

Speech And Hearing Science

Department of Communicative Disorders and Sciences

College of Arts and Sciences
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Overview

The undergraduate program in the Department of Communicative Disorders and Sciences (CDS) is a pre-professional program leading to a bachelor of arts degree. The pre-professional major in speech and hearing science provides the common core of knowledge concerning the normal processes of speech, language, and hearing that is required for a background for study of disorders of communication. No certification is available based on the undergraduate curriculum. The graduate degree is the entry level into the professions of speech-language pathology and audiology.

Students who successfully complete the undergraduate major in speech and hearing science and who wish to become professionally qualified as speech-language pathologists or audiologists must apply to a graduate program offering a master's degree for speech-language pathology or a doctorate of audiology for audiology.

About our Degrees

Acceptance Criteria

Minimum GPA of 2.0 overall.
Minimum GPA of 2.5 in prerequisite courses: [CDS 151](#), [CDS 286](#), and [CDS 288](#).

Acceptance Information

Applications are considered on a rolling basis; students should apply when prerequisites have been completed.

Degree Requirements

Please see [Degrees and Policies](#).

About our Courses

The Department of Communicative Disorders and Sciences (CDS) is housed on the south campus where academic offices, laboratories, and clinical facilities are located. CDS courses are taught in technology classrooms on the south campus.

For course descriptions, please see [Courses](#).

About our Faculty

Many faculty members hold prestigious federal research grants, one faculty member received the Chancellor's Award for Excellence in Scholarship and Creative Activities.

See a list of our [Undergraduate Faculty](#).

Acceptance Information

The application for the speech and hearing science undergraduate major can be found on the CDS Department's web site or in 122 Cary Hall. Submit your completed application along with a copy of your current DARS to the department's main office in 122 Cary Hall. Applications are

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reviewed on a rolling basis.

Transfer Policy

Courses completed at other institutions may be equivalent to CDS courses at the University at Buffalo. To have them evaluated, complete the course waiver or pre-approval petition form found on the CDS Department's web site and submit it to the department main office in 122 Cary Hall.

Of the 35 credits of CDS courses required for the Speech and Hearing Science major, a minimum of 20 credits of CDS courses must be completed at UB.

Extracurricular Activities

The Student Association for Speech and Hearing (SASH) is part of the UB Student Association (SA) and is an active undergraduate student group. Typically their activities include: social gatherings with faculty and staff, potlucks, collection of food for soup kitchens, a Halloween event for the children in the Speech-Language and Hearing Clinic, and collecting toys for charities.

See the [UB Student Association](#).

Practical Experience and Special Academic Opportunities

All faculty members supervise students in research and creative activities within specialty areas of their individual expertise. Refer to the department web site for the faculty roster, which includes specialty areas.

Career Information and Further Study

Speech and hearing professionals evaluate, treat, and conduct research into human communication and its disorders and work with infants, children, adolescents, adults, and the geriatric populations.

Skills gained in this program include:

Managing, interpreting, editing, advising, organizing, problem solving, orientation to detail, writing, teaching, speaking to groups, presenting research findings, reading critically, reasoning, analyzing, thinking conceptually, conducting research, evaluating evidence, advising, and selling.

Note that many careers require additional education at the graduate level.

Alumni (or recent graduates) of Speech and Hearing Science have found employment in the following fields:

- Audiology
- Occupational therapy
- Physical therapy
- Psychology
- Recreational therapy
- Rehabilitation counseling
- Research
- Speech-language pathologist

Work settings include:

- Businesses
- Colleges/universities
- Community clinics
- Developmentally disabled
- Elementary and high schools
- Government agencies
- Hearing impaired
- Hospitals
- Institutions for the deaf

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- Nursing homes
- Physician's offices
- Private practice
- Research laboratories

Degree Level Required

The undergraduate program is a pre-professional degree. A graduate degree is needed for New York State certification in the two primary subfields of communicative disorders and sciences: speech-language pathology and audiology.

Salary Information

Salaries range greatly from one occupation, position, and work setting to another. According to the April 1998 NACE national salary survey for bachelor's degree graduates in speech pathology/audiology, the average salary is \$30,000. The salary range for Western New York is \$26,811 - \$48,173.

Post-undergraduate Opportunities

Because this is a pre-professional program, many graduates go on to enter graduate programs in either speech-language pathology or audiology, enter graduate programs in other professional fields such as medicine or law, or enter the fields of business or education.

What percentage of graduates goes on to graduate school?

75%

Degrees Offered

Undergraduate: BA, Minor

Graduate: MA (Track in Speech-Language Pathology), AuD, PhD

Links to Further Information About this Program

- [Undergraduate Catalog](#)
- [Undergraduate Admissions](#)
- [Graduate Admissions](#)
- [Department of Communicative Disorders and Sciences](#)
- [College of Arts and Sciences](#)
- [American Speech-Language-Hearing Association](#)

Speech And Hearing Science - B.A.

Acceptance Criteria

Minimum GPA of 2.0 overall.

Minimum GPA of 2.5 in the prerequisite courses.

Advising Notes

Upon completion, the student should complete the Application for Undergraduate Major found in the department office or on the department's web site and submit that along with a copy of the DARS to the department office.

Applications to the major are reviewed on a rolling basis. Once accepted, each student is assigned a departmental faculty advisor who assists the student in program planning. It is the student's responsibility to make an appointment with the faculty advisor to request assistance of any kind. A message folder is established for each major in the department. Students should check that folder regularly, as it is used to contact them and to circulate information.

To graduate, the student must have earned an overall GPA of 2.5 in CDS courses. CDS courses with a grade of less than C- will not be acceptable for the departmental average requirement and must be retaken for a grade of C- or better. Students may not elect S/U grading in CDS courses.

If prospective majors have taken courses at another school that they believe are equivalent to the required courses of the department, transfer evaluation and waiver request forms may be obtained from the department office.

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Prerequisite Courses

[CDS 151](#) Introduction to Speech-Language Pathology and Audiology
[CDS 286](#) Phonetics
[CDS 288](#) Anatomy and Physiology of the Speech Mechanism

Required Courses

[BIO 129](#) Perspectives in Human Biology
[CDS 289](#) General and Speech Acoustics
[CDS 290](#) Audiology: Diagnosis and Management
[CDS 301](#) Language Development in Children
[CDS 387](#) Psychoacoustic Science
[CDS 392](#) Phonological Disorders: Diagnosis and Management
[CDS 480](#) Clinical Observation and Participation
[CDS 482](#) Diagnostics in Communicative Disorders
[CDS 483](#) Diagnostics in Communicative Disorders Lab
[CDS 484](#) Aural Rehabilitation
[CSE 101](#) Computers: A General Introduction
[MTH 115](#) Survey of Algebra and Trigonometry or [ULC 148](#) Intermediate Algebra and Trigonometry
[PSY 101](#) Introductory Psychology
One linguistics course (choose from [LIN 205](#), [LIN 207](#), or any 300/400-level LIN course except [LIN 355](#) or [LIN 496](#)) for a minimum of 3 credits
One physical science course (choose any course from CHE, GLY, or PHY) for a minimum of 3 credits
One statistics course (choose from [CEP 207](#), [PSY 207](#), [SOC 294](#), [SSC 225](#), [STA 111](#), or [STA 119](#)) for a minimum of 3 credits
Two human behavior courses (choose from [AAS 333](#), [APY 311](#), [LAI 205/SSC 208](#), [NUR 250](#), [PSY 321](#), [PSY 322](#), [PSY 331](#), [PSY 336](#), [SOC 304](#), [SOC 308](#), [SOC 313](#), [SOC 314](#), [SSC 363](#))
Writing requirement - choose one of [COM 300](#), [COM 317](#), [ENG 202](#), or [MFC 193](#).

Summary

Total required credit hours for the major: 62

Of the 62 required credit hours, 35 are required credit hours of CDS courses; plus 27 required credit hours from courses outside CDS.

See [Baccalaureate Degree Requirements](#) for general education and remaining university requirements.

Recommended Sequence of Program Requirements

FIRST YEAR

Fall [BIO 129](#), [CDS 151](#), [PSY 101](#)
Spring [CSE 101](#), one linguistics course ([LIN 205](#), [LIN 207](#), or any 300/400-level LIN course except [LIN 355](#) or [LIN 496](#))

SECOND YEAR

Fall [CDS 286](#), [CDS 288](#), [MTH 115](#)
Spring [CDS 289](#), [CDS 290](#), one physical science course (any course from CHE, GLY, or PHY), one statistics course ([CEP 207](#), [PSY 207](#), [SOC 294](#), [SSC 225](#), [STA 111](#), or [STA 119](#))

THIRD YEAR

Fall [CDS 301](#), [CDS 387](#), one human behavior course
Spring [CDS 402](#), [CDS 392](#), one human behavior course

FOURTH YEAR

Fall [CDS 482](#), [CDS 483](#), [CDS 484](#)
Fall or Spring [CDS 480](#)

Speech And Hearing Science - Minor

About the Minor

The field of communicative disorders and sciences relates to many fields and subspecialties. For this reason, the department offers a minor for students who are majors or prospective majors in other departments. Students may choose courses to meet their specific interests.

Required Courses

[CDS 151](#) Introduction to Speech-Language Pathology and Audiology

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Five additional CDS courses, which may include independent study

Summary

Total required credit hours for the minor: 18

CDS 151: Introduction to Speech-Language Pathology and Audiology

Credits: 3
Semester(s): Fall
Type: LEC

Surveys the field of communication disorders and introduces the professions of speech-language pathology and audiology. Introduces the nature of communication disorders and the effects of speech-language-hearing handicaps on the lives of individuals, families, and society. An informational course for students in education, social, and health-related fields who deal with persons whose communicative behaviors are at variance with the norm.

CDS 286: Phonetics

Credits: 3
Semester(s): Fall
Type: LEC

Basic aspects of articulatory and acoustic phonetics and transcription. Recognize and describe phonetic symbols, transcribe American English using the International Phonetic Alphabet. Describe and explain the normal aspects of speech production, including basics aspects of speech anatomy and physiology, speech acoustics, suprasegmentals, phonological processes, and dialects.

CDS 288: Anatomy and Physiology of the Speech Mechanism

Credits: 3
Semester(s): Fall
Type: LEC

Involves an anatomic presentation of the respiratory, laryngeal and supralaryngeal areas of the speech mechanism. Examines muscle and skeletal structure for each speech component. Emphasizes in-depth discussion of breathing physiology for speech, laryngeal function for phonation and supralaryngeal function for articulation and resonance. Provides an anatomic and physiologic basis for all speech and voice disorders.

CDS 289: General and Speech Acoustics

Credits: 3
Semester(s): Spring
Pre-requisites: [CDS 286](#) Or [CDS 288](#)
Type: LEC

Basic concepts of energy, force, and tube acoustics. Acoustic characteristics of vowels and consonants with methods for analysis. Time permitting, theories of speech perception are included.

CDS 290: Audiology: Diagnosis and Management

Credits: 3
Semester(s): Spring
Type: LEC

Introduces etiology, diagnosis, and rehabilitation of auditory disorders.

CDS 301: Language Development in Children

Credits: 3
Semester(s): Fall
Type: LEC

Explores the acquisition of language form and function by typical developing children. Discusses the normal development of phonology, morphology, syntax, semantics, and pragmatics from infancy through early adolescence by examining empirical data and current theoretical issues and controversies. Examines the emergence of literacy skills and the differences in acquisition between mono- and bi-(or multi-) lingual children. Includes the impact of cultural, ethnic, gender, socioeconomic, and individual variation on children's normal language acquisition.

CDS 387: Psychoacoustic Science

Credits: 3
Type: LEC

Presents the acoustic science background necessary for study in speech pathology, audiology, physical acoustics, electroacoustics, speech acoustics, psychoacoustics, psychology, and hearing science.

CDS 392: Phonological Disorders: Diagnosis and Management

Credits: 3
Semester(s): Spring
Pre-requisites: [CDS 286](#)
Type: LEC

Introduction to sound acquisition in typically developing children and atypically developing children who exhibit speech or phonological disorders. Examine the major etiologies of speech disorders and coexisting conditions correlated with phonological disorders. Case studies will introduce various aspects of a comprehensive phonological evaluation and data analyses, and current approaches to phonological remediation.

CDS 402: Language Disorders in Children

Credits: 3
Pre-requisites: [CDS 301](#), and [CDS 482/483](#) (may be taken concurrently with [CDS 402](#)).
Type: LEC

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Studies language disorders in children, including mental retardation, language learning disabilities, and autism. Topics include assessment techniques emphasizing language sample analysis, consideration of dialect differences, and treatment techniques to facilitate generalization.

CDS 428: Neural Basis of Communication

Credits: 3
Semester(s): Fall
Type: LEC

Examines basic concepts of neuroanatomy and neurophysiology as the foundation for understanding communication, sensory, motor and other processing problems of neurologically impaired children and adults.

CDS 480: Clinical Observation and Participation

Credits: 1
Semester(s): Fall, Spring
Type: LAB

Involves presentations and class discussions related to assessment and remediation of a variety of communication disorders. Minimum of twenty-five clock hours of directed observation in diagnosis and treatment of speech, language, and hearing disorders, which is required by ASHA as a prerequisite to clinical practicum.

CDS 482: Diagnostics in Communicative Disorders

Credits: 3
Semester(s): Fall
Type: LEC

Covers procedures involved in the formal and informal evaluation of a variety of speech and language disorders in children and adults. Units include the diagnostic process, interviewing, psychometrics, and testing procedures across disorders.

CDS 483: Diagnostics in Communicative Disorders Lab

Credits: 1
Semester(s): Fall
Type: LAB

Provides practical experience in interviewing, test administration, oral facial examination, and conferencing during the diagnostic process.

CDS 484: Aural Rehabilitation

Credits: 3
Semester(s): Fall
Pre-requisites: [CDS 290](#)
Type: LEC

Studies the effect of hearing impairment on children and adults. Examines the application of knowledge of acoustics, linguistics, cognition, learning, and counseling psychology to the reduction of hearing handicaps.

CDS 485: Speech Pathology in the Schools

Credits: 3
Pre-requisites: [CDS 302](#)
Type: LEC

Organization and administration of speech, language, and hearing programs in schools. Current legislation and practices in school programs. Includes models of service delivery, individualized educational programming, rights and responsibilities of teachers and other staff; instructional design and planning including case selection; multicultural and bilingual considerations; speech-language pathologist's role in language and literacy development. Required for New York State certification of Teachers of Students with Speech and Language Disabilities.

CDS 491: Special Topics

Credits: 3
Semester(s): Fall, Spring, Summer
Type: SEM

The content of this course is variable and therefore it is repeatable for credit. The [University Grade Repeat Policy](#) does not apply.

Content varies each semester.

CDS 493: Honors Research Seminar

Credits: 3
Semester(s): Fall
Type: SEM

Students admitted to the Early Admission Program (early admission to the graduate program in CDS at UB) participate in tutorials from individual academic and clinical faculty members in the department covering research and clinical methods in speech, language, and hearing abilities and disorders. Readings are pertinent to each topic, and students complete a paper or project with a faculty member in an area of interest.

CDS 497: Departmental Honors Thesis or Project

Credits: 3
Semester(s): Fall, Spring
Type: TUT

The content of this course is variable and therefore it is repeatable for credit. The [University Grade Repeat Policy](#) does not apply.

Accepted seniors pursue a specialized, independent study leading to an honors thesis or project.

CDS 498: Undergraduate Research and Creative Activity

Credits: 1-3
Semester(s): Fall, Spring
Type: TUT

The content of this course is variable and therefore it is repeatable for credit. The [University Grade Repeat Policy](#) does not apply.

Students collaborate with faculty research mentors on an ongoing project in a faculty member's laboratory or conduct independent research under the guidance of a faculty member. This experience

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provides students with an inquiry-based learning opportunity and engages them as active learners in a research setting.

CDS 499: Independent Study

Credits: 1-4

Semester(s): Fall, Spring

Type: TUT

The content of this course is variable and therefore it is repeatable for credit. The [University Grade Repeat Policy](#) does not apply.

Individualized student work under the guidance of a faculty member, intended to pursue topics that are not currently offered through regular coursework at the university.