

University of Maryland

GRADUATE PROGRAMS IN

HEARING AND SPEECH SCIENCES



PH. D. IN HEARING AND SPEECH SCIENCES

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<http://www.bsos.umd.edu/hesp>



Department of Hearing and Speech Sciences
University of Maryland, College Park

Ph.D. Program Requirements

General Information

The Ph.D. program in Hearing and Speech Sciences is designed to train individuals interested in conducting research in normal and disordered processes of speech, language, or hearing. Individuals who are interested in the practice of clinical Speech-Language Pathology or Audiology should investigate the requirements of the corresponding master's and doctoral level clinical degree programs offered by the Department, which include clinical practica. Graduate students in the HESP Ph.D. program participate in an integrated set of courses and research experiences to enable them to succeed in careers in academic and research settings. Directed experience in teaching is also provided in the overall educational plan. The expectation is that students who already hold a graduate clinical degree in Audiology or Speech-Language Pathology will complete all requirements for the HESP Ph.D. degree within 4-5 years of full-time study. Students without background coursework in the discipline, or those engaged in part-time study, will generally take longer to complete the degree but must still demonstrate timely progress. Length of stay in the program must not exceed the time-frame specified by the Graduate School at the University of Maryland, College Park.

The general requirements for the Ph.D. degree are defined by the Graduate School and are enumerated in the Graduate School Catalog. The Graduate School requires registration for a minimum of 12 research credits, achieving admission to Candidacy, and a dissertation or its equivalent. Additional requirements are set by Colleges or Programs. In the Department of Hearing and Speech Sciences, a total of 50 semester credit hours are required specifically for the Ph.D., which could include relevant coursework taken elsewhere. Students who do not have background coursework in hearing and speech sciences will be required to take HESP undergraduate preparatory courses and additional graduate coursework as determined by the student's Program Planning Committee (approximately 25 additional hours of basic science coursework for the Ph.D.). All doctoral candidates are expected to participate for academic credit in varied research activities within the Department. Doctoral students must register for at least 12 semester hours of dissertation research credit before completing the degree. There is no foreign language requirement for the Ph.D. degree. Although a period of full-time residency is no longer a requirement, timely completion of the degree requires a significant time commitment to the program.

A student may specialize in speech, language, or hearing. Students will also choose a special interest area within the specialization. Special interest areas may focus on the normal aspects of their specialization or disorders related to it. Although a minor area of study is not a requirement, students are encouraged to take courses in a correlative area of study outside the department that may be applied to the overall requirements for the doctoral degree. This interdisciplinary coursework may be completed in other departments or programs on campus, such as Psychology, Biology, Linguistics, Neurosciences and Cognitive Sciences (NACS),

Education, Sociology, Human Development, Engineering, Computer Sciences, and Health and Human Performance. Students may also register for correlative courses in other institutions within the University System of Maryland (e.g., University of Maryland, Baltimore) or at universities within the Consortium of Universities of the Washington Metropolitan Area. Course programs for each doctoral student are planned by the student with their faculty advisor and a Program Planning Committee (PPC) of at least three faculty members, in addition to the advisor. A minimum of two of the members of the PPC must be regular, full-time tenure-track faculty from the Department of Hearing and Speech Sciences (including the advisor). The PPC must approve all course programs and modifications on an annual basis. The PPC will generally meet during the spring semester each year.

In addition to engaging in directed research during the initial phase of the doctoral program, students are expected to complete their own independent research project under the direction of the faculty advisor. This research culminates in a "Candidacy Paper," which is a pre-requisite for advancement to candidacy, in addition to the completion of coursework and comprehensive examinations. Students are also expected to submit an article for publication, and develop a teaching portfolio, prior to admission to candidacy. The order in which the student completes these requirements is at the discretion of the student, faculty advisor, and PPC.

A student must be admitted to candidacy for the doctorate within five years after admission to the doctoral program and at least six months before the date on which the degree is to be conferred. It is the responsibility of the student to submit the application for admission to candidacy to the graduate school when all requirements for candidacy have been fulfilled. Applications for admission to candidacy are made in duplicate by the student and submitted to the graduate program for further action and transmission to the Graduate School.

Students must complete the entire program for the degree, including the dissertation and final examination, during a four-year period after admission to candidacy. If a student fails to complete all degree requirements, the program may recommend, and the Graduate School may grant, a one-year extension to complete the remainder of the doctoral requirements. After this one-year period, admission to the program terminates. The Graduate School Catalog specifies additional procedures for readmission to the program.

Coursework

All students taking a Ph.D. degree must accumulate 50 semester hours of graduate level academic coursework directed toward the doctoral degree. Entering students without prior academic preparation in hearing and speech sciences will be required to take approximately 25 credit hours of basic science preparatory coursework. Students who seek clinical training in Speech-Language Pathology and Audiology will be in distinct other programs and will have additional coursework and clinic registrations. The specific requirements for coursework for all HESP program doctoral students, regardless of background degrees, are specified below. Appendix II presents sample programs for students specializing in hearing, speech, and language.

Courses and Independent Study:

Topic	Course	# credits
Statistics	+EDMS 645 and 646 or PSYC 601 and 602	6
Research Design	HESP 724	3
Core Knowledge Areas: Psychoacoustics Acoustic and Perceptual Phonetics Neurological Bases of Communication Seminar in Language Processing Seminar in Hearing Science Seminar in Language Acquisition Seminar in Speech Science Seminar in Neuro bases of language	HESP 722 HESP 604 HESP 602 HESP 818 HESP 828 HESP 838 HESP 868 HESP 888	6
*Seminars in Contemporary Research: (Current Research in Hearing, Speech and Language Services); For example: Genetics Evoked Potentials and Imaging Cognition Technological Innovations	*HESP 808	3-6
Electives: One advanced Statistics Course (rec.) Independent Study Correlative Study Research Externship	UMCP HESP 708 (UMCP and elsewhere) HESP 788	9-12
TOTAL		30

Research Registrations:

Topic	Course	# Credits
Doctoral Candidacy Research	HESP 889	6
Academic Research Seminar	**HESP 887 (new course)	2
Dissertation Research	++HESP 899	12
TOTAL		20

TOTAL CREDITS: 50

Explanatory Notes:

+ *Students who have already completed these statistics courses will register for more advanced graduate statistics courses (e.g., EDMS 653, 657, etc.).*

**Seminars in Contemporary Research Issues (HESP 808): This course has a rotating topic, depending upon student and faculty interest. Each course will cover a cross-cutting issue pertaining to speech, language, and hearing. The seminar style format enables students to engage in in-depth study of recent research in the broad discipline (e.g., Genetics) with critique of specific readings pertinent to their own major (Speech, Language, or Hearing) for dissemination to the class.*

***Academic Research Seminar (HESP 887): This course has a restricted set of topics each semester to cover professional and academic issues, including ethics, grantsmanship, professional presentations, professional 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. Course will be team-taught by faculty on a rotating basis.*

++*Registration for Dissertation Research includes attendance in a dissertation seminar.*

Research Requirements and Candidacy Paper

Each student is expected to participate in on-going research projects. This activity occurs concurrently with undertaking graduate-level studies. Entering students will serve as research assistants in the overall research program of their faculty advisor. Activities include collecting data, developing stimuli, and conducting data analyses. At the end of the first year, the student will prepare and present their research activities at a departmental colloquium. Students may also be involved in presenting the work at a professional or scientific meeting. Students participating in this manner will have some level of authorship for publications resulting from this research activity. Opportunities exist for students to engage in research activities with off-campus research mentors. The registration for off-campus research is HESP 788 (Doctoral Research Externship), which may count toward elective coursework.

During the summer session at the end of Year 1, students will initiate their own research project under the close supervision of the faculty advisor, which will culminate as the Candidacy Paper. The research plan for the Candidacy Paper will be implemented during the second year of doctoral study. All research conducted at the University of Maryland or by University of Maryland students at off-campus research facilities must be approved by the Department Human Subjects Review Committee (HSR) and the Campus Institutional Review Board for Human Subjects Research (IRB) in the Graduate School.

The Candidacy Paper must be based on significant original, independent research. This research must be empirical in nature and must be directed by a HESP faculty member, subject to prior approval by the PPC. In the event that the director of the Candidacy Paper is not a member of the HESP faculty, there must be a coordinating faculty advisor from HESP. The final draft of the Candidacy Paper, written in a format suitable for publication, must be approved by the PPC.

The student will present the research project at a Department seminar and will be strongly encouraged to submit the Candidacy Paper for publication. The Candidacy Paper requirement must be completed before advancing to Candidacy.

Students who completed a Master's thesis at the University of Maryland, College Park, or at another university may petition the faculty to accept the Master's thesis for the Candidacy Paper requirement. Two requirements must be met in order for the student to petition the faculty: 1) the Master's thesis must have been completed within the last five years; and 2) the research project must be based on original data collected by the student, or must adhere to stringent criteria for acceptable use of existing databases. The student must petition the faculty to accept the Master's thesis in lieu of the Candidacy Paper requirement during the first year of enrollment in the doctoral program. The student must make a presentation of the research to the faculty at a Department colloquium. In addition, the faculty will conduct an oral examination of the student, during which the student must orally defend the MA thesis. Decisions by the faculty for acceptance of the MA thesis to substitute for the Candidacy Paper are based on, but not limited to, the following criteria: 1) originality; 2) independence of work; 3) statistical treatment of the data; 4) acceptability for publication in a peer-reviewed journal; and 5) quality of student's oral defense of the work. Under normal circumstances, case studies, surveys, and literature reviews will not satisfy the criteria for acceptable research for the Candidacy Paper requirement. The Master's thesis must be formally approved by all members of the PPC, following consultation with the total faculty. A decision by the PPC will be made within the first year of the student's enrollment in the program. If the PPC approves the MA thesis, then the student will initiate pilot research projects that will develop into the dissertation, during the second year of doctoral study.

Comprehensive Examinations (COMPS)

As specified in the Graduate School Catalog, preliminary examinations, or such other substantial tests as the graduate programs may elect, are frequently prerequisites for admission to candidacy. The COMPS administered by the HESP Department consist of a written examination followed by an oral examination typically given within two weeks of the written part. Examination questions are prepared and approved by the PPC; answers are read and evaluated by all members of that Committee. The COMPS will consist of questions in four broad areas of study, and will likely include, but not be limited to: 1) evaluation of research methods and design, 2) core knowledge in the basic science of the discipline, 3) new research developments in the discipline (speech, language, or hearing), and 4) the student's specific area of research interest. Each of the four areas will be weighted equally, with the exception of core knowledge, which will be weighted twice that of the other areas. The detailed topic areas will be determined in consultation among the PPC and the student. The format of the COMPS will be a written take-home examination, followed by the oral examination.

All questions that comprise the written comprehensive examination will be given to the student at one time. Thus, the student may choose the order in which to answer the sub-parts of the written examination. Students will have a total of 5 days to complete all questions in the

written examination. Students are encouraged to consult with members of their PPC regarding the nature of the written examination.

The oral examination will typically explore areas covered on the written COMPS in more detail, and provide the student with the opportunity to expand on any of the answers completed previously. Related areas of study may also be covered on the oral examination.

Following the oral examination, a decision is made by the committee regarding a student's performance on both the written and oral portions of the COMPS. A pass constitutes adequate performance in all four areas outlined above. A contingent pass is given if a student passes all questions except one, in which case the student must retake the exam in the single failed area. A fail constitutes unsatisfactory performance on two or more questions of the written examination. In this case, the entire COMPS (written and oral portions) may be retaken one additional time. Whenever a student retakes the entire COMPS, failure in any one area would result in dismissal from the program.

The Dissertation

After admission to candidacy, the student is required to register for at least 12 hours of dissertation research in HESP 899, as stipulated by the Graduate School. The doctoral dissertation is the primary evidence of mastery of a field of study; it should represent significant original research of comparable quality to current research in the field.

The student will select a dissertation topic, formulate experimental questions, and plan a research proposal with a primary advisor of the student's choice. The primary advisor, who will become the chairperson of the dissertation committee, should be a full-time member of the Department holding regular membership on the graduate faculty.

During the preparation of the dissertation proposal, the student and the primary advisor should select the members of the dissertation committee. The dissertation committee will be headed by the primary advisor and will have at least two other full-time members of HESP who hold professorial rank. All of these persons may or may not be the same as the members of the PPC. In all other respects, the committee will meet the requirements of the Graduate School.

The dissertation proposal should be a formal written document and at a minimum should contain (a) a statement of specific aims and experimental questions, (b) background and rationale for the experiment, including a review of relevant literature, (c) a detailed description of methodology and proposed data analyses, and (d) pilot data. Students are strongly encouraged to write the dissertation proposal in the form of a grant proposal following requirements of the PHS 398 grant application, or an equivalent federal grant application form. The written proposal should be submitted to the members of the dissertation committee at least two weeks prior to a scheduled proposal evaluation meeting. At the proposal evaluation meeting, the student normally presents an oral summary of the research project and answers any questions from the committee. Approval of the dissertation proposal requires a unanimous vote from the

committee. The number of times that the dissertation committee meets with the student will vary.

The final draft of the dissertation should contain (a) a statement of the problem and experimental questions, (b) a detailed review of the literature, (c) a detailed description of the methodology, (d) results, and (e) a discussion section. The written document must be submitted to the members of the dissertation committee at least two weeks prior to the dissertation defense. Approval of the dissertation and its defense requires a unanimous vote from the committee.

The student should follow the Graduate School requirements regarding the writing of the dissertation and the necessary preparations for the oral defense. Students should be familiar with the Graduate Student Academic Handbook and Thesis Manual and should be aware of the deadlines pertaining to filing for a graduate degree (see current Schedule of Classes).

Other Program Requirements and Options

Each of the Basic Core Knowledge courses will require an in-depth written paper, to be assigned and evaluated by the instructor. Students who have already taken the core courses offered by HESP at other universities can earn credit for these courses by writing the required papers and taking the course examination. In this case, the student's performance will be evaluated by the course instructor, in consultation with members of the PPC. Students who require courses in additional core topic areas may engage in Independent Study on these topics.

Development of strong teaching skills is another goal of the doctoral program in HESP. These teaching skills will be acquired through a sequential set of experiences, beginning with an assignment as a teaching assistant to a faculty mentor relatively early in the doctoral program. Before the student is admitted to candidacy, he or she will develop original material for an entire course and demonstrate the quality of teaching skills with a teaching portfolio. The teaching portfolio will contain three elements: (a) a course syllabus, (b) a complete set of course presentations for a full semester course, and (c) a website to support the course. The teaching portfolio must be approved by the PPC before the student is admitted to candidacy. It is anticipated that each student will actually teach the course for which these teaching materials are developed. However, the teaching does not have to be done on site (at UMCP).

Students must also acquire knowledge in relevant instrumentation to conduct their research. An elective course in Instrumentation (HESP 600) will be offered. However, this coursework will be supplemented with guest lectures by faculty or advanced doctoral students about use of instrumentation in particular laboratories within the department.

Evaluation

Evaluation is a continuing and formal process in the Ph.D. program, through coursework, research, the candidacy paper, the comprehensive exams, the dissertation proposal, and the final dissertation defense. In order to provide each doctoral student with regular appraisals of his/her progress, there will be an annual evaluation of all Ph.D. students in the areas of coursework, research assistantship or teaching assistantship, research projects, and writing. Relevant

information provided to the PPC for evaluation includes grade reports, a report from the student's mentors, a sample of the student's written work, and any other relevant information provided by the student. Students will be evaluated by members of their PPC during the spring semester each year, and will receive a brief written report of the summary of their evaluation. The report should be filed with the Department no later than June 15 each year.

If a student is not making satisfactory progress toward the Ph.D., the faculty may recommend that the student be placed in the category "not in good standing." The faculty may further stipulate certain changes to be made within a specified time frame in order for the student to be returned to "good standing" in the Department. Students who fail to meet stipulated conditions and who remain in the category "not in good standing" are subject to a recommendation for dismissal from the program by the faculty.

SAMPLE PROGRAM UNDER THE PROPOSED REQUIREMENTS

Semester	Course number	Course title	# credits
Year 1, Fall	HESP 604	Acoustic & Perceptual Phonetics	3
	EDMS 645	Quantitative Methods I	3
	HESP 889	Doctoral Candidacy Research	1
Year 1, Spring	HESP 722	Psychoacoustics	3
	EDMS 646	Quantitative Methods II	3
	HESP 889	Doctoral Candidacy Research	1
	HESP 887	Academic Research Seminar	1
Year 1, Summer	HESP 708	Independent Study	3
	HESP 889	Doctoral Candidacy Research	1
Year 2, Fall	HESP 808	Seminars in Contemporary Research	3
	HESP 724	Research Design	3
	HESP 889	Doctoral Candidacy Research	1
Year 2, Spring	HESP 808	Seminars in Contemporary Research	3
	NACS	Principles of Neuroscience (elective)	3
	HESP 889	Doctoral Candidacy Research	1
	HESP 887	Academic Research Seminar	1
Year 2, Summer	HESP 788	Research Externship	3
	HESP 889	Pre-candidacy research	1
Year 3, Fall	HESP 899	Dissertation Research	2
Year 3, Spring	HESP 899	Dissertation Research	2
Year 3, Summer	HESP 899	Dissertation Research	2
Year 4	HESP 899	Dissertation Research	6

HEARING AND SPEECH SCIENCES

FACULTY SPECIALTIES/INTERESTS

Fall 2002

Nan Bernstein Ratner, Ed.D., CCC-SLP; Professor & Chairman

- Children's Articulation and Fluency Development
- Stuttering and Parent-Child Speech
- Language Development

Sandra Gordon-Salant, Ph.D., CCC-A; Professor

- Auditory Problems of the Elderly
- Speech Perception by the Hearing Impaired
- Speech Enhancement Techniques

Gerald N. McCall, Ph.D., CCC-SLP; Professor

- Speech Physiology
- Voice Disorders & Cleft Palate Speech

Grace H. Yeni-Komshian, Ph.D.; Professor Emerita

- Speech Perception
- Bilingualism
- Language Development & Brain and Language

Froma P. Roth, Ph.D., CCC-SLP; Associate Professor

- Child Language Disorders
- Learning Disabilities
- Literacy Development and Disorders

Henk Haarmann, Ph.D.; Assistant Professor

- Aphasia
- Psycholinguistics

Michelle L. Hicks, Ph.D., CCC-A; Assistant Professor

- Psychoacoustics in Normal and Impaired Hearing Systems

Rochelle Newman, Ph.D., Assistant Professor

- Speech Perception and its development
- Language Acquisition
- Speech Production
- Perception of American Sign Language

Carmen Brewer, Ph.D.; Lecturer

- Diagnostic Audiology

Peter Fitzgibbons, Ph.D.; Lecturer

- Hearing Science
- Audiology

Judy Schaeffer, Ph.D.; Instructor

- Electrophysiological Measures

Margaret Antonisse, Ph.D; Lecturer

- Linguistics

Adjunct Hearing and Speech Sciences Faculty

Berndt, Rita , Ph.D., CCC-SLP (University of Maryland at Baltimore)

- Aphasia, neurolinguistics

Gloria Chi-Fishman, Ph.D., CCC-SLP (National Institutes of Health)

- research design and methodology, advanced head-neck and neural anatomy, oral - pharyngeal physiology, neurophysiological basis of deglutition

Marilyn Demorest, Ph.D., CCC-A, Professor and Associate Dean, UMBC

- Aural rehabilitation, research design in communication sciences and disorders, assessment and measurement methods. Specific areas of research interest: self-assessment of communication function by hearing-impaired individuals, measures of hearing aid benefit, cochlear implants, and tactile devices.

C. Craig Formby, Ph.D., CCC-A , Professor and Director of Audiology, Division of Otolaryngology, University of Maryland in Baltimore.

- Psychoacoustics and vestibular function.

Carol Frattali, Ph.D., CCC-SLP (National Institutes of Health)

- Image Processing in biology and medicine: (i)Ultrasonography; (ii)Videofluoroscopy; (iii)Dysphagia; (iv)Stroke; (v)Progressive Neurological Disorders

Jordan Grafman, Ph.D. (National Institutes of Health)

- nature of representational knowledge stored in the human prefrontal cortex, the cognitive properties of representational binding that form episodes in memory, and the types of cognitive neuroplasticity that occur during learning and recovery from brain damage

Christy Ludlow, Ph.D. , CCC- SLP (National Institutes of Health)

- functional organization and control of laryngeal function in voice, speech and swallowing and the pathogenesis of idiopathic voice and speech disorders, including stuttering.

Maureen Stone, Ph.D., CCC- SLP (Professor, School of Dentistry, University of Maryland Medical School)

- Speech physiology, physiologic acoustics, computer modeling

Faculty in related areas on the UMCP campus:

Linguistics: Crain, Hornstein, Lasnik, Lombardi, Philkips, Poeppel, Reznick, Thornton, Weinberg

Human Development: Fox

Psychology: Dooling, Hall, Hodos, Plude, Scholnick, Troyer

***PLEASE FEEL FREE TO CONTACT INDIVIDUAL FACULTY MEMBERS
TO INQUIRE FURTHER ABOUT THEIR AREAS OF RESEARCH
SPECIALIZATION AND OPPORTUNITIES FOR DOCTORAL STUDY***

*Last update: 10/29/02
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