School of Health and Rehabilitation Sciences

COMMUNICATION SCIENCE

www.shrs.pitt.edu/CMS/Departments/CSD.asp

The Department of Communication Science and Disorders (CSD), in the School of Health and Rehabilitation Sciences, offers a Bachelor of Arts degree in communication science, an area of study that focuses on the scientific principles underlying human communication. Attention is given to psychological, behavioral, neurophysiological, anatomical, and linguistic bases of communication, emphasizing both normal and disordered functioning of the speech, language, and hearing systems. This major is particularly appropriate for students considering graduate work in communication disorders (speech-language pathology and/or audiology). **A career in speech-language pathology or audiology requires the completion of graduate study in an accredited program, as well as completion of a clinical fellowship year.** This undergraduate major is also appropriate preparation for graduate study in the neurosciences, health-related professions (including occupational therapy, dentistry, and medicine), and graduate work in special education and the speech and hearing sciences.

Speech-language pathology and audiology are both diverse fields affording graduates opportunities to work in a variety of settings, including schools, hospitals, universities, research institutes, and private practice, and with a variety of populations ranging from infants to the elderly. A speech-language pathologist deals with the diagnosis and treatment of a wide range of communication disorders. Some of the tasks performed by speech-language pathologists include:

- Screening of hearing, speech, and language functions for the purpose of the initial identification of individuals with communication disorders.
- Assessing, diagnosing, and treating childhood speech and language disorders, including disorders of articulation, phonology, fluency, voice, and language.
- Assessing, diagnosing, and treating neurogenic speech and language/cognitive disorders that developed in adults as a result of stroke, traumatic head injury, or other neurological disorder.
- Assessing and developing rehabilitation for disorders of oral-pharyngeal function (e.g., dysphagia and related disorders).
- Assessing, selecting, and developing augmentative and alternative communication systems for children and adults and providing training in their use.

An audiologist deals with the identification and measurement of hearing loss and the rehabilitation of individuals with hearing impairments. Some of the tasks performed by an audiologist include:

- Screening of hearing, speech, and language functions for initial identification of individuals with communication disorders.
- Facilitating the conservation of auditory system function—developing environmental and occupational hearing and conservation programs.
- Assessing, diagnosing, preventing, and providing rehabilitation for peripheral and central auditory system dysfunctions.
- Selecting, fitting, and dispensing of amplification, assistive listening, and alerting devices and providing training in their use.
- Providing aural rehabilitation and related counseling services to hearing-impaired individuals and their families.

Pre-Professional Preparation in the School of Arts and Sciences

A total of 120 credits is required for the degree, including the general education, major, cluster system, and additional electives. Students are admitted into the communication science program after successful completion of approximately 60 general education credits. Application should be made to the School of Health and Rehabilitation Sciences

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(SHRS) after completion of approximately 45 credits. A minimum cumulative quality point average (QPA) of 2.5 is required for admission, although students with a QPA over 2.0 also can apply. Contact the undergraduate advisor in the Department of Communication Science and Disorders for more information regarding this process.

General education requirements include:

Basic writing (3 credits or exemption)
College algebra (3 credits)
Statistics (4 credits)
Writing intensive courses (2 courses, one offered through CSD)
English comprehension (3 credits)
Foreign language (6 credits or 3 years in high school)
English or American Literature (3–6 credits)
Music or art (3 credits)
3rd course in literature, music, art or creative expression (3 credits)
Natural science (9 credits)
Life Science: Intro to psychology plus one course in biology, neuroscience, biopsychology, memory, learning or sensation and perception
Physical Science: One couse in physics or chemistry
Philosophy (3 credits)
Social science (3 credits)
International culture (Western) (6 credits)
International culture (Non-Western) (3 credits)
History (3 credits)

Please note: It is not necessary to complete all the courses listed above prior to application to SHRS, but it is advisable to include as many of these courses as possible in the 60 required credits. Any outstanding courses can be completed while enrolled in SHRS.

Major Courses (All courses are 3-credit courses; labs are an additional credit)

Our major courses are offered in fall and spring terms. Several have prerequisites, and care needs to be taken when planning the curriculum. Consult with the communication science undergraduate advisor for details, 412-383-6562. Students interested in this major may take three of the introductory courses (*) in their freshman or sophomore year—once again, please consult with the communication science undergraduate advisor for guidance as to which courses are appropriate.

Fall Term

CSD 1022 Transcription Phonetics
In this course, students will study the phonemics of American English and develop transcription skills using the International Phonetic Alphabet. Students utilize the language lab to practice transcription of standard speech samples, as well as dialectal and articulatory variances.

CSD 1020 Nature of Language
This course provides an introductory overview of linguistics and psycholinguistics including phonologic, morphologic, syntactic, semantic, and pragmatic aspects of linguistic theory and behavior. Topics also may include neurolinguistics, developmental psycholinguistics, and the relationship between cognition and language. (Students may substitute LING 1000 for this course.)

CSD 1023 and CSD 1027 Anatomy and Physiology of Speech (+ lab)
This course is designed to provide students with detailed knowledge of the structures and functions of speech systems, including respiratory, laryngeal, oral, facial, and nervous systems.

CSD 1024 and CSD 1029 Anatomy and Physiology of Hearing (+ lab)
This course provides an in-depth exposure to the structure and function of the auditory system.

CSD 1231 Evaluation and Treatment of Communication Disorders
This course offers the theoretical and psychometric background for the analysis and design of assessment and treatment procedures in speech-language pathology and audiology. Students critically evaluate and experiment with various diagnostic and treatment instruments and techniques. Both practical and ethical issues relating to assessment and treatment are addressed, using examples from the major disorder areas in speech-language pathology and audiology.

CSD 1232 Introduction to Audiology (*)
This course offers a survey of the field of audiology. Topics include auditory disorders, basic audiometry, tympanometry, special evaluation tests, pediatric audiology, aural rehabilitation, educational and industrial audiology, and electrophysiological audiology.

CSD 1234 Writing Practicum for Evaluation and Treatment
Students will produce samples of writing in many formats (article summaries and reviews, diagnostic reports, progress reports, and research reports) to prepare them to be effective communicators in the field of communication science and disorders.

Spring Term

CSD 1021 Language Development
This course focuses on the development of language from birth to school age across the five components of language. Explanations for the language acquisition process are discussed. Assignments provide class members with direct experience in observing and analyzing data on children's language.

CSD 1025 and CSD 1030 Hearing Science (+ lab)
This course provides an overview of the fundamental concepts in normal audition. It offers an introduction to acoustics, anatomy, and physiology of the auditory system; psychophysical methods; and subjective correlates to auditory stimuli.

CSD 1026 and CSD 1028 Speech Science (+ lab)

This course provides an introduction to some of the major areas of speech science, including speech acoustics, speech physiology, speech production, and speech perception.

CSD 1233 Introduction to Research

This course is designed to advance the student's knowledge of scientific approaches to the study of communication processes and disorders. The course deals with the fundamental concepts that guide scientific inquiry, and the student learns how to critically examine published research reports and manuscripts being considered for publication. This course teaches the skills needed to be a wise consumer and potential producer of research. (Students may substitute PSY 0035 Research Methods for this course.)

CSD 1101 Introduction to Clinical Processes in Speech/Language Pathology and Audiology (*)

This course provides an overview of the clinical processes employed in the diagnosis and treatment of speech, language, and hearing disorders. Videotaped observations of clinical sessions will be reviewed and discussed, with students preparing detailed observational reports.

CSD 1230 Introduction to Speech and Language Disorders (*)

This course offers a descriptive overview of the normal processes of speech and language as a basis for discussion of speech and language disorders. Students learn the terminology used to describe these disorders, and an emphasis is placed on the process of differential diagnosis. Video and audiotapes of patients with these disorders are used extensively.

Related Requirements

Five courses must be completed, one from each of the areas below. These courses are designed to ensure that the student is welleducated in related disciplines, in keeping with the place of communication science and disorders at the confluence of several realms of study.

1. Statistics and measurement (e.g., Basic Applied Statistics, Applied Statistical Methods)
2. Biological, neurological, and cognitive foundations of communication (e.g., Cognitive Psychology, Introduction to Biopsychology, Sensation and Perception, Brain and Behavior)
3. Philosophy of science (e.g., Introduction to Philosophy of Science, Morality and Medicine, Principles of Scientific Reasoning)
4. Sociocultural studies (e.g., Human Relations in Health Care, Aspects of Sociolinguistics, Global Society, Social Psychology)
5. Lifespan development (e.g., Developmental Psychology, Child Development)

The examples given for area provide a guideline as to the type of courses to be taken. The student should consult with the undergraduate advisor in the Department of Communication Science and Disorders to discuss other possible courses. Several of these courses also will satisfy general education requirements; however, this will not reduce the total number of credits required.

Related Area/Minor

No additional related area or minor is required for this undergraduate degree. However, many students are able to complete certificate programs or minors in addition to the requirements for the BA in communication science. In recent years, students have attained certificates in conceptual foundations of medicine, Latin American studies, American Sign Language, and children's literature, and minors in neuroscience, linguistics, and sociology. These are only a few of the many certificate and minor programs available at the University of Pittsburgh.

Pennsylvania Education Certification in Speech-Language Impaired

Students wishing to practice as speech-language pathologists in Pennsylvania public schools after graduate school must complete, in addition to other master's and certification requirements, at least one 3-credit course in each of the following content areas: 1) child development, 2) foundations of education, 3) instructional methods (regular methods), and 4) instructional methods (special learning needs). These courses can be taken as electives in the undergraduate degree program.

Freshman Guarantee

Entering freshmen may qualify for a guarantee into the professional graduate programs in communication science and disorders (speech-language pathology and audiology). Interested students must identify the Pre-Communication Science code on their University applications. To review guidelines for this and other guarantees, go to www.oafa.pitt.edu.

For more information about the communication science program, contact:
University of Pittsburgh
Dr. Janice Vance, Assistant Professor and Academic Advisor
4019A Forbes Tower
Pittsburgh, PA 15260
412-383-6562
E-mail: jvance@pitt.edu
www.shrs.pitt.edu/CMS/Departments/CSD.asp

For more information about other majors, contact:
University of Pittsburgh
Office of Admissions and Financial Aid
Alumni Hall, 4227 Fifth Avenue
Pittsburgh, PA 15260-6601
412-624-PITT
E-mail: oafa@pitt.edu
Web site: www.oafa.pitt.edu

For more information about the professions of speech-language pathology and audiology, contact:
American Speech-Language-Hearing Association: www.asha.org
American Academy of Audiology: www.audiology.org

Special Programs and Opportunities

National Student Speech-Language-Hearing Association
Students with an interest in communication science, especially with the possibility of graduate work in communication disorders, are encouraged to become acquainted with the local chapter of the National Student Speech-Language-Hearing Association. This association can provide information on professional and career activities in communication disorders. Contact Dr. Vance at jvance@pitt.edu for more information.

Internships
Participating in an internship can be one of the most enlightening and productive aspects of your undergraduate education. It not only gives you a closer look at working in a particular field, but can help you gain a competitive edge, make contacts in the marketplace, and earn credits toward your degree. Pittsburgh is an exciting place for internship opportunities; it is internationally known as a renowned center for health care and groundbreaking medical research, home to many corporate headquarters, and a city with a wealth of cultural and entertainment activities, including professional sports teams and the Carnegie system of museums. Communication science majors can participate in field placements at institutions including the University of Pittsburgh Speech and Hearing Clinic; Pittsburgh Hearing, Speech, and Deaf Services; Children's Hospital of Pittsburgh; Ear & Eye Institute; and the Western Pennsylvania School for the Deaf. Internships are not limited to Pittsburgh, however. Every year, students complete internships in cities such as Philadelphia, Pa.; Washington, D.C.; New York, N.Y.; and their own hometowns. Some students even complete an internship as part of their study abroad experience.

University Honors College (UHC)
UHC offers many resources for talented, active students—unique courses, special degrees, opportunities to perform independent research or teach, supplemental advising, and a social and academic community of similarly motivated students. UHC courses offer a more in-depth treatment of the material covered in a nonhonors course. Students work more problems, write more, read more, and discuss topics in greater depth. Although UHC does not have a formal membership and does invite all students to participate in honors courses, there are certain qualifications that must be met to be eligible to take UHC courses. Entering freshmen are automatically considered for UHC participation on the basis of their admissions applications. A minimum QPA of 3.25 is required for current Pitt students. The Department of Communication Science and Disorders participates in the Bachelors of Philosophy program offered through UHC. Contact the CSD advisor for more information.

Study Abroad
Studying abroad is an exciting way to add an international perspective to your undergraduate education and strengthen your credentials as a graduate. The University of Pittsburgh encourages you to take advantage of this opportunity (almost 5 percent of Pitt students study abroad compared with 1.3 percent, nationally). Study abroad will not only distinguish you when you enter the job market or pursue graduate study, but also help broaden your experience of the world beyond your own country's borders, giving you an appreciation of other cultures and peoples while allowing you to earn credits toward your degree. Scholarships are available, and financial aid is applicable.

The Department of Communication Science and Disorders offers an interdisciplinary study abroad oppurtunity to Ireland for students studying in the School of Health and Rehabilitation Sciences. This two-week field trip is directed by Dr. Janice Vance and is offered each May. it is open to students in any SHRS undergraduate program. For more information, contact Dr. Vance at jvance@pitt.edu.

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