Interdisciplinary Doctoral Program in Communication Sciences & Disorders

Fall 2012

Why is “interdisciplinary” important?

From the beginning, speech pathology and audiology have been interdisciplinary fields. To succeed, researchers in these fields need to incorporate research from such distinct fields as linguistics, engineering, acoustics, psychology, physiology, medicine, cognitive neuroscience, cognitive neuropsychology, education, music, exercise science and others. With the current funding emphasis on interdisciplinary research from federal agencies, this interdisciplinary trend will continue to be important.

To prepare our students to be future leaders in the various subfields of speech pathology and audiology, the faculty of the Department of Speech, Language & Hearing Sciences (SLHS) at the University of Florida strongly believe that doctoral education should provide the broadest and most comprehensive coverage of a topic possible. This can best be accomplished by encouraging students to pursue an interdisciplinary approach to their studies.

The doctoral program in Speech, Language & Hearing Sciences at the University of Florida prides itself on its interdisciplinary character. With a faculty advisory committee, each doctoral student chooses a series of courses that suits their own particular needs and interests. The SLHS faculty engage in their own interdisciplinary work, collaborating with a wide range of faculty from several departments across campus, Shands Medical Center and the VA Medical Center. This provides doctoral students with a strong advantage, as many will get the chance to interact with experts in a variety of related fields, as well as to participate in interdisciplinary research unavailable at many other institutions.

Message from the Chair

As Chair of the Department of Speech, Language & Hearing Sciences, I enthusiastically invite you to engage in our doctoral program. Distinct from many other doctoral programs in the country, our students are provided with opportunity for interdisciplinary interactions. These interactions occur on one campus with interchange between students and faculty from UF’s College of Public Health and Health Professions, Medicine, Liberal Arts & Sciences Engineering, Fine Arts and the research health scientists at our Veterans Health Affairs.

The interdisciplinary research relationships our students have with our own faculty as well as with others from multiple departments and colleges provides an enriched and diverse educational platform from which scientific questions and experimental designs spring board into dissertations supervised by these many talented faculty.

With barriers to potential collaboration removed, a true meeting of the minds takes place: one that expands the scope of your studies, generating novel and possibly unanticipated ideas. Come explore your potential and optimize your educational growth. We look forward to creating the best opportunities for you in line with your academic and/or clinical research goals.

– Christine Sapienza, PhD, CCC-SLP, Professor and Chair
Research Groups

Language & Brain

Many of our speech pathology faculty conducts research in areas that focus on the representation of language in the brain. SLHS faculty with a primary focus on language disorders in adults include: Dr. Lori Altman, Ph.D. (adult neurolinguistics, psycholinguistics, reading, dual task effects), Dr. Lisa Edmonds, Ph.D. (aphasia, bilingual aphasia), and Dr. Jamie Reilly, Ph.D. (semantics, dementia, imaging). In addition, we have an active program in reading and literacy research, based on long-standing collaborations with Dr. Linda Lombardino, Ph.D. (Special Education) and psycholinguists in the Department of Linguistics. Most of our Language and Brain faculty members are also associated with the Brain Rehabilitation Research Center at the North Florida-South Georgia VA Medical Center, just south of campus. Many of these individuals collaborate with each other and with other faculty in other departments and colleges. All of them are members of the campus-wide Language and Brain Interest group.

Voice & Speech Science

Many faculty members in speech-language pathology pursue interests that center on voice and speech science. Specialists in voice and speech include Dr. Michael Crary, Ph.D. (voice, dysphagia), Dr. Karen Hegland, Ph.D. (airway dysfunction, cough, swallow), Dr. Ken Logan, Ph.D. (fluency disorders), Dr. Jay Rosenbek, Ph.D. (neurogenic disorders, dysphagia), Dr. Christine Sapienza, Ph.D. (voice disorders, dysphagia), Dr. Michelle Troche, Ph.D. (voice disorders, dysphagia), and Dr. Judy Wingate, Ph.D. (remediation of the aging and singing voice).

There are ongoing collaborations with the UF Movement Disorders Center developing new treatments for voice and swallowing disorders in Parkinson’s disease voice, projects with the Department of Electrical Engineering to develop better signal processing algorithms, and the College of Architecture to understand the effects of environmental variables on speech. Most faculty in this group are also affiliated with the Brain Rehabilitation Research Center at the North Florida-South Georgia VA Medical Center, just south of campus.

Audiology

The faculty associated with the audiology program pursue diverse interests in basic and applied auditory research. These faculty include Dr. Ken Gerhardt, Ph.D. (auditory physiology, noise induced hearing loss), Scott Griffiths, Ph.D. (vestibular disorders, speech perception), Dr. Alice Holmes, Ph.D. (cochlear Implant, hearing assistance technology), Dr. Colleen LePrell, Ph.D. (oto-protection, noise-induced hearing loss), Dr. Edward Lobariñas, Ph.D. (tinnitus; noise-, blast- and drug-induced hearing loss), and Dr. Chris Spankovich, Ph.D. (early detection of hearing loss; prevention of acquired hearing loss; hearing conservation as a public health issue). Our Ph.D. students have engaged in innovative interdisciplinary research through productive collaborations in speech and hearing as well as in psychology, otolaryngology, neuroscience, pharmacology, electrical engineering, and education.
The Student Perspective

“My interests in the linguistic and cognitive science aspects of speech pathology make it necessary that I have access to information and perspectives from a variety of disciplines. The professors and students I have met from around campus have been open about sharing their knowledge and providing advice from their point of view. My own personal interests are encouraged and developed through the interdisciplinary nature of my coursework. Not only have I had the opportunity to benefit from the resources available to me, but I feel as though I am also able to share information about speech pathology, a growing and changing field that is sometimes not fully appreciated.”

– Sarah Key-DeLyria, Ph.D. (2011), CCC-SLP
  Assistant Professor, Portland State University.

“The inter-disciplinary focus that the University of Florida offers was a major reason that I decided to attend UF. I have had the opportunity to collaborate with neurophysiologists, respiratory-physiologists, physical therapists, and exercise scientists. The relationships that I have formed with these respected researchers and my fellow doctoral students have given me a better understanding of normal function and disease processes affecting cough, speech, and swallowing. Further, conversations about research methods and ongoing experiments have helped me to approach research problems from different perspectives, leading to new and interesting questions.”

– Teresa Pitts, Ph.D. (2010), CCC-SLP
  Post-doctoral Fellow, UF College of Veterinary Medicine

“As a current doctoral student and a speech-language pathologist, my interest in adult language disorders has been fostered and strengthened by the program’s strong interdisciplinary perspective and relationships. I have been exposed to methodologies, models and approaches from different disciplines and different researchers within UF which has greatly expanded my views and further refined my interests. This approach has personally benefited my research greatly by enabling me to investigate language function more precisely and to explore brain-behavior relationships more rigorously than would otherwise have been possible. The department also emphasizes these collaborative relationships and I feel these existing collaborations have been critical to my continuing development as a well-rounded researcher and provide the strongest support to the development and utility of integrated models of pathological processes and function.

– Jonathan Wilson, MA, CCC-SLP (Current Doctoral Student)

“Being part of an interdisciplinary program has been invaluable to my educational experience. I have taken courses in the departments of statistics, educational psychology, clinical and health psychology, psychology, neuroscience, and communicative sciences and disorders. The unique part about sampling courses in each of these departments is the different perspective each offers. By taking courses outside of my own department, I learned about the contributions that other disciplines have made to the study of language and other cognitive behaviors. Additionally, my knowledge of research and design has been strengthened by instruction from individuals with diverse research backgrounds. The opportunity to study in this environment and participate in the Language and Brain group has allowed me to step out of the box and take advantage of what is arguably the best educational experience one could have.”

– Amy Rodriguez, Ph.D. (2010), CCC-SLP
  Post-doctoral Fellow, University of Queensland, Australia

Doctoral student support includes:
- Stipend
- Tuition
- Full health insurance
Classes Taken by Previous SLHS Graduate Students at UF

Courses of general interest
CLP 6527/8 Measurement, Research Design & Statistics I & II
CLP 6307 Human Higher Cortical Function
CLP 7934 Subcortical Functional Cognition
CLP 7934 Cognitive Bases of Behavior
CLP 7934 Experimental Methods in Clinical Neuropsychology (fMRI)
CLP 7934 Neuropsychology of Aging
DEP 6059 Issues & Concepts in Gerontology
EDF 6481 Quantitative Research Methods
EEX 6936 Grant Writing
EXP 6099 Overview of Cognitive and Sensory Processes
HSA 5103 Introduction to The U.S. Healthcare System
HSA 6126 Perspectives in Health Service Administration
HSA 6930 Organizational Issues in Healthcare I & II
GMS 5905 Introduction to Applied Biostatistics
GMS 6705 Functional Human Neuroanatomy
PSB 7248 Neurobehavioral Relationships
RSD 6110 Rehabilitation Science Theory and Application
RSD 6705 Rosch Analysis
RSD 6930 Clinical Trials Rehabilitation
SPA 6905 Topics in Sign Language: Deaf Culture
SPA 6905 Topics in Sign Language: Advanced Sign Language
STA 6126/7 Statistics for Social Sciences I & II
STA 6934 Biomedical Research Design and Analysis
VME 6767 Issues in Responsible Research

Electives for a program in Language and Brain
DEP 4930 Aging and the Human Brain
EDF 6938 Cognitive Psychology of Reading
EDF 6938 Individual Differences in Reading Processes
LIN 6707 Advanced Psycholinguistics
LIN 6708 Methods in Psycholinguistics
LIN 6708 Sentence Comprehension
LIN 6720 Second Language Acquisition
LIN 6796 Cognitive Neuroscience of Language
LIN 6932 Second Language Acquisition and the Brain
PSB 6086 Behavioral Neurobiology
SPA 6936 Neurocognitive Language Disorders
SPA 6938 Controversies in Adult Language Disorders
SPA 7415 Neurolinguistics of Adult Language Disorders

Electives for a program in Voice and Speech Science
SPA 6905 Dysphagia Management
GMS 7795 Special Topics in Neuroscience
MUS 6905 Projects & Problems in Music
PET 6905 Exercise Physiology
PET 6905 Advanced Exercise Physiology
PET 6905 Muscle Physiology
PET 6905 Neurological Aspects of Exercise
VME 6905 Respiration Physiology
VME 6905 Advanced Respiratory Physiology
LIN 6932 Advanced Phonetics
EEL 6586 Automatic Speech Processing
SPA 6581 Topics in Voice and Swallowing
SPA 6905 Topics in Sp. Sci.—Instrumentation for Speech Science
SPA 6905 Topics in Sp. Sci.—Digital Signal Processing for Speech & Hearing
SPA 6905 Topics in Sp. Sci.—Speech Production

Electives for a program in Audiology
SPA 7343 Cochlear Implants
SPA 6581 Advanced Seminar in Cochlear Implants
SPA 7354 Seminar in Audioligic Noise Control
GMS 6421 Cell Biology
GMS 6635 Organization of Cells and Tissues
HSC 6037 Philosophy and Principles of Health Education
HSC 6668 Interpersonal Communication and Health
MHS 5005 Introduction to Counseling
PHA 6933 Auditory Pharmacology
PSY 6905 Advanced Psychoacoustics

Timeline for application:
October: Investigate UF website, Contact Doctoral Advisor.
November-December: Contact potential mentors. Attend Open House, Prepare application.
Before January 15: Submit application

Sample Program Timeline:
Year 1 & 2: complete course requirements, participate in research
Year 3: Qualifying exam, Dissertation proposal
Year 4: Dissertation research & job hunt