

FROM THE DEPARTMENT CHAIR

Thank you for your interest in pursuing a graduate education in the Washington University Program in Audiology and Communication Sciences. Please take the time to read this bulletin carefully. It will provide you with useful information and answer many of your questions about our programs. If you still have questions, please do not hesitate to get in touch with us. A member of our staff will be pleased to assist you.

The Program offers a world-class education with up-to-date academic, research and clinical programs for master's and doctoral students. We are very proud of the many outstanding faculty members, educators, researchers and clinicians associated with the Program, and we are committed to training leaders of the future in audiology, education of the hearing-impaired and speech and hearing sciences. There is a need in these areas now, and the need will continue to grow into the new millennium.

The Program has some unique features that may be attractive to you. It is affiliated with CID—Central Institute for the Deaf, located on the Washington University Medical School campus—and Washington University School of Medicine's Department of Otolaryngology. Founded in 1914, CID prepares hearing-impaired children to

participate and succeed in mainstream educational settings. CID teachers use the auditory-oral method, helping deaf children learn to speak, listen and read with proficiency without the use of sign language. The Department of Otolaryngology operates the largest otolaryngology program in the nation, with an international reputation for its research efforts. The faculty and staff are proud of our rich heritage, our excellent programs and the thousands of graduates who are enriching the lives of others throughout the world.

This bulletin is intended to give you a summary of our programs and to provide information about the University and the St. Louis environment. But pictures and words can tell only a part of the story. If you are seriously considering studying with us, I encourage you to contact the graduate program coordinator and arrange a personal visit. A visit will allow you to tour our facilities and, more importantly, to learn about our greatest asset: the faculty and staff who are committed to the missions of Washington University, the Program and CID.

We are also happy to make other arrangements for you to learn about our programs. If you'd like to know what it's "really" like to be a student here, we'll arrange to put you in touch with a current or recently graduated student.



Again, I thank you for your interest. The decision about a graduate career is a pivotal one, and will undoubtedly be a major factor in shaping your future. The faculty and staff are committed to making your graduate education experience an outstanding one.

If our programs sound exciting to you, I invite you to apply. Whatever your choice, I wish you the best in your scholarly endeavors.

Sincerely,

A handwritten signature in dark ink that reads "William W. Clark". The signature is written in a cursive, slightly slanted style.

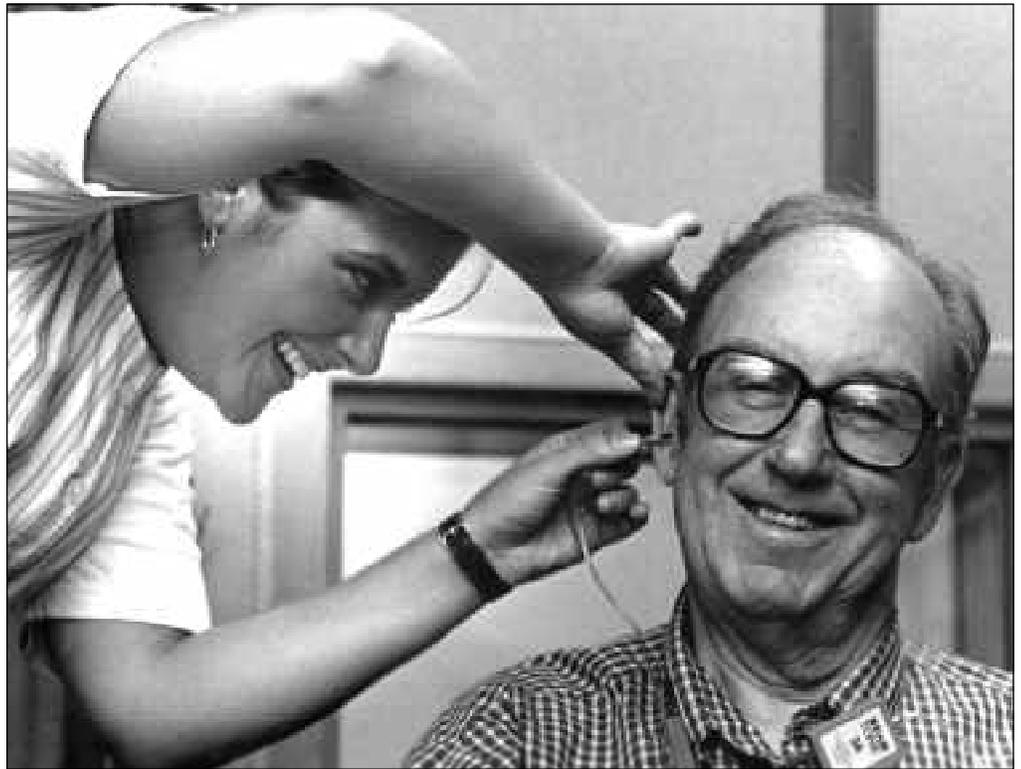
William W. Clark, Ph.D.
Professor of Otolaryngology
Director, Program in Audiology and
Communication Sciences

 **Washington**
University in St. Louis

SCHOOL OF MEDICINE



The programs emphasize hands-on learning, and students have daily opportunities to interact with hearing-impaired adults and children.



Washington University and CID

As affiliates, Washington University School of Medicine and CID cooperate to offer master's and doctoral programs in audiology, education of the hearing impaired, and speech and hearing sciences. We take pride in the strength of our programs, our commitment to graduate education and the exceptional stature of our faculty in the profession.

Since its founding in 1914, CID has participated in the training of teachers of the deaf. In 1931, CID and Washington University agreed to formally offer a bachelor's degree program in deaf education. From that time until 2003, as the Department of Speech and Hearing, CID expanded its programs to include master's and doctoral degrees in

audiology, deaf education, and speech and hearing sciences, and served as a leader in training professionals in fields related to speech and hearing.

In September 2003, the graduate programs of CID formally merged with Washington University School of Medicine to become the Program in Audiology and Communication Sciences. The audiology program is currently ranked among the top 10 by *U.S. News & World Report*, and the deaf education program is internationally renowned for its pioneering techniques in oral deaf education. Students have come from more than 30 countries to study with us, and our alumni are leaders at universities, schools, clinics and research organizations around the world.



The academic, research, clinical and service affiliations between Washington University School of Medicine and CID provide an outstanding array of opportunities and resources for graduate students.

The new, state-of-the-art CID building is a part of Washington University Medical Center, which includes Barnes-Jewish and St. Louis Children's hospitals and Washington University School of Medicine, located just across the street from the CID entrance.



Graduate Education Academic Programs

- DOCTOR OF AUDIOLOGY (Au.D.)
- MASTER OF SCIENCE IN SPEECH AND HEARING
with a Specialization in Education of the Hearing Impaired
- MASTER OF ARTS IN SPEECH AND HEARING SCIENCES
- DOCTOR OF PHILOSOPHY IN SPEECH AND HEARING SCIENCES

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AUDIOLOGY

New technology and an aging population have created an unprecedented demand for skilled audiologists. Over the next decade, audiology will be one of the fastest growing occupations in the U.S.* Cochlear implants, digital hearing aids, aural rehabilitation programs and newborn infant screening legislation have brought about a revolution in the ways professionals are helping people who are deaf and hard of hearing. It is an exciting time to enter the field of audiology, and Washington University's program is recognized internationally as one of the best academic and practical training centers.

Degree candidates in the Au.D. program proceed from classroom-based instruction and observation to progressively more specialized coursework and practicum experiences. During the first year, students complete introductory coursework and begin observation and clinical practicum. An independent study is required in lieu of a master's thesis, and is completed under the guidance of one or more faculty members. Graduates of the program are fully eligible for state licensure and ASHA certification.

Students begin hands-on experience from almost the first day and are given a wide variety of opportunities to put their knowledge into practice. Each practicum experience is one-on-one with a fully certified and licensed audiologist. Practicum is available with both children and adults in a wide variety of settings. Students gain clinical practice with standard testing, special diagnostic testing, newborn hearing screenings, intraoperative monitoring, cochlear implants, hearing aids, hearing-impaired children in the CID school, aural rehabilitation groups for adults and more.

Washington University maintains a relatively small, personalized program, offering the advantages of a small college campus plus a broad range of courses, facilities and extracurricular activities available at the University and in the St. Louis area. Our faculty includes well-known leaders in the field of audiology and speech and hearing sciences, including the authors of widely used textbooks in audiology and aural rehabilitation. Central to all activities in the Program is our mission to serve people with hearing loss worldwide so they can communicate effectively and live to their fullest potential.

**The CID Program in
Audiology is once
again rated among the
nation's Top 10
audiology programs by
*U.S. News & World
Report for 2002.***

* According to the U.S. Bureau of Labor Statistics 2002-03 *Occupational Outlook Handbook*, the number of audiology positions is expected to climb 45 percent by 2010.



“I love it that faculty are not only well-known in the field, they’re also working professionals, not just teaching what they learned 10 years ago. Also, the opportunity to get to know the children at the CID school, day by day, is something you just can’t find in any other program.”

— Julie Mullen, graduate student in Audiology



COUNCIL ON ACADEMIC ACCREDITATION
• ACCREDITED •
AUDIOLOGY

The Au.D. program is accredited by the Council on Academic Accreditation (CAA) of the American Speech-Language-Hearing Association (ASHA). All clinical supervisors have a Certificate of Clinical Competence (CCC) from ASHA.

Local Practicum Sites

Alexian Brothers Hospital
Barnes-Jewish Hospital
Cardinal Glennon Children’s Hospital
Center for Hearing and Balance Disorders
CID School
Deaconess Health System
Ear, Nose and Throat Institute
ENT Associates
Hear America
Hometown Hearing
Illinois Special School District, Region III
Jefferson Memorial Hospital
Midwest Otologic Group
St. Anthony’s Hospital
St. Elizabeth’s Hospital
St. John’s Mercy Medical Center
St. Joseph Institute
St. Louis Hearing and Speech Center
St. Louis Children’s Hospital
St. Louis Special School District
St. Louis University Health Sciences Center
St. Mary’s Health Center
Scott Air Force Base
SONUS
Washington University School of Medicine

EDUCATION OF THE HEARING IMPAIRED

The field of deaf education is one that is both challenging and genuinely rewarding. The graduate program focuses on a comprehensive approach to preparing teachers to develop the knowledge and skills needed to help hearing-impaired children learn to listen and talk.

Students from all backgrounds study the scientific, educational and practical foundations

necessary for providing the highest-quality education for hearing-impaired children — from the first sounds and words children learn to speak to putting together sentences and conversational discourse. Students first learn about and later participate in this process, from the first diagnosis and intervention through family-centered counseling to the educational experience of the child. Students also learn about the many assistive devices available, including digital hearing aids, cochlear implants, FM systems and sound field systems.

Student teaching experiences are available on campus in the CID school, which educates students from birth to approximately 12 years, as well as other public schools and schools for the deaf around the country. Students will learn to work one-on-one with infants and their families in the CID Family Center, as well as to teach preschool, primary and middle school levels in the academic subjects that are taught in settings for typically-hearing children.

Washington University's graduate program is recognized internationally as one of the best training centers in oral-aural education, and it provides a rich educational experience. However, our success is largely determined by the special qualities of the individuals who choose deaf education as a career. We have been fortunate to have trained a great many individuals in our program who possess inner strength, compassion, dedication and patience, and who combine these attributes with their education at Washington University to become successful teachers and school administrators. Our alumni have gone on to teach in a variety of settings, including

Students in Education of the Hearing Impaired are given ample opportunities to work with children in the CID school.





“CID emphasizes learning through hands-on experience using the most up-to-date teaching methods. The strong science-based curriculum and attention to professionalism help people with teaching potential become great teachers.”

— Ellie Rice, graduate student in Deaf Education

special school districts, parent-infant programs, cochlear implant centers and oral schools for hearing-impaired children, and to head other schools for the deaf. Graduates of the program are eligible for teacher certification in the State of Missouri and for certification by the Council on Education of the Deaf (CED).

Our two-year program is designed for students without a background in deaf education and without experience teaching hearing-impaired children; our one-year program is designed for individuals with this training or experience. Each program requires an independent study in lieu of a master's thesis, which is completed under the guidance of one or more members of the faculty.

Washington University maintains a relatively small, personalized program, offering the advantages of a small college campus plus a broad range of courses, facilities and extracurricular activities available at the University and in the St. Louis area. Our faculty includes well-known leaders in the field of audiology and speech and hearing sciences, including the authors of widely used textbooks in audiology and aural rehabilitation. Central to all activities in the Program is our mission to serve people with hearing loss worldwide so they can communicate effectively and live to their fullest potential.

The Program in Education of the Hearing Impaired is accredited by the Council for Exceptional Children (CEC) and the Council on Education of the Deaf (CED). CID's school for hearing-impaired children is accredited by the Missouri Department of Elementary and Secondary Education. The CID school has the distinction of being the only school for hearing-impaired children to receive an award for excellence twice from the U.S. Department of Education.

New technologies have created a high demand for teachers of hearing-impaired children.

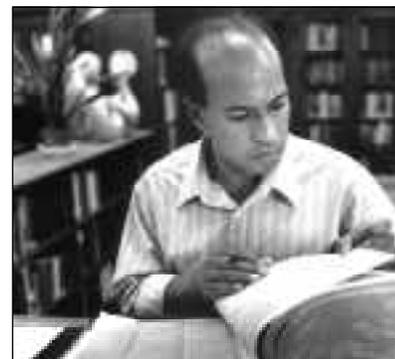


About Our Students

A Washington University student is not just a "taker of courses," but is a member of a professional community, accepting its responsibilities as well as enjoying its privileges. The men and women in our academic programs are carefully selected on the basis of academic qualifications and professional promise.

Students come from all over the world. Not only have most of the states of the Union been represented at one time or another, but other countries, including

Argentina, Australia, Brazil, Canada, China, Chile, Colombia, Denmark, El Salvador, England, Finland, France, French Morocco, Ghana, Guatemala, Honduras, India, Ireland, Israel, Jamaica, Japan, Kenya, Korea, Malaysia, Mexico, New Zealand, Nigeria, Norway, Pakistan, Peru, The Philippines, Scotland, South Africa, Spain, Taiwan, Thailand, Venezuela and the city of Hong Kong, have had their share of representation in the Program.





Speech and Hearing Sciences students benefit from on-campus clinical facilities and research laboratories dedicated to studying the processes of speech, language and hearing.

SPEECH AND HEARING SCIENCES

To further our understanding of communication processes, scientists study human or animal subjects using a variety of procedures. Because communication processes are so complex and involve so many diverse subprocesses (e.g. speech, language and hearing in the case of human communication), individuals academically trained in the speech and hearing sciences may be found working in a wide array of diverse, seemingly unrelated environments. Most hold academic positions in universities. Others work for research departments in special institutes. Still others conduct research for commercial companies, such as telephone and hearing

aid manufacturers. Because the profession is research-oriented as opposed to service-oriented, almost all individuals working in this area hold a doctoral degree.

The Doctor of Philosophy (Ph.D.) Program in Speech and Hearing Sciences prepares individuals for careers in research, clinical practice and/or academic teaching at the college level. Typically, students spend approximately three years completing academic coursework requirements and one or two years completing a dissertation. On rare occasions, it is possible to receive a Master of Arts in Speech and Hearing Sciences. This special degree program, shorter than the doctoral program, requires a master's thesis and an oral defense of that thesis.

Washington University provides a unique and excellent educational and research environment, offering a multitude of possibilities for students to interact with researchers; faculty members; school teachers and administrators; speech, hearing and language clinicians; and other graduate students. Students are encouraged to participate in this vibrant community of scholars and have opportunities to participate in numerous seminars and journal clubs at CID, Washington University and the School of Medicine.

A candidate for an advanced degree in the Program in Speech and Hearing Sciences is expected to have a basic knowledge of aspects of the fields that pertain to speech, language and hearing and to defend this knowledge with written and oral examinations. The candidate is also expected to demonstrate knowledge and expertise in one of the core areas of specialization.

Like the communication process itself, the Ph.D. program is multi-disciplinary and includes core courses relevant to the scientific study of speech, language and hearing. Areas of specialization include:

- Clinical Audiology
- Education of the Hearing Impaired
- Sensory Neuroscience
- Speech and Language Sciences

Curriculum requirements are available upon request for all specialties.



APPLICATION PROCEDURES

For its graduate programs in audiology, education of the hearing impaired, and speech and hearing sciences, the Program admits individuals holding a bachelor's degree from a regionally

accredited college or university.

Application materials may be submitted any time, but should be submitted by February 15 for full consideration for admission and financial aid. Applicants for the Program in Education of the Hearing Impaired may also apply by December 15 for an early admission and financial aid decision. Applications submitted after February 15 are considered late. Late applicants should recognize that they may be at a disadvantage in receiving consideration for admission and financial aid.

Washington University encourages and gives full consideration to all applicants for admission and financial aid without regard to age, race, color, national origin, handicap, sexual orientation or religion. Admission is granted on the basis on ability, promise of achievement and the number of openings for new students currently available in the program. Admission is highly selective and by no means can be assured for all who have successfully completed the minimal requirements for admission.

To apply, please submit the following:

- A completed graduate application accompanied by a nonrefundable \$40 application fee.
- Official transcripts from all previous college coursework.
- Three letters of recommendation. It is suggested that at least one letter be from a faculty member of the student's undergraduate program.

Undergraduate Coursework Requirements — Audiology

Applicants from all undergraduate disciplines are eligible for admission and are encouraged to apply. All applicants should complete the following courses at the undergraduate level:

- **Biological Sciences/Physical Sciences** — minimum six semester hours
- **Mathematics** — minimum three semester hours
- **Behavioral/Social Sciences** — minimum six semester hours

Additional coursework may be required of all students if the following content has not been satisfactorily completed at the undergraduate level:

- **Abnormal Language Development**
- **Anatomy and Physiology of Speech**
- **Phonetic Transcription**
- **Introduction to Audiology**
- **Normal Language Development**
- **Normal and Abnormal Speech Development**

Undergraduate Coursework Requirements — Education of the Hearing Impaired

Applicants from all undergraduate disciplines are eligible for admission and are encouraged to apply. For teacher certification purposes, all applicants are encouraged to complete the courses listed below at the undergraduate level. If deficiencies remain, it is possible for students to fulfill one or two during the course of the graduate program.

- **Education and Psychology of the Exceptional Child** — one course*
- **Child and Adolescent Psychology** — one course*
- **English Composition** — two courses
- **Oral Communication** — one course
- **Humanities** — one course each from two of the following fields:
Art, Classics, West and non-West Cultures, Drama, Foreign Language, Literature, Music, Philosophy
- **Mathematics** — one course
- **Biological Science** — one course
- **Physical/Earth Science** — one course
- One lab component from either **Biological or Physical Science**
- **American Government** — one course
- **American History** — one course
- One course selected from among the following areas:
Anthropology, Economics, General Psychology, Geography, Sociology

*Each course must be at least two semester hours in length, except those marked with an asterisk, which must be at least three.

■ Official scores from the general test of the Graduate Record Examination (GRE). Although we do not have a criterion score for admission, to be fully considered as a candidate, a student should obtain a score of at least 400 on each section of the exam (for tests taken before October 1, 2002) or at least 400 on the verbal and quantitative sections and 3.5 on the writing assessment section (for tests taken October 1, 2002 and after).

■ A tour/interview is strongly encouraged. Please contact us to arrange.



International Students

Students from outside the United States can be admitted either as degree candidates or as special students, depending on their qualifications and goals. Interested individuals should follow regular admission policies. International students are required to present certification of financial support before a visa eligibility certificate (Form I-20) can be issued. To demonstrate adequate proficiency in English, students from countries where the first language is not English must take the Test of English as a Foreign Language (TOEFL), administered in most countries by the Educational Testing Service.



FINANCIAL INFORMATION

Tuition and Fees

All applicants must submit a nonrefundable application fee of \$40 upon filing. Tuition for the 2004-05 academic year is \$20,000 for full-time students, \$600 per hour for part-time students. A deposit is required after a student is accepted for admission to reserve his or her place in the class.

Financial Aid

For 2004-05, available financial aid opportunities include full scholarship support for the Program in Education of the Hearing Impaired, as well as other Program scholarships and work/study opportunities. These opportunities are provided by the Program through endowments, private contributions and other sources. Typically, 95 percent to 100 percent of our graduate students receive financial aid directly from the Program.

To be considered for financial aid, students must indicate interest on the application form and complete the Program financial aid application. Federal financial aid application materials are available through Washington University.

Information on Campus Safety and Security in Compliance with Title II of the Federal Crime Awareness and Campus Security Act of 1990. Each year, Washington University publishes a brochure, *Safety and Security*, that details what to do and whom to contact in an emergency and includes the federally required annual security report. For a copy, contact the Washington University Policy Department, Campus Box 1038, One Brookings Drive, St. Louis, MO 63130-4899, (314) 935-9011 or Pam_Green@aismail.wustl.edu, or visit police.wustl.edu.



Brookings Hall, a Collegiate Gothic building reminiscent of Windsor Castle, is the hallmark of Washington University. It is the main entrance to the Hilltop Campus on the west side of Forest Park.

WASHINGTON UNIVERSITY

Washington University, a medium-sized, independent university with an enrollment of 12,767, is dedicated to challenging its faculty and students alike to seek new knowledge and greater understanding of an ever-changing, multicultural world. The University is counted among the world's leaders in teaching and research, and draws students and faculty to St. Louis from all 50 states and more than 110 nations. The University is highly regarded for its commitment to excellence in learning. Its programs, administration, facilities, resources and activities combine to further its mission of teaching, research and service to society.

The University has played an integral role in the history and continuing growth of St. Louis and benefits in turn from the wide array of social, cultural and recreational opportunities offered by the metropolitan area to its more than 2.6 million residents.

Bordered on the east by St. Louis' famed Forest Park and on the north, west and south by well-established suburbs, the 169-acre Hilltop Campus features predominantly Collegiate Gothic architecture, including a number of buildings on the National Register of Historic Places. Adjacent is the South 40 residence hall area. University-owned apartment buildings in neighborhoods adjacent to campus offer affordable student housing.

At the other end of Forest Park—the site of the 1904 World's Fair and one of the nation's largest metropolitan parks—is the 59-acre Medical Campus; this complex in St. Louis' Central West End district includes the School of Medicine and the associated hospitals and institutes of Washington University Medical Center.

The School of Medicine has a rich, 111-year history of success in research, education and patient care. It pioneered bedside teaching and led in the transformation of empirical knowledge into scientific medicine. From the earliest days, there has been an understanding that "investigation and practice are one in spirit, method and object."

The School of Medicine attracts students of exceptional quality and has one of the finest faculties of any medical school in the nation. In fiscal year 2002, the medical school received \$328 million from the National Institutes of Health in grants, making it the third-largest recipient of NIH dollars among U.S. medical schools. The school has a rich tradition of interdisciplinary collaboration and a strong link between basic science and clinical medicine.

ST. LOUIS

Known as the “Gateway to the West,” St. Louis was initially a trading post in 1764 and has evolved into a metropolitan area of more than 2.6 million people. From the centrally located CID campus, one can travel minutes by car, bus or MetroLink to many cultural and historical offerings, including Powell Hall, home of the renowned Saint Louis Symphony Orchestra; the Muny Opera; the Fox Theater and numerous other live concert and theater venues; the Jefferson National Expansion Memorial (the Gateway Arch); the St. Louis Science Center, Art Museum and Zoo; the Missouri Botanical Garden; Laumeier Sculpture Park; and the City Museum.

A diverse selection of restaurants, entertainment and nightlife is offered in places such as Laclede’s Landing, the University City Loop, South Grand, the Washington Avenue loft district, the nearby Central West End and elsewhere in the city. St. Louis boasts professional baseball, football and hockey teams—the Cardinals, Rams and Blues. The Savvis Center and the UMB Bank Pavilion offer major concert venues. Riverboat casinos and cruises are also favorite destinations for evening and weekend leisure.

In recent years, St. Louis has experienced a building renaissance, including a major convention center expansion and the Edward Jones Dome, used for NFL football and other purposes. Quality, affordable residential, recreational and shopping opportunities are available in the city as well as in the suburbs on both sides of the Mississippi River. Major highways and the expanding MetroLink system make it possible to get almost anywhere quickly, whether it be Union Station, a shopping complex in the heart of the city, or the Galleria, a popular suburban mall. Regional biking and hiking opportunities include the River Road and the Katy Trail.

The St. Louis skyline looking east from west Market Street.



Central West End

Washington University School of Medicine is located in the Central West End neighborhood of St. Louis. Within walking distance are shops, galleries, dance clubs, restaurants and late-night gathering places serving myriad interests and tastes.

Because the campus adjoins Forest Park, facilities for tennis, walking, golf, cycling, handball, racquetball, in-line skating and even sailing are at the student’s easy disposal. The park, one of the largest municipal parks in America, also contains an outstanding zoo, an excellent art museum and the St. Louis Science Center, one of the largest and most highly acclaimed such centers in the world.

Program in Audiology and Communication Sciences Faculty and Staff, 2004-05

Administration	Mark S. Wrighton, Ph.D., chancellor, Washington University Edward S. Macias, Ph.D., dean, Arts & Sciences Robert E. Thach, Ph.D., dean, Graduate School of Arts & Sciences Larry J. Shapiro, M.D., dean, School of Medicine Richard A. Chole, M.D., Ph.D., chair, Department of Otolaryngology William W. Clark, Ph.D., director, Program in Audiology and Communication Sciences
Professors	Richard A. Baird, Ph.D., University of California–Berkeley, 1981 Barbara A. Bohne, Ph.D., Washington University, 1971 Donald G. Brennan, Ph.D., CCC-SLP, University of Oklahoma, 1974 William W. Clark, Ph.D., University of Michigan, 1975 Ann E. Geers, Ph.D., Washington University, 1979 James D. Miller, Ph.D., Indiana University, 1957 T.K. Parthasarathy, Ph.D., CCC-A, University of Texas–Dallas, 1987 Margaret W. Skinner, Ph.D., CCC-A, Washington University, 1976 Brad A. Stach, Ph.D., CCC-A, Baylor College of Medicine, 1986 Nancy Tye Murray, Ph.D., University of Iowa, 1984 Michael Valente, Ph.D., CCC-A, University of Illinois, 1975
Associate Professors	J. David Dickman, Ph.D., University of Wyoming, 1985 Judith M. Ogilvie, Ph.D., Harvard University, 1983 Kevin K. Ohlemiller, Ph.D., Northwestern University, 1990 Dwayne D. Simmons, Ph.D., Harvard University, 1986 Mark E. Warchol, Ph.D., Northwestern University, 1989
Assistant Professors	Carl D. Bohl, D.Sc., University of Cincinnati, 1973 Lisa S. Davidson, M.S., CCC-A, Washington University, 1987 Brian T. Faddis, Ph.D., University of California–Davis, 1994 Roanne K. Karzon, Ph.D., CCC-A, University of Michigan, 1975 David I. Mason, Ph.D., CCC-A, University of Tennessee, 1983 Johanna G. Nicholas, Ph.D., Washington University, 1990 Marlene Salas-Provance, Ph.D., CCC-SLP, University of Illinois, 1990 Rosalie M. Uchanski, Ph.D., Massachusetts Institute of Technology, 1988
Lecturers	Brigid B. Barringhaus, M.S., Washington University, 1999 Lynda C. Berkowitz, M.S., Washington University, 1983 Deborah L. Carter, M.A.T., Webster University, 1991 Christine M. Clark, M.A., Maryville University, 1999 J. Eric Driskill, M.Ed., University of Arkansas, 1994 JoEllen Epstein, M.A.Ed., Maryville University, 2000 Barbara A. Lanfer, M.A.Ed., University of Missouri–St. Louis, 1998 E. Tracy Mishler, M.A., CCC-A, Northwestern University, 1981 Kathleen Rehwinkel, M.S., CCC-A/SLP, Washington University, 2000 Mary H. Russo, M.S., CCC-A, Washington University, 1989 Catherine Schroy, M.S., CCC-A, Washington University, 1998
Professors Emeritus	Donald H. Eldredge, M.D. Ira J. Hirsh, Ph.D., David P. Pascoe, Ph.D., CCC-A
Staff	Elizabeth A. Elliott, graduate program coordinator René P. Menendez, program assistant

COURSE DESCRIPTIONS

The following courses are currently offered within the Program in Audiology and Communication Sciences four-year cycle. The Program cannot guarantee that all courses will be offered annually, and course offerings depend on demand. The Program reserves the right to add, change or delete courses and to institute changes in the curriculum and degree requirements as needed.

234 Introduction to Speech and Hearing Sciences and Disorders 3 credit hours

Introduction to speech-language pathology, audiology, education of hearing-impaired children and speech and hearing sciences. Normal speech and hearing processes will be discussed as well as communication disorders. Selected research topics in speech and hearing sciences will be presented.

400 Anatomical and Physiological Bases of Speech and Articulation 3 credit hours

Basic anatomy and physiology of the speech modulation system. Emphasis on major anatomical structures related to normal and common pathologies of speech functions.

403 Anatomical and Physiological Bases of Hearing 3 credit hours

Introduction to anatomy and physiology of the peripheral hearing system and central nervous system, including functional descriptions of the systems and processes underlying hearing function and dysfunction.

4011 Behavior Management 2 credit hours

Provides an introduction to various behavior management systems effective in both individual and group environments. Behavior modification, environmental controls, psychodynamic techniques and biophysical interventions are discussed, observed and practiced. Lectures and experience with children.

414 Hearing 3 credit hours

Study of the basic auditory phenomena: sensitivity, psychophysical attributes, masking, localization, adaptation and complex auditory perception.

416 Evaluation Techniques for the Hearing and Language Impaired 3 credit hours

A basic introduction to psychometrics with emphasis on the selection, interpretation and evaluation of tests. Specific techniques for assessing intellectual, educational, linguistic and academic development in the hearing and language impaired, from infancy through adolescence, will be discussed and demonstrated.

421 Introduction to Electroacoustics 3 credit hours

Principles of physical acoustics and bioacoustics basic to an understanding of normal and abnormal hearing and speech and of the instruments (audiometers, hearing aids, sound analyzers, computers) used in work with hearing-impaired persons.

422 Basic Acoustic Measurements 2 credit hours

Introduction to the physics of sound. Topics include production, transmission and reception of sound, and factors affecting human communication. Discussion, lecture and lab.

433 Acoustical Phonetics and Speech Perception 3 credit hours

Acoustical analysis of speech sounds; cues and features of speech in production and perception; various effects on speech perception.

434 Normal Language Development 3 credit hours

Study of normal language development, including the phonologic, morphologic, semantic, syntactic and metalinguistic aspects. Methods of language measurement, including the role of comprehension, and pragmatic aspects of language are included.

436 Introduction to Manual Communication 2 credit hours

Analysis and comparison of American Sign Language and other sign systems used by hearing-impaired people. Review of related literature and research. Lectures, demonstration, reading.

440 Cochlear Implants in Children: Rehabilitative Techniques 2 credit hours

Course will cover a variety of topics related to selection, fitting and rehabilitation of pediatric cochlear implant patients. Lectures and practical experience in psychophysical testing, programming of the cochlear implant and auditory training with children.

4501 Observation and Practicum in Education 2 credit hours

Supervised observation and field experience in a classroom prior to full-time student teaching.

4511 Practicum in Education of the Hearing Impaired I 4 credit hours

Supervised practicum in Education of the Hearing Impaired.

4512 Practicum in Education of the Hearing Impaired II 4 credit hours

Supervised practicum in Education of the Hearing Impaired.

4513 Practicum in Reading for Hearing-Impaired Children I 1 credit hour

Supervised practicum in teaching reading to hearing-impaired children.

4514 Practicum in Reading for Hearing-Impaired Children II 1 credit hour

Supervised practicum in teaching reading to hearing-impaired children.

4515 Language Instruction for Hearing-Impaired Children 3 credit hours

Principles and methods of developing competence in spoken English in hearing-impaired toddlers and children through age 15. This course includes presentation of instructional techniques for teaching hearing-impaired children English vocabulary and syntax, as well as techniques for developing and encouraging spoken language for communicating.

Sample Course of Study—Audiology

Year One

Acoustical Phonetics and Speech Perception
Anatomical and Physiological Bases of Speech and Hearing
Auditory Neuroscience
Electroacoustics
Hearing Disorders
Hearing Evaluation and Diagnosis I
Introduction to Audiology
Normal Language Development
Observation and Practicum in Audiology
Vestibular Disorders

Year Two

Clinical Electrophysiological Assessment
Hearing Devices I and II
Hearing Evaluation and Diagnosis II
Pediatric Audiology
Practicum in Audiology
Psychoacoustics
Rehabilitative Audiology

Year Three

Advanced Hearing Evaluation and Diagnosis
Capstone Project
Effects of Noise on Hearing
Hearing Devices I and II
Practice Management
Practicum in Audiology
Professional Ethics

Year Four

Clinical Residency

4525 Reading Instruction for Hearing-Impaired Children *3 credit hours*

Principles and methods of developing reading competence in normal-hearing and hearing-impaired children with an emphasis on the stages of development and appropriate teaching sequences. Various approaches to teaching reading to normal-hearing children are presented and appropriate adaptations for hearing-impaired children are discussed as well as techniques and materials designed specifically to accommodate to the language deficit exhibited by some hearing-impaired children.

454 Education Curricula for Hearing-Impaired Children I *3 credit hours*

Principles and methods of teaching subject matter, including written language, science, social studies, mathematics and physical education, and the use of instructional technology. Mainstreaming is discussed. Lectures, demonstrations, observations and some practice teaching.

455 Education Curricula for Hearing-Impaired Children II *3 credit hours*

Principles and methods of teaching subject matter, including written language, science, social studies, mathematics and physical education, and the use of instructional technology. Mainstreaming is discussed. Lectures, demonstrations, observations and some practice teaching.

457 Counseling Parents of Hearing-Impaired Children *3 credit hours*

Study of the social, psychological and educational needs of parents as they relate to their hearing-impaired child.

458 Speech for Hearing-Impaired Children *3 credit hours*

Development, improvement and maintenance for hearing-impaired children through multisensory approaches. Articulation, voice and rhythm patterns are considered. Lectures, demonstrations and practice.

460 Observation and Practicum in Audiology *2 credit hours*

Supervised observation/field experience prior to full-time clinical work.

4610 Practicum in Audiology I *2-4 credit hours*

Supervised practicum in audiology.

4611 Practicum in Audiology II *2-4 credit hours*

Supervised practicum in audiology.

4612 Practicum in Audiology III *2-4 credit hours*

Supervised practicum in audiology.

4613 Practicum in Audiology IV *2-4 credit hours*

Supervised practicum in audiology.

4614 Practicum in Audiology V *2-4 credit hours*

Supervised practicum in audiology.

4615 Practicum in Audiology VI *2-4 credit hours*

Supervised practicum in audiology.

4620 Clinical Residency I *12 credit hours*

4622 Clinical Residency II *12 credit hours*

463 Introduction to Audiology
3 credit hours

A survey of the entire field of audiology. Topics include the physics of sound, normal and disordered hearing of both children and adults, standard and advanced measures of auditory function, rehabilitative strategies such as hearing aids and cochlear implants and the profession of audiology as a career.

466 Rehabilitative Audiology
3 credit hours

Principles and methods of aural rehabilitation with an emphasis on patient management. Topics include communication strategies and conversation styles, speech recognition assessment and hearing aid service provisions for adults, older persons, children and family members.

468 Diagnostic Pediatric Audiology
2 credit hours

Fundamentals of audiologic assessment for infants and children. Behavioral as well as electro-physiologic procedures will be presented. Assessment of auditory processing abilities will be covered.

470 Practice Management
2 credit hours

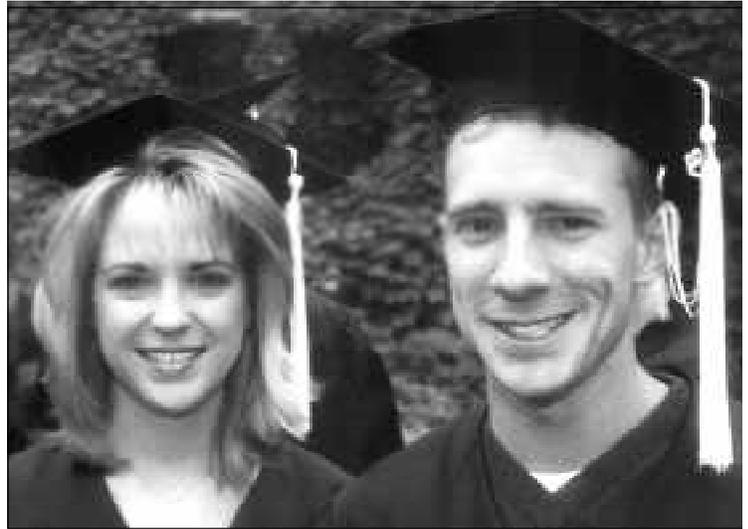
472 Professional Issues and Ethics
1 credit hour

505 Auditory Neuroscience
2 credit hours

507 Vestibular Disorders
1 credit hour

511 Effects of Noise on Hearing
3 credit hours

Discussion of topics, selected year by year, in hearing, auditory perception, noise-induced hearing loss and industrial hearing conservation.



519 Psychosocial and Educational Aspects of Deafness
3 credit hours

Lectures and discussions of the history, trends and philosophical approaches to deaf/Deaf education, and of the psycho-social characteristics of deaf/Deaf cultures.

5301 Seminar in Language Pathology
3 credit hours

Lecture, reading and discussion on the nature, diagnosis and treatment of various pathologies of language other than those associated with hearing impairment.

5401 Seminar in Speech Pathology
3 credit hours

Lecture, reading and discussion on the nature, diagnosis and treatment of various pathologies of speech other than those associated with hearing impairment.

558 Teaching Portfolio
2 credit hours

Guidelines and skills for creating and maintaining a record of each student's professional growth as a teacher of the deaf that reflects his/her philosophy, knowledge, teaching expertise and experience. Students will examine and reflect on their teaching practice as it relates to personal goals as well as state and national standards for teaching excellence.

562 Hearing Evaluation and Diagnosis I
3 credit hours

Analysis of clinical tests of auditory function and expected results associated with different anatomical sites of dysfunction. Principles of selection and interpretation of testing, infancy through adulthood, including brainstem responses.

563 Hearing Evaluation and Diagnosis II
3 credit hours

Analysis of clinical tests of auditory function and expected results associated with different anatomical sites of dysfunction. Principles of selection and interpretation of testing, infancy through adulthood, including brainstem responses.

**565 Hearing Devices in
Audiology I**
3 credit hours

Philosophical issues related to the selection and evaluation of hearing aids. Means of adjusting hearing aids and measuring their function and benefit. Alternative devices for hearing-impaired listeners will be discussed.

**5652 Hearing Devices in
Audiology II**
3 credit hours

Philosophical issues related to the selection and evaluation of hearing aids. Means of adjusting hearing aids and measuring their function and benefit. Alternative devices for hearing-impaired listeners will be discussed.

**5653 Hearing Devices in
Audiology III**
3 credit hours

Philosophical issues related to the selection and evaluation of hearing aids. Means of adjusting hearing aids and measuring their function and benefit. Alternative devices for hearing-impaired listeners will be discussed.

**566 Advanced Hearing
Evaluation and Diagnosis**
3 credit hours

Discussion and practice with complex tests of auditory function.

**568 Clinical Electrophysiology
Assessment**
3 credit hours

Fundamental principles essential to the understanding of clinical electrophysiology assessment and the clinical application of these procedures.

569 Hearing Disorders
3 credit hours

Covers the nature and causes of hearing disorders, including outer and middle ear, cochlear, retro-cochlear and central nervous system.

570 Independent Study
1-6 credit hours

**571/572 Evaluating and
Reporting Research in
Speech and Hearing**
2 credit hours

Critical discussion of professional periodicals and current books dealing with speech and hearing disorders and related fields. Emphasis on research methods and analysis of findings. Communication skills and speaking techniques are emphasized through oral presentations by the students and critiques of those presentations.

574 Quantitative Methods
1 credit hour

575 Special Topics
1-6 credit hours

**577 Research in Speech
and Hearing**
1-12 credit hours

587 Dissertation Research
1-12 credit hours

**597 Supervised Teaching in
Speech and Hearing**
1-6 credit hours

**Sample Course of Study — Education
of the Hearing Impaired (Two-Year)**

Year One — Fall Semester

- 4011 Behavior Management
- 403 Anatomical and Physiological Bases of Hearing
- 422 Basic Acoustic Measurements
- 434 Normal Language Development
- 4515 Language Instruction for Hearing-Impaired Children

Year One — Spring Semester

- 433 Acoustical Phonetics and Speech Perception
- 4525 Reading Instruction for Hearing-Impaired Children
- 454 Education Curriculum for Hearing-Impaired Children I
- 458 Speech for Hearing-Impaired Children
- 519 Psychosocial and Educational Aspects of Deafness

Year One — Postsession

- 440 Cochlear Implants in Children: Rehabilitative Techniques

Year Two — Fall Semester

- 416 Evaluation Techniques for the Hearing- and Language-Impaired
- 436 Introduction to Manual Communication
- 4511-13 Practicum
- 455 Education Curriculum for Hearing-Impaired Children II
- 466 Rehabilitative Audiology

Year Two — Spring Semester

- 4512-14 Practicum
- 457 Counseling Parents of Hearing-Impaired Children
- 570 Independent Study
- 572 Evaluating and Reporting Research in Speech and Hearing

Please address inquiries to:

Washington University School of Medicine
Program in Audiology and Communication Sciences
660 S. Euclid Ave.
Campus Box 8042
St. Louis, MO 63110

(314) 977-0240
(314) 977-0027 fax
www.cid.wustl.edu

Contacts:

William W. Clark, Ph.D.

Professor of Otolaryngology and Director,
Program in Audiology and Communication Sciences
(314) 977-0251
clarkw@msnotes.wustl.edu

Elizabeth A. Elliott

Graduate Program Coordinator,
Program in Audiology and Communication Sciences
(314) 977-0262
elliottb@msnotes.wustl.edu

René Menendez

Graduate Program Assistant,
Program in Audiology and Communication Sciences
(314) 977-0287
menender@msnotes.wustl.edu

The one-year master's program in Education of the Hearing Impaired is designed for students holding a bachelor's degree and certification in deaf education and/or experienced teachers of the deaf. Students gain knowledge and experience in speech and hearing sciences, curricula for hearing-impaired children, speech and language instruction, cochlear implants and aural rehabilitation. The program provides advanced training and experience tailored to the individual student's needs.

Sample Course of Study — Education of the Hearing Impaired (One-Year)

Fall Semester

416	Evaluation Techniques for the Hearing- and Language-Impaired
422	Basic Acoustic Measures
4511-13	Practicum
4515	Language Instruction for Hearing-Impaired Children
455	Education Curricula for Hearing-Impaired Children II

Spring Semester

433	Acoustical Phonetics and Speech Perception
4512-14	Practicum
4525	Reading Instruction for Hearing-Impaired Children
570	Independent Study
572	Evaluating and Reporting Research in Speech and Hearing

Postsession

440	Cochlear Implants in Children: Rehabilitative Techniques
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