UNIVERSITY OF MARYLAND
OFFICE OF THE PRESIDENT

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December 8, 2022

James D. Fielder, Jr.
Secretary of Higher Education
Maryland Higher Education Commission
6 N. Liberty Street
Baltimore, MD 21201

Dear Secretary Fielder:

I am writing to request approval for a new Master of Arts program in Hearing and Speech Sciences. The proposal for the new program is attached. I am also submitting this proposal to the University System of Maryland for approval.

The proposal was endorsed by the appropriate faculty and administrative committees. I also endorse this proposal and am pleased to submit it for your approval.

Sincerely,

Darryll J. Pines
President
Glenn L. Martin Professor of Aerospace Engineering

DJP/mdc

cc: Darlene Smith, Interim Associate Vice Chancellor
Jennifer King Rice, Senior Vice President and Provost
Susan Rivera, Dean, College of Behavioral and Social Sciences

Office Use Only: PP#

Cover Sheet for In-State Institutions
New Program or Substantial Modification to Existing Program

Institution Submitting Proposal	University of Maryland, College Park

Each action below requires a separate proposal and cover sheet.

- (●) New Academic Program
- ( ) New Area of Concentration
- ( ) New Degree Level Approval
- ( ) New Stand-Alone Certificate
- ( ) Off Campus Program
- ( ) Substantial Change to a Degree Program
- ( ) Substantial Change to an Area of Concentration
- ( ) Substantial Change to a Certificate Program
- ( ) Cooperative Degree Program
- ( ) Offer Program at Regional Higher Education Center

Payment Submitted: (●) Yes ( ) No

Payment Type: (●) R*STARS # JA241853 ( ) Check # JA241853

Payment Amount: $850

Date Submitted: 12/17/202

Department Proposing Program	Hearing and Speech Sciences	
Degree Level and Degree Type	Master's; Master of Arts	
Title of Proposed Program	Hearing and Speech Sciences	
Total Number of Credits	36	
Suggested Codes	HEGIS: 122004.00	CIP: 51.0201
Program Modality	(●) On-campus ( ) Distance Education (fully online) ( ) Both	
Program Resources	(●) Using Existing Resources ( ) Requiring New Resources	
Projected Implementation Date (must be 60 days from proposal submisison as per COMAR 13B.02.03.03)	(●) Fall ( ) Spring ( ) Summer	Year: 2023
Provide Link to Most Recent Academic Catalog	URL: https://academiccatalog.umd.edu/	
Preferred Contact for this Proposal	Name: Michael Colson	
	Title: Senior Coordinator for Academic Programs	
	Phone: (301) 405-5626	
	Email: mcolson@umd.edu	
President/Chief Executive	Type Name: Darryll J. Pines	
	Signature: Darryll J. Pines	Date: 12/08/2022
	Date of Approval/Endorsement by Governing Board:	

Revised 1/2021

A. Centrality to the University's Mission and Planning Priorities

Description. The Master of Arts in Hearing and Speech Sciences is a companion degree program to two existing doctoral programs, the Ph.D. in Hearing and Speech Sciences and an accredited professional Doctor of Audiology (Au.D.), offered within the Department of Hearing and Speech Sciences (HESP) within the College of Behavioral and Social Sciences at the University of Maryland, College Park. The M.A. will not have a direct admission process, but is an optional credential for students who have been admitted to either of the two doctoral programs. The curriculum consists of 36 graduate credits from the existing courses in the two doctoral programs and can be completed in two years. Students may either complete a scholarly project (either thesis or capstone research project), or pass a set of written comprehensive examinations, to satisfy the M.A. requirements.

Relation to Strategic Goals. As written in the University of Maryland's Mission Statement, one of the university's goals for graduate education is to "Expand excellent professional graduate programs that are nationally recognized for their contributions to the practice of the professions, for their pioneering curricula, and for their spirit of innovation and creativity." An aspect of this mission is to provide appropriate exit pathways at various stages of a student's academic journey, equipping them with the training and credentials to move into a variety of careers. The University of Maryland Graduate School and its Graduate Council have advocated that all doctoral programs have an early exit path that will lead to a credential for students who, for any reason, cannot or choose not to complete their doctoral studies, or who wish to have the additional credential as part of their record.

Funding. No additional funding is required for this new degree offering since it is simply an early exit pathway for two existing doctoral programs.

Institutional Commitment. The program will be administered by the department of Hearing and Speech Sciences (HESP) within the College of Behavioral and Social Sciences at the University of Maryland (UMD). Creation of this exit pathway for doctoral students is in alignment with the priorities of, and thus institutionally supported by, UMD's Graduate School.

B. Critical and Compelling Regional or Statewide Need as Identified in the State Plan

Need. The proposed program is designed to fill a void for those enrolled doctoral students who leave their program, which happen for a variety of reasons. Departing students who complete the Master's degree requirements will be eligible for higher-level jobs than those whose studies have terminated at the Bachelor's degree. The M.A. degree signifies that the holder has advanced knowledge in the field of Speech, Language, and Hearing Sciences and scholarly research associated with communication disorders.

State Plan. The proposed program aligns with the 2022 *Maryland State Plan for Postsecondary Education* in several ways, but most directly to the goal of promoting practices and policies that ensure **student success,** particularly ***Priority 6: Improve systems that prevent timely***

completion of an academic program[1]. As part of this priority, the State Plan urges institutions "to identify near completers and identify ways to support them in completing a meaningful credential." By creating a credentialed "off-ramp" for students who enter into a doctoral program but cannot or choose not to continue through to completion, for whatever reason, the University will provide a meaningful credential that recognizes advanced training. Their coursework will have prepared them for an array of non-clinical administrative and research positions that require expertise and experience beyond the bachelor's degree. This degree will allow the students to link their hard work with a credential that will lead to a more successful pursuit of career opportunities.

C. Quantifiable and Reliable Evidence and Documentation of Market Supply and Demand in the Region and State

The focus of the HESP department's graduate instruction is on its doctoral programs, and typically only one student per year (or fewer) has left the program prior to completion. These individuals would have been eligible for receipt of the Master's credential. While the Bureau of Labor Statistics does not list this particular credential in its occupational handbook[2], the workforce needs in Speech and Audiology are growing much faster than average, nationally. Occupational growth in Montgomery and Prince Georges Counties in the Washington, DC region is also expected to be significant according the state projections[3].

Individuals graduating with a Master's degree in Hearing and Speech Sciences, while not eligible for clinical practice, would be eligible for administrative or research positions in this discipline. For example, the American Speech-Language-Hearing Association (located in Rockville, MD) currently has positions for which this degree would be appropriate, including clinical research associates and managers of clinical certification. The Henry M. Jackson Foundation for the Advancement of Military Medicine (located in Bethesda, MD) has openings for research coordinators and research assistants in Audiology and Speech. There are also a number of research positions listed with the Alakaina Family of Companies in Bethesda, MD, for research assistants to provide scientific, technical, and programmatic support for research conducted at Walter Reed Army Military Medical Center (Bethesda, MD). There are numerous comparable administrative and research positions at the NIH, specifically at the National Institute for Deafness and Other Communication Disorders (NIDCD) in both the intramural and extramural programs. The Johns Hopkins University also recruits for research associates in this field. Most of these positions require a Master's degree in the broad disciplines of Speech and Hearing Sciences.

D. Reasonableness of Program Duplication

[1] https://dlslibrary.state.md.us/publications/Exec/MHEC/ED11-105(b)(3)(i)_2022.pdf
[2] https://www.bls.gov/ooh/healthcare/speech-language-pathologists.htm

[3] http://www.dllr.state.md.us/lmi/iandoproj/wias.shtml

There are no comparable programs in the State of Maryland. The University of Maryland offers an M.A. in Speech-Language Pathology (SLP), as do Towson University (M.S.) and Loyola University of Maryland (M.S.). The intended goal of SLP programs is to train practitioners to provide clinical services to individuals with speech and language disorders, which is not the intent of the M.A. in Hearing and Speech Sciences. We note, however, that it is quite common for Ph.D. and Au.D. programs at other institutions to offer a non-clinical M.A. option for those students who leave their doctoral program early for whatever reason.

E. Relevance to Historically Black Institutions (HBIs)

No historically black institutions in Maryland offer this degree program.

F. Relevance to the identity of Historically Black Institutions (HBIs)

We do not anticipate any negative impacts on the identities of the HBI's in the state of Maryland, as none offer this degree program.

G. Adequacy of Curriculum Design, Program Modality, and Related Learning Outcomes

Curricular Development. No new courses are required for this credentialed exit pathway. The course requirements for the two existing doctoral programs provide the foundation for the master's degree program. The Ph.D. program requires 32 credits of coursework and 18 credits of scholarly research. The professionally accredited clinical Doctor of Audiology program requires 61 credits of coursework (including 4 hours of capstone research), 14 credit hours of a clinical practicum, and 18 credits of a full-time clinical internship. The proposed Master's degree credential requires 30 credits of coursework and 6 additional credits of either coursework and comprehensive examinations (non-thesis option) or coursework and thesis-equivalent research. The thesis-equivalent research requirement would be met by completion of the first year/ Candidacy Research Project (for Ph.D. students) or the Capstone Research Project (for Au.D. students). Thus, doctoral students will typically have completed the requirements for the M.A. credential in about two years.

Faculty Oversight. Appendix A includes a list of both tenure-line and clinical faculty in the department of Hearing and Speech Sciences, who oversee and teach in the program.

Educational Objectives and Learning Outcomes. Due to the individualized nature of this pathway, learning outcomes are rather broad and students will be evaluated on an individualized basis. Upon completion of the Master's degree curriculum, students are expected to have demonstrated:

1. adequate performance in academic coursework;
2. understanding of ethical behavior in hearing and speech science;
3. understanding of theoretical concepts in hearing and speech science and knowledge of relevant literature;
4. understanding of and adequate skill in research methods appropriate to the discipline

Institutional assessment and documentation of learning outcomes. The Learning Outcomes Assessment for the proposed M.A. in Hearing and Speech Sciences will evaluate a student's performance in dimensions that suggest the student has acquired the knowledge and background commensurate with the degree. These dimensions will be assessed via a rubric to be administered at the time the student decides to exit the doctoral program. The student's mentor and Program Planning Committee (in the case of a Ph.D. student) or the Audiology Planning Committee (in the case of an Au.D. student) will determine if the student meets, exceeds, or has not yet met the learning objective. The completed rubric will be placed in the student's folder and if an individual student has not met expectations, then the relevant committee will meet with the student to discuss strategies to improve areas of weakness, prior to earning the M.A. degree.

Following completion of the rubrics for all students in this M.A. program each year, a summary evaluation will be made of the most recent cohort in the broad dimensions assessed in the rubric. Areas of weakness that are pervasive across students (more than 2 individual students) will be discussed among the Department's faculty at a regular faculty meeting. Any additional issues that are raised through the use of these rubrics will also be considered by the committee and the Department faculty as a whole. The goal will be to modify elements of the academic program (courses, advising strategies, comprehensive examination procedures, research projects, etc.) that are problematic.

Course requirements. The proposed 36-credit program includes the foundational coursework of the two doctoral programs. The curriculum in the Ph.D. program is highly variable, depending on the research focus of the student and their Ph.D. mentor. Program sequences will depend on the student's background and interests, but typically include 6 credits of core knowledge areas, 3-6 credits of contemporary research, 6 credits of statistics, 2 credits of ethics, 9-12 credits of electives from a variety of academic units, and 18 research credits. A full listing of courses available in the HESP department is included in Appendix B. A sample plan for an Au.D. student, whose coursework is more specific and who may complete the requirements for the M.A. degree, is shown below. Comprehensive written examinations are given at the end of the spring semester in each year.

General Education. As a graduate program, General Education requirements are not applicable.

Accreditation or Certification Requirements. The M.A. in Hearing and Speech Sciences is a non-clinical degree. There is no clinical practicum requirement, and graduates will not be eligible for licensure or certification in Audiology or Speech-Language Pathology.

Year 1	Course	Title	Credits
Fall	HESP 606	Basic Hearing Measurement	3
	HESP 700	Hearing Aids I	3
	HESP 600	Instrumentation	3
Winter	HESP 615	Counseling in Communicative Disorders	3
Spring	HESP 701	Hearing Aids II	3
	HESP 706	Advanced Clinical Audiology	3
	EDMS 645	Quantitative Research Methods I	3
Summer I	HESP 635	Rehabilitative Audiology	3
Summer II	HESP 634	Anatomy & Physiology of the Auditory & Vestibular Systems	3
Year 2	**Course**	**Title**	**Credits**
Fall	HESP 630	Electrophysiologic Measures I	3
	HESP 722	Psychoacoustics	3
	HESP 645	Pediatric Audiology	3
Winter	HESP 704	Practice Management	3
Spring	HESP 632	Medical Audiology	3
	HESP 724	Research Design	3
		Elective (HESP 636 or HESP 730)	3

Other Institutions or Organizations. The department is not planning to contract with another institution or non-collegiate organization for this program. Students may fulfill their requirements entirely within the Department of Hearing and Speech Sciences, although some courses are available in other academic programs as electives. Students also have the opportunity to fulfill elective options, in consultation with their academic advisor, at a number of universities in the metropolitan DC area through the Washington Area Consortium, as well as through inter-institutional enrollment within the University System of Maryland.

Student Support. This credential is only available to current doctoral students (either Au.D. or Ph.D.), and as such, students have the support and mentoring of the Graduate Faculty in the HESP department. The overall academic direction and oversight for the program will be provided by the Director of Graduate Studies in HESP. On an individual student basis, academic direction for a particular course of study to satisfy program requirements will be from the student's Program Planning Committee (in the case of Ph.D. students), and from the student's academic advisor and two additional faculty members (in the case of Au.D. students).

Marketing and Admissions Information. Since the focus of this program is to provide an exit pathway for doctoral students, there will be no direct admissions process for the master's degree. Admission to the doctoral program follows the requirements of the UMD Graduate School and is competitive. To be considered for admission to either of the doctoral programs, students must provide three letters of recommendation, a description of prior research or work experience, and a sample of scholarly writing in addition to the Graduate School requirements. Admission is currently confined to fall matriculation; early application is encouraged. Current doctoral students who are considering the M.A. program will learn about the procedures for completing the degree through their advisors.

H. Adequacy of Articulation

As a graduate program, articulation agreements with community colleges is not applicable.

I. Adequacy of Faculty Resources

Program faculty. Appendix A contains a list of faculty members in the department of Hearing and Speech Sciences, all of whom have appropriate credentials for graduate instruction. A small cadre of clinicians and researchers in the discipline are also brought on as adjunct faculty to provide additional expertise.

Faculty training. Faculty teaching in the program will use the University's learning management system along with its extensive electronic resources. They will have access to instructional development opportunities available across the College Park campus, including those offered as part of the Teaching and Learning Transformation Center, many of which are delivered in a virtual environment. Instructors will work with the learning design specialists on campus to incorporate best practices when teaching in the online environment.

J. Adequacy of Library Resources

The University of Maryland Libraries assessment concluded that the Libraries are able to meet, with current resources, the curricular and research needs of the program.

K. Adequacy of Physical Facilities, Infrastructure, and Instructional Resources

All physical facilities, infrastructure and instructional equipment are already in place for the Ph.D. and Au.D. programs. No new facilities are required.

L. Adequacy of Financial Resources

There are no new courses or sections of existing courses to be taught. There will be no resources required, either faculty or administrative, other than those already in place for the existing Ph.D. and Au.D. programs. We anticipate that only a very few students per year may take advantage of this option. The budget tables reflect that no additional resources are

required, and that students who are currently on an assistantship would continue to be supported through to completion of this pathway.

Resources:

1. Reflects the assistantship stipend
2. Our model assumes that students in this pathway will be in the program full-time.

Expenditures:

Items 1-3 and 5-8: No additional resources are required to support this pathway.
Item 4: Reflect the support that the university provides (tuition remission and stipend) for students who have an assistantship in the program.

M. Adequacy of Program Evaluation

Formal program review is carried out according to the University of Maryland's policy for Periodic Review of Academic Units, which includes a review of the academic programs offered by, and the research and administration of, the academic unit (http://www.president.umd.edu/policies/2014-i-600a.html). Program Review is also monitored following the guidelines of the campus-wide cycle of Learning Outcomes Assessment (https://www.irpa.umd.edu/Assessment/LOA.html). Faculty within the department are reviewed according to the University's Policy on Periodic Evaluation of Faculty Performance (http://www.president.umd.edu/policies/2014-ii-120a.html). Since 2005, the University has used an online course evaluation instrument that standardizes course evaluations across campus. The course evaluation has standard, university-wide questions and also allows for supplemental, specialized questions from the academic unit offering the course.

N. Consistency with Minority Student Achievement goals

As this is an exit option for enrolled doctoral students, the specific actions and strategies to be utilized to recruit and retain a diverse student body reflect those already in place for the two doctoral programs that potentially feed into this M.A. program. The department has adopted a number of strategies in recent years in the doctoral programs to recruit and retain a diverse student cohort. Recruitment efforts include holding Open Houses and encouraging potential applicants to attend, having individual discussions with students from diverse backgrounds who may be considering applying, and informing admitted applicants from diverse communities early with a personal phone call about their admission. Retention efforts rely on strong faculty and peer mentoring, as well as building associations with professionals who themselves are from diverse backgrounds.

It is our intent that all of our doctoral students, especially those from diverse backgrounds, will complete the doctoral program in which they are enrolled. For those students who must leave their doctoral program, however, a formal master's degree award will recognize their advanced level understanding of hearing and speech sciences. Students with an M.A. in Hearing and Speech Sciences will be more marketable than those who only have bachelor's degrees,

thereby leading to greater achievements than if they were to exit the doctoral program with no graduate degree at all.

O. Relationship to Low Productivity Programs Identified by the Commission

Since this program is designed to be an exit pathway, with no direct admissions process, the low productivity criteria are not applicable.

P. Adequacy of Distance Education Programs

This program is not intended for distance education.

Tables 1 and 2: Resources and Expenditures

RESOURCES	Year 1	Year 2	Year 3	Year 4	Year 5
1.Reallocated Funds	$20,000	$20,600	$21,218	$21,855	$22,510
2. Tuition/Fee Revenue (c+g below)	$16,238	$16,725	$17,227	$17,744	$18,276
a. #FT Students	1	1	1	1	1
b. Annual Tuition/Fee Rate	$16,238	$16,725	$17,227	$17,744	$18,276
c. Annual FT Revenue (a x b)	$16,238	$16,725	$17,227	$17,744	$18,276
d. # PT Students	0	0	0	0	0
e. Credit Hour Rate	$907.65	$934.88	$962.92	$991.81	$1,021.57
f. Annual Credit Hours	6	6	6	6	6
g. Total Part Time Revenue (d x e x f)	$0	$0	$0	$0	$0
3. Grants, Contracts, & Other External Sources	$0	$0	$0	$0	$0
4. Other Sources	$0	$0	$0	$0	$0
TOTAL (Add 1 - 4)	**$36,238**	**$37,325**	**$38,445**	**$39,598**	**$40,786**

EXPENDITURES	Year 1	Year 2	Year 3	Year 4	Year 5
1. Faculty (b+c below)	$0	$0	$0	$0	$0
a. #FTE	0.0	0.0	0.0	0.0	0.0
b. Total Salary	$0	$0	$0	$0	$0
c. Total Benefits	$0	$0	$0	$0	$0
2. Admin. Staff (b+c below)	$0	$0	$0	$0	$0
a. #FTE	0.0	0.0	0.0	0.0	0.0
b. Total Salary	$0	$0	$0	$0	$0
c. Total Benefits	$0	$0	$0	$0	$0
3. Total Support Staff (b+c below)	$0	$0	$0	$0	$0
a. #FTE	0.0	0.0	0.0	0.0	0.0
b. Total Salary	$0	$0	$0	$0	$0
c. Total Benefits	$0	$0	$0	$0	$0
4. Graduate Assistants (b+c)	$36,238	$37,325	$38,445	$39,598	$40,786
a. #FTE	1.0	1.0	1.0	1.0	1.0
b. Stipend	$20,000	$20,600	$21,218	$21,855	$22,510
c. Tuition Remission	$16,238	$16,725	$17,227	$17,744	$18,276
5. Equipment	$0	$0	$0	$0	$0
6. Library	$0	$0	$0	$0	$0
7. New or Renovated Space	$0	$0	$0	$0	$0
8. Other Expenses: Operational Expenses	$0	$0	$0	$0	$0
TOTAL (Add 1 - 8)	**$36,238**	**$37,325**	**$38,445**	**$39,598**	**$40,786**

Appendix A: Faculty in the Department of Hearing and Speech Sciences

All of the core tenure-line and clinical faculty who teach at the graduate level hold doctoral degrees in a field relevant to the discipline. All faculty listed are full-time. Specific instructional responsibilities vary by semester, and the department also contracts periodically with practicing clinicians to augment the curriculum. Credentials in this field include the Certificate of Clinical Competence in Audiology (CCC-A) and the Certificate of Clinical Competence in Speech-Language Pathology (CCC-SLP) in addition to the Au.D. and Ph.D.

Name	Title	Credentials	Institution & Area of terminal degree	Courses Taught
Full-time faculty				
Rochelle Newman	Professor and Chair	Ph.D.	SUNY Buffalo, Psychology	HESP600, HESP602, HESP632, HESP645, HESP700, HESP799, HESP849, HESP859, HESP899
Samira Anderson	Assoc Prof and Director of Graduate Studies	Au.D., Ph.D., CCC-A	Northwestern U, Audiology	HESP630, HESP635, HESP704, HESP706, HESP849, HESP859
Nan Bernstein Ratner	Professor and DGS, NACS	M.A., Ed.D., CCC-SLP	Boston U., Applied Psycholinguistics	HESP616, HESP626, HESP638, HESP799
Lacey Curry	Assistant Clinical Professor	Au.D.	James Madison University, Audiology	HESP635, HESP648B, HEP649A
Jan Edwards	Professor	Ph.D., CCC-SLP	CUNY Graduate Center, Speech-Language Pathology	HESP601, HESP620, HESP638, HESP799, HESP818, HESP899
Yasmeen Faroqi-Shah	Professor	M.A., Ph.D., CCC-SLP	Northwestern U., Speech-Language Pathology	HESP602, HESP610, HESP611, HESP638, HESP799, HESP808
Sandra Gordon-Salant	Professor, Director of CAUD Program	M.A., Ph.D., CCC-A	Northwestern U., Audiology	HESP606, HESP636, HESP645, HESP829, HESP849, HESP859
Matthew Goupell	Professor and Director, Ph.D. Program	Ph.D.	Michigan State U., Physics	HESP600, HESP634, HESP639, HESP722, HESP849, HESP859
Eric Hoover	Assistant Prof	Ph.D.	Northwestern U., Audiology	HESP700, HESP701, HESP710, HESP849, HESP859, HESP899

Yi Ting Huang	Assoc Prof	Ph.D.	Harvard U., Developmental Psychology	HESP638, HESP724, HESP799, HEP898
Eusabia Mont	Clinical Assoc Prof	M.A., CCC-SLP	California State U - Northridge, Speech-Language Pathology	HESP603, HESP617, HESP638
Nicole Nguyen	Clinical Assoc Prof	Au.D., CCC-A	University of Maryland, Audiology	HESP649A, HESP712, HESP729, HESP731, HESP818
Jared Novick	Assoc Prof	Ph.D.	U. of Pennsylvania, Cognitive Psychology	HESP638, HESP818
Vivian Sisskin	Clin Prof	M.A., CCC-SLP	Chapman U., Speech-Language Pathology	HESP612, HESP613, HESP638
Kristin Slawson	Clin. Assoc Prof	M.A., CCC-SLP	UMD, Speech-Language Pathology	HESP620, HESP638, HESP728
Colleen Worthington	Clinical Professor	M.A., CCC-SLP	Loyola U., Speech-Language Pathology	HESP638, HESP702

Appendix B: Course Descriptions

HESP600 Instrumentation in Hearing and Speech Sciences (3 Credits)
Types and principles of operation of electronic equipment used in the hearing and speech sciences.
Restriction: Must be in Clinical Audiology: Au.D. or Ph.D. (Doctoral) program; and permission of BSOS-Hearing & Speech Sciences department. Or permission of instructor.

HESP601 Foundations of Scientific Inquiry (1 Credit)
Overview of methods of empirical research used in Communication Sciences and Disorders. The course will focus on identifying, critically analyzing, and writing about empirical research.
Restriction: Must be in Hearing and Speech Sciences: M.A. (Master's) program; or permission of Instructor.
Additional Information: Course meets over three semesters for the duration of the Masters of Speech-Language Pathology program.

HESP602 Advanced Seminar in Neurological Bases of Communication (2 Credits)
An advanced discussion of the neural bases of human communication and its disorders, neuroimaging, neural plasticity and neurological evaluations, with emphasis on current developments and critical analysis.
Prerequisite: An undergraduate course in human neuroanatomy.
Restriction: Permission of BSOS-Hearing & Speech Sciences department.
HESP603 Seminar in Cultural and Linguistic Diversity in Communication Disorders (1 Credit)
Overview of cultural and linguistic diversity (CLD) in general, and the impact of CLD on communication, communication disorders, and the professional practice of Speech-Language Pathology
Restriction: Must be in Hearing and Speech Sciences: M.A. (Master's) program; or permission of Instructor.
Additional Information: Course meets over four semesters for the duration of the Masters of Speech-Language Pathology program.

HESP605 Assessment & Intervention in Bilingual Populations (3 Credits)
Integrates foundational knowledge pertaining to bilingualism in speech-language pathology. This course provides students with a framework for working with individuals from culturally and linguistically diverse backgrounds. This course is designed to educate and train student clinicians to serve as bilingual speech-language pathologists.
Restriction: Must be in Hearing and Speech Sciences: M.A. (Master's) program.

HESP606 Basic Hearing Measurements (3 Credits)
Theoretical principles, methodology, and interpretation of routine audiometric tests, including pure tone, speech, and acoustic immittance measures. Modification of procedures for special populations. Equipment calibration and mass hearing screening programs.

Prerequisite: HESP411; or students who have taken courses with comparable content may contact the department.
Restriction: Must be in Clinical Audiology: Au.D. or Ph.D. (Doctoral) program; and permission of BSOS-Hearing & Speech Sciences department. Or permission of instructor.

HESP610 Language Disorders in Adults (2 Credits)
Etiology, diagnosis and management of language problems of adults associated with aging, brain injury and degenerative conditions.
Restriction: Must be in Hearing and Speech Sciences: M.A. (Master's) program; or permission of instructor.

HESP611 Cognitive Disorders in Adults (2 Credits)
Etiology, diagnosis and management of cognitive problems of adults associated with aging, brain injury and degenerative conditions.
Prerequisite: Must have completed or be concurrently enrolled in HESP610; and must have knowledge of basic human neuroanatomy.
Restriction: Must be in Hearing and Speech Sciences: M.A. (Master's) program; or permission of instructor.

HESP612 Fluency Disorders (2 Credits)
The nature of fluency disorders. Principles, methods and procedures for the clinical management of fluency disorders in children and adults.
Restriction: Must be in Hearing and Speech Sciences: M.A. (Master's) program; and permission of BSOS-Hearing & Speech Sciences department. Or permission of instructor.

HESP613 Autism Spectrum Disorders (2 Credits)
Etiology, diagnosis and management of autism spectrum disorders.
Restriction: Must be in Hearing and Speech Sciences: M.A. (Master's) program; or permission of instructor.
Credit Only Granted for: HESP639A or HESP613.
Formerly: HESP639A.

HESP615 Counseling in Communicative Disorders (3 Credits)
Introduction to the application of counseling principles and methodologies for working with individuals with communication disorders and their families. The role of the audiologist and speech language pathologist as counselors will be explored. Class content will focus on theoretical approaches and techniques to counseling from the fields of psychology, social work, and family the family therapy. The application of counseling in the diagnostic process as well as treatment of a wide variety of communication disorders will be highlighted throughout the course.
Recommended: HESP400 and HESP411.

HESP616 Language Disorders in the Pre-school Age (2 Credits)

Theoretical, empirical and clinical perspectives on language disorders in children from infancy through pre-school age.
Prerequisite: HESP400; or students who have taken courses with comparable content may contact the department.
Restriction: Must be in Hearing and Speech Sciences: M.A. (Master's) program; and permission of BSOS-Hearing & Speech Sciences department. Or permission of instructor.

HESP617 Cultural and Linguistic Diversity in Communication and its Disorders (2 Credits)
An exploration and discussion of cultural and linguistic diversity, its impact on communication and communication disorders, and strategies for assessment and intervention of culturally and linguistically diverse clients
Recommended: HESP417 or equivalent.
Restriction: Must be in one of the following programs (Hearing and Speech Sciences: Ph.D. (Doctoral); Clinical Audiology: Au.D. or Ph.D. (Doctoral); Hearing and Speech Sciences: M.A. (Master's)).

HESP620 Speech Production Disorders Across the Lifespan (3 Credits)
Assessment and treatment of phonological, articulatory and resonance disorders arising from various etiologies including developmental conditions, structural abnormalities, and nervous system damage.
Restriction: Must be in Hearing and Speech Sciences: M.A. (Master's) program; or permission of instructor.

HESP621 Bilingualism in Children and Adults (3 Credits)
Provides an overview of topics related to bilingualism in both pediatric and adult populations, with an emphasis on application in the field of communication disorders. This course explores theories of bilingual language acquisition, typical and atypical bilingual development, cognition in bilinguals, and the neurological underpinnings of bilingualism. This course will provide practicing clinicians with foundational knowledge related to bilingualism in both pediatric and adult populations. Currently there are no existing courses that provide this content with a focus on communication disorders.

HESP622 Neuromotor Disorders of Speech (3 Credits)
Effects of neuropathology on speech production. Classification and assessment of the resultant disorders and their treatment.
Restriction: Must be in Hearing and Speech Sciences: M.A. (Master's) program; and permission of BSOS-Hearing & Speech Sciences department. Or permission of instructor.

HESP623 Education, Policy & Advocacy in Bilingual Service Delivery (3 Credits)
Bilingual education and associated policy issues in the US as they relate to the field of speech-language pathology. Topics include bilingual education models, disproportionality, and the legal framework related to bilingual service delivery in education settings.

HESP624 Voice Disorders (2 Credits)

Etiological characteristics, assessment and treatment of phonatory disorders in children and adults.
Restriction: Permission of BSOS-Hearing & Speech Sciences department; or must be in Hearing and Speech Sciences: M.A. (Master's) program.

HESP625 Dysphagia (3 Credits)
Nature and clinical management of dysphagia as it pertains to different clinical settings for adult and pediatric populations.
Restriction: Permission of BSOS-Hearing & Speech Sciences department; or must be in Hearing and Speech Sciences: M.A. (Master's) program.

HESP626 Language disorders in school-aged children and adolescents (2 Credits)
Etiology, assessment and treatment of communication and learning problems in school age children and adolescents

HESP627 Augmentative and Alternative Communication (2 Credits)
Principles, methods, and procedures for categorizing, understanding, and developing augmentative and alternative communication.
Recommended: Prior knowledge of Communication and its Disorders is required.
Restriction: Permission of BSOS-Hearing & Speech Sciences department.
Credit Only Granted for: HESP639R or HESP627.

HESP630 Electrophysiological Measurements (3 Credits)
Principles and techniques of physiological and electrophysiological measures of the audio-vestibular mechanisms.
Prerequisite: HESP606.
Restriction: Must be in Clinical Audiology: Au.D. or Ph.D. (Doctoral) program; and permission of BSOS-Hearing & Speech Sciences department. Or permission of instructor.

HESP632 Medical Audiology (3 Credits)
Overview of auditory pathologies, and their assessment and management in the medical setting.
Prerequisite: HESP311.
Corequisite: HESP606.

HESP634 Anatomy and Physiology of the Auditory and Vestibular Systems (3 Credits)
Comprehensive examination of the anatomy and physiology of the peripheral as well as the central auditory and vestibular systems. Both afferent and efferent pathways will be considered. Applications of basic auditory neuroscience to contemporary clinical audiology practice will be highlighted.
Prerequisite: Must have completed or be concurrently enrolled in HESP311, HESP407, and HESP411; or permission of instructor.
Additional Information: Fills a requirement for the Doctoral Program in Clinical Audiology (CAUD). Open to students in other graduate programs, especially NACS.

HESP635 Aural Rehabilitation/Habilitation (3 Credits)
Principles, methods and procedures for aural rehabilitation/habilitation in children and adults.

HESP636 Geriatric Audiology (3 Credits)
Research findings are presented on the physical effects of aging on the auditory periphery and central nervous system, as well as the consequences of aging on behavioral and electrophysiologic measures of auditory function. Clinical implications in the effects of physiologic and cognitive aging on auditory performance will be discussed.
Prerequisite: HESP606 and HESP700.
Restriction: Must be in one of the following programs (Hearing and Speech Sciences: Ph.D. (Doctoral); Clinical Audiology: Au.D. or Ph.D. (Doctoral); Hearing and Speech Sciences: M.A. (Master's)).

HESP638 Research Practicum (1-3 Credits)
Analysis, synthesis and integration of knowledge related to current research or clinical issues in human communication and its related disorders.
Restriction: Permission of BSOS-Hearing & Speech Sciences department.
Repeatable to: 6 credits if content differs.

HESP639 Special Topics in Hearing and Speech Sciences (1-3 Credits)
Intensive coverage of selected topics of current interest.
Restriction: Permission of BSOS-Hearing & Speech Sciences department.
Repeatable to: 6 credits if content differs.

HESP645 Pediatric Audiology (3 Credits)
Evaluation and treatment of hearing-impaired children.
Prerequisite: HESP606.
Restriction: Must be in Clinical Audiology: Au.D. or Ph.D. (Doctoral) program; and permission of BSOS-Hearing & Speech Sciences department. Or permission of instructor.

HESP646 Educational Audiology (3 Credits)
Examination of historical and current trends influencing educational programming for hearing-impaired children, communication options for severely and profound hearing-impaired children, and the role of the audiologist in the educational setting.
Prerequisite: HESP606.
Recommended: HESP645.

HESP648 Clinical Practice in Speech (1-3 Credits)
Supervised training in the application of clinical methods in the diagnosis and treatment of speech disorders.
Restriction: Permission of instructor.
Repeatable to: 6 credits.

HESP648A Clinical Practice in Speech: Diagnostic Procedures (1-3 Credits)

Supervised training in the application of clinical methods in the diagnosis of speech disorders.
Restriction: Permission of instructor.

HESP648B Clinical Practice in Speech: Therapeutic Procedures (1-3 Credits)
Supervised training in the application of clinical methods in the treatment of speech disorders.
Prerequisite: HESP648A.
Restriction: Permission of instructor.
Repeatable to: 6 credits.

HESP649 Clinical Practice in Audiology (1-3 Credits)
Supervised training in the application of clinical methods in the diagnosis and treatment of hearing disorders.
Restriction: Permission of instructor.
Repeatable to: 6 credits.

HESP649A Clinical Practice in Audiology: Diagnostic Procedures (1-3 Credits)
Supervised training in the application of clinical methods in the diagnosis of hearing disorders.
Restriction: Permission of instructor.
Repeatable to: 6 credits.

HESP649B Clinical Practice in Audiology - Aural Rehabilitation (1 Credit)
A clinical practicum course with individualized instruction, which focuses on the skills necessary to provide intervention and counseling for a wide range of disorders of the auditory system in patients of varying ages and cultural backgrounds. Each student will be various activities across three semesters (Spring YR2, Summer YR2, and Fall YR3). Students may work individually or in pairs to provide hearing loss intervention, auditory training, hearing loss prevention education, and communication strategy training. The student is expected to prepare for each session with a complete clinical plan, educational materials, and counseling strategies. Students must meet with the Audiologist prior to the aural rehabilitation (AR) session to discuss the plan of care. During the visit, the student will perform hearing loss handicap assessments, lead counseling sessions regarding rehabilitative options, make modifications to existing treatment plans/hearing aids, and educate the patient about their hearing. Following the visit, the student will document the encounter according to clinical protocol and ethical standards using the electronic medical records system. All patient-related information will be handled within a secure computer environment which meets HIPAA regulations for protected health information.
Prerequisite: HESP649A.

HESP658 Special Clinical Topics in Hearing and Speech (1-3 Credits)
Comprehensive coverage of selected topics pertinent to clinical issues. Specific content varies each semester, and may include supervision, clinical ethics, etc.
Restriction: Permission of BSOS-Hearing & Speech Sciences department.
Repeatable to: 6 credits if content differs.

HESP700 Hearing Aids (3 Credits)
Principles, methods and procedures for selection, fitting, calibration and management of amplification systems for hearing-impaired children and adults.

HESP701 Hearing Aids II (3 Credits)
Advanced issues in amplification technology, prescriptive hearing aid selection, and management of amplification systems for special populations.
Prerequisite: HESP700.
Restriction: Must be in one of the following programs (Hearing and Speech Sciences: Ph.D. (Doctoral); Clinical Audiology: Au.D. or Ph.D. (Doctoral); Hearing and Speech Sciences: M.A. (Master's)) ; and permission of BSOS-Hearing & Speech Sciences department. Or permission of instructor.

HESP702 Diagnostic Procedures in Speech-Language Pathology (2 Credits)
Diagnostic tools and methods in the analysis of speech-language disorders in children and adults.
Restriction: Must be in Hearing and Speech Sciences: M.A. (Master's) program; and permission of BSOS-Hearing & Speech Sciences department. Or permission of instructor.

HESP704 Audiology Practice Management (3 Credits)
Basics of clinical business management both in the context of private practice in Audiology and as a department in a healthcare corporation.
Prerequisite: HESP606, HESP706, HESP700, and HESP701; or permission of instructor.

HESP706 Advanced Clinical Audiology (3 Credits)
Advanced clinical and experimental methods of evaluating the peripheral and central auditory system using acoustic stimuli. Procedural considerations and interpretation of test results.
Prerequisite: HESP606; or students who have taken courses with comparable content may contact the department.

HESP708 Independent Study (1-6 Credits)
Individual research projects under guidance of a faculty member.
Restriction: Permission of instructor.
Repeatable to: 6 credits.

HESP710 Industrial and Environmental Noise Problems (3 Credits)
Evaluation and control of noise hazards. Effects of noise on man. Medico-legal aspects of noise-induced hearing impairment.
Restriction: Permission of instructor.

HESP712 Cochlear Implants and Other Implantable Technologies (3 Credits)
Comprehensive presentation of cochlear implant design and processing, medical/surgical aspects, evaluation, programming, outcomes in children and adults, and post stimulation care.

The role of the audiologist as a member of the cochlear implant team will be emphasized. Current and emerging trends in other implantable technologies also will be covered.
Prerequisite: Must have completed or be concurrently enrolled in HESP700, HESP701, and HESP722; or permission of instructor.

HESP722 Psychoacoustics (3 Credits)
Auditory perception and auditory processing in normal and impaired hearing.

HESP724 Research Design (3 Credits)
Evaluations of research designs, critique of published articles and student involvement in designing experiments on assigned topics.
Prerequisite: Must have completed a course in basic statistics.

HESP728 Advanced Clinical Practice in Speech (1-8 Credits)
Clinical internship in selected off-campus facilities.
Prerequisite: HESP648.
Restriction: Permission of instructor.
Repeatable to: 8 credits.

HESP729 Advanced Clinical Practice in Audiology (1-8 Credits)
Clinical internship in selected off-campus facilities.
Prerequisite: HESP649.
Restriction: Permission of instructor.
Repeatable to: 8 credits.

HESP730 Vestibular-ocular Assessment and Management (Electrophysiologic Measures II) (3 Credits)
Advanced principles and methods of evaluating vestibular-ocular function using electrophysiologic measures. Includes rehabilitative issues pertaining to balance disorders and advanced electrophysiologic measures of auditory system function.
Prerequisite: HESP630.

HESP731 Seminar in Clinical Supervision (1 Credit)
Supervising students and employees can be a daunting task. Fostering the next generation of doctors of audiology and support staff requires a unique set of knowledge and skills. This course is designed to explore the theoretical concepts in the supervisory paradigm as well as real-world scenarios. Supervision is not a "one-size fits-all" process, therefore the intricacies and strategies of the supervisor-supervisee relationship must be carefully considered.
Prerequisite: In at least the third year in AuD program.

HESP788 Graduate Research Externship (1-3 Credits)
Off-campus research internship with departmental affiliates at National Institutes of Health and other regional universities. Contact department chairman for available placements, requirements and openings.

Recommended: HESP724.

HESP799 Master's Thesis Research (1-6 Credits)

HESP808 Current Research in Hearing, Speech and Language Services (1-3 Credits)
Current research in speech, language and hearing sciences and disorders.
Restriction: Must be in one of the following programs (Hearing and Speech Sciences: Ph.D. (Doctoral); Clinical Audiology: Au.D. or Ph.D. (Doctoral); Hearing and Speech Sciences: M.A. (Master's)) ; and permission of BSOS-Hearing & Speech Sciences department.
Repeatable to: 6 credits if content differs.

HESP818 Seminar in Language Processing (3 Credits)
Information processing models of language, relationships among language, memory and cognition.
Restriction: Must be in one of the following programs (Hearing and Speech Sciences: Ph.D. (Doctoral); Clinical Audiology: Au.D. or Ph.D. (Doctoral); Hearing and Speech Sciences: M.A. (Master's)) ; and permission of instructor.
Repeatable to: 6 credits if content differs.

HESP828 Seminar in Hearing Science (3 Credits)
Recent developments in auditory psychophysics, and/or anatomy and physiology of the peripheral and central auditory mechanisms.
Restriction: Must be in one of the following programs (Hearing and Speech Sciences: Ph.D. (Doctoral); Clinical Audiology: Au.D. or Ph.D. (Doctoral); Hearing and Speech Sciences: M.A. (Master's)) ; and permission of BSOS-Hearing & Speech Sciences department.
Repeatable to: 6 credits if content differs.

HESP829 Clinical Internship Residency (1-9 Credits)
Off-Campus, full-time (30-40 hours/week) clinical externship in Audiology at regional and national institutions.
Prerequisite: Must have completed HESP729 for two semesters; and must have completed the comprehensive exams successfully.
Restriction: Permission of BSOS-Hearing & Speech Sciences department.
Repeatable to: 18 credits if content differs.

HESP838 Seminar in Language Acquisition (3 Credits)
Models of normal and disordered first language acquisition, second language acquisition and bilingualism.
Restriction: Must be in one of the following programs (Hearing and Speech Sciences: Ph.D. (Doctoral); Clinical Audiology: Au.D. or Ph.D. (Doctoral); Hearing and Speech Sciences: M.A. (Master's)) ; and permission of instructor.
Repeatable to: 6 credits if content differs.

HESP848 Seminar in Audiology (3 Credits)

Research tipics realted to hearing assissment, amplification, and audiologic rehabilitation.
Restriction: Must be in one of the following programs (Hearing and Speech Sciences: Ph.D. (Doctoral); Clinical Audiology: Au.D. or Ph.D. (Doctoral); Hearing and Speech Sciences: M.A. (Master's)) ; and permission of instructor.
Repeatable to: 6 credits if content differs.

HESP849 Capstone Research Project I (2 Credits)
First of two-course sequence leading to the final research requirement for the Doctor of Audiology (Au.D.) degree; involves individual study and/or supervised lab work with mentor, preparation of research proposal (including IRB protocol if required), and attendance at Capstone Research Project Workshop.
Prerequisite: HESP724.
Restriction: Must not be in Clinical Audiology: Au.D. or Ph.D. (Doctoral) program.

HESP858 Seminar in Speech Pathology (3 Credits)
Problems in disordered articulation, voice, fluency and dysphagia.
Restriction: Must be in one of the following programs (Hearing and Speech Sciences: Ph.D. (Doctoral); Clinical Audiology: Au.D. or Ph.D. (Doctoral); Hearing and Speech Sciences: M.A. (Master's)) ; and permission of instructor.
Repeatable to: 6 credits if content differs.

HESP859 Capstone Research Project II (1-2 Credits)
Second of two-course sequence leading to the final research requirement for the Doctor of Audiology (Au.D.) degree; involves final data collection, analysis and presentation of results or completion of scholarly paper under the direction of the faculty mentor.
Prerequisite: Must have completed or be concurrently enrolled in HESP849.
Restriction: Must be in Clinical Audiology: Au.D. or Ph.D. (Doctoral) program.

HESP868 Seminar in Speech Science (3 Credits)
Problems in speech acoustics and physiology.
Restriction: Permission of instructor.
Repeatable to: 6 credits.

HESP878 Seminar in Language Disorders (3 Credits)
Congenital and acquired language disorders of children and adults.
Restriction: Permission of instructor.
Repeatable to: 6 credits.

HESP879 Academic Research Seminar (1 Credit)
An overview of issues relevent to the research process will be provided.Topics rotate on a semester basis and include ethics, grantsmanship, professional presentations, research publications, and peer review of journal articles. A formal product (e.g., poster presentation, platform presentation, peer review, IRB application) will be required each semester.
Restriction: Must be in Hearing and Speech Sciences: Ph.D. (Doctoral) program.

Repeatable to: 3 credits if content differs.

HESP887 Academic Research Seminar (2 Credits)
This course has a focused, rotating set of topics each semester to cover professional and academic issues, including ethics, grantsmanship, professional presentations, professional publications, and peer review of journal articles.
Prerequisite: HESP724.
Restriction: Must be in one of the following programs (Hearing and Speech Sciences: Ph.D. (Doctoral); Clinical Audiology: Au.D. or Ph.D. (Doctoral)).

HESP888 Seminar in Neurological Bases of Language (3 Credits)
Neural ststrates of language function, brain image of normal and disordered language function, and neural plasticity for language.
Restriction: Must be in one of the following programs (Hearing and Speech Sciences: Ph.D. (Doctoral); Clinical Audiology: Au.D. or Ph.D. (Doctoral); Hearing and Speech Sciences: M.A. (Master's)) ; and permission of instructor.
Repeatable to: 6 credits if content differs.

HESP889 Doctoral Candidacy Research (1-3 Credits)
Doctoral candidacy paper research
Restriction: Must be in one of the following programs (Hearing and Speech Sciences: Ph.D. (Doctoral); Clinical Audiology: Au.D. or Ph.D. (Doctoral)) ; and permission of instructor.
Repeatable to: 6 credits if content differs.

HESP898 Pre-Candidacy Research (1-8 Credits)

HESP899 Doctoral Dissertation Research (1-8 Credits)