

## **2006-2007 :: AUD in Audiology**

**1. Mission Statement:** The mission of the AuD Program is to guide students in attaining the essential knowledge and skill for entry to the practice of audiology; to provide the breadth and depth of classroom and practical experiences consonant with each student's developing interests and career goals; and to support student clinical preparation through innovative and collaborative clinical services, on campus and in the global community, and an active program of research in understanding, treating, and preventing disorders associated with auditory and vestibular impairments

### **2. Objectives:**

**2.1 Analysis of Audition:** Students will analyze hearing and related sciences; recognize normal anatomy and physiology of the auditory and vestibular systems and related structures; classify the effects of auditory and vestibular disorders and changes throughout the life span.

**2.1.1 Related General Education Outcome Item(s):** 10. Foundational Knowledge in Discipline(s); 11. Advanced Knowledge in Discipline(s)

**2.1.2 Related Strategic Plan Item(s):**

**2.1.3 Standards and Associations:** The American Speech-Language-Hearing Association (ASHA, <http://www.asha.org/default.htm>) .ASHA is the professional, scientific, and credentialing association for more than 123,000 members and affiliates who are audiologists, speech-language pathologists, and speech, language, and hearing scientists.

**2.1.4 Student Related Objective:** Yes - This is a student related objective.

**2.2 Evaluation of Hearing Disorders:** Students will demonstrate principles and methods of screening, evaluation and intervention for individuals with auditory and vestibular disorders, including consideration of anatomical/physiological, psychological, developmental, social, linguistic and cultural correlates of the disorders commensurate with an entry-level independent practitioner

**2.2.1 Related General Education Outcome Item(s):** 10. Foundational Knowledge in Discipline(s); 11. Advanced Knowledge in Discipline(s); 16. Independent Thought

**2.2.2 Related Strategic Plan Item(s):**

**2.2.3 Standards and Associations:** The American Speech-Language-Hearing Association (ASHA, <http://www.asha.org/default.htm>) .ASHA is the professional, scientific, and credentialing association for more than 123,000 members and affiliates who are audiologists, speech-language pathologists, and speech, language, and hearing scientists

**2.3 Foundation in Ethical Practice::** Students will demonstrate knowledge of professional code of ethics, the laws, regulations, policies, supervisory processes and health-care management practices relevant to the profession of audiology.

**2.3.1 Related General Education Outcome Item(s):** 10. Foundational Knowledge in Discipline(s); 11. Advanced Knowledge in Discipline(s)

**2.3.2 Related Strategic Plan Item(s):**

**2.3.3 Standards and Associations:** The American Speech-Language-Hearing Association (ASHA, <http://www.asha.org/default.htm>) .ASHA is the professional, scientific, and credentialing association for more than 123,000 members and affiliates who are audiologists, speech-language pathologists, and speech, language, and hearing scientists

**2.4 Critiquing Auditory Research:** Students will demonstrate the ability to synthesize and critique the research literature in audiology and demonstrate knowledge of evidenced-based practices.

**2.4.1 Related General Education Outcome Item(s):** 11. Advanced Knowledge in Discipline(s); 12. Guided Research; 16. Independent Thought

**2.4.2 Related Strategic Plan Item(s):**

**2.4.3 Standards and Associations:** The American Speech-Language-Hearing Association (ASHA, <http://www.asha.org/default.htm>) .ASHA is the professional, scientific, and credentialing association for more than 123,000 members and affiliates who are audiologists, speech-language pathologists, and speech, language, and hearing scientists

**2.5 Oral and Written Communication:** Students will demonstrate oral and written communication skills

commensurate with an entry-level, independent practitioner

**2.5.1 Related General Education Outcome Item(s):** 1. Communication; 11. Advanced Knowledge in Discipline(s); 16. Independent Thought

**2.5.2 Related Strategic Plan Item(s):**

**2.5.3 Standards and Associations:** The American Speech-Language-Hearing Association (ASHA, <http://www.asha.org/default.htm>) .ASHA is the professional, scientific, and credentialing association for more than 123,000 members and affiliates who are audiologists, speech-language pathologists, and speech, language, and hearing scientists

**2.6 Foundation in cultural correlates of communication:** Students will demonstrate foundation knowledge in the cultural correlates of communication with patients and families from diverse cultural/linguistic backgrounds.

**2.6.1 Related General Education Outcome Item(s):** 10. Foundational Knowledge in Discipline(s); 11. Advanced Knowledge in Discipline(s)

**2.6.2 Related Strategic Plan Item(s):**

**2.6.3 Related Institutional Priority Item(s):**

**2.6.4 Standards and Associations:** The American Speech-Language-Hearing Association (ASHA, <http://www.asha.org/default.htm>) .ASHA is the professional, scientific, and credentialing association for more than 123,000 members and affiliates who are audiologists, speech-language pathologists, and speech, language, and hearing scientists

**2.7 Self-Assessment in Audiology:** Students will demonstrate self-evaluation skills, active and collaborative learning essential to maintaining excellence in the field of audiology

**2.7.1 Related General Education Outcome Item(s):** 1. Communication; 11. Advanced Knowledge in Discipline(s); 16. Independent Thought; 18. Practicum

**2.7.2 Related Strategic Plan Item(s):**

**2.7.3 Standards and Associations:** The American Speech-Language-Hearing Association (ASHA, <http://www.asha.org/default.htm>) .ASHA is the professional, scientific, and credentialing association for more than 123,000 members and affiliates who are audiologists, speech-language pathologists, and speech, language, and hearing scientists

### **3. Measures & Findings:**

**3.1 Embedded essay exam item graded with rubric:** Essay question requires integration of course material and has specific criteria for scoring.

**3.1.1 Success Criteria:** 75% of students score above 80% on scoring rubrics

**3.1.2 Related Objective(s):** Analysis of Audition; Evaluation of Hearing Disorders; Foundation in Ethical Practice;; Critiquing Auditory Research; Oral and Written Communication; Foundation in cultural correlates of communication; Self-Assessment in Audiology

**3.1.3 Results Related To Success Criteria:** On average 80% of the students scored above 80% on the scoring rubrics

**3.1.4 Achievement Level:** Met

**3.1.5 Further Action:** No

**3.2 Writing exercise evaluated with rubric :** Information is requested in written form with specific criteria for grading.

**3.2.1 Success Criteria:** 75% of students score above 80% on scoring rubrics

**3.2.2 Related Objective(s):** Analysis of Audition; Evaluation of Hearing Disorders; Foundation in Ethical Practice;; Critiquing Auditory Research; Oral and Written Communication; Foundation in cultural correlates of communication; Self-Assessment in Audiology

**3.2.3 Results Related To Success Criteria:** 75% of students scored above 80% on scoring rubrics

**3.2.4 Achievement Level:** Met

**3.2.5 Further Action:** No

**3.3 FORMATIVE ASSESSMENT Results:** Comprehensive essay questions required of third year students requiring integration across course material.

**3.3.1 Success Criteria:** 85% of students pass

**3.3.2 Related Objective(s):** Analysis of Audition; Evaluation of Hearing Disorders; Foundation in Ethical Practice;; Critiquing Auditory Research; Oral and Written Communication; Foundation in cultural correlates of communication; Self-Assessment in Audiology

**3.3.3 Results Related To Success Criteria:** 50% of the students did not require any rewrites on the formative assessment

**3.3.4 Achievement Level:** Partially Met

**3.3.5 Further Action:** Yes

**3.4 Embedded multiple-choice benchmark exam items :** Questions with multiple answers to choose from.

**3.4.1 Success Criteria:** 75% of students score above 80% correct

**3.4.2 Related Objective(s):** Analysis of Audition; Evaluation of Hearing Disorders; Foundation in Ethical Practice;; Critiquing Auditory Research; Oral and Written Communication; Foundation in cultural correlates of communication; Self-Assessment in Audiology

**3.4.3 Results Related To Success Criteria:** 90% of students scored above 80% correct

**3.4.4 Achievement Level:** Met

**3.4.5 Further Action:** No

**3.5 Individual Project evaluated with rubric :** Comprehensive project on selected topic with specific criteria to address and scoring rubric.

**3.5.1 Success Criteria:** 75% of students score above 80% on scoring rubrics

**3.5.2 Related Objective(s):** Analysis of Audition; Evaluation of Hearing Disorders; Foundation in Ethical Practice;; Critiquing Auditory Research; Oral and Written Communication; Foundation in cultural correlates of communication; Self-Assessment in Audiology

**3.5.3 Results Related To Success Criteria:** 75% scored above 80% on scoring rubrics

**3.5.4 Achievement Level:** Met

**3.5.5 Further Action:** No

**3.6 Alumni Survey:** Survey of alumni of information they apply on the job.

**3.6.1 Success Criteria:** 75% of students score above 80% (on a scale of 1-5)

**3.6.2 Related Objective(s):** Analysis of Audition; Evaluation of Hearing Disorders; Foundation in Ethical Practice;; Critiquing Auditory Research; Oral and Written Communication; Foundation in cultural correlates of communication; Self-Assessment in Audiology

**3.6.3 Results Related To Success Criteria:** 60% of students score above 80%

**3.6.4 Achievement Level:** Partially Met

**3.6.5 Further Action:** Yes

**3.7 Paper assignment evaluated with rubric :** Research paper with grading rubric

**3.7.1 Success Criteria:** 75% of students score above 80% on scoring rubrics

**3.7.2 Related Objective(s):** Analysis of Audition; Evaluation of Hearing Disorders; Foundation in Ethical Practice;; Critiquing Auditory Research; Oral and Written Communication; Foundation in cultural correlates of communication; Self-Assessment in Audiology

**3.7.3 Results Related To Success Criteria:** 75% of students score above 80% on scoring rubrics

**3.7.4 Achievement Level:** Met

**3.7.5 Further Action:** No

**3.8 Employer surveys of graduate success :** Employers rate students in knowledge and skills.

**3.8.1 Success Criteria:** 75% of students score above 80% (on a scale of 1-5)

**3.8.2 Related Objective(s):** Analysis of Audition; Evaluation of Hearing Disorders; Foundation in Ethical Practice;; Critiquing Auditory Research; Oral and Written Communication; Foundation in cultural correlates of communication; Self-Assessment in Audiology

**3.8.3 Results Related To Success Criteria:** 60% of students score above 80%

**3.8.4 Achievement Level:** Partially Met

**3.8.5 Further Action:** Yes

**3.9 Items on graduate exit interview. :** At graduation, students complete exit interview.

**3.9.1 Success Criteria:** 80% of students report meeting goal

**3.9.2 Related Objective(s):** Analysis of Audition; Evaluation of Hearing Disorders; Foundation in Ethical Practice;; Critiquing Auditory Research; Oral and Written Communication; Foundation in cultural correlates of communication; Self-Assessment in Audiology

**3.9.3 Results Related To Success Criteria:** 80% of students report meeting goal

**3.9.4 Achievement Level:** Met

**3.9.5 Further Action:** No

**3.10 Laboratory reports graded with rubric :** Lab experiences followed by questions with specific grading criteria.

**3.10.1 Success Criteria:** 75% of students score above 80% on scoring rubrics

**3.10.2 Related Objective(s):** Analysis of Audition; Evaluation of Hearing Disorders; Critiquing Auditory Research; Oral and Written Communication; Self-Assessment in Audiology

**3.10.3 Results Related To Success Criteria:** 100% of students score above 80% on scoring rubrics

**3.10.4 Achievement Level:** Met

**3.10.5 Further Action:** No

**3.11 Group Project evaluated with rubric :** Students complete project as a group with specific grading rubric.

**3.11.1 Success Criteria:** 75% of students score above 80% on scoring rubrics

**3.11.2 Related Objective(s):** Analysis of Audition; Evaluation of Hearing Disorders; Foundation in Ethical Practice;; Critiquing Auditory Research; Oral and Written Communication; Foundation in cultural correlates of communication; Self-Assessment in Audiology

**3.11.3 Results Related To Success Criteria:** 75% of students score above 80% on scoring rubrics

**3.11.4 Achievement Level:** Met

**3.11.5 Further Action:** No

## **5. Closing the Loop:**

**5.1 :** Provide analogous intense written experience Students complete formative assessments over two days. Performance on the first questions each day is considerably better. Students need more experience in completing intense exams with guidance in strategies to outline answer, then elaborate the details. A three-hour assessment will be given at the end of each semester with one questions from each course. At the conclusion of the assessment, the group will develop the outline and elaborate details orally.

**5.1.1 Related Objective(s):** Analysis of Audition; Evaluation of Hearing Disorders; Foundation in Ethical Practice;; Critiquing Auditory Research; Oral and Written Communication; Foundation in cultural correlates of communication

**5.1.2 Related Measure(s):** FORMATIVE ASSESSMENT Results

**5.1.3 Responsible Person:** AuD faculty

**5.1.4 Target Date:** Each semester

**5.1.5 Priority:** High Priority

**5.2 :** Incorporate more independent hearing aid fittings Alumni report that they do not have enough experience with hearing aid fittings. During practicum training, they may not see the complete process with a given patient. Students will be placed as case managers during an intensive week long workshop where hearing aids are fit, adjusted, and verified over the week long workshop.

**5.2.1 Related Objective(s):** Analysis of Audition; Evaluation of Hearing Disorders; Critiquing Auditory Research; Oral and Written Communication; Self-Assessment in Audiology

**5.2.2 Related Measure(s):** Alumni Survey; Employer surveys of graduate success

**5.2.3 Responsible Person:** AuD faculty in Rehab area

**5.2.4 Target Date:** End of spring semester

**5.2.5 Priority:** Medium Priority

**5.3 :** Provide reinforcement of course content through case study assignments that involve application of principles to an actual case and development of a written case summary review.

**5.3.1 Related Objective(s):** Evaluation of Hearing Disorders; Oral and Written Communication

**5.3.2 Related Measure(s):** Writing exercise evaluated with rubric ; Paper assignment evaluated with rubric

**5.3.3 Responsible Person:** AuD Faculty

**5.3.4 Target Date:** Each Semester

**5.3.5 Priority:** Medium Priority

## **6. Analysis:**

### **6.1 Program/Unit Strengths:**

**6.1.1 Objectives/Outcomes Exceeded or Met:** A program strength is the expertise of our clinical and academic faculty. The research and clinical learning opportunities provide students considerable breadth in training. The assessments showed that a program strength is in knowledge of hearing and related sciences as well as principles of screening and evaluation of persons with hearing difficulties. Knowledge of professional issues is also a strength acquired through coursework and experience in the clinical training. Our assessments reveal that students are meeting the learning objectives in most areas.

**6.1.2 Other Strengths:** Another program strength is the coordination of the didactic instruction with clinical experience. Prior to applying the clinical techniques with patients, students explore the procedures/technology in a laboratory setting with volunteers. This results in greater confidence in problem solving when working with clinical patients in assigned practice settings.

### **6.2 Program / Unit Weaknesses:**

**6.2.1 Objectives / Outcomes Partially or Not Met:** The assessments revealed that students are learning at the low levels of Bloom's taxonomy including remembering, understanding, and analyzing. Their ability to evaluate and create solutions over a range of content areas is lacking. This is a necessary ability to provide effective services for persons with hearing loss. Therefore, more experience is needed at the higher levels where diagnostic and rehab information is evaluated through differentiating, organizing and attributing. Following this analysis, students need experience in putting this information together in a coherent plan of treatment that is supported by research.

**6.2.2 Other Weaknesses:** Assessments reveal that students need additional experience in developing writing skills. Textbooks to provide instruction in writing will be incorporated in coursework. Students will be given greater opportunities for writing through case study reports in coursework where they can receive directed feedback and instruction regarding their writing.

## **7. Report:**

### **7.1 Executive Summary:** Executive Summary

The Doctorate of Audiology program is housed within the School of Behavioral and Brain Science. It is well situated on the campus of the Callier Center for Communication Disorders which is in the Dallas Medical Center Complex. With the internationally-recognized faculty, numerous funded research programs, and access to diverse clinical populations, students have the unique opportunity to learn evidenced-based practice through state-of-the art methodologies. The training is enhanced by three major, free-standing centers: the Callier Center for Communication Disorders in Dallas, Callier Center in Richardson, and the Center for BrainHealth. In addition, training is enhanced through clinical

programs at the University of Texas Southwestern Medical Center. The distinctive character of these Centers, with their mixture of research, clinical service and professional training, significantly enhance the activity of the program. Further distinguishing characteristics include:

- The Callier Center Dallas and BrainHealth Center are located 18 miles from the main campus, adjacent to Southwestern Medical School. The Callier Center Richardson is located on the main campus.
- The AuD program includes 31 full-time students who complete a four-year degree. All students accepted into the program have successfully completed the degree with only one exception, a student who transferred to another University for family reasons. Our strategic plan outlined several primary objectives.
- The AuD program is ranked #5 in the country by the US News and World Report.

The School of Behavioral and Brain Science has several strategic initiatives:

- Enhancing the health, education, and quality of life of children and families. Create a Center for Children and Families. Establish new Callier Center programs in Pediatric Hearing, Autism, and Communication Needs of an Aging Population.
- Understanding the mind and brain. Become an internationally recognized center for research in cognitive neuroscience and in the diagnosis and treatment of cognitive disorders.
- Create and implement technology that repairs and strengthens human abilities. Develop neurotechnology in collaboration with the UT Dallas School of Engineering and Computer Science, U.T. Southwestern Medical School and area high-tech industry.

The AuD program has had a standing Curriculum Committee that meets every semester to review curriculum. During these reviews, the course sequence is reviewed and evaluated in relation to the concurrent research and clinical opportunities. The curriculum committee makes recommendations to the entire AuD faculty for approval. The recommendations are reviewed with respect to the AuD mission statement and learning objectives. The mission statement, learning objectives and curriculum are then compared to the recommendations for Knowledge and Assessments of Skills by the American Speech, Language, and Hearing Association and modified if necessary. Instructors of all courses were asked to a) determine how they addressed specific objectives in their courses and b) to determine the type and number of assessments they typically gather that provide information as to whether students are achieving the learning objective. This resulted in WEAVES for each course that included a) learning objectives and b) assessment plans which included the types and numbers of assessments that would be included. These plans were uploaded into WEAVE online and reviewed and approved by the CELT office for compliance with UTD guidelines. The course-specific learning objectives are published each semester in class syllabi. At the beginning of the 2006 summer and fall and 2007 spring semesters, in accordance with the program assessment plan, instructors of core courses in the major each submitted course assessment plans that specified a) learning objectives, b) assessment type/number to evaluate objectives, c) criteria of success, and d) timeline of assessment. These plans were reviewed by the AuD Program Head and Clinical Coordinator and revisions were made where appropriate. Instructors then gathered the assessments over the course of the semester and prepared individual course assessment reports at the end of the semester. These reports included, in addition to the information in the assessment plans, a) the numerical results of the assessments, b) whether the results met the success criteria, c) appended measures, and d) discussion of actions instructors plan to take to improve the course and its evaluation. Reports are available from the Program Head. The Program Head compiled the results of the course assessment reports for fall 2006 and spring 2007. Instructors had gathered assessment items using multiple methods of assessment (benchmark multiple-choice questions, rubric-scored short answer and essay questions, rubric-score paper assignments, rubric-score problem computations/solutions, rubric-scored journal entries, and rubric-scored oral presentations). The criteria for successfully achieving learning objectives were partially met for each of the seven major program learning objectives, with success criterion surpassed for 8 of the 11 measures. Two faculty meetings were held to discuss the findings and plan out future actions. Based on these discussions, the faculty arrived at three Action Items that will be implemented in the spring and fall of 2007. The Program Head will be responsible for implementing these Action Items. The Action Items include:

- a) Students need more experience in completing intense exams with guidance in strategies to outline answer, then elaborate the details. A three-hour assessment will be given at the end of each semester with one question from each course. At the conclusion of the assessment, the group will develop the outline and elaborate details orally.
- b) Alumni report that they do not have enough experience with hearing aid fittings. During practicum training they may not see the complete process with a given patient. Students will be placed as case managers during an intensive week long workshop where hearing aids are fit, adjusted, and verified over the week long workshop. The courses in amplification will be moved to the first year of the program.
- c) Students will integrate course information with practical application through written case reports. The results of the fall 2006 and spring 2007 program assessment were uploaded into WEAVE online along with the Action Items. Individual course assessment reports and aggregated tabular results are available from the Program Head.

## **7.2 Top 3 Program/Unit Accomplishments:** The School of Behavioral and Brain Sciences is a research

intensive unit, best characterized in the content foci of its mission by the domains of its Ph.D. programs. Those include Cognition and Neuroscience, Communication Sciences and Disorders, and Psychological Sciences. The School emphasizes interdisciplinary training and faculty often functions in two or more of the above domains. The School's activities are shaped by the presence of two major, free-standing centers: the Callier Center for Communication Disorders and the Center for BrainHealth. The distinctive character of these Centers, with their mixture of research, clinical service and professional training, significantly enhance the activity of the School. Student training occurs at all levels and consists of a mixture of general academic and professional training programs. Further distinguishing characteristics include:

The School's two major Centers are located 18 miles from the main campus, adjacent to Southwestern Medical School. Approximately 1/3 of the School's faculty are housed in these Centers.

It is currently the smallest of the Schools, in terms of faculty, but has the 4th largest number of majors, and relatively smaller numbers of lower division semester credit hours.

The School's ratio of graduate hours to total hours is one of the highest in the University.

To my view, the breadth of research and training in the School is unusually diverse, ranging from infant cognition to Alzheimer's disease; from aggression in adolescents to neuroplasticity in rats; from computer modeling of face perception to the development of literacy; from the optimal timing for cochlear implantation to fMRI in memory. What is common is that the work is laboratory-driven and extramural support eligible.

The School is currently #3 in extramural support and #2 in per faculty support.

The mix of research training and professional masters training, while not unique in the University, does present particular challenges in terms of faculty mix and course staffing.

The nature of its programs and the proximity of Callier to UT Southwestern has enabled the School to form many collaborative efforts with the medical school, primarily with departments of Neurology, Psychiatry, Radiology, Otolaryngology and Pediatrics.

The Callier Center and Center for BrainHealth each have active, independent boards which have been very supportive and have generated substantial private support for these enterprises. Also, these boards tap into a more 'Dallas-based' constituency than has been typical in the University.

In spite of being the smallest of the Schools, the faculty is housed in five buildings.

- In the Spring 2006 US News and World Report rankings of graduate programs, the Schools programs in Audiology was ranked #5 and its program in Speech Pathology #17

**7.3 Research Activities or Publications:** The School conducts research both within and across its three subsuming divisions: Psychological Sciences, Communication Sciences and Cognition and Neuroscience. Additionally School faculty conduct collaborative projects with institutions around the country, most notably UT Southwestern Medical Center, but also such institutions as Johns Hopkins, University of California at San Francisco, University of Wisconsin, Baylor Medical Center, University of Dijon, and University of Hamburg among numerous others. Collaborative projects with industry provide a small but growing part of the School's research programs, particularly in the area of bioengineering. During 2006 research on cochlear implants, hearing aids, neural stimulation and neural interfaces for prostheses were conducted. School faculty generated approximately 100 scholarly articles, over 100 presentations at national conferences, 20 chapters in edited volumes and 10 books. Faculty were featured speakers at several national or university meetings. The School also hosts its own speaker series to enhance the scholarly life of its programs. The central vehicle for this is the School's colloquium series which hosted 6 nationally prominent speakers during 2006. The Callier Center's Bruton Conference also brings prominent speakers to campus, as well as providing outreach to the community. Similarly the Center for Brain Health's "The Brain: An owner's Guide" disseminates current research information to the lay public.

Grants

PI Funding Agency Title Total Award

Assmann NSF Perception of Frequency-Shafted Speech 223,418

Atzori NIH/NIDCD Acetylcholine and Dopamine Modulation in Auditory 1,223,284

Cortex

Bharadwaj NIH Speech Production in Children with Cochlear Implants 200,310

Buckley NIH Cross-modal Plasticity in Pre-Lingually Deaf Children 83,490

Chapman Baylor Neurobehavioral Outcome of Head Injury in Children 396,968

Chapman Baylor Neurobehavioral Outcome of Head Injury in Children 45,587

Chapman NIH Genetic Factors in Outcome from Traumatic Brain 87,627

Dodd DEPT OF ED Projects FAMILY 2001+: Facilitating and Mentoring 1,206,914

Interdisciplinary Learning for the Years 2001+

Geers/Tobey NIH/NIDCD Long-term Outcomes of Cochlear Implantation in Early Childhood

(Shannon Award) 100,000  
 Golden/Perwaiz NSF Doctoral Dissertation Research: Statistical Models of Hypertext Comprehension 10,560  
 Holub Timberlawn Foundation The Role of Parents' Restrictive Feeding Practices and General Parenting Style in Children's Eating 27,357.00  
 Jerger, S. NIH Auditory Processing in Hearing Impaired Children 1,783,366  
 Katz, W. Veteran's Affairs Treatment of Apraxia of Speech Following Stroke 77,000  
 Kilgard JAMES S MCDONNELL Brain Plasticity and Neuro-Rehabilitation 446,000  
 Kilgard NIH Cortical Plasticity and Processing of Speech Sounds 224,250  
 Kilgard NIH Supplement Cortical Plasticity and Processing of Speech Sounds 41,711  
 King/Hart UNCF Merck Foundation Quantification of Cortical Atrophy by Fractal Dimension 85,000  
 Lomber NIH Cerebral Organization Following Cochlear Implant 224,250  
 Lomber NIH Dev of fMRI Compatible Reversible Deactivation 380,290  
 Lomber NSF Cerebral Control of Aurally-Mediated Behavior 451,179  
 Lomber NSF supplement Cerebral Control of Aurally-Mediated Behavior 10,000  
 Malhotra NIH Cerebral Control of Sound Localization 31,069  
 Moore UTSW MCD Personality Theories and Dynamics 23,500  
 O'Toole ONR Evaluating Face and Person Recognition Algorithms 325,545  
 with Human Benchmarks  
 O'Toole ONR Face recognition performance: Humans vs Machines 175,000  
 Olness NIH/NIDCD Narratives in African Americans & Caucasians with 202,500  
 Aphasia  
 Owen Child Care Group Relationship-Centered Child Care & Children's Dev 82,012  
 Owen Timberlawn Relationship-Centered Child Care 37,165  
 Owen NIH/NICHHD Study of Early Child Care and Youth 42,500  
 Roeser CALLIER FN Service, Training and Research for Cochlear Implant 795,898  
 Children  
 Stillman OHSU Validation of Evidence-Based Assessment Strategies 190,000  
 to Promote Achievement in Children who are Deaf-  
 Blind  
 Thompson RBC Life Sciences Nootropic Effects of Microhydrin and Microhydrin-Plus in Aging 101,132  
 Tobey UT AUSTIN Motor Control of Serial Organization of Speech 138,041  
 Tobey JOHN HOPKINS U Lang Outcomes in Pediatric Cochlear Implantation 1,531,219  
 Tobey MED EI CORP SPECT rCBF in Adult Cochlear Implant Users 12,000  
 Underwood NIH Social Aggression: Precursors and Outcomes 1,470,400  
 Underwood NIH Social Aggression: Origins, Development and Outcomes 597,320

**7.4 Instructional/Training Activities (presented or received):** a) Number of students who graduated:

AuD Program 2004 - 2006: 21

b) Number of students in AuD Program: 31

c) Major Curricular Changes:

Research Requirement: change from 3 credits of didactic course work (Research Methods) to 6 credits of didactic course work (Research in Audiology; Evidence-Based Practice)

d) Classroom updates:

- videolink between Dallas and Richardson classrooms

- internet access in classrooms

e) Teaching Collaborations:

AUD7340 Auditory Processing Disorders: faculty from COMD, AuD, Neural Science, Psychology

AUD 6310, 6311 Advanced Diagnostics in Audiology; Dr. Roeser, Dr. Clark, Dr. James Jerger

f) Retention Efforts and documented successes:

i Remediation Plans initiated if student obtains "C" in didactic course Advanced Diagnostics

ii Enhanced/Repeat clinic rotation if semester goals not achieved:

iii Nontraditional clinic rotations for student not interested in career in clinical audiology rotation with Impulse Monitoring (intraoperative monitoring) during winter break; rotation in hearing aid industry

g) Service Learning

HCS 7380 - Clinical Practicum in Communication Disorders



AUD 8697 Audiology Externship

AUD 6310 - Independent hearing evaluations

AUD 6316 - Adult Aural Rehabilitation: students participate in delivery of service as part of course requirements (Learning to Live with Hearing Loss - Adult Group; T.E.A.C.H. (Teaching Employees about Communicating with Hearing Impaired); Investigating Access (visit various venues to determine communication access for individuals with hearing loss)

AUD 7326 Habilitation of Child with Hearing Loss (Open Door - program for families with children with hearing loss; Plano ISD - auditory training activities)

AUD 7382 - SIARC - intensive one-week course where students provide evaluations, hearing aid fittings, auditory training, communication classes

COMD 7321 Pediatric Aural Habilitation Methods: weekly activities involving delivery of service to school-age children with hearing loss

h) Student Engagement:

NAFDA (National Association of Future Doctors of Audiology)

Pediatric Aural Habilitation Specialty - 2 year commitment

Humanitarian Audiology trips (Panama, Mozambique, Costa Rica)

State of Texas Healthy Hearing Program - Special Olympics

Community Outreach: screenings

Student-faculty outings (bowling, Whirly-ball)

i) Student Achievement

American Foundation of Audiology - 2006-7 Outstanding Student Award - Marissa Mendrygal

Scott Haug Student Scholarship-Greg Nelson

TSHA (Texas Speech Language and Hearing Association) Student Research Awards - 2006

j) International Activities

Conferences:

Visiting Scholars: Linda Thibodeau: Taiwan

Jackie Clark, PhD: Johannesburg, South Africa

Humanitarian Audiology:

Jackie Clark, Ph.D.- Mozambique, Africa

Brisy Northrup, AuD -Panama

Ross Roeser, Ph.D. Costa Rica

International Journal of Audiology: Editor

**7.5 Public Service:** The School of Behavioral and Brain Sciences provides very extensive community service through numerous service programs of its Callier Center and Center for Brain Health, as well as collaborative efforts of various faculty. The Callier Center offered over 25 different clinical service programs generating over 40,000 patient contacts during 2006. Examples are its programs with such clinical populations as hearing impaired individuals across the age spectrum, language disorders, speech problems and autistic spectrum disorders. Similarly the Center for Brain Health offers service programs in Alzheimer's disease and Brain-injury in children. The School has extensive programs with numerous school districts providing educational programs for all hearing-impaired preschoolers in the Dallas Independent School District and audiological consultation with the Plano School District. Individual faculty in our neuroscience programs have also provided seminars for Plano and Richardson Schools in the area of brain research. The Center for Brain Health hosts an annual public lecture series on aspects of brain research and the Callier Center offered two Bruton Conferences in 2006 primarily for professionals in the field of communication disorders. Callier audiologists also participated in outreach programs for hearing assessments in Panama and Mozambique.

**7.6 Other External Activities:** The School has a number of international collaborations both via its academic programs and through clinical initiatives. During 2006 visiting scholars came from the Czech Republic, Mexico, Germany, France and Britain to engage in collaborative research programs. We have agreements in place for exchange with the University of Dijon, University of Hamburg, University of Chile, University of Montpellier and the University of Guanajuato. Faculty from the School were invited speakers at numerous international conferences and were Scholars-in-Residence at Dijon, Prague, Oxford and Tokyo. Clinical initiatives through the Callier Center took place in Mozambique and Panama. Ross Roeser is Editor of the International Journal of Audiology..

**7.7 Contributions to UTD:** The faculty in the School of Behavioral and Brain Sciences are unusually broad in the scope of their interests, subject populations studied, level of analysis employed in their work and the methodologies utilized. The diversity of these endeavors, coupled with the geographic proximity of two of the School's facilities to Southwestern Medical Center, has made the School a natural

collaborator with other units of the University, the Medical School, as well as other institutions around the country. Examples of these efforts include investigations on developing new hearing technologies, combining efforts of surgeons, hearing, language and speech researchers and electrical engineers; developing new prostheses, engaging neuroscientists, computer science and electrical engineering faculty and neurosurgeons, and investigations on long-term consequences of pediatric brain injury, joining cognitive neuroscientists, pediatricians and virtual world engineers. In addition to these research partnerships, the School provides extensive direct service to the community through its various clinical programs. This community involvement has resulted in significant levels of philanthropic support for the School's programs.

**7.8 Top 3 Program / Unit Challenges:** The AuD program continues to modify the curriculum to improve the training sequence for the students in relation to their academic and clinical instruction. Efforts are being made to simplify the scheduling and traveling for students between the various locations that offer the valuable diversity in training. Space for classroom and laboratory instruction is limited. Currently research lab space and equipment are shared for AuD lab instruction. There continue to be faculty shortages in the areas of psychoacoustics and hearing conservation. In addition, as faculty have reduced teaching load while on research funding or doing administrative service, there are faculty shortages in electrophysiology and amplification. The search for two tenured faculty in 2006 resulted in only one hire. During the year, eight AuD courses were taught by lecturers.