessment and intervention for language disorders across spoken and written modalities.

SLHS 617. Diagnostic Methods in Speech-Language Pathology (3)

Prerequisite: Consent of instructor.

Principles and procedures for culturally relevant assessment of communication disorders in children and adults. Ethnographic interviewing; formal, informal, and unbiased testing; clinical reporting. Practice with selected methods and tools.

SLHS 618A. Diagnostic Practicum in Speech-Language Pathology: Pediatrics (1)

Four hours of supervision.

Prerequisites: Speech, Language, and Hearing Sciences 600A, 600B, 607, 613, 617, and two units of 525.

Supervised clinical practice in diagnostic methods with pediatric clients. Maximum credit six units.

SLHS 618B. Diagnostic Practicum in Speech-Language Pathology: Adults (1)

Four hours of supervision.

Prerequisites: Speech, Language, and Hearing Sciences 600A, 600B, 607, 613, 617, and two units of 525.

Supervised clinical practice in diagnostic methods with adult clients. Maximum credit six units.

SLHS 619. Multidisciplinary Diagnostic Practicum in Speech-Language Pathology (1)

Four hours of supervision.

Prerequisite: Consent of instructor.

Participation in multidisciplinary assessment of infants and toddlers.

SLHS 626A. Pediatric Speech-Language Pathology (0.5)

Two hours of supervision.

Prerequisites: Speech, Language, and Hearing Sciences 600A, 600B, 607, 613, 617, and two units of 525.

Supervised intervention practica with children. Up to two hours per week of client contact plus staffing. Up to three units may be taken concurrently. Maximum credit nine units.

SLHS 626B. Neurogenic Speech-Language Intervention (0.5)

Two hours of supervision.

Prerequisites: Speech, Language, and Hearing Sciences 600A, 600B, 607, 613, 617, and two units of 525.

Supervised intervention practica with adults with neurogenic communication disorders. Up to two hours per week of client contact plus staffing. Up to three units may be taken concurrently. Maximum credit nine units.

SLHS 626C. Voice/Fluency/Dysphagia Clinical Intervention (0.5)

Two hours of supervision.

Prerequisites: Speech, Language, and Hearing Sciences 600A, 600B, 607, 613, 617, and two units of 525.

Supervised intervention practica with voice, fluency, and/or swallowing disorders. Up to two hours per week of client contact plus staffing. Up to three units may be taken concurrently. Maximum credit nine units.

SLHS 627. Advanced Field Clinical Practice in Speech-Language Pathology and Audiology (1-3) Cr/NC

Two hours of therapy, one hour of staffing, and Grand Rounds attendance once per month.

Prerequisite: Consent of instructor.

Supervised practice with speech-language-hearing problems in off-campus settings. Up to 10 hours per week of client contact plus staffing. Up to three units may be taken concurrently. Maximum credit nine units.

SLHS 629. Professional Skills in Speech-Language Pathology I (1)

Prerequisite: Concurrent registration in Speech, Language, and Hearing Sciences 627.

Development of professional skills to include client advocacy, ethical and legal decision-making, interpersonal skills for team collaboration, and knowledge of professional policies and procedures. Maximum credit three units.

SLHS 630. Professional Skills in Speech-Language Pathology II (1)

Prerequisites: Speech, Language, and Hearing Sciences 617. Minimum of 100 hours of supervised clinical practicum and departmental approval. Concurrent registration in Speech, Language, and Hearing Sciences 933.

Development of professional skills necessary for working successfully in off-campus settings to include caseload management, conflict resolution, professional credentialing requirements, and supervision/leadership skills. (Formerly numbered Speech, Language, and Hearing Sciences 929.)

SLHS 672. Seminar in Communicative Disorders in Bilingual Adults (3)

Prerequisites: Speech, Language, and Hearing Sciences 600 and 609A.

Linguistic and cognitive system in normal bilingual adults compared to monolingual peers, and in bilingual adults with language disorders. Assessment and intervention strategies in bilingual adults' communicative and cognitive disorders. Cross-cultural issues in selection of assessment and intervention procedures.

SLHS 673. Seminar in Communicative Disorders in Bilingual Children (3)

Prerequisite: Consent of instructor.

Normal and atypical language development applied to assessment and treatment of communication disorders in bilingual and monolingual children. Alternative assessment and intervention methods.

SLHS 675. Augmentative Communication (2)

Prerequisite: Consent of instructor.

Alternative and augmentative approaches, strategies and technology for individuals with severe communication impairments. Assessment and intervention. Project required.

SLHS 696. Selected Topics in Speech, Language, and Hearing Sciences (1-3)

Prerequisite: Graduate standing.

Intensive study in specific areas of audiology, education of hearing impaired, speech and hearing science, and speech-language pathology. May be repeated with new content. See *Class Schedule* for specific content. Credit for 596 and 696 applicable to a master's degree with approval of the graduate adviser.

SLHS 750. Seminar in Language, Cognition, and the Brain: Sign Language Perspectives (3)

Prerequisite: Consent of instructor.

Sign language and deafness research applied to theoretical models of language representation and processing, language acquisition, bilingualism, and the neural organization of language.

SLHS 790. Seminar in Foundations of Language Science (3)

Prerequisite: Consent of instructor.

Current issues, theory, and research concerning language representation, processing, and neurological organization in adults.

SLHS 793. Seminar in Disorders of Language and Cognition/Children (3)

Prerequisite: Consent of instructor.

Language impairment in children, including primary versus secondary language impairment, modular versus processing explanations, relationships between language and cognition, as well as disassociations of development across different populations.

SLHS 794. Seminar in Language Disorders in Multilingual Populations (3)

Prerequisite: Consent of instructor.

Language disorders in linguistically diverse populations. Disorders of phonological, morphological, syntactic, and semantic aspects of target languages and their clinical implications.

SLHS 795. Advanced Research Practicum (3)

Prerequisites: Consent of instructor and approval of director of school.

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 797. Research (1-3) Cr/NC/RP

Prerequisites: Consent of instructor and approval of director of school.

Research in speech-language pathology, deaf education or audiology. Maximum credit six units applicable to a master's degree.

SLHS 798. Special Study (1-3) Cr/NC/RP

Prerequisites: Consent of instructor and approval of director of school.

Individual study. Maximum credit six units applicable to a master's degree.

SLHS 799A. Thesis or Project (3) Cr/NC/RP

Prerequisites: An officially appointed thesis committee and advancement to candidacy.

Preparation of a project or thesis for the master's degree.

SLHS 799B. Thesis or Project Extension (0) Cr/NC

Prerequisite: Prior registration in Thesis or Project 799A with an assigned grade symbol of RP.

Registration required in any semester or term following assignment of RP in Course 799A in which the student expects to use the facilities and resources of the university; also student must be registered in the course when the completed thesis or project is granted final approval.

SLHS 799C. Comprehensive Examination Extension (0) Cr/NC

Prerequisite: Completion or concurrent enrollment in degree program courses.

Registration required of students whose only requirement is completion of the comprehensive examination for the master's degree Registration in 799C limited to two semesters.

DOCTORAL COURSES

SLHS 897. Doctoral Research (1-15) Cr/NC/RP

Prerequisite: Admission to the doctoral program.

Individual investigation to the general field of the dissertation.

SLHS 898. Doctoral Special Study (1-8) Cr/NC/RP

Prerequisite: Admission to the doctoral program.

Individual study in the field of specialization. Maximum credit eight units applicable to the doctoral degree.

SLHS 899. Doctoral Dissertation (1-15) Cr/NC/RP

Prerequisites: An officially constituted dissertation committee and advancement to candidacy.

Preparation of the dissertation for the doctoral degree. Enrollment is required during the term in which the dissertation is approved.

CREDENTIAL COURSE

SLHS 933. Clinical Practice in Public Schools (1-4) Cr/NC

Prerequisites: Four units of practica; post-baccalaureate standing; California Basic Education Skills Test; Certificate of Clearance; school approval.

Clinical practice in elementary or secondary schools or community colleges in speech-language pathology. Applies only toward Clinical-Rehabilitative Services Credential (C-RS) or Certificate of Clinical Competency in Speech-Language Pathology (ASHA).