The doctor of audiology (AuD) program at the University of Texas at Dallas (UTD)/Callier Center for Communication Disorders reflects the integration and growth of two outstanding institutions. UTD opened in 1961 in Richardson, TX, as the Graduate Research Center of the Southwest (GRCS). GRCS joined the University of Texas system in 1969 as the UTD and offered only upper-division undergraduate (junior and senior classes) and graduate programs until 1989, when freshman and sophomore students were admitted. The Callier Hearing and Speech Center was incorporated in 1963 as a not-for-profit, community-based institution whose mission was to provide educational programs to children in Dallas County who were deaf, state-of-the-art clinical programs for children and adults with communication disorders, and basic and applied research programs in communication disorders. In 1972, the center became the Callier Center for Communication Disorders to reflect the increased scope offered by the programs.

In 1975, the Callier Center merged with the UTD, which was the impetus for the formation of the program in communication sciences and disorders at the university. The audiology and speech-language programs joined programs in cognition and neuroscience, psychology sciences, and child development in the School of Human Development, recently renamed the School of Behavioral and Brain Sciences. This union afforded graduate students in audiology access to outstanding faculty, research laboratories, and clinical facilities with a diverse research base and broad patient population. In January 1999, the Texas Higher Education Coordinating Program approved the AuD program at UTD. In 2001, four students from the masters program transitioned into the AuD program, and the first AuD class of nine students was admitted.

Figure 1 shows the administrative structure of the UTD/Callier Center for Communication Disorders. As shown, the AuD program is one of three graduate programs within the school that also includes the masters and PhD degree programs. The three PhD programs and associated faculty are available to provide the broad spectrum of disciplines associated with audiology for the AuD students in the UTD/Callier Center program. The integrative nature of these programs also offers students in the newly established UTD/Callier Center AuD/PhD program the necessary broad spectrum of disciplines needed for clinical and research education. Currently, there are more than 1,000 undergraduate and 425 graduate students in the school; 32 students are enrolled in the AuD program, and 13 AuD degrees have been awarded to date.
Resources

Figure 2 provides the administrative structure of the UTD/Callier Center for Communication Disorders. The clinical, educational, and research programs in the UTD/Callier Center AuD program offer the AuD students a wealth of experiences. The resources and buildings within the Callier Center include the following:

The Callier Center Dallas Campus was the original site of the Callier Center. Occupying 5 acres adjacent to UT Southwestern Medical Center (UTSWMC), the facility consists of 10 buildings with more than 129,000 sq ft of space for clinical, educational, and research programs (see Figure 3).

The Callier Center Richardson Campus was dedicated in 2003 on the main UTD campus in Richardson, about 20 miles north of the Callier Center Dallas site. This facility is an extension of the programs at the Callier Center Dallas campus and occupies more than 23,500 sq ft (see Figure 4).

The Advanced Hearing Research Center opened in 2001, adjacent to the Callier Center Dallas, and houses state-of-the-art facilities for research in evoked potentials, cochlear implants, and amplification.

The Center for Brain Health began as a program in 1999 within Callier Center Dallas. Programs within this facility focus on research, assessment, and treatment of the aging brain and related disorders. This program will be housed in its own facility by mid-2006.

UTSWMC is a dynamic medical institution that has multiple hospitals, clinics, and research programs available for collaborative teaching and clinical and research experiences.

The UTD/Callier Center provides leadership in the field of audiology and was ranked in the top five audiology programs in 2004 by U.S. News & World Report. The programs and faculty at the center play a vital role in the medical and educational systems of the Dallas–Fort Worth area, serving the needs of those with communication disorders and providing rich education and research opportunities for students and researchers.

Faculty

The UTD/Callier Center AuD program is fortunate to have the expertise of more than 40 academic and clinical faculty members from both the UTD and the UTSWMC. Most of the faculty have appointments in the School of Behavioral and Brain Sciences and teach at the Callier Center Dallas campus. In addition to clinical supervision, the faculty associates teach labs associated with coursework.
in diagnostics and rehabilitation offered in the first 2 years of the program. Faculty members at the UTD main campus in Richardson provide students with convenient access to activities in their respective research laboratories. Tables 1 and 2 provide a summary of the faculty’s research and teaching expertise; see Figures 5 and 6 for photographs. Noteworthy is the wide array of diagnostic, (re)habilita-

Clinical Facilities and Programs

The AuD program at UTD/Callier uses the clinic, laboratory, and educational facilities of both the Callier
Center Dallas and Callier Center Richardson campuses. The Callier Center Dallas campus has 10 double-walled audiometric testing suites for use in patient care and research and one suite dedicated to student education. The Callier Center Richardson campus has two double-walled audiometric testing suites. Each center is fully outfitted to perform adult and pediatric comprehensive evaluations. Both campuses are equipped with hearing aid and earmold laboratories, evoked potential equipment, otacoustic emission systems, hearing aid analyzers, and real-ear systems. The Dallas facility also houses an electronystagmography laboratory and an ear-nose-and-throat examining room.

Three student computer labs at Callier Center Dallas and one at Callier Center Richardson provide access to the main UTD network, Callier patient information system, and the Internet. Students have easy access to computers for completion of clinic reports and academic assignments. The labs also support computer-based teaching aids such as audiometer simulators and sign language instruction. The Computer and Technical Services Division of the Callier Center operates a network of personal computers, servers, and printers to support the clinical, educational, research, and business functions of the center.

A variety of clinical programs located at both Callier Center campuses and at offsite facilities are available for AuD students. In addition to gaining experience in standard clinical diagnostic and rehabilitative services, students may participate in specialized clinics, including the Assistive Device Center, Center for Brain Health, Risk for Falling Clinic, and Tinnitus and Hyperacusis Clinic. Other unique clinical experiences available are the Learning to Live with Hearing Loss rehabilitation program, Dallas Cochlear Implant Program, Crystal Charity Ball Cochlear Implant Summer Camp, Summer Intensive Aural Rehabilitation Conference, and the Pediatric Aural Habilitation Specialization program. A description of these clinical programs is provided in Table 3. These programs provide outstanding service to the community and exceptional educational opportunities for our doctoral students.

### Research Facilities and Programs

Exposure to research activities is a main component of the UTD/Callier Center AuD programs so that students will learn to evaluate research critically. Research experiences are available at both Callier locations, the Advanced Hearing

### Table 1. Academic faculty.

<table>
<thead>
<tr>
<th>Academic faculty member</th>
<th>Location(s)</th>
<th>Research interest(s)</th>
<th>Class(es) taught</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peter Assmann, PhD</td>
<td>UTD main campus</td>
<td>Auditory and perceptual processes underlying speech communication</td>
<td>Speech Science</td>
</tr>
<tr>
<td>Jackie Clark, PhD</td>
<td>Callier Center Dallas</td>
<td>Pediatric audiology; auditory evoked responses and otacoustic emissions</td>
<td>Diagnostic Audiology; Pediatric Audiology</td>
</tr>
<tr>
<td>Carol Cokely, PhD, Coordinator of Clinical Teaching</td>
<td>Callier Center Dallas</td>
<td>Adult aural rehabilitation; pediatric speech perception auditory processing disorders</td>
<td>Adult Aural Rehabilitation; Audiology Teaching Clinics; Journal Group</td>
</tr>
<tr>
<td>James Jerger, PhD</td>
<td>UTD main campus</td>
<td>Effects of aging on binaural auditory functioning; event-related potentials; brain mapping</td>
<td>Doctoral Seminars; Diagnostic Audiology; Auditory Plasticity</td>
</tr>
<tr>
<td>Michael Kilgard, PhD</td>
<td>UTD main campus</td>
<td>Plasticity and information processing in the auditory cortex</td>
<td></td>
</tr>
<tr>
<td>Mandy McGuire, PhD</td>
<td>UTD main campus; Callier Center Dallas</td>
<td>Child language development</td>
<td>Guest Lecturer; Child Language</td>
</tr>
<tr>
<td>Aage Moller, PhD</td>
<td>UTD main campus</td>
<td>Sensory physiology; neural plasticity</td>
<td>Anatomy/Physiology of Audition; Intraoperative Monitoring; Guest Lecturer</td>
</tr>
<tr>
<td>Carolyn Musket, MA, Director of Assistive Device Center</td>
<td>Callier Center Dallas; Callier Center Richardson</td>
<td>Hearing assistive technology</td>
<td></td>
</tr>
<tr>
<td>Karen Prager, PhD</td>
<td>UTD main campus</td>
<td>Clinical and counseling psychology</td>
<td>Counseling</td>
</tr>
<tr>
<td>Ross Roesser, PhD, Executive Director, Callier Center</td>
<td>Callier Center Dallas</td>
<td>Diagnostic audiology</td>
<td>Advanced Clinical Audiology; Physiological Assessment of the Vestibular System; Journal Group</td>
</tr>
<tr>
<td>Pamela Rollins, PhD, Anu Sharma, PhD</td>
<td>Callier Center Dallas; AHRC</td>
<td>Child language development; Neurophysiologic bases of speech perception; central auditory system development and plasticity</td>
<td>Diagnostic and Medical Audiology</td>
</tr>
<tr>
<td>Angela Shoup, PhD, Director of Clinical Services</td>
<td>UTSWMC</td>
<td>Speech perception in persons with hearing disorders; hearing assistive technology; Dallas Cochlear Implant Program</td>
<td>Aural Habilitation; Theories of Amplification; Evaluation and Fitting Hearing Aids; Instrumentation; Journal Group</td>
</tr>
<tr>
<td>Linda Thibodeau, PhD, head of AuD program</td>
<td>AHRC; UTD main campus; Callier Center Richardson</td>
<td>Speech perception and production; cochlear implants; hearing impairment</td>
<td>Cochlear Implants; Ethics In Research</td>
</tr>
</tbody>
</table>

Note. UTD = University of Texas at Dallas; AHRC = Advanced Hearing Research Center; UTSWMC = University of Texas Southwestern Medical Center.
Research Center, UTD main campus, and the UTSWMC. A summary of research laboratories is provided in Table 4. The Callier Center Dallas campus has three acoustically and electrically isolated chambers for electrophysiological brain research, employing acoustic stimulation of animals and humans; a brain-mapping laboratory; a large double-walled anechoic chamber; a state-of-the-art speech science laboratory; and a histology laboratory for optical microscopy, tissue staining, and validation of electrode placement.

In addition to the extensive library at the Richardson UTD campus, the Callier Center Dallas campus also has a library containing more than 3,500 books and monographs. The library’s computer terminals and workstation allow students access to many electronic databases and full-text articles.

Figure 5. Nineteen of the 31 UTD/Callier Center academic and clinical faculty members.

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Table 2. Clinical faculty.

<table>
<thead>
<tr>
<th>Clinical faculty associate</th>
<th>Location(s)</th>
<th>Clinical specialty/program(s)</th>
<th>Class(es) taught</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paul Bauer, MD</td>
<td>UTSWMC</td>
<td>Dallas Cochlear Implant Program</td>
<td>Guest Lecturer</td>
</tr>
<tr>
<td>Jennifer Carlock, AuD</td>
<td>Callier Center Dallas; Callier Center Richardson</td>
<td>Infant hearing screening and follow-up; cortical evoked potentials</td>
<td>Electrophysiology Lab</td>
</tr>
<tr>
<td>Judy Demorest, AuD</td>
<td>Callier Center Dallas</td>
<td>Infant hearing screening and follow-up</td>
<td>Electrophysiology Lab</td>
</tr>
<tr>
<td>Beth Dorsey, AuD</td>
<td>Callier Center Dallas</td>
<td>Educational audiology</td>
<td>Aural (Re)habilitation and Amplification Labs</td>
</tr>
<tr>
<td>Sarah Florence, MS</td>
<td>Callier Center Dallas</td>
<td>Dallas Cochlear Implant Program; educational audiology</td>
<td>Cochlear Implant Lab</td>
</tr>
<tr>
<td>Elizabeth Gill, MS</td>
<td>Callier Center Dallas</td>
<td>Adult aural rehabilitation</td>
<td>Amplification Lab</td>
</tr>
<tr>
<td>Anne Howell, MS</td>
<td>Callier Center Dallas</td>
<td>Tinnitus and Hyperacusis Clinic</td>
<td>Diagnostic and Advanced Clinical Audiology Labs</td>
</tr>
<tr>
<td>Cindy MacArthur, MS</td>
<td>Callier Center Dallas</td>
<td>Risk for Falling Clinic; Learning to Live with Hearing Loss; community outreach</td>
<td>Vestibular Lab</td>
</tr>
<tr>
<td>Kathy Martin, BS, research audiologist, Auditory Cortical Function Laboratory</td>
<td>AHRC</td>
<td>Cortical evoked potentials; Dallas Cochlear Implant Program</td>
<td>Guest Lecturer</td>
</tr>
<tr>
<td>Brisy Northrup, AuD</td>
<td>Callier Center Dallas</td>
<td>Educational audiology; multicultural diagnostics</td>
<td>Amplification Lab</td>
</tr>
<tr>
<td>Gary Overson, MS</td>
<td>Callier Center Richardson; Callier Center Dallas</td>
<td>Educational audiology; evoked potentials</td>
<td>Instrumentation Lab</td>
</tr>
<tr>
<td>Myrna Powell, AuD</td>
<td>Callier Center Dallas</td>
<td>Educational audiology; genetics</td>
<td>Amplification Lab and Audiology Teaching Clinic</td>
</tr>
<tr>
<td>Peter Roland, MD, Chief of Otolaryngology</td>
<td>UTSWMC</td>
<td>Neurology; Dallas Cochlear Implant Program</td>
<td>Guest Lecturer</td>
</tr>
<tr>
<td>Diana Terry, MS</td>
<td>Callier Center Dallas</td>
<td>Speech language of hearing impaired; cochlear implants; Dallas Cochlear Implant Summer Camp</td>
<td>Auditory Verbal Methods</td>
</tr>
<tr>
<td>Janee Willett, MA</td>
<td>Callier Center Dallas</td>
<td>Dallas Cochlear Implant Program</td>
<td>Cochlear Implant Lab</td>
</tr>
<tr>
<td>Phillip Wilson, AuD, Director of Audiology Services</td>
<td>Callier Center Dallas</td>
<td>Auditory processing disorders; Dallas Cochlear Implant Program</td>
<td>Professional Issues in Audiology; Physiological Assessment of the Vestibular System</td>
</tr>
</tbody>
</table>

Figure 6. Audiologists at the close-by UT Southwestern Medical Centers Department of Otorhinolaryngology-Head and Neck Surgery who act as adjunct faculty for the AuD program.
The Callier library is staffed by a professional librarian who has expertise with resources in the field of communication disorders and who infuses information literacy into the AuD curriculum through presentations regarding navigating electronic databases, Web resources for audiology, plagiarism, and scientific writing. The UTD/Callier Center librarian and resources greatly facilitate students in their research and coursework responsibilities. The UT西南医学中心 library, only a short walk from the UTD/Callier Center Dallas campus, is also available for AuD students.

Program Overview

Admissions and Enrollment

The admissions committee for the UTD/Callier Center AuD program reviews applications beginning in September of the prior academic year. Early admission into the program is granted to students who have outstanding profiles on the following: the application, undergraduate grade point average (GPA), Graduate Record Examination (GRE) score, letters of recommendation, and a personal statement. Although the minimum GRE score for graduate programs at UTD is 1000 for combined verbal and quantitative scores, admission is based on all five factors outlined above. The average student admitted into the UTD/Callier Center AuD programs has an undergraduate GPA of 3.45 and a GRE score of 1145. Targeted enrollment is 8 to 10 students in each year of the program. The demographics of the 45 students admitted to date include: 43 female and 2 male; 40 Caucasian, 2 African American, and 3 Hispanic; and 29 Texas residents and 16 nonresidents. No AuD student has discontinued the program, highlighting the caliber and dedication of the students and faculty associated with the program.

Curriculum

The coursework as outlined in Table 5 reflects the comprehensive nature of the education in audiology provided to the AuD students. The core courses during the first 2 years are supplemented by 1-credit laboratories. In this way, learning is facilitated by substantial hands-on and problem-solving activities in the areas of diagnostics, amplification, and aural (re)habilitation. As students progress in the programs, they may pursue courses in related disciplines...
such as psychology, cognition and neuroscience, and rehabilitation counseling. Students benefit from the expansive research opportunities at the UTD/Callier Center, in that their 2nd and 3rd years are marked by three research courses (Research Methods and two semesters of Individual Research in Audiology). Other requirements of the research experience include weekly Auditory Perception Journal Group, participation in the editorial process of a peer-reviewed research journal, giving oral presentations of pilot research projects, and writing research papers in journal article format.

During their 2nd and 3rd years, students select a faculty research mentor as part of their research requirement and carry out a project under the mentor’s supervision. Students are required to present their research projects orally to the UTD/Callier Center faculty at the end of the fall and spring semesters during their 3rd year and to submit a written paper (following the guidelines of the Publication Manual of the American Psychological Association) prior to graduating from the program. Several of the students have had their projects published in peer-reviewed journals and/or have presented them at professional meetings. Additional descriptions of the many research programs at the UTD/Callier Center are provided in the next section.

During the 4th year, students spend a 12-month externship at a facility mutually agreed upon by the student and Coordinator of Clinical Teaching that provides appropriate breadth of services, variety in patient population, and experienced mentors. The AuD curriculum is strengthened by the clinical and research programs offered by faculty with expertise in diagnostics, electrophysiology, amplification, auditory processing, assistive devices, cochlear implants, and educational audiology.

### Guided Learning and Laboratory Experiences

The UTD/Callier Center AuD program provides systematic connections between theory presented in the classroom and application to clinical populations. This occurs in two structured ways during the first 2 years of core instruction. Students meet 3 hr per week in Audiology Teaching Clinics and another 3 hr per week in Didactic Labs. These experiences are offered in addition to their regular clinic rotations each semester.

**Audiology Teaching Clinics.** AuD students are enrolled in Audiology Teaching Clinics during their first 3 semesters. Teaching Clinics are designed to provide hands-on experience with volunteer patients in a controlled learning environment that facilitates planning, integration, and clinical decision making. The Adult Teaching Clinic during the fall semester draws volunteers from current and retired UTD faculty and staff who suspect hearing loss and from patients with early-stage dementia from Callier’s Center for Brain Health. Volunteers are triaged so that those with normal hearing to minimal loss are seen early in the
### Table 5. Curriculum.

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course</th>
<th>Credit hours</th>
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<tbody>
<tr>
<td>Fall I</td>
<td>AUD 6305 Anatomy and Physiology of Audition</td>
<td>3</td>
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<td></td>
<td>AUD 6303 Hearing Science</td>
<td>3</td>
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<td></td>
<td>AUD 6310 Advanced Clinical Audiology</td>
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<tr>
<td></td>
<td>HCS 7380 Practicum</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>AUD 6120 Lab</td>
<td>1</td>
</tr>
<tr>
<td>Spring I</td>
<td>AUD 6316 Adult Aural Rehabilitation</td>
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<tr>
<td></td>
<td>AUD 7326 Aural Habilitation</td>
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<td></td>
<td>AUD 6311 Diagnostic Audiology</td>
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<tr>
<td></td>
<td>HCS 7380 Practicum</td>
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<tr>
<td></td>
<td>AUD 6120 Lab</td>
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<tr>
<td>Summer I</td>
<td>AUD 6318 Pediatric Audiology</td>
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<td>AUD 6352 Medical Audiology</td>
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<td>HCS 6314 Instrumentation</td>
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<td>HCS 7380 Practicum</td>
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<td>Fall II</td>
<td>AUD 7321 Theories of Amplification</td>
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<td>HSC 6312 Research Methods</td>
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<td>AUD 7324 Cochlear Implants</td>
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<tr>
<td>Spring II</td>
<td>AUD 7353 Clinical Electrophysiology</td>
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<td>AUD 6306 Speech Science</td>
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<td>AUD 7327 Evaluation and Fitting of Hearing Aids</td>
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<td></td>
<td>AUD 6120 Lab</td>
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<tr>
<td>Summer II</td>
<td>AUD 7351 Physiological Assessment of the Vestibular System</td>
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<td>AUD 7392 Hearing Conservation</td>
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<td>HCS 7380 Practicum</td>
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<td>Fall III</td>
<td>AUD 7310 Professional Issues in Audiology</td>
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<td>AUD 7371 Doctoral Seminar – Auditory Processing Disorders</td>
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<td>AUD 7371 Doctoral Seminar – Auditory Plasticity</td>
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<td>Second Elective</td>
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<td>HCS 7380 Practicum</td>
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<td></td>
<td>AUD 8380 Individual Research in Audiology/Elective</td>
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<td>Spring III</td>
<td>AUD 7371 Intraoperative Monitoring</td>
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<td>COMD 6348 Counseling</td>
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<td>AUD 7371 Doctoral Seminar</td>
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<td>Third Elective</td>
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<tr>
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<td>HCS 7380 Practicum</td>
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<td></td>
<td>AUD 8380 Individual Research in Audiology/Elective</td>
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<td>Summer III-</td>
<td>AUD 8607 Externship</td>
<td>6</td>
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<td>Fall IV</td>
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<td>6</td>
</tr>
<tr>
<td>Spring IV</td>
<td>AUD 8607 Externship</td>
<td>6</td>
</tr>
</tbody>
</table>

**Electives**

- **Spring**: HCS 6310 Functional Brain Imaging
- **Spring**: AUD 7371 Intraoperative Monitoring I
- **Spring**: AUD 7371 Intraoperative Monitoring II
- **Fall**: AUD 7371 Presbycusis
- **Fall**: AUD 7371 Cognitive Neuroscience
- **Fall**: AUD 7371 Auditory Plasticity
- **Summer**: COMD 7323 Auditory Verbal Methods
- **Fall**: HCS 6346 Integrative Neuroscience
- **MayMester**: HCS 8350 Ethics in Research

*Three required; offering times may vary but typical semesters are indicated.

*A 2-week period in May between the Spring and Summer semesters.*
semester. During the spring semester, UTD students participate in the Pediatric Teaching Clinic and benefit from the availability of infants, toddlers, and preschoolers from the Callier Preschool. The Auditory Brainstem Response Teaching Clinic is the final volunteer clinic and takes place during the summer semester when volunteers with known hearing loss and/or medical conditions are seen for threshold pursuit and neurodiagnostic evaluation. Audiology Teaching Clinics afford students the time to explore various protocols and techniques and to improve efficiency in a collaborative learning environment.

**Didactic Labs.** AuD students participate in four Didactic Labs that complement core courses during the first 2 years of the program. Academic and clinical faculty direct the laboratory experiences with support from 4th-year Audiology Externs. Each lab session is divided into two 75-min sections. In the fall, 1st-year AuD students participate in the lab that accompanies the Advanced Clinical Audiology course as well as a lab that serves as an Introduction to Hearing Aids. Labs that accompany the Diagnostic Audiology class and the Adult and Pediatric Aural (Re)Habilitation courses are completed in the spring semester of the 1st year. Laboratory exercises provide practice for conventional techniques as well as foster understanding of the relationship between important test variables and patient outcomes. Second-year AuD students continue to benefit from laboratory instruction as they complete coursework in Theories of Amplification and Cochlear Implants during the fall semester and Evaluation and Fitting of Hearing Aids and Clinical Electrophysiology during the spring semester. The 2nd-year amplification labs include volunteers for hearing aid fitting and verification exercises. These experiences enhance students’ expertise with complex equipment and various protocols that greatly facilitate problem solving and case management skills in structured settings prior to application in real clinical situations.

**Clinical Experiences**

AuD students at UTD benefit from the rich clinical environment at the Callier Center and from the university’s affiliations with other service providers within the Dallas–Fort Worth area during Years 1–3 of the program. Each semester, students are placed in rotations for 16 hr per week. Students obtaining their AuD at UTD satisfy requirements necessary to obtain the Certificate of Clinical Competence in Audiology from the American Speech-Language-Hearing Association. Semester-long clinic rotations provide access to the wide breadth of services and populations necessary to gain knowledge and skills commensurate with the current scope of practice in audiology.

Students are placed almost exclusively with Callier Center preceptors during the first 2 semesters, either in the general diagnostic and hearing aid rotations or in school districts with which the university has contracts or affiliations. Students’ clinical responsibilities increase as coursework and lab experiences provide theoretical rationale and clinical protocols. By the 2nd year, students participate in specialty placements, including the Cochlear Implant Program, Tinnitus and Hyperacusis Clinic, neonatal screen-

ing follow-up, and industrial audiology. By the 3rd year, rotations are added in hospitals, private practices, and otolaryngology offices.

UTD is fortunate to be affiliated with UTSWMC, which includes Children’s Medical Center, Parkland Hospital, and Aston Outpatient Center. Options for student placements include more than 30 different sites. Students spend approximately 800–1,000 hr in direct contact with patients or completing client-related clinical activities during their first 3 years in the programs, ensuring that their clinical experience is well rounded. Whereas competency, independence, and professionalism are carefully evaluated by preceptors, students’ self-assessment of accomplishments and goals plays an important role in practicum placement.

The 12-month externship begins the summer of the 4th year. To date, we have placed three cohorts across the country and in Australia at the National Acoustics Laboratory. All prospective externship sites must be approved by the Coordinator of Clinical Teaching to ensure that they provide sufficient exposure to an array of services and populations as well as appropriate supervision. Frequent contact is maintained with the students and preceptors, and externs participate in monthly online discussions or conference calls that provide updates on professional issues. The monthly meetings are also forums for connecting clinical experiences with coursework through discussions with faculty and guest speakers, and they provide an opportunity for students to maintain contact with their classmates.

**Assessment of Knowledge and Skills**

In the fall of the 2nd year, students participate in the Performance Assessment of Skills (PAS). Under the observation of two preceptors, each student completes an independent and comprehensive evaluation of an adult with known hearing loss, although unknown to the student. Following the evaluation, preceptors and student share a dialogue about clinical decisions. Throughout the 2nd year of the programs, students also must demonstrate competencies in pediatric assessment, amplification, and measurement of auditory brainstem response. The PAS evaluation and other competency checks help students and faculty recognize student strengths, update performance goals, and determine remediation needs.

Prior to the 4th-year externship, students must successfully complete a formative assessment of academic knowledge that consists of 2 half days of written exams. Successful completion of the assessment indicates synthesis of underlying principles of hearing science, research, and clinical practice across the scope of diagnostic and (re)habilitative audiology. AuD faculty provide feedback in all content areas, and students address any weaknesses before beginning the 4th-year externship.

**Unique Aspects of the UTD/Callier Center AuD Program**

Several unique features of the UTD/Callier Center AuD program enhance education, facilitate knowledge of the
field, and foster inclusion in professional activities. Students may find that one or more of these features significantly affects their decision for graduate study. These features include the following:

- **Journal editors:** Two UTD/Callier Center faculty members are Editors-in-Chief of professional journals: *The International Journal of Audiology* and *The Journal of the American Academy of Audiology*. As part of the research requirements, AuD students learn the procedures involved in the peer review process, including editing of manuscripts and management of revisions.

- **Clinical populations in the Dallas–Fort Worth area:** The combination of on-campus facilities and specialty clinics that provide more than 70,000 patient visits annually as well as off-campus placements around the Dallas–Fort Worth area provide AuD students with considerable breadth in clinic exposure. Given the number and variety of options, students are able to pursue special interests. For example, students interested in pediatric habilitation can be placed in the Callier Preschool, in school districts outside of Dallas, and in pediatric hospitals in Dallas and Fort Worth. The Dallas–Fort Worth area also affords specialized experience in adult populations through the Veterans Administration hospital, industrial sites, and state programs for the deaf and hard of hearing. Likewise, students wishing cochlear implant rotation beyond the Callier Implant Team may be placed in two other cooperating sites where implant surgery, programming, and follow-up are available.

- **Bruton Conferences in communication disorders:** The Callier Center benefits from an endowment dedicated to the continuing education of the speech and hearing professionals and students. Bruton Conferences are held each semester and allow students to learn from prominent leaders in the field. Past topics have included evaluation and management of auditory processing disorders, psychological impact of hearing loss, hearing conservation, hearing loss and literacy, and enhancing speech recognition through the use of clear speech.

- **Multidisciplinary research environment:** Students may take advantage of the rich research environments in the School of Behavioral and Brain Sciences or at UT SWMC by taking courses and engaging in research activities in cognition and neuroscience, psychology, and vocational counseling, for example.

- **Video-link connection between campuses and the world:** Learning opportunities are enhanced by the video-link of lecture series, journal groups, and research presentations between the two campuses, as well as other facilities with similar services. Because clinical practicum and academic courses are offered at both locations, the video-link facilitates participation in these events.

- **Graduate student support:** In addition to traditional graduate stipends that are provided to all AuD students, about half of the AuD students receive support through a clinical or research program. Funding is provided through grants that include training and research emphases. Students may also apply for positions as assistants in the Regional Day Schools for the Deaf, Assistive Device Center, or hearing aid dispensary.

- **On-site day care:** Students with infant or preschool children have access to outstanding day care facilities. The 2–6-year-old classrooms are combined with the Dallas Regional Day School for the Deaf so that children with normal hearing have the opportunity to benefit from a total communication environment.

- **AuD/PhD program:** UTD offers a framework for graduate students to concurrently pursue a research and a clinical doctorate in audiology. While some courses overlap, the research experiences are designed to guide the student toward independence in theoretical critique, hypothesis generation, data collection, and analysis. AuD/PhD students also are mentored in research dissemination and grant writing.

**Summary**

The UTD/Callier Center has been providing audiology education for the past 30 years; in 1999, the UTD/Callier Center began offering the AuD degree. The programs at the UTD/Callier Center are extensive in their breadth and depth as they include more than 40 faculty members and 8 research laboratories, and span 3 campuses. AuD students are selected based on recommendations, letters of interest, GPA (typically 3.5 or higher), and GRE scores (typically 1100 or higher). For the first 3 years, students complete academic and clinic requirements, a research experience, and written and practical exams. Mentoring continues during their 4th-year externship through frequent contact and monthly online discussions. Graduates of the program have been successfully employed in medical facilities, speech and hearing centers, private practice, and educational settings.

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Prospective students are encouraged to visit the faculty and the campuses during the application process. Additional information can be found on the UTD/Callier Center Web sites at www.callier.utdallas.edu and www.callier.utdallas.edu/AUD.html. Those wanting additional information should contact Linda Thibodeau, Professor, Head of the Doctorate in Audiology Program, UTD/Callier Center, 1966 Inwood Road, Dallas, TX 75235. E-mail: thib@utdallas.edu

Contact author: Ross J. Roeser, UTD/Callier Center for Communication Disorders, 1966 Inwood Road, Dallas, TX 75235. E-mail: roeser@utdallas.edu