School of Clinical and Rehabilitation Sciences

Website (https://bouve.northeastern.edu/academics/school-of-clinical-and-rehabilitation-sciences/communication-sciences-and-disorders/)

Emily Zimmerman, PhD, CCC-SLP
Chair and Professor
Department of Communication Sciences and Disorders

617.373.5140
617.373.2239 (fax)

Website (https://bouve.northeastern.edu/academics/school-of-clinical-and-rehabilitation-sciences/physical-therapy-movement-and-rehabilitation-sciences/)

Darla M. Castelli, PhD
Chair and Professor
Department of Physical Therapy, Movement, and Rehabilitation Sciences

617.373.3508
617.373.7930 (fax)

physicaltherapy@northeastern.edu
Info_HMRS@northeastern.edu
PB_DPT_Inquiries@northeastern.edu

The School of Clinical and Rehabilitation Sciences within the Bouvé College of Health Sciences at Northeastern University brings together the clinical fields of physical therapy (https://bouve.northeastern.edu/academics/school-of-clinical-and-rehabilitation-sciences/physical-therapy-movement-and-rehabilitation-sciences/), speech-language pathology and audiology (https://bouve.northeastern.edu/academics/school-of-clinical-and-rehabilitation-sciences/communication-sciences-and-disorders/), and physician assistant studies (https://bouve.northeastern.edu/academics/school-of-clinical-and-rehabilitation-sciences/medical-sciences/). Students and fellows in the school are prepared for clinical and research excellence, training with interdisciplinary experts in habilitation and rehabilitation sciences, epidemiology, neuroscience, engineering, physiology, exercise science, clinical medicine, design, diagnostic and therapeutic imaging, and communication. Working at the intersection of rehabilitation, clinical practice, data, and engineering, students and fellows engage in transformative research and experiential learning that prepares them to improve the quality of life and self-care for patients and communities, while promoting and developing innovative approaches to the future of healthcare.

Communication Sciences and Disorders

The Department of Communication Sciences and Disorders offers a four-year undergraduate major (Bachelor of Science in Speech-Language Pathology and Audiology), six combined majors, and four undergraduate minors. Additionally, CSD offers a five-year PlusOne bachelor's/master's program that allows students to accelerate the attainment of the graduate degree. See additional information on accelerated bachelor/graduate degree programs. (https://service.northeastern.edu/registrar/?id=kb_article_view&sysparm_article=KB000020031)

Speech-language pathologists and audiologists are involved with the evaluation, treatment, counseling, and research of human communication and its disorders. They provide clinical services to a full range of individuals with communication delays/differences/disorders, from infants through geriatrics. Speech-language pathologists treat developmental language and articulation disorders/delays; voice and resonance problems; stuttering; dysarthria and apraxia; pediatric and adult swallowing disorders; and language and cognitive impairments due to stroke, head injury, and progressive neurological disease. Audiologists specialize in the prevention, identification, assessment, and rehabilitation of hearing disorders for individuals with congenital and acquired hearing impairments. Both speech-language pathologists and audiologists require graduate education to practice as certified and licensed clinicians.

BS in Speech-Language Pathology and Audiology

The degree program for the Bachelor of Science in Speech-Language Pathology and Audiology includes an experiential learning component, a broad-based academic core, and the scientific and clinical courses necessary for understanding normal and disordered communication. The degree offers preprofessional training for individuals who want to pursue graduate education. Alternatively, graduates may pursue certification as speech-language pathology or audiology assistants in a variety of clinical settings, or they may pursue other career paths in areas such as healthcare/administration, education, public health, human services, or media/public relations.

The curriculum is designed to facilitate critical thinking, information literacy, and oral and written communication skills. In addition to courses in the basic communication sciences, coursework in statistics, ethics, research, physical sciences, and psychology is required . The curriculum provides a solid foundation in speech-language pathology and audiology, and it is sufficiently flexible to provide students with the opportunity to minor in an area of related interest.

BS Combined Majors

Six combined majors are available for students to pursue: the Bachelor of Science in Communication Studies and Speech-Language Pathology and Audiology, the Bachelor of Science in Computer Science and Speech-Language Pathology and Audiology, the Bachelor of Science in Data Science and Speech-Language Pathology and Audiology, the Bachelor of Science in Linguistics and Speech-Language Pathology and Audiology, the Bachelor of Science in Speech-Language Pathology and Audiology and Behavioral Neuroscience, and the Bachelor of Science in Speech-Language Pathology and Audiology and Human Services.

The combined Bachelor of Science in Communication Studies and Speech-Language Pathology and Audiology offers an interdisciplinary approach to human communication and its disorders. Coursework focuses on the scientific and theoretical frameworks of speech, language, and hearing. Students are introduced to the fundamentals of communication theory, and they have an opportunity to acquire the practical skills necessary to thrive in a complex, dynamic society. The curriculum is enhanced by experiential learning opportunities that prepare students for a variety of professional careers.

The combined Bachelor of Science in Computer Science and Speech-Language Pathology and Audiology, as well as the combined Bachelor of Science in Data Science and Speech-Language Pathology and Audiology, prepare students for careers that integrate knowledge of human communication and its disorders with information and computer literacy. This intersection provides students with opportunities to promote impactful innovation to support individuals with communication challenges. The curricula are designed to facilitate critical thinking, information literacy, and oral and written communication skills. In addition to courses in the basic communication sciences, courses in education, allied health, computer literacy, ethics, multicultural/diversity issues, and psychology are required. Students in these majors study the collection, manipulation, storage, retrieval, and computational analysis of data in its various forms including numeric, textual, image, and video data from small to large volumes. The coursework covers exploratory data analysis, data manipulation in a variety of programming languages, large-scale data storage, predictive analytics, machine learning, data mining, and information visualization and presentation.

The combined Bachelor of Science in Linguistics and Speech-Language Pathology and Audiology provides students with extensive background in the formal structures of human language; the methods and applications of linguistic analyses of language data; the biology, neurology, and physics of the human vocal tract; and the nature of both normal and disordered human speech communication and language development. Students have an opportunity to develop critical thinking, information literacy, as well as strong oral and written communication skills. The curriculum is enhanced by experiential learning opportunities that prepare students to pursue graduate degrees in speech-language pathology or audiology, as well as careers in other related healthcare domains or education.

The combined Bachelor of Science in Speech-Language Pathology and Audiology and Behavioral Neuroscience offers an interdisciplinary approach to the study of behavior and communication disorders. The curriculum focuses on the biological bases underlying behavior in healthy and pathological states, specifically those that are related to and derive from breakdowns in communication. It combines coursework in psychology and physical sciences to provide scientific and theoretical frameworks of behavior, speech, language, and hearing. Students are introduced to the anatomical and functional specializations of the brain and neural mechanisms and have the opportunity to apply these concepts to the domains of speech, language, and hearing.

The combined Bachelor of Science in Speech-Language Pathology and Audiology and Human Services prepares students for careers that integrate knowledge of human communication and its disorders and social change. This intersection provides students with opportunities to promote impactful social policies to support individuals with communication challenges. Coursework focuses on the scientific and theoretical frameworks of speech, language, and hearing, in addition to the theoretical and skill-based background necessary for practice and research in the human services domain. Students develop a holistic understanding of how to respond to social inequities for those with communication disorders and how to influence change at the individual and structural levels.

Minors

Four minors are available for students to pursue. These minors allow students from various fields of study to enhance their academics with general courses related to the field of communication sciences, as well as specific courses covering topics such as audiology, speech-language disorders, and entrepreneurship. Advisors assist students with accommodating their interests within their established major curriculum plans.

Note: The minors, excluding the Minor in Health Sciences Entrepreneurship, are not open to students majoring in the Bachelor of Science in Speech-Language Pathology and Audiology or those pursuing one of the SLPA combined majors. In addition, students are only eligible to declare one minor, excluding the Minor in Health Sciences Entrepreneurship, within the department.

AUDIOLOGY

The audiology minor offers students an opportunity to obtain a foundational understanding of hearing science, auditory disorders, and clinical assessment techniques. Designed for students interested in communication sciences, healthcare, or related fields, this minor presents valuable insights into the anatomy and physiology of the auditory system, hearing loss, and intervention strategies. The minor consists of four courses covering key topics such as the principles of audiology, hearing assessment methods, amplification options, auditory rehabilitation, and the impact of hearing loss on communication. Through a combination of theoretical learning and practical applications, students may gain essential knowledge to pursue a career in audiology or to complement careers in speech-language pathology, healthcare, education, and related disciplines.

COMMUNICATION SCIENCES AND DISORDERS

The Minor in Communication Sciences and Disorders includes courses that offer exposure to a variety of aspects of the field. While this minor does not, by itself, fully prepare students for admission to graduate programs in speech-language pathology or audiology, it facilitates progress toward these graduate programs, in addition to others in fields such as applied psychology, linguistics, neuroscience, and education. Coursework is designed

to help students understand the scope of practice in both fields and develop basic competencies. The CSD minor consists of four courses including a required foundation course taken prior to any CSD core or elective courses, followed by two CSD core courses and one elective course. Students may consult with an advisor in the CSD department concerning the current listing of eligible elective courses for this minor.

HEALTH SCIENCES ENTREPRENEURSHIP

The Minor in Health Sciences Entrepreneurship offers students in-depth knowledge and practical skills at the intersection of entrepreneurship and the health sciences field. This interdisciplinary program is designed to equip students with the tools and mindset necessary to drive innovation, develop sustainable healthcare ventures, and address emerging challenges in the healthcare industry. Students can explore the unique opportunities and complexities associated with starting and managing businesses in healthcare. The minor provides an opportunity to gain a comprehensive understanding of entrepreneurship principles, business development strategies, and the specific dynamics of the healthcare landscape. By combining theoretical knowledge with hands-on experiences, the program focuses on skills and attitude development required to identify unmet needs, create viable solutions, and navigate the regulatory and ethical considerations that shape the healthcare industry. The minor is designed to complement a range of majors within the health sciences field including healthcare administration, biomedical sciences, nursing, public health, and related disciplines.

SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY

The Minor in Speech-Language Pathology and Audiology seeks to prepare students for admission into graduate programs in speech-language pathology or audiology. Students in this minor are on a track that would meet course prerequisites requirements for admission to our department's own Master of Science in Speech-Language Pathology (https://catalog.northeastern.edu/graduate/health-sciences/clinical-rehabilitation-sciences/speech-language-pathology-ms/) program. The SLPA minor consists of five department-specific SLPA core courses. Students pursuing this minor are advised to consult early and regularly with their academic advisors to ensure a timely completion of their major(s) and the SLPA minor requirements. Students pursuing this minor who plan to apply to graduate school at institutions other than Northeastern University are advised to carefully check admissions requirements for those programs.

Bachelor of Science (BS)

- Speech-Language Pathology and Audiology (Boston)
- Communication Studies and Speech-Language Pathology and Audiology (https://catalog.northeastern.edu/undergraduate/arts-media-design/communication-studies/communication-studies-speech-language-pathology-bs/) (Boston)
- Computer Science and Speech-Language Pathology and Audiology (https://catalog.northeastern.edu/undergraduate/computer-information-science/computer-information-science-combined-majors/computer-science-speech-language-pathology-audiology-bs/) (Boston)
- Data Science and Speech-Language Pathology and Audiology (https://catalog.northeastern.edu/undergraduate/computer-information-science/computer-information-science-combined-majors/data-science-speech-language-pathology-audiology-bs/) (Boston)
- Linguistics and Speech-Language Pathology and Audiology (https://catalog.northeastern.edu/undergraduate/science/interdisciplinary/linguistics-speech-language-pathology-bs/) (Boston)
- Speech-Language Pathology and Audiology and Behavioral Neuroscience (https://catalog.northeastern.edu/undergraduate/health-sciences/clinical-rehabilitation-sciences/speech-language-pathology-audiology-behavioral-neuroscience-bs/) (Boston)
- Speech-Language Pathology and Audiology and Human Services (https://catalog.northeastern.edu/undergraduate/health-sciences/clinical-rehabilitation-sciences/speech-language-pathology-audiology-human-services-bs/) (Boston)

Minors

- Audiology (https://catalog.northeastern.edu/undergraduate/health-sciences/clinical-rehabilitation-sciences/audiology-minor/)
- Communication Sciences and Disorders (https://catalog.northeastern.edu/undergraduate/health-sciences/clinical-rehabilitation-sciences/communication-sciences-disorders-minor/)
- Health Sciences Entrepreneurship (https://catalog.northeastern.edu/undergraduate/health-sciences/clinical-rehabilitation-sciences/health-sciences-entrepreneurship-minor/)
- Speech-Language Pathology and Audiology (https://catalog.northeastern.edu/undergraduate/health-sciences/clinical-rehabilitation-sciences/speech-language-pathology-audiology-minor/)

Physical Therapy, Movement, and Rehabilitation Sciences

The mission of the Department of Physical Therapy, Movement, and Rehabilitation Sciences is to impact the health and well-being of the global community by developing leaders in our fields through interprofessional experiential education, translational research, and excellence in clinical practice. The programs within the department enhance and extend students' learning through experiential education, interdisciplinary collaborations, interprofessional education, and research opportunities, making impact across our global campus and beyond. Our faculty members are leaders in education, research, and practice. Students work with faculty to conduct ongoing research in one of the many diverse Department of Physical Therapy, Movement, and Rehabilitation Sciences' research groups and laboratories, including Neuromotor Systems Laboratory, Laboratory for Locomotion Research, ReGame-XR Laboratory, Movement Neuroscience Laboratory, Musculoskeletal Epidemiology and Biomechanics Laboratory, Neurophysiology Laboratory, Occupational Biomechanics and Ergonomics Laboratory, Teaching and Learning with Innovation Laboratory, the Programmable and Reconfigurable Soft Engineered Systems Lab, and the Center for Cognitive and Brain Health.

Although the Doctor of Physical Therapy is a graduate-level program, the department's faculty engage with students across Northeastern University to enrich their undergraduate experience and prepare them for advanced study in physical therapy. Students may enter a range of degree programs

at Northeastern included in the health sciences department within Bouvé and programs in the College of Science and the College of Engineering. A guaranteedpriority admission pathway#exists for those students who have met the prerequisite criteria.

The department offers a Minor in Human Movement Sciences. The minor enhances multiple degree programs at Northeastern with fundamental concepts in human movement and rehabilitation sciences—including anatomy and physiology, human kinesiology, and motor control—as well as sports medicine, functional neuroanatomy, and exercise physiology.

Minor

- Human Movement Science (https://catalog.northeastern.edu/undergraduate/health-sciences/clinical-rehabilitation-sciences/human-movement-science-minor/)