# Bryan M. Wong, AuD, CCC-A

Department of Speech, Language, and Hearing Sciences, The University of Arizona

## **EDUCATION**

Degrees:

The University of Arizona | Tucson, AZ

**Expected Spring 2024** 

Doctorate of Philosophy, Speech, Language, and Hearing Sciences

Graduate Minor: Neuroscience
The University of Arizonal Tucson, AZ

Fall 2019

Doctorate of Audiology

Graduate Minor: Neuroscience

The University of Arizona | Tucson, AZ

Spring 2015

**Summer 2017** 

B.S. in Speech, Language and Hearing Sciences

Undergraduate Minor: Special Education

Certifications:

Certificate of Clinical Competence in Audiology (CCC-A)

**Spring 2020 to Present** 

American Speech- Language- Hearing Association University of Arizona | Tucson, AZ

Fall 2021

Graduate Certification in College Teaching

University of Connecticut |Storrs, CT

Graduate Certification in Intraoperative Neuromonitoring

### **CLINICAL EXPERIENCE**

Years Active	<u>Position</u>	Institution/Location
June, 2020- present	Per Diem Audiologist	Banner University Medicine North   Ear Institute Tucson, AZ
Jan, 2020-present	Per Diem Audiologist	Carondelet Neurologic Institute   Balance Center Tucson, AZ

# TEACHING EXPERIENCE (\* = ONLINE)

Instructor Fall 2021 to 2023
Co-Instructor \*Fall 2020

Class: Anatomy & Physiology of the Auditory & Vestibular System

Department of Speech, Language, and Hearing Sciences, The University of Arizona

Co-Instructor: Frank Musiek, PhD, CCC-A

- Designed and delivered lectures for **8-14 graduate students** on structure/functioning of the peripheral and central auditory and vestibular systems.
- Created and facilitated interactive/collaborative learning activities online and in-person.
- Evaluated student performance on weekly reflective writings, quizzes, and exams.

Instructor Fall 2023

Class: Advanced Audiologic Evaluation Lab

Department of Speech, Language, and Hearing Sciences, The University of Arizona

- Designed and delivered lectures for 8-14 graduate students demonstrating how to perform audiologic tests, including otoscopy, pure tone testing, speech testing (speech reception threshold, word discrimination), speech-in-noise testing (QuickSIN), and immittance testing (tympanometry, acoustic reflex threshold, acoustic reflex decay).
- Created and facilitated interactive/collaborative lab activities focusing on aforementioned audiologic tests in-person.
- Evaluated student performance on weekly reflective writings, quizzes, lab practicals, and exams.

#### Instructor

#### & Graduate Teaching Assistant

Class: Hearing Science

Department of Speech, Language, and Hearing Sciences, The University of Arizona

Summer 2022-2023\* Spring 2023 **Spring 2019 to 2021** 

- Designed and delivered lectures for 18 to 33 undergraduate students on structure/functioning of the ear (outer, middle, inner, central auditory nervous system) and concepts related to acoustics and psychoacoustics.
- Created interactive in-person and online instructional materials and lab activities.
- Evaluated student performance on discussion posts, lab activities, quizzes, and exams.
- Led and facilitated team activities with teaching assistants and undergraduate preceptors.

### Instructor & Graduate Teaching Assistant

**Spring 2022 to 2023** 

\*Spring 2021

Class: Hearing, Health, and Society

Department of Speech, Language, and Hearing Sciences, The University of Arizona

- Designed and delivered lectures and in-class activities to 47-50 undergraduate students on psychosocial impacts of hearing loss and innovation in hearing healthcare.
- Developed instructional videos on how to use technology (Excel, PowerPoint) and on writing tips/tricks.
- Collaborated as part of a teaching team to design and implement a student-centered curricula.
- Read and graded essays, discussion assignments, and exams.
- Led and facilitated team activities with teaching assistants and undergraduate preceptors.

### **Graduate Teaching Assistant**

\*Summer 2021

Class: Principles of Audiology

\*Summer 2020

Department of Speech, Language, and Hearing Sciences, The University of Arizona

Fall 2018

- Designed and delivered lectures and lab activities for 30 to 50 undergraduate students on the structure/functioning of the ear (outer, middle, inner, brainstem) and corresponding audiologic tests.
- Created and facilitated in-person and virtual online activities related to performing/interpreting standard audiologic tests commonly used in clinic, including: otoscopy, tympanometry, otoacoustic emissions, pure tone audiometry, speech testing, auditory brainstem response, and vestibular testing.
- Evaluated student performance on quizzes, assignments, exams, and essays.

#### **Graduate Clinical Assistant**

**Summer 2019** 

Clinical Assistant Program

Department of Speech, Language, and Hearing Sciences, The University of Arizona

- Mentored two undergraduate students and helped supervise students performing clinical audiologic testing on patients (otoscopy, tympanometry, pure tone testing, speech testing, hearing aid trouble shooting/repair).
- Designed and developed instructional material and resources (otoscopy, tympanometry, pure tone testing, speech testing, hearing aid trouble shooting/repair) for future graduate and undergraduate clinical assistants.

## RESEARCH EXPERIENCE AND PROJECTS

#### **Graduate Research Assistant**

Fall 2021 to Present

Audiologic Rehabilitation Lab. The University of Arizona Lab Director: Nicole Marrone, PhD, CCC-A

- Ongoing research evaluating hearing healthcare disparities and inequities across traditionally marginalized populations.
- Ongoing research evaluating use of implementation science, community-based participatory research methods, and technological innovation to address hearing healthcare disparities and inequities.

#### **Graduate Research Assistant**

NeuroAudiology Lab, The University of Arizona Lab Director: Frank Musiek, PhD, CCC-A

Spring 2016 to Spring 2022

- Investigated the variation in cortical auditory anatomy across normal and disordered brains via 3D composited MRIs.
- Conducted a meta-analysis of sensitivity and specificity of behavioral central auditory processing tests in neurologically abnormal populations

#### **Student Research Assistant**

**Fall 2018 to Spring 2019** 

Center for Neurosciences, Tucson, AZ Lab Director: Abraham Jacob, MD

Utilized an electronic medical record to collect and organize data for cochlear implant outcomes research, including: pre-op/post-op low-frequency pure tone averages, pre-op/post-op pure tone averages, pre-op/post-op audiometric speech testing, type of cochlear implant, side of implantation, cochlear implant impedances and hours of usage, and patient demographics

#### -PROJECTS-

**Spring 2021 to Present** 

# Novel Technology Adoption in the Audiology Clinic: Investigations of Ear Tip Performance, Perceptions, and Experiences (IETPPE)

The University of Arizona

Mentor: Nicole Marrone, PhD, CCC-A

- Ongoing research that evaluates performance and perceptions of different ear tips in individuals with normal hearing and those with hearing loss.
- Ongoing research that seeks to evaluate audiologists' perspectives on adoption of novel technologies.
- Ongoing research that evaluates the implementation of 3D printing and computer aided design in hearing health disciplines.

## Classification of Morphology of the Posterior/Superior Temporal Plane

Fall 2016 to Spring 2018

The University of Arizona

Mentor: Frank Musiek, PhD, CCC-A

- Utilized high-resolution T-1 weighted MRIs, from the OASIS patient database, to analyze volumetric and surface area of the planum temporale/Heschl's gyrus complex
- Established a distinct taxonomy/classification system of planum temporale based on gross morphological differences.

#### SELECTED PEER-REVIEWED PRESENTATIONS

- **Wong, B.**, Kiehlbaugh, K., Marrone, N. (2024, February 15<sup>th</sup> -February 17<sup>th</sup>). Investigations of Ear Tip Performance, Perceptions, & Experiences (poster). Presented at the *American Auditory Society 51<sup>st</sup> Annual Scientific & Technology Conference*. Scottsdale, AZ.
- Wong, A., **Wong, B.**, Seaton, N., Torres, A., & Marrone, N. (2021, November 19<sup>th</sup>). Rising to the Challenge: Virtual Teaching and Learning in General Education Classroom (poster). Presented at the *American Speech, Language, Hearing Association Annual Convention*. Washington, DC.
- **Wong, B.** & Musiek, F.E. (2020, March 5<sup>th</sup> -March 7<sup>th</sup>). Laterality of Cortical Auditory Structures in Schizophrenic Subjects vs. Normal Controls (poster). Presented at the *American Auditory Society's 47<sup>th</sup> Annual Scientific & Technology Conference*. Scottsdale, AZ.
- Bushor, J., Schefer, M., **Wong**, **B**., St. George, B. Musiek, F.E. (2020, March 5<sup>th</sup> -March 7<sup>th</sup>). Superior Temporal Plane Morphology in Schizophrenic and Normal Brains (poster). Presented at the *American Auditory Society's 47<sup>th</sup> Annual Scientific & Technology Conference*. Scottsdale, AZ.
- Everett, A., **Wong, B.**, Musiek, F.E., Marrone, N., (2019, Feb 28<sup>th</sup>-March 2<sup>nd</sup>). Can Auditory Tests Predict Hearing Aid Satisfaction in Adults? (poster). Presented at the *American Auditory Society's 46<sup>th</sup> Annual Scientific & Technology Conference*. Scottsdale, AZ
- St. George, B., **Wong, B.**, Musiek, F.M. (2019, Feb 9<sup>th</sup>-13<sup>th</sup>). Assessing Accuracy of a Commonly Used Automated Cortical Parcellation/Labeling Process in Human Auditory Cortex (poster). Presented at the *46<sup>th</sup> Annual Association for Research in Otolaryngology MidWinter Meeting*, Baltimore, MD
- Whiteley, A., **Wong**, **B.**, St. George, B., Bushor, J., Schefer, M., Clancy, C.M., Musiek, F.M. (2019, Feb 28<sup>th</sup>-March 2<sup>nd</sup>). Establishing a Visual Guideline for the Locus of the Auditory Cortex in Humans (poster). Presented at the *American Auditory Society's 46<sup>th</sup> Annual Scientific & Technology Conference*. Scottsdale, AZ.

- **Wong, B.,** Whiteley, A., St. George, B. & Musiek, F. (2018, March 1<sup>st</sup> -3<sup>rd</sup>). Planum Temporale: A Morphological Taxonomy of the Posterior Superior Temporal Plane (poster). Presented at the *American Auditory Society's 45<sup>th</sup> Annual Scientific & Technology Conference*. Scottsdale, AZ.
- **Wong, B.,** Everett, A., Whiteley, A., & Musiek, F. (2018, March 1<sup>st</sup> -3<sup>rd</sup>). A Review of Diagnostic Indices of the Middle Latency Response (poster). Presented at the *American Auditory Society's 45<sup>th</sup> Annual Scientific & Technology Conference*. Scottsdale, AZ.
- Musiek, F.E. & **Wong, B.** (2017, May 21<sup>st</sup> -25<sup>th</sup>). The Middle Latency Response (MLR) and disorders of the central nervous system: An Overview. *Presented at the 25<sup>th</sup> International Evoked Response Study Group Biennial Symposium.* Warsaw, Poland.
- **Wong, B.,** Filippini R. & Musiek, F. (2017, March 2<sup>nd</sup> -4<sup>th</sup>). Auditory Temporal Processing Tests: An Indicator of CANS Pathology (poster). Presented at the *American Auditory Society's 44<sup>th</sup> Annual Scientific & Technology Conference*. Scottsdale, AZ.

## PEER-REVIED PUBLICATIONS

- Shehorn, J., **Wong**, **B**., Marrone, N. & Cone, B. (2023). Amplification Effects on the Acoustic Change Complex in Older Adults with Sensorineural Hearing Loss. *Perspectives of the ASHA Special Interest Groups*, *8*(6), 1380-1391.
- Everett, A., Marrone, N., **Wong, B**., & Musiek, F.E. (2021). Predicting hearing aid satisfaction in adults: A systematic review of speech-in-noise tests and other behavioral measures. *Ear and Hearing, 42*(6), 1485-1498.
- **Wong, B. M**. & Musiek, F.E. (2020). Morphological variance and a related taxonomy of the planum temporale. *Journal of Hearing Science*, *10*(4): 9-19.
- Filippini, R., **Wong, B.,** Schochat, E., & Musiek, F. (2020). GIN Test: A Meta-Analysis on its Neurodiagnostic Value. *J Am Acad Audiol*, 31: 147-157. https://doi.org/10.3766/jaaa18079

#### **COMMUNITY AND UNIVERSITY SERVICE**

Facilitator, Pathways Annual Meeting

Spring 2023

- Helped organize and provide live online support for an annual meeting centered around central auditory processing topics for **52 participants**.
- Lab Leader, Audiologic Rehabilitation Lab

Spring 2022

- Provided research and clinical audiology mentorship to three undergraduate students.
- Facilitator, Black, Indigenous, People of Color (BIPOC) Panel

April, 2021

- Facilitated discussion between prospective BIPOC graduate students and BIPOC professionals in Speech, Language, and Hearing Sciences.
- Student Coordinator, Research Brown Bag Program (University of Arizona)

Jan, 2019- Aug, 2020

- Coordinated and facilitated monthly meetings, with PhD and SLHS faculty to discuss topics including: trends in research, professional development, and academia.
- President, Student Academy of Audiology (University of Arizona Chapter)

Sept, 2017 - May, 2018

- Organized events and meetings to bring graduate and undergraduate club members together and help make presence known in the University and local community.
- Coordinator, Audiology Journal Club (University of Arizona)

Dec, 2015- May, 2017

• Coordinated monthly meetings to discuss recent and classic research in Audiology, and other associated fields, among students and professors

Protect Your Ears Project Jan –March, 2016

Helped implement an audiologic hearing health awareness program through

interactive presentations and hands on activities to educate and support underserved school-aged children in Tucson, AZ.

Special Olympics March, 2014 Nov, 2016

• Helped provide hearing screenings (pure tone audiometry, tympanometry, OAEs) to Special Olympic athletes.

HOPE Festival Sept, 2016 Oct, 2017

• Helped provide hearing screenings (pure tone audiometry, tympanometry) to underserved populations.

- COMMUNITY & GUEST LECTURES -

Community Lecture March, 2023

Lecture: "Hearing loss, Auditory Processing, & Dementia: Who's Listening?"

Department of Speech, Language, and Hearing Sciences | The University of Arizona

Co-lecturer: Frank E. Musiek, PhD

 Helped create and conduct a community lecture for over 50 individuals at La Cholla Hills Senior Living Community regarding hearing loss and its association with dementia and cognitive decline.

Guest Lecturer April 2022 | Nov 2021

Lecture: "Audiology...the 'Other' Profession"

Department of Speech, Language, and Hearing Sciences | The University of Arizona

Lead Instructors : Alyssa Sachs, MS & Katlyn Nickels, MS

• Designed and delivered a lecture to **50-60 undergraduate students**, related to structure/functioning of the ear (outer, middle, inner, brainstem), clinical audiologic tests, and differential diagnosis.

Guest Lecturer Jan 2020

Lecture: "Neuroanatomy of the Central Auditory Nervous System"

Department of Speech, Language, and Hearing Sciences, The University of Arizona

Designed and delivered a single lecture for 10 graduate students related to structure/functioning of the central
auditory nervous system and how these structures correspond to behavioral central auditory test interpretation.

Guest Lecturer Jan 2020

Lecture: "Signal Processing & Current Perspectives of Electrophysiology"
Department of Speech, Language, and Hearing Sciences, The University of Arizona

- Designed and delivered a lectures to **10 graduate students** on signal processing methods used in auditory evoked potentials (AEPs).
- Facilitated an interactive activity that evaluated the current role and use of AEPs in clinical audiology.

Guest Lecturer March 2019

Lecture: "Historical Perspectives on Central Auditory Test Development"
Department of Speech, Language, and Hearing Sciences, The University of Arizona

• Designed and delivered a single lecture to **8 graduate students** on how behavioral central auditory tests were initially developed, how they changed over time, and what tests are commonly used clinic.

Guest Lecturer March 2019

Lecture: "Physical Exposures and Occupational Audiology Mel & Enid Zuckerman College of Public Health, The University of Arizona

#### **HONORS & AWARDS**

Student Travel Award February 2024

The University of Arizona | Speech, Language, & Hearing Sciences Department

GradSlam Best Recorded Video Presentation Themed Award (2 <sup>nd</sup> place finalist) The University of Arizona   Graduate Professional Student Council	March 2023
Research and Project (ReaP) Grant The University of Arizona   Graduate Professional Student Council	March 2023
Woodling Sertoma Scholarship The University of Arizona   Speech, Language, & Hearing Sciences Department	January 2023
Galileo Circle Scholarship The University of Arizona   College of Science	April 2019 to 2022
Graduate Student Award in Teaching The University of Arizona   College of Science	April 2022
Graduate Student Award in Scholarship The University of Arizona   College of Science	April 2022
National Science Foundation Innovation-Corps Site Program microgrant The University of Arizona   Tech Launch Arizona	October 2021
Titans of the Field Scholarship The University of Arizona   Speech, Language, & Hearing Sciences Department	July 2021
Engineer Your World Challenge Winner (2 <sup>nd</sup> place finalist)  Arizona FORGE	January 2021
Communicative Disorders Scholarship Sertoma, Inc.	June 202
Midtown Sertoma Club of Tucson Audiology Scholarship The Midtown Sertoma Club of Tucson Tucson, AZ	May 2020
Graduate Minority Student Scholarship American Speech-Language and Hearing Foundation	November 2019
Fellows-in-Training Travel Grant (FITT)  American Academy of Audiology Foundation	October 2019
Sadanand Singh Memorial Scholarship American Academy of Audiology Foundation	September 2019
Audiology/Hearing Science Research Travel Award (ARTA)  American Speech-Language-Hearing Association	September 2019
Graduate Tuition Scholarship The University of Arizona	2017- 2018
James and Susan Jerger Award for Excellence in Student Research American Academy of Audiology Foundation – AudiologyNOW!	April 2017

# PROFESSIONAL MEMBERSHIPS

American Academy of Audiology American Auditory Society American Speech-Language-Hearing Association

Dec 2016-Present Dec 2016-Present Dec 2016-Present