COMMUNICATION SCIENCES AND DISORDERS

Graduate Program Head	Rachel Theodore
Program Code	CSD
Campus(es)	University Park (Ph.D., M.S.)
Degrees Conferred	Doctor of Philosophy (Ph.D.) Master of Science (M.S.) Dual-Title Ph.D. in Communication Sciences and Disorders and Language Science Dual-Title Ph.D. in Communication Sciences and Disorders and Social and Behavioral Neuroscience
The Graduate Faculty	View (https://secure.gradsch.psu.edu/gpms/?searchType=fac&prog=CSD)

The goals of the program in Communication Sciences and Disorders are to train professionals to conduct research and be consumers of research in communication sciences and disorders and to prepare competent professionals to habilitate and rehabilitate individuals who have speech, language, and/or hearing differences or disorders. The program also serves to provide students in other curricula at Penn State with orientation toward and information about communication sciences and disorders.

Facilities for student training and research include in-house clinical therapy and diagnostic services, laboratories in speech science and audiology, and affiliated schools and clinics. The program enjoys academic, research, and clinical relationships with a number of related programs at Penn State and draws upon academic work from related areas as part of the graduate training in communication sciences and disorders. Preparation is given for school and professional certifications and licensure. The CSD M.S. program is accredited by the Council of Academic Affairs of the American Speech-Language-Hearing Association. Master's-level graduate study requires a full-time externship experience, ordinarily occurring during the final semester of study.

Admission Requirements

Applicants apply for admission to the program via the J. Jeffrey and Ann Marie Fox Graduate School application for admission (https://gradschool.psu.edu/admissions/how-to-apply). Requirements listed here are in addition to Graduate Council policies listed under GCAC-300 Admissions Policies (https://gradschool.psu.edu/graduate-education-policies/).

Master of Science (M.S.)

Minimum requirements for admission to the master's program include:

- Cumulative GPA, GPA in the major, and/or last 60 credits GPA greater than 3.0
- Excellent letters of recommendation
- A strong, well-written personal statement
- Demonstrated proficiency of the English language as required by the Graduate Council
- The completion of several undergraduate courses
- 25 clinical observation hours

Scores from the Graduate Record Examination (GRE) may be submitted but are not required.

Prerequisite courses are required for admission.

Required prerequisite coursework includes:

- Anatomy and Physiology of Speech and Hearing Mechanisms (3 credits)
- Introduction to Audiology (3 credits)
- Aural Rehabilitation (Auditory Training, Speech Reading, etc.) (3 credits)
- Clinical Phonetics (3 credits)
- Normal Language Development (3 credits)
- Acoustic Principles in Communication Sciences and Disorders (3 credits)
- Introduction to Disorders of Articulation and Phonology (3 credits)
- Principles of Clinical Management in Communication Sciences and Disorders (3 credits)
- Statistics (3 credits)
- 3 credits in biological sciences
- 3 credits in physical sciences
- 6 credits in behavioral and/or social science

Students provisionally admitted (http://gradschool.psu.edu/graduate-education-policies/gcac/gcac-300/gcac-303-provisional-admission/) who have not completed these courses will be required to take additional make-up work. Additional make-up work may extend the program.

Doctor of Philosophy (Ph.D.)

Usually, students earn a master's degree in communication sciences and disorders prior to being considered for doctoral study, although persons with master's degrees in other fields will be considered for a doctoral program.

Minimum requirements for admission to the doctoral program include:

- A cumulative GPA in their Master's program of well above a 3.0 on a 4.0 scale
- Outstanding letters of recommendation documenting their performance and their potential as researchers and scholars
- A written statement of scholarly interests and research career goals, as described on the department's webpage
- Completed the Graduate Record Examination (GRE)
  - GRE scores are optional; the inclusion or the non-inclusion of GRE scores will not alter applicants' chance of acceptance into the program. Applicants are encouraged to submit GRE scores to provide evidence of their technical and/or writing skills in the absence of other supporting evidence. It is recommended that applicants have GRE scores greater than the fiftieth percentile on the verbal and quantitative sections and a 4.5 or above on the writing section.

Degree Requirements

Master of Science (M.S.)

Requirements listed here are in addition to Graduate Council policies listed under GCAC-600 Research Degree Policies. (https://gradschool.psu.edu/graduate-education-policies/)

The master's program of study provides course work and practicum for advanced and/ or professional-level licensure.

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The master's degree requires a minimum of 50 credits at the 400, 500, 600, or 800 level (with at least 18 credits at the 500 and 600 level, combined) beyond admission standards. Students usually earn 50 to 65 credits to complete a degree, over four semesters and a summer of study. Additional credits above the minimum required may be related to electives, required courses related to a grant or fellowship, or additional research credits.

Code	Title	Credits
Required Courses		
CSD 500	Research Methods in Communication Sciences and Disorders	2
CSD 520	Speech Motor Control and Motor Speech Disorders	3
CSD 540	Phonological Development and Disorders	3
CSD 541	Voice Production: Differences and Disorders	2
CSD 542	Stuttering	2
CSD 543	Cleft Palate and Resonance Disorders	1
CSD 546	Language Disorders in Adults	3
CSD 547	Language Disorders in Children	3
CSD 548	Dysphagia	3
CSD 549	Speech-Language Pathologists in the Schools [1]	3
CSD 551	Assessment and Intervention in Augmentative and Alternative Communication	3
CSD 596	Individual Studies	1-9
CSD 815	Speech Language Pathology Professional Practice & Counseling	2
CSD 841	Culturally Responsive Practice in Communication Sciences and Disorders	1
CSD 852	Augmentative and Alternative Communication Technology Problem-Based Learning Lab	2
CSD 853	Medical Speech-Language Pathology [1]	3
CSD 854	Tracheostomy and Ventilator Lab	1
CSD 857	Autism Across the Lifespan	1
CSD 895A	Speech Therapy Practicum	1-3
CSD 895C	Speech/Language Therapy Externship	7-15
CSD 895I	Speech Pathology Mini-Placement	1-9
Culminating Experience		
CSD 600	Thesis Research	2-6
or CSD 596	Individual Studies	

[1] Students will have the option to choose between CSD 549 and CSD 853. CSD 549 is required for students who plan on obtaining teacher certification.

Students can choose to complete a thesis or a scholarly paper as the culminating experience for the degree. The non-thesis option for the Master of Science degree requires a scholarly paper and additional course credits in lieu of a thesis. Students choosing to complete a thesis must complete at least 6 credits in thesis research (600 or 610). Students choosing to complete a scholarly paper must complete at least 18 credits in 500-level courses.

The thesis must be accepted by the advisers and/or committee members, the head of the graduate program, and the Graduate School, and the student must pass a thesis defense. The scholarly paper must be accepted by the student's adviser and the head of the graduate program.

Doctor of Philosophy (Ph.D.)

Requirements listed here are in addition to Graduate Council policies listed under GCAC-600 Research Degree Policies. (https://gradschool.psu.edu/graduate-education-policies/)

The Doctor of Philosophy degree normally requires a master's degree in communication sciences and disorders or a related field, plus a minimum of two years of advanced study, and presentation and oral defense of a research-based dissertation.

The Doctor of Philosophy degree normally requires a master's degree in communication sciences and disorders or a related field, plus a minimum of two years of advanced study, and presentation and oral defense of a research-based dissertation (the final oral examination). The dissertation must be accepted by the Ph.D. committee, the head of the graduate program, and the Graduate School.

There are no core or required courses for the Ph.D. degree.

Two research exercises, one of which is used for doctoral qualifying examination early in the doctoral program, are required prior to the dissertation. A comprehensive written and oral examination in the areas of a student's interest is required.

Details of a student's doctoral program are determined by the Ph.D. committee.

Dual-Titles

Dual-Title Ph.D. in Communication Sciences and Disorders and Language Science

Requirements listed here are in addition to requirements listed in GCAC-208 Dual-Title Graduate Degree Programs (https://gradschool.psu.edu/graduate-education-policies/gcac/gcac-200/gcac-208-dual-titles/).

Graduate students with research and educational interests in language science may apply to the Communication Sciences and Disorders and Language Science Degree Program. The goal of the dual-title degree in Communication Sciences and Disorders and Language Science is to enable graduate students from Communication Sciences and Disorders to acquire the knowledge and skills of their major area of specialization in Communication Sciences and Disorders, while at the same time gaining the perspective of the various disciplines contributing to the study of language science.

Admission Requirements

For admission to the dual-title degree under this program, a student must first apply and be admitted to the Communication Sciences and Disorders graduate program and the Graduate School. New graduate students in Communication Sciences and Disorders will receive

information about the Language Science dual-title program, and may discuss their interest with one or more Language Science faculty in the Department of Communication Sciences and Disorders, in order to obtain a recommendation for admission to the Language Science program. Once accepted into the Communication Sciences and Disorders program, and with a recommendation from a Language Science program faculty member in that department, the student may apply to the dual-title Ph.D. program in Communication Sciences and Disorders and Language Science by submitting a letter describing the student's interest in the program. Refer to the Admission Requirements section of the Language Science Bulletin page (http://bulletins.psu.edu/graduate/programs/majors/language-science/). Doctoral students must be admitted into the dual-title degree program in Language Science prior to taking the qualifying examination in their primary graduate program.

Degree Requirements

To qualify for a dual-title degree, students must satisfy the requirements of the Communication Sciences and Disorders program in which they are primarily enrolled. In addition, students must complete the degree requirements for the dual-title Ph.D. in Language Science, listed on the Language Science Bulletin page (http://bulletins.psu.edu/graduate/programs/majors/language-science/). Within this framework, final course selection is determined by the student and their Communication Sciences and Disorders program adviser.

Particular courses may satisfy both the Communication Sciences and Disorders requirements and those in the Language Science dual-title program. Final course selection is determined by the student in consultation with their doctoral adviser and Ph.D. committee. In most cases, the number of total credits earned by a dual-title student will be from 6-12 more than those normally earned by a student in Communication Sciences and Disorders. Some courses which meet Language Science requirements (e.g., theoretical linguistics, neuroscience, psycholinguistics) may also fulfill the Communication Sciences and Disorders requirements for a related area outside the department; however, dual-title students are not required to count any particular Language Science requirement as their outside area. Dual-title students who choose an outside content area not related to Language Science will require more time to complete their program.

Students are expected to participate in weekly Language Science Research meetings each semester in residence.

The qualifying examination committee for the dual-title Ph.D. degree will be composed of Graduate Faculty from Communication Sciences and Disorders and must include at least one Graduate Faculty member from the Language Science program. Faculty members who hold appointments in both programs' Graduate Faculty may serve in a combined role. There will be a single qualifying examination, containing elements of both Communication Sciences and Disorders and Language Science. Dual-title graduate degree students may require an additional semester to fulfill requirements for both areas of study and, therefore, the qualifying examination may be delayed one semester beyond the normal period allowable.

In addition to the general Graduate Council requirements for Ph.D. committees (http://gradschool.psu.edu/graduate-education-policies/gcac/gcac-600/phd-dissertation-committee-formation/), the Ph.D. committee of a Communication Sciences and Disorders and Language Science dual-title Ph.D. student must include at least one member of the Language Science Graduate Faculty. Faculty members who hold appointments in both programs' Graduate Faculty may serve in a combined role. If the chair of the Ph.D. committee is not also a member of the Graduate Faculty in Language Science, the member of the committee representing Language Science must be appointed as co-chair. The Language Science representative on the student's Ph.D. committee will develop questions for and participate in the evaluation of the comprehensive examination.

Students in the dual-title program are required to write and orally defend a dissertation on a topic that is approved in advance by their Ph.D. committee and reflects their original research and education in Communication Sciences and Disorders and Language Science. Upon completion of the doctoral dissertation, the candidate must pass a final oral examination (the dissertation defense) to earn the Ph.D. degree. The dissertation must be accepted by the Ph.D. committee, the head of the graduate program, and the Graduate School.

Dual-Title Ph.D. in Communication Sciences and Disorders and Social and Behavioral Neuroscience

Requirements listed here are in addition to requirements listed in GCAC-208 Dual-Title Graduate Degree Programs (https://gradschool.psu.edu/graduate-education-policies/gcac/gcac-200/gcac-208-dual-titles/).

Graduate students with research and educational interests in neuroscience may apply to the Communication Sciences and Disorders and Social and Behavioral Neuroscience Degree Program. The goal of the dual-title degree in Communication Sciences and Disorders and Social and Behavioral Neuroscience is to enable graduate students from Communication Sciences and Disorders to acquire interdisciplinary training that will enable them to apply the techniques and perspectives of neuroscience to the study of communication sciences and disorders.

Admission Requirements

Before they can apply for admission to the dual-title degree program, students must apply and be admitted to the Ph.D. program in Communication Sciences and Disorders and the Graduate School. Applicants who are interested in the dual-title degree program will have the opportunity to indicate this interest when applying to the program in Communication Sciences and Disorders and may discuss their interest with one or more Social and Behavioral Neuroscience faculty in the Department of Communication Sciences and Disorders. In their statements of purpose for admission, applicants may also comment on how their interests in Communication Sciences and Disorders are related to their interests in Social and Behavioral Neuroscience.

Students may apply for enrollment in the dual-title degree program in Social and Behavioral Neuroscience during their first year (second semester) or second year in Communication Sciences and Disorders. Refer to the Admission Requirements section of the Social and Behavioral Neuroscience Bulletin page (https://bulletins.psu.edu/graduate/programs/majors/social-behavioral-neuroscience/#admissionrequirementstext). Students must be admitted into the dual-title degree program in Social and Behavioral Neuroscience prior to taking the qualifying examination in Communication Sciences and Disorders.

Degree Requirements

To qualify for the dual-title degree, students must satisfy the degree requirements of the Ph.D. program in Communication Sciences and Disorders. In addition, students must complete the degree requirements for the dual-title in Social and Behavioral Neuroscience, listed on the Social and Behavioral Neuroscience Bulletin page (https://bulletins.psu.edu/graduate/programs/majors/social-behavioral-neuroscience/#degreerequirementstext).

Particular courses may satisfy both the Communication Sciences and Disorders requirements and those in the Social and Behavioral Neuroscience dual- title program. Final course selection is determined by the student in consultation with their doctoral adviser and Ph.D. committee. In most cases, the number of total credits earned by a dual-title student will be from 6-9 more than those normally earned by a student in Communication Sciences and Disorders.

The qualifying examination committee for the dual-title Ph.D. degree will be composed of Graduate Faculty from Communication Sciences and Disorders and must include at least one Graduate Faculty member from the Social and Behavioral Neuroscience program. Faculty members who hold appointments in both programs' Graduate Faculty may serve in a combined role. There will be a single qualifying examination, containing elements of both Communication Sciences and Disorders and Social and Behavioral Neuroscience. Dual-title graduate degree students may require an additional semester to fulfill requirements for both areas of study and, therefore, the qualifying examination may be delayed one semester beyond the normal period allowable.

In addition to the general Graduate Council requirements for Ph.D. committees (http://gradschool.psu.edu/graduate-education-policies/gcac/gcac-600/gcac-602-phd-committee-formation/), the Ph.D. committee of a Communication Sciences and Disorders and Social and Behavioral Neuroscience dual-title Ph.D. student must include at least one member of the Social and Behavioral Neuroscience Graduate Faculty. Faculty members who hold appointments in both programs' Graduate Faculty may serve in a combined role. If the chair of the Ph.D. committee is not also a member of the Graduate Faculty in Social and Behavioral Neuroscience, the member of the committee representing Social and Behavioral Neuroscience must be appointed as co-chair. The Social and Behavioral Neuroscience representative on the student's Ph.D. committee will develop questions for and participate in the evaluation of the comprehensive examination.

Dissertation and Dissertation Defense

Students in the dual-title program are required to write and orally defend a dissertation on a topic that is approved in advance by their Ph.D. committee and reflects their original research and education in Communication Sciences and Disorders and Social and Behavioral Neuroscience. The dissertation must involve the integration of neuroscience and a research question of interest within Communication Sciences and Disorders.Upon completion of the doctoral dissertation, the candidate must pass a final oral examination (the dissertation defense) to earn the Ph.D. degree. The dissertation must be accepted by the Ph.D. committee, the heads of both graduate programs, and the Graduate School.

Minor

A graduate minor is available in any approved graduate major or dual-title program. The default requirements for a graduate minor are stated in Graduate Council policy GCAC-218 Minors (https://gradschool.psu.edu/graduate-education-policies/gcac/gcac-200/gcac-218-minors).

Student Aid

Graduate assistantships available to students in this program and other forms of student aid are described in the Tuition & Funding (https://gradschool.psu.edu/funding/) section of the J. Jeffrey and Ann Marie Fox Graduate School's website. Students on graduate assistantships must adhere to the course load limits (https://gradschool.psu.edu/graduate-education-policies/gsad/gsad-900/gsad-901-graduate-assistants/) set by the Fox Graduate School.

Courses

Graduate courses carry numbers from 500 to 699 and 800 to 899. Advanced undergraduate courses numbered between 400 and 499 may be used to meet some graduate degree requirements when taken by graduate students. Courses below the 400 level may not. A graduate student may register for or audit these courses in order to make up deficiencies or to fill in gaps in previous education but not to meet requirements for an advanced degree.

Communication Sciences and Disorders (CSD) Course List (https://bulletins.psu.edu/university-course-descriptions/graduate/csd/)

Learning Outcomes

Master of science (M.S.)

1. **KNOW:** Graduates will be able to demonstrate deep conceptual understanding and proficiency in theories related to the field of communication sciences and disorders.
2. **KNOW:** Graduates will be able to demonstrate applied clinical principles and practices required to provide competent clinical services.
3. **THINK:** Graduates will be able to critically conceptualize and define the critical aspects of a clinical case and determine and apply practical and theoretically driven solutions.
4. **APPLY/CREATE:** Graduates will demonstrate proficiency in assessing, designing, and executing a research strategy to answer significant questions that have real world applications in the field of communication sciences and disorders.
5. **COMMUNICATE:** Graduates will be able to effectively communicate relevant theory, evidence-based practice, and decision-making during group presentations of clinical cases and client outcomes.
6. **COMMUNICATE:** Graduates will be able to effectively communicate research and clinical evidence in presentations at local, national, and/or international meetings or conferences.
7. **PROFESSIONAL PRACTICE:** Graduates will demonstrate an understanding of and commitment to clinical ethics, collaboration, as well as federal guidelines for service provision and client protection (e.g., IDEA, HIPAA).

Doctor of Philosophy (Ph.D.)

1. **KNOW, APPLY/CREATE:** Graduates will demonstrate command of the history and current developments in theory and methods relevant to their specific area of study within the field of communication sciences and disorders.
2. **KNOW:** Graduates will master the current literature relevant to their specific area of study within the field of communication sciences and disorders.
3. **APPLY/CREATE, COMMUNICATE:** Graduates will formulate and execute at least two independent research projects that significantly contribute to the knowledge base and theory in their specific area of study within the field of communication sciences and disorders.
4. **COMMUNICATE:** Graduates will articulate arguments and ideas with clarity in oral presentations and written formats and use the conventions of the discipline specific area of study within the field of communication sciences and disorders.
5. **PROFESSIONAL PRACTICE:** Graduates will demonstrate knowledge of the professional standards of scholarly and professional work

in their specific area of study within the field of communication sciences and disorders through their written and oral works, and interactions with colleagues.

Professional Licensure/Certification

Many U.S. states and territories require professional licensure/certification to be employed. If you plan to pursue employment in a licensed profession after completing this program, please visit the Professional Licensure/Certification Disclosures by State (https://opair.psu.edu/plc/dashboard/) interactive map.

Contact

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