Mark Krumm, Ph.D.

 \mathbf{CV}

Work Address: School of Speech Pathology and Audiology

Music and Speech Building

Kent State University

Kent, OH 44242

Work Phone #: 330-672-2672

Email address: mkrumm@kent.edu

Educational Background

Education

Ph.D. Audiology

Wichita State University

December, 1990

M.S. Audiology

University of Wyoming

August, 1982

B.S. Speech Pathology/Audiology

University of Wyoming

July, 1980

Licenses and Certification

Ohio Audiology license (2005-present)

American Speech Language and Hearing Association certificate of clinical competence in audiology (1983-present)

Professional Experience

Associate Professor. Kent State University, Kent, Ohio. School of Speech Pathology and Audiology. Graduate faculty status. Teaching responsibilities: clinical supervision, differential diagnosis, pediatric amplification, aural rehabilitation, auditory evoked potentials, telepractice, and research design. August 2005-present. Graduate faculty status.

- Asst. Professor. Utah State University, Logan, Utah. Department of Communicative Disorders and Deaf Education. Graduate faculty status. Teaching responsibilities: Instructor in pediatric audiology, evoked potentials, amplification, aural rehabilitation, telepractice, and research design. August 2001-2005.
- Assoc. Professor. Minot State University, Minot, North Dakota, Department of Communication Disorders. Graduate faculty status. Teaching responsibilities: Instructor in pediatric audiology, otoacoustic emissions, cochlear implants, tinnitus, aural rehabilitation, research and computer skills, speech and hearing science, and supervision of audiology students in clinic. 1991-2001.
- University Affiliated Program (UAP) Training Director. North Dakota Center on Disabilities, Minot, North Dakota. Graduate faculty status. Responsibilities: Provide on-going training to students in different areas of disabilities including law, advocacy, types of disabilities, assessment and leadership building. Other responsibilities include grant writing and on-line course development. 1993-2001.
- *Clinical Audiologist*. Winfield State Hospital and Training Center, Winfield, Kansas. Responsibilities: Audiology assessment and aural rehabilitation of people with severe to profound developmental disabilities. 1989-1991.
- Consultant. St. Joseph Hospital, Neonatal Intensive Care Unit (NICU) BSER Hearing Screening, Wichita, Kansas. Responsibilities: Inservice staff responsible for BSER screening and interpretation of results. 1987-1988.
- Educational Audiologist. Sheridan School District #1, West Ranchester, Wyoming. Responsibilities: Central auditory processing evaluation, aural habilitation, administration of a district-wide hearing conservation program. 1982-1986.

Membership

American Speech-Language and Hearing Association (ASHA) Ohio Speech Language and Hearing Association

Publications

Articles (juried/peer reviewed)

- Raman, N., Nagarajan, R., Venkatesh, L., Monica, S., Ramkumar, V. & Krumm, M. (2018). School-based language screening among primary school children using telepractice: A feasibility study from India. *International Journal of Speech-Language Pathology*, *DOI*: 10.1080/17549507.2018.1493142 (prepublication)
- Monica,S, Ramkumar, V, Krumm, M, et al. (2017). School entry level tele-hearing screening in a town in South India Lessons learnt. *International Journal of Pediatric Otorhinolaryngology*, Volume 92, 130 135
- Krumm, M (2016). A review of contemporary tele-audiology literature. J Hear Sci 6: 9–21.
- Krumm, M. (2016). Disruption, opportunity and the future of Audiology. *The ASHA Leader*, 21(10), 16-18. doi: 10.1044/leader.AEA.21102016.16
- Krumm, M (2014). Teleaudiology model considerations. American Speech Language and Hearing Association *SIG 18 Perspectives on Telepractice*, March 2014, Vol. 4, 4-10.
- Krumm, M., Syms, M. (2011). Teleaudiology. *Otoalaryngology Clinics of North America*, 44 (6), 1297-1304.
- Ciccia, A, Whitford, B, Krumm, M, McNeal, K. (2011). Improving the access of young urban children to speech, language and hearing screening via telehealth, *J Telemed Telecare*, 17,(5), 240-244.
- Swanepoel D, Clark J., Koekemoer, D., Hall, J., Mark Krumm, et. al (2010). Telehealth in audiology: The need and potential to reach underserved communities. *International Journal of Audiology*, 49, (3), 195-202
- Krumm, M., Huffman, T., Dick, K., & Klick, R. (2008). Telemedicine for audiology screening of infants. *Journal of Telemedicine and Telecare*, 14: 102–104
- Lancaster, P., Krumm, M., Ribera, J. & Klick, R. (2008). Remote hearing screenings via telehealth in a rural elementary school. *Am J Audiol*, 17: 114-122.
- Krumm, M., Weinstein, B., Ribera, J., Ferrari, D., et. al (2008). The Use of Telehealth/Telemedicine to Provide Audiology Services. *American Academy of Audiology Resolution* 2008-06.

- Krumm, M., Ribera, J., & Klich, R. (2007). Providing basic hearing tests using remote computing technology. *Journal of Telemedicine and Telecare*, <u>13</u> (8), 406-410.
- Krumm, M. (2007). Audiology telemedicine. *Journal of Telemedicine and Telecare*, 13 (5) 224-229.
- Georgeadis A Givens, G., Krumm M.(chair), Mashima, P., Torrens, J., & Brown, J.,(2005). Knowledge and skills needed by audiologists providing clinical services via telepractice. American Speech Language and Hearing Association.
- Georgeadis A., Givens, G., Krumm M.(chair), Mashima, P., Torrens, J., & Brown, J.(2005). Audiologists providing clinical services via telepractice: Technical report. American Speech-Language-Hearing Association.
- Georgeadis A., Givens, G., Krumm M.(chair), Mashima, P., Torrens, J., & Brown, J.(2005). Audiologists providing clinical services via telepractice: Position statement. American Speech-Language-Hearing Association.
- Krumm, M., & Cranford, J., (1994). The Effects of Contralateral Speech Competition on the Late Auditory Evoked Potential in Children. The Journal of the American Academy of Audiology, 5 (2), 99-106.

Books

Krumm, M (2018). Future Trends In Audiology: New Technology For Hearing Health Care Professionals. Final draft in revision.

Hatzopulos, S., Ciorba, A. & Krumm, M.. Advances in Audiology, Speech Pathology and Hearing Science. Accepted for publication

Textbook Chapters

Krumm, M. Terms, Regulations and Concepts in Telehealth and Audiology. Accepted for publication.

Ludwikowski, M & Krumm, M. Teleaudiology. Accepted for publication

Ludwikowski, M & Krumm M. Hearing Screening. Accepted for publication

Krumm, M, Vento, B (2013). Teleaudiology. In Kumar S, Cohn E: Telerehabilitation, Springer-Verlag. ISBN 978-1-4471-4197-6

Articles (non-juried)

Krumm, M. & Ramkumar, V.(2015) The use of OAEs in telehealth (teleaudiology) applications. *OAE Portal zone (editorial)*. http://www.otoemissions.org/index.php/en/oae-editorials/guest-editorials/233-update-on-teleaudiology

Krumm, M (2013). Pediatric applications of tele-health technology and evoked optoacoustic emissions. *OAE Portal zone (editorial)*. http://www.otoemissions.org/index.php/en/oae-editorials/104-april-september-2013-tele-health

- Krumm, M, Lisonbee, D (2012). Audiology telehealth services: A review. *eHearsay*, 50-61
- Krumm, M, Ferrari, D. (2008). Contemporary telehealth and telemedicine applications in audiology," *Audiology Today*. Sept/Oct. 35-37.
- Krumm, M. (2007). Cloning implications for audiologists. Audinews editorial: *The newsletter for the international society of audiology*, 7 (1), 6.
- Krumm, M (2006). Brain processing of emotions in the auditory mode. *Audinews* editorial: *The newsletter for the international society of audiology*, 6 (3), 7.
- Krumm, M. (2006). The AAA pediatric amplification protocol. *Audinews* editorial: *The newsletter for the international society of audiology* 6 (2), 8-9.
- Krumm, M., Ribera, J., and Schmiedge, J., (2005). Using a telehealth medium for objective hearing testing: Implications for supporting rural universal newborn hearing screening programs (UNHS). *Seminars In Hearing*. 26 (1), 3-12.
- Towers, A., Pisa, J., Froelich, T.,& Krumm, M. (2005). The reliability of click-evoked and frequency-specific auditory brainstem response testing using telehealth technology. *Seminars in Hearing*, 26(1), 26-34.
- Krumm, M. (2005, Nov. 8). Audiology telepractice moves from theory to treatment. *The ASHA Leader*, pp. 22-23, 45.
- Krumm, M. (2005). Current trends in telepractices and audiology. *Access Audiology*, 4 (3), 1-4.

- Krumm, M., & Ribera, J., (2003). Audiology telepractice. The ASHA Leader, 8 (21), 17.
- Krumm, M. (2005). Audiology telepractice moves from theory to treatment. *The ASHA Leader*, 22-23, 45.
- Krumm, M. (2005). Animal research, the central nervous system and auditory function. *Audinews* editorial: The newsletter for the international society of audiology, 5 (4), 3.
- Krumm, M., Ribera, J., & Froelich, T., (2002). Bridging the service gap Through Audiology Telepractice. The ASHA Leader, 5, (12), 6-7.
- Ribera, J., & Krumm, M. (2002). Telepractice in audiology. <u>Audiology On-line</u> Posted April 1, 2002.
- Krumm, M., Shewchuk, L., & Boitiu, V., (1996). Addressing the needs of older consumers and hearing Loss. 3rd National Conference on Aging and Disabilities, Conference Proceedings.
- Krumm, M., Tarrant-Martin, S., & Froelich, T., (1995). Factors affecting the hearing of older people with developmental disabilities. Second North Dakota National Conference on Aging and Disabilities: Post White House Conference, Conference Proceedings.
- Krumm, M., & Froelich, T., (1994). Hearing assessment for people with developmental disabilities. National Conference on Aging and Disabilities: Post White House Conference, Conference Proceedings
- Froelich, T., & Krumm, M., (1994). Diagnosis & habilitation of hearing loss & people with developmental disabilities. National Conference on Aging and Disabilities: Post White House Conference, Conference Proceedings.

Presentations and Workshops

- Krumm, M. (2017). Telehealth, telecare and audiology advances and trends. Invited presentation. Oticon World Headquarters. Copenhagen, Denmark.
- Krumm, M. (2017). Barriers to teleaudiology (Invited round table presentation). Internet Audiology Third International Meeting. Louisville, Kentucky.
- Krumm, M. (2017). Contemporary trends in telehealth in hearing health care. Juried presentation. 1 World Tinnitus Congress And XII International Tinnitus Seminar 22–24 May 2017, Warsaw, Poland.
- Krumm, M. (2017). Contemporary Trends in Telehealth (Invited round table presentation).

- Juried presentation. ST World Tinnitus Congress And XII International Tinnitus Seminar 22–24 May 2017, Warsaw, Poland.
- Krumm, M (2015). Telespeech and teleaudiology. Sri Ramachandra University: Conference on Telehealth in Audiology and Speech Language. Chennai, India
- Krumm, M (2015). Panel discussion on telespeech and teleaudiology. Sri Ramachandra University: Conference on Telehealth in Audiology and Speech Language. Chennai, India
- Ramkumar, V & Krumm, M, (2015). Hearing assessment using telehealth technology on pre/school age children with and without disability". 1st World Conference On Ear And Hearing Care. New Dehli, India.
- Ramkumar, V & Krumm, M, (2014). Hearing assessment using telehealth technology on pre/school age children with and without disability" 10th International Conferences of Telemedicine Society of India (Telemedicon 2014). **Awarded best paper of the conference**.
- Krumm M. (2014). International Teleaudiology Programs. American Speech Language and Hearing Association Convention, Orlando Florida.
- Krumm, M. (2011) A workshop on Audiology Telehealth. The American Speech Language and Hearing Association National Convention. San Diego, CA.
- Krumm, M. (2010). Telepractice in Audiology. Missouri Speech Language and Hearing Association Annual Convention. Osage Beach, Mo. April 2010.
- Krumm. M (2010). Tele-Audiology (Telehealth) for Audiologists
 Ohio Speech Language and Hearing Association Annual Convention. Columbus Ohio
 March 2010
- Krumm, M. (2009). What is Audiology Telehealth/Telemedicine? 24th International Audiology Meeting, Sao Paulo, Brazil.
- Krumm, M. (2009) Telehealth: Lessons learned and learning, including considerations in audiology. National Institutes of Health (NIH) working group conference for adults with mild to moderate hearing loss. Bethesda, MD.
- Krumm, M. (2009). Audiologic applications of tele-health. Featured presentation. American Academy of Audiology Annual Convention. Dallas, Texas.
- Krumm, M. (2009). What is Audiology Telehealth? Webseminar presented to the Center on Disease Control (CDC). Atlanta, Georgia

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- Krumm, M., Fabry, D., & Peters, L., (2007). Enhancing audiology services through telehealth. Discussion group. American Academy of Audiology Annual Convention, Denver, Colorado.
- Krumm, M (2007). Telehealth for audiologists. First Conference of the Telehealth League at Bauru School of Dentistry, University of São Paulo, Brazil.
- Krumm, M., Brown, J., & Brennan, D., (2007). Emerging telehealth applications in speech language pathology and audiology. Roundtable. American Telemedicine Association 12th International Meeting and Trade Show. Nashville, Tennessee.
- Krumm, M. (2007). Using telehealth technology to provide infant hearing screening and assessment. Poster. American Telemedicine Association 12th International Meeting and Trade Show. Nashville, Tennessee.
- Krumm, M., (2005). Telepractice: Implications for audiology practitioners. American Telemedicine Association Meeting. Denver, Colorado.
- Ribera, J., Krumm, M., & Cherow, E., (2004). Telehealth in audiology: Contemporary practices & issues (Focus Group). American Academy of Audiology Annual Convention, Salt Lake City, UT.
- Krumm, M., Givens, G., Ribera, J., Peters, L., Simonsmeier, V., (2004). The ASHA Telepractice position statement: Implications for audiology practitioners. Annual American Speech Lanugage and Hearing Association (ASHA) Convention, Philadelphia, PA.
- Krumm, M., Ribera, J., Larsen, J., Dick, K., Huffman, T. (2004). Using telehealth to support universal newborn hearing screening programs. World Congress of Audiology, Phoenix, Arizona.
- Krumm, M., Ribera, J., & Givens, G., (2003). Telepractice for the Audiology Practitioner. Annual American Speech Language and Hearing Association (ASHA) Convention, Chicago, Ill.
- Ribera, J., & Krumm, M., (2003). Validation of the hearing in noise test (HINT) using telepractice technology. Annual American Speech Language and Hearing Association (ASHA) Convention, Chicago, Ill.
- Ribera, J., Krumm, et. al, (2003, April). AAA Roundtable on telehealth. San Antonio Texas.
- Krumm, M., Ribera, J., Froelich, T. & White, K., (2002). Applying telemedicine technology in Audiology. American Academy of Audiology Annual Convention, Philadelphia, PA.

- Krumm, M, J., Froelich, T. & White, K., (2002) Telemedicine technology in audiology: Issues & boundaries. AAA Roundtable. American Academy of Audiology Annual Convention, Philadelphia, PA.
- Krumm, M. (2002). Telemedicine technology in audiology: Issues & boundaries . Frontiers in Telemedicine. Alaska Tribal Health Consortium Workshop. Anchorage, Alaska.
- Ahlers, M., Georges, J., Ribera, J., Krumm, M., and Wilt, S., (2002). Panel presentations: Telepractice in practice. Technology in the New Millennium: telepractice and the Healthcare Practitioner Data Base. National council of Sate Boards of Examiners For Speech-Language Pathology and Audiology. Fifteenth Annual Convention.
- Krumm, M., (2002). Using telepractice in audiology today. Annual American Speech-Language-Hearing Association Convention, Atlanta, Georgia.
- Brown, J., Ribera, J., Krumm, M., Perlman, A., Rosen, M., Rentschler, P., Houston, B., Mashima, P., Brennan, D., Givens, G., (2002). Exploring the telepractice frontier. Annual American Speech-Language-Hearing Association Convention, Atlanta, Georgia.
- Krumm, M., Martin, L., Schmiedge, J., & Fifield, B., (1999). Using telehealth applications in an audiology practice. American Academy of Audiology Annual Convention, Miami, Florida.
- Krumm, M., & Martin, L., (1998). Telehealth applications in pediatric audiology: Bridging the service gap. National Symposium on Hearing in Infants, Denver, Colorado.
- Muma, J., Krumm, M., Gamas, W., & Gerard, C., (1998). Assessing essential internet skills for communication disorders professionals. American Speech-Language-Hearing Association Convention, San Antonio, Texas.
- Gamas, W., Krumm, M., & Watson, J., (1998). Creating & implementing internet-based forms for data collection. American Speech-Language-Hearing Association Convention, San Antonio, Texas.
- Krumm, M., & Fifield, B., (1998). Going the distance for self-determination. American Association of University-Affiliated Programs for Persons with Developmental Disabilities, Bethesda, Maryland.
- Krumm, M., Schmiedge, J., & Ferrara, J., (1997). Distortion product otoacoustic emission testing using telemedicine technology. American Speech-Language-Hearing Association Convention, Boston, Massachusetts.

- Krumm, M., Lunday, A., Barcomb, R., & Cassatt, S., (1997). Using an interdisciplinary model to address CAPD Diagnosis and Management. American Speech-Language-Hearing Association Convention, Boston, Massachusetts.
- Switzer, M., & Krumm, M., (1996). Determining optimal DPOAE recordings on the basis of reproducibility. American Speech-Language-Hearing Association Convention, Seattle, Washington.
- Lunday, L., Krumm, M., & Barcomb, R., (1996). The 30-year evolution and success of an interdisciplinary team. American Speech-Language-Hearing Association Convention, Seattle, Washington.
- Krumm, M., Switzer, M., & Froelich, T., (1995). Effects of combined recording parameters on DPOAE thresholds. American Speech-Language-Hearing Association Convention, Orlando, Florida.
- Bradley, M., & Krumm, M., (1995). Hypercard applications in recording clinical practicum hours. American Speech-Language-Hearing Association Convention, Orlando, Florida.
- Sukarukoff, D., & Krumm, M., (1994). Hearing loss and the reliability of distortion product otoacoustic emissions. American Speech-Language-Hearing Association Convention, New Orleans, Louisiana.
- Ike, S., & Krumm, M., (1993). The effect of the number of time averages on the distortion product otoacoustic emissions threshold. American Speech-Language-Hearing Association Convention, Anaheim, California.
- Krumm, M., & Cranford, J., (1991). Incidence of the P300 auditory event-related potential in Children. American Speech-Language-hearing Association Convention, Atlanta, Georgia.
- Kasten, R., Krumm, M., Hanks, J., Maher, C., and Allen, R., (1990). Three experiments of an analog-digital hybrid hearing aid system. American Speech-Language Hearing Association Convention, Seattle, Washington.
- Krumm, M., Cranford, C., and Martin, D., (1990). Contralateral speech babble and late auditory evoked potentials in children. American Speech-Language-Hearing Association Convention, Seattle, Washington.
- Kasten, R., Krumm, M., and Austin, C., (1989). Frequency response test retest reliability of an analog-digital hybrid hearing Aid. American Speech-Language-Hearing Association Convention, St. Louis, Missouri.

Funded Projects

- Presenter grant for 1 World Tinnitus Congress And XII International Tinnitus Seminar 22–24 May 2017, Warsaw, Poland (2017). Funded by the World Hearing Center: Kajetany, Poland. \$2800.
- Visiting Scholar to Chennai, India (2015). Funded by Sri Ramachandra University, Chennai, India. \$3000
- Visiting Scholar to Doha, Qatar (2012). Two summer trips. Funded by Hamad Medical Center and administered through the University of Toronto. \$11,500
- Visiting Scholar to Doha, Qatar (2011). Two summer trips. Funded by Hamad Medical Center and administered through the University of Toronto. \$23,000
- Visiting Scholar to Doha, Qatar (2010). Funded by Hamad Medical Center and administered through the University of Toronto. \$11,000
- Espe-Sherwindt, M, Krumm, M. Rowan, L. et. al. (2010). Assessing telehealth readiness of families of young children with hearing loss. Founded by Akron Children's Hospital Foundation. \$ 30,000
- Holtel, M., Peters, L., Krumm, M, Balkany, T., & Hodges, A., (2007-08). Remote audiology. Funded by Army's Telemedicine and Advanced Technology Research Center, \$186,000.
- Krumm, M (2006) Providing Audiology Services Using a Telehealth Medium. *Primary* investigator. \$6500 Summer Research and Creative Activity Appointment, University Research Council, KSU.

- Krumm, M. (2003). Information Dissemination of the USU Telepractice Model For Universal Newborn Hearing Screening (UNHS) Programs (2003). *Primary Author.* \$4000. Funded by the American-Speech-Language and Hearing Association (ASHA)...
- Krumm, M. (2002-03). Validation Of A Telehealth Model Developed To Assess Infant Hearing Loss. Primary Investigator. \$21,000. Utah "Community/University Research Initiative Grant Proposal" (CURI). Funded to assess interactive video and auditory evoked response testing over the Utah Telehealth Network.
- Krumm, M., (2002-03). The Use of Telehealth Technology For The Measurement of DPOAEs in Infants *Primary Investigator*. \$14,000. This grant examines the feasibility of providing infant hearing tests to rural areas utilizing telemedicine technology.

Krumm, M., Ferrara, J., Martin, S. & Fifield, B. (2000-02). Universal Newborn Hearing Screening Project for North Dakota. *Primary Author*. \$613,079. This grant provided seed money to initiate universal newborn screening in North Dakota.

Krumm, (2000-01). North Dakota Distance Audiology Project. *Primary Investigator and Author*. \$185,000. This grant investigated the validity of telemedicine applications in audiology.

Service and Citizenship

International

Journal of Hearing Science (2017-2019). Board member

Fulbright Specialist Designation (2014-2019) for issues in global public health care

International Teleahealth Association committee on teleaudiology (2016)

Fulbright mentor to Fulbright Scholar Vidya Ramkumar (Faculty from Sri Ramachandra University, Chennai, India on leave to Kent State). 9 month mentorship (Spring 2014).

Journal reviewer for the following international journals:

Journal of Hearing Science International Society of Audiology Journal of Telemedicine and Telecare International Journal of Pediatric Otorhinolaryngology

National

Committee member on the VA conference on Teleaudiology (Fall 2013) in Portland, Oregon

Journal reviewer for (2010-present):

Ear and Hearing Journal of Academy of Audiology (JAAA) American Journal of Audiology

College

2006-08 Member of EHHS diversity committee

School of Speech Pathology and Audiology, Kent State University

2005-present Full Member Graduate Committee

Member, Faculty Advisory Committee

Academic Advisor for Audiology Doctoral Students

Grievance committee

2007 Academic Discovery Days designee

Member of Northern Ohio Audiology Consortium (NOAC) faculty

2005- 07 Doctoral student organization advisor (NAFDA) at the Kent campus

2005-07 Member of the curriculum committee

2013-present Student admissions/performance committee

Other service and citizenship prior to appointment at Kent State University

ASHA Telepractice Working Group-Chair (2003-2005)

Committee on Committees Chair (2003-2004)

Faculty senate substitute (2003-2005)

Institutional Review Board-Chair (1995-2001)

Institutional Review Board-Committee Member (1992-2001)

Faculty Development & Research (1996-2000)

Special Review (1995-1997)

Faculty Senate (1992-1995, 2000-2003)

Promotion Committee (1997, 1999-2000)

Faculty Senate alternate(2002-2003)

Prospectus reviewer (2002-2005)

Committees on Committees-Char (2004-2006)

Board member-Foundation for the Utah School For the Deaf and Blind (2003-2005)

Professional memberships

American Speech Language and Hearing Association (ASHA), Member (1982-present) International Society of Audiology (ISA), 2004- present)

Assistant editor of Audinews, International Society of Audiology (2005-present)

Awards

Clinician of the year for North Dakota (2001). Awarded by the American Speech Language and Hearing Foundation. American Speech Language and Hearing Convention, New Orleans, LA.

Ramkumar, V & Krumm, M, (2014). Hearing assessment using telehealth technology on pre/school age children with and without disability" 10th International Conferences of Telemedicine Society of India (Telemedicon 2014). **Awarded best paper of the conference**.

Schmiedge, J., & Krumm, M., (Thesis Chair). <u>Distortion Product Otoacoustic Emissions Testing Using Telehealth Technology.</u> American Academy of Audiology Student Research Award, Los Angeles, California, 1998.

Courses/Workshops Taught University Teaching – Courses and Curriculum Development

- Industry and Community Noise SP&A 707 10-020. This is a doctoral level course concerning the effects, education and abatement of noise in the workplace, at home and in the community.
- Clinical Audiometry SP&A 43402/53402 (2017 only) Measurement of human hearing by puretone and speech audiometry, evaluation of the middle ear system; screening techniques, pathology of the ear. Class was prepared for 1 year only and done as faculty service.
- Pediatric Audiology, SP&A 70717-001 (2016-present). This course concerns the normal and pathologic aspects of audition in young children. This course provides both theoretical and applied clinical concepts which clinicians will be required to master to effectively work with infants and children with hearing loss.
- Pediatric Amplification, SP&A 70719 (2006-2015). This was a course I prepared for the first time in 2005-06 academic year and the last course in 2015. This course provided perspectives pertaining to the roles of audiologists as they intervene with infants and children with hearing loss. Also, this course emphasized, through laboratory experiences, proper hearing aid fitting, verification, and validation practices in the pediatric population.
- Auditory Disorders SP&A, 70705 (2006 to present). This was a course I prepared for the first time in 2005-06 academic year. This course was prepared with images of outer and middle ear disorders presented on powerpoint slides. All hearing disorders were presented with diagnostic profiles to assist student identification in the clinical setting.
- Aural Rehabilitation, SP&A 70712 (2010-present) This was a course I prepared for the first time in 2010-11 academic year. This course included updated Aural Rehab information and a number of lab experiences to help students understand Aural Rehab more completely.
- Auditory Evoked Potentials (AEPs) Class SPA 70726 (Fall 2007-present). This course will provide students with an overview early, middle and late AEPs. This course will provide students the opportunity to explore the effect of recording parameters and their effect on AEP tracings. Further students will, in addition to didactic training, have labs for each class of AEPs for first hand experiences.
- Internship in Audiology II, SP&A 70692 . This is a class of clinical supervision of students working on their Doctorate of Audiology degrees (2005-present). I started teaching this course in 2005. This course requires continual updating in the field of clinical audiology to teach students contemporary clinical skills and concepts.

Prior coursework taught

Graduate Courses

Otoacoustic Emissions
Pediatric Audiology
Medical Disorders In Pediatric Populations
Auditory evoked potentials
Hearing Aids
Cochlear Implants
Tinnitus
Early Interventionist class for Deaf Educators
Adult Aural Rehabilitation
Introduction to Graduate Research
Clinic Supervision (of Audiology Graduate Students)

Undergraduate Courses

Aural Rehabilitation for Children Advanced Audiology Speech and Hearing Science

Theses Directed/Co-directed

Melega, K., (2000). Measurement of Hearing Thresholds Using Telehealth Technology.

Walsilka, K., (1999). DPOAEs Test/Retest Reliability with Varying L1/L2 Ratios in Normal\ Hearing Individuals.

Schmiedge, J., (1997). Distortion Product Otoacoustic Emissions Testing Using Telemedicine Technology.

Switzer, J., (1995). The Effect of Time Averaging and F2-F1 ratio of -10 dB on DPOAE Thresholds.

Sukarukoff, D., (1994). Hearing Loss and the Reliability of Distortion Product Otoacoustic Emissions.

Bush, L., (1992). The Effects of Aging and Primary Tone Level Difference on Distortion Product Otoacoustic Emission Thresholds and Amplitudes.

Ike, S., (1993). The Effect of Time Averaging on Distortion Product Otoacoustic Emissions for Threshold Levels.

Other student projects directed (e.g., honors projects, graduate student projects)

Lancaster, P. (2005). Providing hearing screening through telehealth technology to rural 3rd grade students. (AuD project)

Wilson, C., (2004). <u>Providing ABR measurements through a telepractice medium</u>. (AuD project).

Dissertation committees:

Stacy Lim (2013). Committee member. Evaluating Speech in Noise Performance of Bilateral Cochlear Implant Users

Dale Lisonbee (ABD) 2013-2015. Co-Dissertation advisor.

Waseem Al Matar 2017-present: Co-Dissertation advisor.